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The Ordinary Tribunal of Perugia
Court of Assizes Hearing Section
President: Dr. Massei
Judge: Dr. Cristiani
Public Prosecutor: Dr. Mignini
Public Prosecutor: Dr. Comodi
Clerk of the court: Ms. Bertini
Technical assistant: Ms. Marsico

The hearing of July 2, 2009, the Assize Hall
Penal proceedings No. 8/08
Against Knox, Amanda Marie, +1

Deposition of the consultant, Francesco Pasquali

President. - In relation to potential findings, observations, to whatever had to be carried out in the course of the task assigned, limited to this matter, you are required to make a declaration of commitment; with regard to the assessments, I shall, of course, refer to your conscience, your experience, your professionalism on this point. Please state your personal details.

The consultant, warned in the sense of Article 491 of the Code of Criminal Procedure, reads the statement of identity. - I am Francesco Pasquali, born in Caprarola, province of Viterbo, Nov. 11, 1948.

President. - The defense may begin the examination.

Counsel Maori. - What kind of job is that, a Marshal? {4}

Consultant. - I am a retired Marshal of the Carabinieri, and I served in the RIS [Reparti Investigazioni Scientifiche, Department of Forensic Investigations] in Rome for about thirty years, in the section of ballistic investigations.

Counsel Maori. - What is your specific competence in relation to the assignment you were entrusted with?

Consultant. - I shall say that within the range of my responsibilities I was occupied, almost on a daily basis, with technical investigations concerning ballistics and also, with the reconstruction of the dynamics of criminal acts both with weapons and with other... other... not with firearms, I meant, but with other types of weapons.

Counsel Maori. - What assignment were you entrusted with by our party, the defense of Raffaele Sollecito?

Consultant. - I was given the task by the defense of Raffaele Sollecito of assessing... I can read the query exactly as worded.

Counsel Maori. - Sure.

Consultant. - "In particular, whether the position of the broken glass fragments inside Filomena Romanelli's room and on the window sill could indicate from what position the stone discovered could have been thrown," that is the query, the question posed to me... as well as one of my colleagues, Colonel Lombardi.

Counsel Maori. - Good, I leave it to you as you have produced a written report on the photographs which later...

Consultant. - Can I consult...

President. - You are authorized to consult your notes, your prepared material, please.

Consultant. - Let me say that to perform our activity - I am speaking on behalf of my colleague - we were provided with material to work on and among that material, we had at our disposal photo reproductions of certain locations in the room of Filomena Romanelli; photographs taken by the State Police on {5} November 2, 2007; other photographs also taken by employees of the State Police and successive... during the successive investigation on November 16, 2008; other photo reproductions made by the attorney Giulia Bongiorno in August 2008; and in addition, the material collected by us - collected in the photographic and documentary sense as on June 8, 2009, exercising the authorization to access granted to us by the Court. I should say that with this material, we started our activity to give a technical response to the query posed to us. Thus the examination we began focused on the window, I would say, to see the condition of the window to find out what we could... what data could provide us with the status of the window, of the glass fragments and the room in general; we can begin with...

Counsel Maori. - We'd like to turn down the light only for...

President. - Perhaps...

Counsel Maori. - This is the examination of the room inhabited by Filomena and in practice we have taken as a reference point the photographs taken by the State Police during the first investigation because in the immediate aftermath, this is the one which relates the fullest details because in subsequent instances of access, something could have been inadvertently moved as it happened when we conducted our investigation, let's say it was a little different from that by the Police immediately after the fact. So this is the window with... also a photo by the Police with their indications and a window... an image [ripresa] with a general view to show the part of the window which was broken and the lower part of the left shutter that looks inside the room.

President. - The markings, the letters F and R.

Consultant. - Made by the Police - not our labeling. There is one detail that's very important to us and we started from that as the crucial point {6} because to us, this photograph, this shot depicts broken glass, yes, but it depicts an overlapping of glass fragments: namely these external ones, marked with red circles, are those which fell from above, that is to say there was a breakage of glass, force was applied that produced the enlargement of the groove [canalizzazione] which held the glass in the lower part, and on this opening, the glass fragments which dropped from above fell on the external part; therefore, here we have an action that came from the exterior towards the interior and produced this movement of the groove of the glass. Here is this special detail, the previous photo: here, we see the displacement towards the front of the casing because the lever which acted on the glass above, which was in place, produced the shift of the casing and also of the side casing. There we have glass

fragments - again, from an original photo by the Police - we have glass fragments which are on the window sills both on the outside and inside, we have... now the quantities... anyway, they are numerous enough both on the outside and on the inside part. There we have a breaking, I would say defibration of the wood, which for us could be the point of impact of the rock which hit the window's inner shutters, close to this breakage we see that... the little red circle, here's a tiniest particle of glass which was stuck in the wood as well as another one further down, here also there is a small fragment of glass which got stuck in the wood probably... no, not probably but certainly by the thrust action of the rock in this case. Here, these are more obvious, the glass... the larger fragment you can see because it has a shadow effect and this little one by the breakage of wood. This is the room as photographed also in the period of November 2 and the presence of glass shards over all the room, in particular next to the bedside table, makes one think, I would say, of an explosion of the glass {7} and a projection - towards the inside - of the more or less large fragments, because they also extend next to the rock and to the boots as we're going to observe later.

So this is... here we can better see the fragments of glass which reach up to the end of the bedside table and on the blue carpet, which is the rock found on the spot inside... not inside - it is positioned over the flap of a bag of black paper, so here one can see better: we have the glass fragments nearby, that is the tear marked with red, the part of the bag that was torn... so I can hypothesize that the bag was standing upright and the rock crashed from the side and dragged along the ground only tearing this fold/flap/piece where it then stopped. The glass fragments reached, on this side, past the leg of the table; it's the leg of the table. So here one sees even better the tear in the bag precisely where it then stopped; the stone, the rock and the glass fragments again in the foreground so that you can see very well this actually appears under... underneath those garments. There... just a view of glass fragments immediately next to the table. Now these are the photographs we took to emphasize that it was possible to point out given the passage of time - it had been almost a year since the investigation, even more, but we found the same amount of glass on the window sill, we still found... the glass shards as they had been photographed in a position of... superimposition in the channels, in the grooves. Here, this is the measurement of the glass, the glass of the window which is a standard glass of about 3 millimeters, the types of glass that are still in residential use... it's a most normal glass without any particular characteristics. This is the measurement of the groove, which starting from the top part begins to grow larger, at 3 millimeters and 40, then as we go down, at 5 millimeters and 23, related to the lever of the glass [that] opened out... that is, enlarged {8} the groove, the one at the base and the lateral one, therefore we can say that the thrust was from the outside towards the inside. Here we have 5 and 27, the one at the base, the one most enlarged. This is the measurement in the depth of the cornice [cornice] which is about 3 millimeters and 40, the part that sticks out that instead should be even with [al liscio] the jamb. This is the detail which we have found of this defibration of the glass, seen this way closely, one sees the crushing of the paint of... the varnish of paint crushed onto the fibers of glass, that is... I would say rather violent pressure because it cut the paint and the point where there was more energy, that is the point of major contact, imprinted the paint on the wood, and nearby there is this glass fragment which one can make out in the photographs by the State Police. This is the house seen from the outside, the concrete sidewalk under the window, nothing of... that is a nail in the wall 3 meters above the sidewalk below the window; this is the rock, the rock discovered, the rock which we examined at the Perugian Flying Squad's offices, and the fragments detached were put together again to make the photograph but these are the dimensions of the rock, which, we were told later, weighed about 4 kilograms. This is an image of the rock in various positions. Now it would be the appropriate to show the experiment filmed before we move further to examine the results... these photographic exhibits as we have footage filmed which shows the entry of the rock inside through the glass and into the room.

Counsel Maori. - If you wish to explain to the Court, Marshal, what you have done, that is, in what way...

Consultant. - Ah, so we have...

Counsel Maori. - What have you reconstructed and in what way you have performed your...

{9}

Consultant. - Yes, sure. So to perform this experiment the first thing we did was rebuild the window, in particular the left shutter leaf where we had broken glass - we have rebuilt it in the same... with the same characteristics of... the house on Via della Pergola: characteristics in terms of size of the frame [infisso] holding the glass, of the casings [cornici] which supported the glass, and of the inner shutter [oscurante] with a casing similar to that of... also of the Via del Pergola house. The enamel paint of the same type as on Via della Pergola [was] introduced in a room rebuilt to the same dimensions as Filomena Romanelli's, the same size, the placement of the bed, the nightstand and the table, the floor is left free to observe the distribution of glass pieces following the flight of the stone through the same glass. During that... we placed a camera and the person who threw the stone at a distance of three meters so we would clearly have a zoom in the field of vision which would bring us much closer towards the glass; however the distance from the camera and the thrower of the stone was then set at 3 meters...

Counsel Maori. - (Inaudible) Sorry for interrupting you, only to help the Court understand, this 3 meters corresponds to the reality of what situation? Could you show...

Consultant. - As I've said, this is... the distance... to that rampart [terrapieno] with a wooden fringe.

Counsel Maori. - Let us see the photograph.

Consultant. - That's facing...

Counsel Maori. - Let us take the photo so we can show how you have reconstructed...

Consultant. - Let's go back to the...

Counsel Maori. - On the basis of actual data...

Consultant. - So it's the rampart and from this rampart {10} to the window, we measured the distance of 3 meters and we modeled this distance for the experiment... clearly what we have here is flat but it's as if it were flat because they are at the same height, there will be a difference in height of one meter, as if it were the ground floor.

Counsel Maori. - Now, what is this you'd like to project?

Consultant. - Yes, if possible...

Counsel Maori. - No, what I'm saying is you're planning to use the projector now, if you could explain to the Court...

Consultant. - Now this footage was taken with two cameras, one that was placed outside to show the stone thrown as it makes an impact against the glass and the other camera, in contrast, was placed inside the room to show exactly, to film the stone at its entry across the glass; that footage was then presented in slow motion to show precisely the effect of the explosion of glass, the blow; only the shutter that in this case serves as a sideboard [sponda; also means parapet or rail cushion in pool] for the board deflecting it towards the left external shutter and practically into the vicinity of the table as we have seen the finding, yes, as it was found in the house on Via della Pergola.

Counsel Maori. - And you also used a completely similar stone.

Consultant. - We used a stone of the same... similar to that material, that is stratified calcareous [limestone] material weighing about 4 kilograms, its form is rather similar, that of a wedge, of a clove of garlic; in short, we created the closest possible conditions to those of the stone in evidence and of the window in Via della Pergola.

Counsel Maori. - We can move on, you explain this to us while...

Consultant. - Yes, yes. So this is the reference number and {11} this is the query for which we are performing this experiment, this is the first... a second one, that is, for each experiment we have restored anew all the... both the glass, obviously, a new glass... everything that moved was put in place again and the interior of the room was obviously cleaned up completely; we did not place other than the indispensable movable objects, therefore it was restored, let's say, to the most appropriate conditions at the start of every test, three in total. This is the window seen from the outside; the camera is placed, I repeat, 3 meters away together with [the person] who throws the stone. Here, one can see the entry and the exit in slow motion and the stone that is shifted on the right side towards the table, which is truly a fortuitous case that the stone should break as well as our stone, which is to say not that it was made with a custom-tailored calculation since the material is similar, is stratified and it is likely that this type of stone breaks apart and in this case, too, our stone broke apart, we can see than the deviation of the rock from the blind projected it towards the table, that is it worked as a rail cushion also, if mobile, clearly provide resistance during motion. Here we have the expert we spoke about earlier on the insertion of this fragment with respect to that which was already in place, here we see the deposition of fragments both on the inside and the outside in the photograph... in the previous step you also see on the outside, that is to say that the glass, the glass fragments deposit themselves - the stone thrown in this case from the outside - both on the external and internal windowsills, both due to the impact of the rebound against the blind and due to the characteristics of the glass explosion following a violent collision. These are various glass fragments spread around the interior of the room, and yet {12} there are other images to illustrate this better. So this is the position of the fragment, this is the position of the largest rock which is... certainly close to the table, this is also the view from the internal camera of the glass fragments scattered in the room environment so to say.

Counsel Maori. - It's reproduced to the scale of...

Consultant. - The room is as in real life, 3 and 10 meters long and 2 and 90 meters wide if I can check it but that's it.

Counsel Maori. - And you have used the measure which has been provided by...

Consultant. - No, no, we have repeated the measurement directly on the spot, which corresponded in the end to those taken by the State Police: ours is 3 and 10 and their results is 3 and 15 but to put it

briefly, we are within the real-life measurements of the room. This is in oblique light to show where the fragments ended up, to highlight a little better the fragments which ended up... that which, let's say, works as a nightstand, and [the fragments] got as far as near the nightstand where there was a small carpet in the room... a light-blue carpet it was in reality. Now, that light-blue carpet was – in the second run of the experiment, as I've said - restored totally anew so we proceeded to the same test, the position always the same at 3 meters' distance, in this case we brought it nearer... that is we zoomed towards the window to better show the impact of the glass, so this is even closer but the thrower always remained at this altitude. In this second test there was a diverse impact, one can see that the impact on the side jamb [montante dell'infilso], it did not impact the glass directly but had an impact on the jamb, caromed against the shutter and rebounded a little less because it had already lost energy; clearly the window is narrow, only 28 centimeters wide, the stone already occupies more than half of it therefore {13} I would say a throw from 3 meters may involve also what takes... would not enter against the glass centrally but may compact, as in this case, in the frame but also in this case we have... well, the impact always of the movement of the lower casing always due to the level of the glass and the accumulation on the external windowsill, the glass shards inside the room are also similar... I would say that the explosion projects inside almost in the direction facing [prospiciente, also “overlooking”] the window, the glass, and also a radius [raggiera, “ray”], in a random way let's say. Here, we also see them towards the part... the entrance door, which is this; the stone in this case suffered less of a pool-cushion effect, because it got caromed in the second hit on the shutter.

Counsel Maori. - We are at the third run of the test.

Consultant. - We are at the third run.

Counsel Maori. - Could you explain...

Consultant. - We restored everything to the same conditions, same positions and this is the run which, together with the first one, corroborates the experimentation because in two cases, the behavior of the rock, of the stone is similar to each other and also similar to the effect we encountered in the room both from the photographic documents and also from what we were able to observe in the inspection phase. So the distance from the camera is always that, however it is zoomed... so in this case the glass... the stone hit the glass from one side and almost centrally, and the rock bumped the shutter in the part of the casing at the point where the other was struck... the window at Via della Pergola in fact; later in the documentation which we will show, the photographic documents, we shall see even better, whatever the impact {14} of this... let's say of this launch, we see that the rock is near the leg of the table because the hit was the one that impacted the glass more; we shall see that the diffusion of the glass pieces is equally spread in all the room up to about the entry door; now it does not show well in this photograph but now we see in oblique light [luce radente] that it is more obvious, however we find them up to this distance, we find them also under the table; these are the fragments on the inside and we have seen before the fragments on the outside of the window. So this is the point of impact which, as we have said, is the same point as in Via Pergola, in this case one can better see the fragments because of the light - from a small angle - one can see much better, including the position of the rock and the fragments which reached as far as this position. So these are more obvious, therefore it is a random diffusion on all the floor.

Counsel Maori. - (Off microphone.)

Counsel. - Yes, because this rerun then... having performed this experiment, we proceeded to document each test run and photograph/film the impact on the glass and the spreading of glass in the room, we

have a photographic record exactly to point out these results which are much similar to those we found at the window of the house in Via della Pergola.

This is the interior of the room clearly; the furniture items are of precisely the same dimensions as they were in the room, measuring 90 to one meter if I am not mistaken, and the bed has the same dimensions. These are the documents from the first run of the test, here we see that the stone's position is to the right again, looking from inside, to the right from the center of the window and approaching the leg of the table, we see the diffusion of glass pieces all over the room, so this is an image taken in oblique lighting, which shows it perfectly... shows the fragments all over the room and also under the table, as we highlighted in the photograph by the State Police, because the rock in the State Police [photo] was in this position, approximately, and the glass pieces reached beyond the table leg, so this is a view to show that a great amount of glass pieces are near the window because it is clear that the smaller fragments and those which received greater energy got farther away but the majority fell in the inside of... so this other view makes it clearer, the fragments; let's move on, this windowsill where we have the fragments... this is the internal windowsill and this is the external windowsill, so we have the fragments all over and on both sides of the window. So this is the effect of the insertion of the glass which fell from the upper part and inserted itself among the glass which was instead in place in the low part which did not yield but [this] indicates a lever; also, in this case the casing which held the glass in place was shifted. This is a view of the effect we have talked about, this is the glass which received the thrust in the central area where the rock struck and acted as a lever of the type... of the first kind with the fulcrum { 16 } on the internal part [which] pushed forward the casing in the lower part.

So this is the image of the groove as it widens gradually to where it is subjected to more pressure towards the outside. This is the second test run, which we have seen in the video, and the stone bumped into the frame and then the shutter and there are glass pieces spread - in this case as well - to a distance which reaches as far as the carpet: that is more obvious, because in the room, there were things on top, which don't show this diffusion of broken glass; but more obvious are those on the carpet and those near the stone, which are close to the table, therefore we are talking about the diffusion at the position of the carpet, which is that. This is the same image again, we make the position of the carpet copy the position of the glass pieces which we witnessed on the photographs taken by the State Police immediately, during the investigation of Nov. 2, 2007. These are again views from... to highlight the presence of broken glass even better. This is the movement of the rod [asta], of the lower casing seen from the inside part, here, I repeat, it was more violent because the rock had hit the frame. This is the third run of the test, as has been seen in the footage and the rock hit centrally the lower part of the glass, had contact only with the shutter which changed its direction rightwards close to the leg of the table and we see that here, too, the diffusion is always in the area of... here it extends also towards the entrance door but here in the part of the carpet we see that there are always diffusions of broken glass, there is other footage which highlights that, here one sees the rock which... this is the level of the table, the rock which is below, to show how far it made it relative to... as it was a photograph taken from above. Here we have also in the third run the presence of broken glass on the two windowsills, both the inside and the outside one, so these { 17 } repeat themselves in all the test runs therefore we can say we have acquired an important datum.

This is the last test run, the casing detached itself and fell down on the external windowsill, here we see how the glass above fell down and wedged itself in the slit underneath, near the glass that was in place below. So in this test we had these points of impact, this and the other one, which is on the frame... to sum up, it is not well highlighted, however we see that this impact is very similar to that in Via della Pergola; this is the other impact, on the center of the shutter, and these are the fragments of glass which inserted themselves into this part, let's say the central middle part of the shutter from the thrust of the

stone. I would say that on the basis of these results, which appear to us rather explanatory of the behavior of... of what we found on the site and what was documented by the State Police, we have formed the conviction that the rock was thrown from the outside towards the inside, and in particular we conclude, to put it this way, that there are sufficient and proven grounds to believe that the position of the broken glass discovered on the floor, which is to give a precise response to the query posed, that the broken glass found on the floor inside Filomena Romanelli's room and on the windowsill of the window of the same, is attributable to the throwing, from the outside towards the inside, of the rock (inaudible) discovered. These are our conclusions.

Counsel Maori. - Quite clear, Marshal, just a contrarian question: would it be possible to hypothesize breakage from the inside.

Consultant. - As far as we are able to verify, no... that is we exclude that the glass was broken from the inside.

Counsel Maori. - For what reasons?

Consultant. - For the reasons I have explained just now and also because, most importantly, in the section of glass fragments { 18 } on the shutter, it would have had no way of ending up there if the glass had been broken from the inside, the position of the broken glass both on the outside and the inside... confirms to us that the stroke, that the stone traversed the glass from the outside towards the inside.

Counsel Maori. - And so with [the stone] being launched from the position...

Consultant. - Launched in a certain distance, not launched close to the frame, that is to the glazed part.

Counsel Maori. - OK, thank you, that's it for the moment.

Consultant. - You're welcome.

President. - Over to the Public Prosecutor.

Prosecutor Mignini. - Look, I don't know if we can see that again...

Consultant. - Sure.

Prosecutor Mignini. - From the external part, from outside that is, the view from the outside.

Consultant. - Yes... from the beginning?

Prosecutor Mignini. - No, from your reconstruction.

Consultant. - From the beginning?

Prosecutor Mignini. - Well, can you find the point where one can see your reconstruction, that is the impact on the glass from the outside, this here, yes, perfect. Here I see the window with the glass and then the internal blinds [scuranti] and one of those which guard the window.

Consultant. - This on the right...

Prosecutor Mignini. - On the right, that is on the right from the outside, I'm talking about...

Consultant. - Yes, protecting it from the outside.

Prosecutor Mignini. - It would have deflected the...

Consultant. - The rock.

Prosecutor Mignini. - The trajectory of the rock but {19} in front of the window there were the outer shutters [persiane].

Consultant. - Certainly.

Consultant. - Certainly.

Public Prosecutor Mignini. - I don't see it here.

Consultant. - We don't have... for the convenience of filming...

Public Prosecutor Mignini. - True, alas.

Consultant. - Also because we know that the shutter was open anyway.

Public Prosecutor Mignini. - It was not open, now I do not know... that is, you have made a calculation of the space between the two leaves [ante] of the shutters, I am talking about these green external shutters.

Consultant. - Yes, certainly.

Public Prosecutor Mignini. - Do you know if these shutters were loose or there was one that was stuck, do you know that or not?

Consultant. - From what I have read in the on-site investigation [report] by the Police, it said that the shutters, the part looking out of the window broken by the stone was not closed but was open.

Public Prosecutor Mignini. - But do you know if... have you been informed, do you know if one of the two was... it pressed and so it was... it could not close, it could not move basically.

Consultant. - But what particular...

Public Prosecutor Mignini. - You don't know that.

Consultant. - Honestly, I don't know that.

Public Prosecutor Mignini. - OK, so... there was a space between the two leaves of the shutters, right?

Consultant. - Yes.

Public Prosecutor Mignini. - What was that space, of what width? This chart, let's call it a chart...

{20}

Consultant. - But it seems to me that the opening of that space was not quantified; I do not recall having read that... it said: "it was ajar" but it did not say... that is, half-open but it did not say what space...

Public Prosecutor Mignini. - That is you calculated - sorry, I wanted to know that, you calculated the status... the position found by the Police, these two persons... the shutters were closed or were completely opened or were half-closed and in that case what was the distance, the width - because the stone thrown from the outside, you hypothesize, [was thrown] practically from the wooden enclosure because the only position is that.

Consultant. - Well, yes.

Public Prosecutor Mignini. - From below it is not possible, so from the wooden enclosure, leaning out, a throwing test should hit this space between the two shutter leaves?

Consultant. - All right, can I?

Public Prosecutor Mignini. - Well, can you explain what was the width between these...

Consultant. - Can I respond?

Public Prosecutor Mignini. - Tell me.

Consultant. - All right, in the phase of the experiment when the shutter was ajar, was open, it is a fact that can be found when the site inspection was carried out but in the experiment, I cannot claim it, I do not know if it's possible...

President. - Please, please, you have been asked to respond.

Consultant. - No, this is what I mean: I'm not saying that when the stone was thrown, the shutter was open or closed or was completely open and did not impede the passage of the stone: that is a finding by the Police during the site inspection, however at the moment of the fact, no one knows if the window... if the shutter was completely open, for which...{21}

President. - That is clear, but, perhaps, to make on the basis of this question...

Consultant. - Yes, yes, but I...

President. - The question to you is, in these reconstructions...

Consultant. No and as a matter of fact I wanted to say that.

President. Excuse me, so how did you consider the two outer shutters? They did exist, they did.

Consultant. - It existed.

President. - You do not know how wide the space between the two shutter leaves was, but you placed the two shutters because...

Consultant. - No, I did not place them because...

President. - You did not place them?

Consultant. - No, I did not because in this experiment, I was interested precisely in the impact of the rock on the glass.

President. - Yes, that is OK, you did not place them but then we should imagine them...

Consultant. - Imagine that it was open.

President. - Adjoining the outward/outside wall.

Consultant. - Surely.

President. - To form the angle of 180 degrees, is it so?

Consultant. - Open, surely.

President. - So open wide, that is in your reconstruction, to sum up?

Consultant. - That is, I did not consider the outer shutter in this case.

President. - All right, it seems to me that the Public Minister has questions.

Public Prosecutor Mignini. - Yes.

President. - Please.

Public Prosecutor Mignini. - The shutters were found in a certain position then, if the shutters had been closed this experiment which you have performed...

Consultant. - Excuse me, Doctor, if the shutters were closed, {22} clearly an experiment like this would make no sense.

Public Prosecutor Mignini. - I have understood this, if they had been half-open but basically with interior space, would it have been possible according to your reconstruction?

Consultant. - But I...

Public Prosecutor Mignini. - Because I - excuse me here...

Consultant. - I don't think it takes an expert to say that if the shutters had been half-opened, it would not have been able to pass - it is obvious.

Public Prosecutor Mignini. - Perfect. Another question I wanted to ask, because I... only wanted to ask is that here we do not see these shutters, we see...

Consultant. - I did not place it precisely for that reason.

Public Prosecutor Mignini. - I know, I know that.

Consultant. - Yes - OK - I didn't want to...

Public Prosecutor Mignini. - One more thing. In reality, you have... you have taken account of the fact that there was a chair in front of the table...

Consultant. - Yes.

Public Prosecutor Mignini. - And basically the stone... I have a photo here...

Consultant. - Yes, but I have it as well.

Public Prosecutor Mignini. - If we can see it.

Consultant. - I have these photos.

Public Prosecutor Mignini. - So the stone is under this chair, more or less.

Consultant. - Well, it is.

Public Prosecutor Mignini. - More or less.

Consultant. - The chair is placed here, yes, this is the same photo as I have. It was positioned... we can also see it there directly, an even better look.

Public Prosecutor Mignini. - But I did not see the chair in your reconstruction. {23}

Consultant. - No, I did not - in the reconstruction...

Public Prosecutor Mignini. - I understand.

Consultant. - I have said...

Voices. - (In the background.)

Public Prosecutor Mignini. - Perfect, so...

Consultant. - I have said that I left the [room] environment completely...

Public Minister Mignini. - Another point, just another point: you have said that the broken glass was both inside and on the windowsill that is on the outside part of the window, at the base of the window?

Consultant. - Yes. There are two windowsills here.

Public Prosecutor Mignini. - Do you know if traces of blood were found on that spot?

Consultant. - I have just recently read what was delivered to me, a reconstruction which speaks of the window but only says there is that window with a big hole of 50 centimeters by 25 and so on, and on one... I don't remember if that is a fragment or something that was a presumed trace of hematic substance but I only [have] that.

Public Prosecutor Mignini. - But on the outside... outside or inside?

Consultant. - You know that I... don't remember this particular detail. I remember about this... I read [it] yesterday evening so...

Public Prosecutor Mignini. - I am asking you only about the external part of the windowsill, that is towards the outside.

Consultant. - Look...

Public Prosecutor Mignini. - Is it blood that you're aware of?

Consultant. - I repeat: I read yesterday evening from the inspection report where the Police say that on a glass fragment... it was suspected...

Public Prosecutor Mignini. - But where that fragment was, {24} you do not know, however?

Consultant. - Look, I will need to reread it now, because I have the report. These notes that I read yesterday evening, but I would like to say (inaudible)...

Public Prosecutor Mignini. - I am only asking you about the windowsill.

Consultant. - About the windowsill.

Public Prosecutor Mignini. - You don't know that.

Consultant. - At the moment, that is...

Public Prosecutor Mignini. - Not as far as you know?

Consultant. - (inaudible) no, no, I repeat... I have in the...

President. - Agreed, please.

Consultant. - Look, I haven't printed it out, if Counsel has it printed, I will...

President. - Agreed, please.

Consultant. - If not, I will have to take it in handwriting [nella penna?]...

Public Prosecutor Mignini. - OK, I have no other questions.

Consultant. - I understand, it's written down, it's not that...

President. - There are other questions from the prosecution, please.

Public Prosecutor Comodi. - Let us not wait for your response to this.

Consultant. - I have explained.

Public Prosecutor Comodi. - That you don't remember.

Consultant. - Not that I don't remember: I have read what is stated: in the Police report, it is said that traces were found of a probable hematic substance on two fragments of glass but from memory, I cannot recall where.

President. - Excuse me, but the question, excuse me, the question is, on the external windowsill, in particular, if...

Consultant. - I do not remember that. I need to reread those notes. {25}

Public Prosecutor Comodi. - That is, in the material on the window sill where the thief was supposed to take a hold of it.

Consultant. - But this is, to me, not... this is news to me.

Public Prosecutor Comodi. - I know, I want to look in your data where this fragment with presumed hematic substance is and how great and important that...

Consultant. - But I did not do that, I have only read that note, not...

Public Prosecutor Comodi. - I understand but if I have read it, please report where you read it and where...

President. - If you could track it down.

Consultant. - You have a copy of the note that was delivered to me yesterday.

President. - All right, we can leave this issue pending for the time being if there are other...

Public Prosecutor Comodi. - Listen, the impact of the falling glass on...

Consultant. - On the groove?

Public Prosecutor Comodi. - On the groove, exactly; it is impossible to have it that way if the glass was broken from the inside?

Consultant. - We should have had it towards the inside.

Public Prosecutor Comodi. - Exactly, I am asking, excuse me.

Consultant. - That is true, they should be the other way round while here we have glass acting as a lever in this position and the glass shards stuck on the outside; if so, we should find glass acting as a lever towards the outside and shards stuck on the inside.

Public Prosecutor Comodi. - But with the window being open or closed?

Consultant. - I don't understand. {26}

Public Prosecutor Comodi. - With the window leaf being open or closed?

Consultant. - O dear, I'm unable to understand what you mean to say, I'm sorry.

President. - Yes, perhaps if you could repeat the question so... please.

Public Prosecutor Comodi. - That is, the glass shards found together in a frame [telaio].

Consultant. - Sure, we are talking about the locked window.

President. - Excuse me for a second, please...

Public Prosecutor Comodi. - Do you know that the window was locked? That is, what are the starting factual assumptions, that the window was locked? Because the first experiment was with an open window, wasn't it?

Consultant. - No, the casement window was always locked.

President. - Excuse me, when one speaks of the locked window...

Consultant. - I'm speaking of the glazed section.

President. - The part of the frame with the glass?

Consultant. - Certainly.

President. - It was closed, that is the handle...

Consultant. - Certainly.

President. - Did you slide the iron [thing] that closes...

Consultant. - Yes, it was down, it was blocked.

President. - Above and below.

Consultant. - Yes, it was surely closed.

President. - It was closed. Please.

Consultant. - The closed window, if that's...

Public Prosecutor Comodi. - According to your experiment and according the data at your disposal?

Consultant. - Yes, yes.

Public Prosecutor Comodi. - But opening the window and doing the maneuvers which you showed, from the inside, would not this fall effect be absolutely identical? {27}

Consultant. - If we place the window leaf with the broken glass in the fully open position, as you intend, with the inside blind in place when we launch the rock, we will have the same effect regarding the glass but not the deposition of glass on the external and internal windowsills.

Public Prosecutor Comodi. - All right, this is another...

Consultant. - No, that...

Public Prosecutor Comodi. - There is another question.

Consultant. - For me it is an important particular detail because we started from these details to do the experiment, if we had not had the broken glass on the windowsill we would not have performed this experiment honestly because we would have no reason to.

Public Prosecutor Comodi. - And opening the window and holding it open, the window leaf with the glass shards open and with the white blind behind it, right?

Consultant. - Yes.

Public Prosecutor Comodi. - One can produce the same effect on the window leaf, this scratch that you have noted?

Consultant. - As I have said now, that is opening the window and throwing from the inside?

Public Prosecutor Comodi. - Yes.

Consultant. - The impact on the blind and on the glass will be the same, I repeat, however we won't have the diffusion of the shards in the room, which is important, and the presence of the shards on the windowsills.

Public Prosecutor Comodi. - All right, so you started out with these two facts, the green shutters open wide.

Consultant. - Let's say that, wide open.

Public Prosecutor Comodi. - And the frame with the glass locked, right?

Consultant. - Certainly.

Public Prosecutor Comodi. - Very well. Listen, did you take {28} account of the shift in the reconstruction and also in the description, visualization of the rays, let's say, of the fall of the glass, the glass fragments?

Consultant. - Yes.

Public Prosecutor Comodi. - Which you showed [to fall] diffusely.

Consultant. - Yes.

Public Prosecutor Comodi. - Did you take into account the necessary shift that the thief entering the window would imply, his moving the glass pieces?

Consultant. - But...

Public Prosecutor Comodi. - Both on the windowsill and...

Consultant. - All right, let's say that the quantity on the windowsill, both internal and external, is... abundant, which means that if it was moved a little... now, I don't know if you have entered or not, this is a discussion...

Public Prosecutor Comodi. - No, as a matter of fact, I have asked... excuse me, please have patience...

President. - Sorry, perhaps to make it more precise, you say, "it is abundant": can we say if it is homogeneously distributed or piled up somewhere?

Consultant. - No, no, no.

President. - Homogenous.

Consultant. - Let's say the (inaudible) is homogenous.

President. - On the windowsill, both internal and external

Consultant. - Both external and internal.

President. - So they were homogenous, these pieces...

Public Prosecutor Comodi. - As if no one had passed, that is?

President. - Yes, yes, only the questions.

Consultant. - The quantity present...

President. - Please, please, only the questions. Please, Public {29} Minister.

Consultant. - The quantity present does not indicate to me...

Public Prosecutor Comodi. Yes, but I have asked if you have taken into account the probable movement of the glass shards, that is in indicating the position of the glass fragments.

Consultant. - So...

Public Prosecutor Comodi. - And in reporting on its relevance...

Consultant. - I understand.

Public Prosecutor Comodi. - As regards the trajectory of the rock, did you take into account the fact that the hypothetical thief did not fly but most likely cause the movement of these fragments? I do not believe that this question is out of place.

President. - It's clear, it's clear, please...

Consultant. - No, this is a perfectly clear question and I hope to make myself clear: I had a query to respond to, all right? I have kept... whether it was a thief or... for me it was not important at that moment to establish whether a thief kicked glass shards in passing or put other ones; I had to establish if in the actual conditions of the window from the documents...

Public Prosecutor Comodi. - But actual of what? That is, what do you mean by actual?

Consultant. - Those I found and those the State Police found.

Public Prosecutor Comodi. - But the State Police found the outer shutter half-closed.

Consultant. - (Off microphone.)

Public Prosecutor Comodi. - Er, but...

President. - Actually, that is the frame [infisso] with the broken window and the shutter, the [inner] shutter scratched, that.

Consultant. - So I'm talking...

President. - With the stone. {30}

Consultant. - So I am talking of those particulars that interest me technically, that is, the presence of the broken glass on the windowsill, the presence of the broken glass on the internal windowsill.

President. - These are the elements you have considered, yes.

Consultant. - Yes, that was the technical part for me which I had to evaluate, and everything else, I could not...

Public Prosecutor Comodi. - Excuse me, but if you...

President. - Please.

Public Prosecutor Comodi. - Excuse me, but haven't you just said that you took into account the state of the facts recognized as photographed?

Consultant. - Sure.

Public Prosecutor Comodi. - It was certified, crystallized by the State Police; why did you take account of this situation for the window and for the white [inner] blind and you did not take account of the same situation of fact, certified by the State Police, for the green [outer] shutter?

Consultant. - Perhaps I do not understand it, I am sorry.

President. - Sorry, no, no, the Public Prosecutor is asking...

Consultant. - Yes, yes, [but] I do not understand what she is saying.

President. - The outside shutters, what use of them did you actually make in your reconstruction?

Consultant. - The outside shutters, as I have already explained, the outside shutters did not exist for me in the experiment.

President. - Yes, yes, agreed. Please.

Public Prosecutor Comodi. - Perfect, they did not exist. So the operator throwing the stone in your experiment, which we have seen, was in the same position, the same level as the hypothetical thief?

Consultant. - We have...

Public Prosecutor Comodi. - I mean, between the thrower and the window... {31}

Consultant. - Certainly.

Public Prosecutor Comodi. - And the surface of the window.

Consultant. - As we have seen, he has the first part of the window at a height of around one meter from the floor which is the difference between the rampart and the window in Via della Pergola.

Public Prosecutor Comodi. - At which point of the rampart.

Consultant. - The part where there is a fringe, on the cornice [cornice].

Public Prosecutor Comodi. - Yes, but at this point of the rampart, because there are points of the rampart where I don't have the surface of the door, of the window in front of me.

Consultant. - The point where we took a measurement is in the front of the window, precisely in front of the window.

Public Prosecutor Comodi. - But can you show it?

President. - That is, you mean the rampart that is parallel to the exterior wall where the window is?

Consultant. - Exactly, exactly.

President. - It's that?

Consultant. Exactly.

President. - All right.

Consultant. - The rampart is basically that point.

Public Prosecutor Comodi. - No, that is impossible because... because then you are assuming that the launch was made from beyond the wooden railing?

Consultant. - From the wooden railing.

Public Prosecutor Comodi. - There is a wooden railing.

Consultant. - From the wooden railing, above that... as it's called, that covering.

President. - Yes, can we show this photo which the Public Prosecutor, I believe... {32}

Consultant. - Yes, I have it.

President. - That there is the fence.

Consultant. - Let's call it so, the fence over there.

Public Prosecutor Comodi. - I wanted to know from which point of the fence you took the measurement, that is what is the point according to which...

Consultant. - OK, I have taken... the measurement was taken precisely from the covering of that little wall as I would call it, the one in stone - I don't know if it is...

President. - It is delimited, outlined...

Consultant. - It is shown, from here to the wall.

President. - From the red stripe.

Consultant. - From (inaudible) above, from there... from there to the wall, from there to the wall of the window. There is three meters, positioning itself over... they are straight on the fence; we have (inaudible) the throw, this is the position.

Public Prosecutor Comodi. - Do you have the footage, that is in your footage, is it possible to obtain the distance from which the operator threw the stone?

Consultant. - I have said that the position of the camera and the thrower was three meters.

Public Prosecutor Comodi. - It was the same distance from here?

Consultant. - The same distance from there.

Public Prosecutor Comodi. - Because to me... that is visually, one can say of these that...

Consultant. - I have told you about these, have explained these to you.

Public Prosecutor Comodi. - (Voices superimposed.) it seems to me that actually...

Consultant. - Consultant. - I have explained these to you, that the footage...

President. - Excuse me please, perhaps we can finish the question and respond after that.

Consultant. - Yes, please, for God's sake.

{33}

Counsel. - Yes, but the evaluation of...

President. - Visually, what were you saying, Public Prosecutor?

Public Prosecutor Comodi. - Visually, especially in the first footage it seems to me that the operator almost enters with his hand into the window, so I'd like to watch that again...

Counsel. - Objection, because this is an evaluation where a question is expected.

Public Prosecutor Comodi. - These are exactly the same...

President. - Excuse me, the Public Prosecutor is simply asking from what distance the thrower is launching the rock in this reconstruction.

Consultant. - I stated at the start, before displaying the tests, that the camera and the thrower were at three meters.

President. - At three meters.

Consultant. - Then for the successive footage...

President. - So in this sense you are correcting the visual impression that the Public Prosecutor says she was left with.

Consultant. - Yes, for the convenience then... the footage then...

President. - Perfect. Please.

Public Prosecutor Comodi. - And did the thrower, the operator take account of the fact that having the hypothetical non-discobolus, stone-o-logist so to say...

Consultant. - Rock Man.

Public Prosecutor Comodi. - Therefore, did you take into account that the thrower, our phantom thief had the fence in front so he could not as much as make half a step with his foot to accompany the launch.

Consultant. - If I say that he was positioned three meters away, he did not have to move from the three meters, you can see that I said the launch I made was from three meters.

Public Prosecutor Comodi. - And that was not moved.

{34}

Consultant. - Hmm...

Public Prosecutor Comodi. - We can... it is possible to watch that again, President? I've just got the feeling...

Consultant. - That's what you see... in the first throw, you see...

Public Prosecutor Comodi. - (Outside of the range of the microphone.)

Consultant. - In the first throw, one can see the hand, certainly.

President. - Yes, can we see the first reconstruction of the footage you have played?

Public Prosecutor Comodi. - Middle of the first one or the second.

Consultant. - Why... can I ask for clarifications, President?

President. - Please.

Consultant. - I have said...

Voices. - (In the background.)

President. - Excuse me, please avoid loud comments.

Consultant. - I said in the presentation of the first test run that the camera and the thrower were at three meters and I said it was the distance filmed by the camera into which I would enter with a hand in the field because I saw the window from a distance from 3 meters; in successive [runs] you cannot see [that] because I zoomed towards the window to show...

President. - Yes, but in the meantime, let us prepare the footage I also wanted to request... because that was the question the Public Prosecutor asked on the distance...

Consultant. - Yes.

President. - But as regards the height, was the rock in your experiment perpendicular to the glass affected or...

Consultant. - Look...

President. - No, there was a certain difference in levels?

Consultant. - No, the height... it is the height of my throwing the rock in this mode; I made several preliminary attempts before running the test.

President. - Both upwards... {35}

Consultant. - Definitely, not in the experiment, we selected that launch and documented it.

President. - Please, we would like to find, first...

Public Prosecutor Comodi. - You threw the stone from below upwards?

Consultant. - No - from below upwards, I was at the same height; I threw from my altitude so I did not need to lift it because I was at the altitude of the window.

President. - Yes but, excuse me, how did you throw the rock then?

Public Prosecutor Comodi. - Yes, how did you throw it?

President. - From below upwards, perpendicularly or from above downwards?

Consultant. - Perpendicular to the window.

Public Prosecutor Comodi. - Basically, the way one throws a ball.

Consultant. - Yes, my altitude and... (off microphone).

President. - Yes, yes, we will be more comfortable; if not, you don't play the recording.

Consultant. - No, no, I wanted to show that I am higher than the window: the hand is at the height perpendicular to the window and to the fence.

Public Prosecutor Comodi. - How much did the stone you threw weigh?

President. - Yes, yes, you have already...

Consultant. - About 4 kilos.

President. - He has said that already, if we can find it, that first experiment...

Public Prosecutor Comodi. - No, it's not there actually.

Consultant. - You can see it there...

Public Prosecutor Comodi. - No, excuse me, let's have a still image of the moment when the hand is throwing the rock, also showing the hand because... where do we obtain the weight of the stone from? {36}

Consultant. - The weight of the stone?

Public Prosecutor Comodi. - From your report, essentially.

Consultant. - I'm saying that the altitude is almost perpendicular, now (off microphone).

Public Prosecutor Comodi. - Well, that is your hand...

Consultant. - Yes.

Public Prosecutor Comodi. - This glow one observes, is that the rock, right?

Consultant. - Yes, and that other one is the hand.

Public Prosecutor Comodi. - So the hand would be at a distance of 3 meters, less the length of the arm? The hand relative to the window?

Consultant. - If I hypothesize... I am at 3 meters but the hypothetical thrower of the stone is not; he has drawn back and fixed his hand at 3 meters, if I am... can I lift [it], President?

President. - No, but... always speak into the microphone.

Consultant. - If I am on the fence, it is also logical that my hand...

President. - Is above the fence, you're going to make a gesture with your hand.

Consultant. - Yes, I mean to say, if my [hand] appears there, because the Prosecutor rightly says...

President. - 3 meters, less...

Consultant. - Less...

President. - The 60 centimeters of the arm.

Consultant. - As it is with the thrower on the rampart.

President. - Surely, please.

Public Prosecutor Comodi. - Exactly what I wanted {37} to know, the distance that seems minimal to me, is 2 meters and 40 [centimeters]?

Consultant. - That is the effect of the cinematic footage, I mean the camera.

Counsel Maori. - There was zooming?

Consultant. - I have said that it was zoomed in part.

Public Prosecutor Comodi. - But nothing was zoomed...

Consultant. - Alternatively, if I put...

President. - Excuse me, the consultant is telling us that he ran the experiment at 3 meters.

Consultant. - Certainly.

President. - So there is the distance from the hand stretched out towards the target, therefore 3 meters less the distance of the arm, then perhaps if the impression is different, it's fine, that will be an object of evaluation.

Public Prosecutor Comodi. - Excellent, no more questions.

Public Prosecutor Mignini. - Another one...

President. - Yes please, the Prosecutor's office again, yes.

Public Prosecutor Mignini. - Sorry I did not understand one thing: when you perform an experiment, you reproduce the conditions existing at the time of the event?

Prosecutor Mignini. - And how do you reproduce these conditions? You have seen that photograph of outside view of the house, right?

Consultant. - Yes, I have.

Prosecutor Mignini. - Then what I don't understand is why you did not take into account the position of the outer shutters, you have answered but I did not understand. {38}

Counsel Maori. - I object to this question because he has already responded more than extensively.

President. - Agreed, we shall take note that he did not take into account... that is he positioned them parallel to the outside wall.

Prosecutor Mignini. - That is, he did not take account of what had been found by the Police, that's what I want to say, he did not take account.

Consultant. - Should I respond?

President. - Exclude me please, I suppose that the consultant has already responded to this...

Prosecutor Mignini. - OK, I take note of the response.

President. - Yes, definitely, are there other questions? Please, the Civil Party.

Counsel Maresca. - Attorney Maresca for the Civil Party, good afternoon.

Consultant. - Good afternoon.

Counsel Maresca. - I would like some clarifications because in my understanding, objective data may not be the same as the point of departure of your...

Counsel. - President, it is an evaluation and an ongoing commentary on the consultant's work.

President. - Excuse me, since that is a consultant...

Counsel Maresca. - I have just taken the floor, so...

President. - ... who is highly professional and therefore, I trust, this preamble will not affect the response, however let us avoid whatever...

Counsel Maresca. - I beg your pardon, President.

President. - Whatever comments at the outside; let us move straight to the question, which is what matters, and to the response. {39}

Counsel Maresca. - I would like to find out, first of all, you have mentioned this before: you are an expert in?

Consultant. - I am... I was active as a ballistics expert.

Counsel Maresca. - So you worked in that capacity for many years?

Consultant. - As I have said, I worked for the RIS [Carabinieri] of Rome and I would say that (inaudible) I was involved in ballistic investigations, in the reconstruction of homicidal and generally delinquent acts committed both with firearms and with other weapons; I would also reconstruct criminal acts committed with knives, with clubs, with... basically I would say in the field of ballistics, covered by diverse fields of criminology.

Consultant Maresca. - Are you an engineer? A physicist?

Consultant. - I am neither an engineer nor a physicist.

Counsel Maresca. - In your long experience, did you provide other expert advice on the launch of objects, of stones as in this case? Or are we always talking about bullets, knives, and so on?

Consultant. - To be honest, this is the first time I have dealt with stones but we can draw a parallel with firearm-related ballistic investigations, let's say in ballistics, we are dealing with certain data related to the capacity of the cartridge, the weapon used and the weight of the projectile, a hypothetical trajectory; we have these parameters, here we have a projectile which is the rock launched...

Counsel Maresca. - (Off microphone.)

Consultant. - No, I don't know...

Counsel Maori. - Let us finish.

Counsel Maresca. - I beg your pardon, please.

Consultant. - Let's say we have a stone as a projectile launched by propulsion which is not a launching charge but a human arm; we have a mallet calculable as {40} a projectile and we have an impact, only that here the variables are endless, be it propulsive power because in this case, yes, it's related to ballistics but we gave preference to experiment for this reason... we would have had a calculation of the force of the launch because it can vary from person to person, from situation to situation; we could start from 3 meters, 4 meters, 5 meters per second for the thrust; the impact is variable, that is in ballistics, there is a projectile with a definite point of impact, the pointed part; the projectile here is of a somewhat irregular shape and it can hit a surface of one as well as ten square centimeters, which is to say its behavior is comparable but in this case, we performed the experiment exactly for this reason.

Counsel Maresca. - Good, as you say it is comparable and I agree with you, let us say what are the contiguous and distant points; I have not seen in your advisory - correct me if I am wrong - a trajectory of this stone from the launch, that is from the moment it leaves the hand of the thrower, which...

Consultant. - Sure.

Counsel Maresca. - Which you have reported to be the same.

Consultant. - Yes.

Counsel Maresca. - Until the moment of impact, correct?

Consultant. - Yes, it's been shown, so...

Counsel Maresca. - That is what I mean and I'm asking you to say, did you calculate the kinetic and/or dynamic force of the stone with regard to the whole period between the hand movement until its collision with the window? That is, should you have started from height X, the impact would be at height...

Consultant. - I have understood perfectly. {41}

Counsel Maresca. - OK, I have not seen a chart of that; you have studied that, so would you comment on that to the court?

Consultant. - I have made this little remark before just to say that I am not a physicist and I am not an engineer, as you have asked me before, and therefore one could alternatively do a calculation in this sense: the decrease in velocity after one, then two, then 3 meters, the elastic resistance of the glass and all that, but we went for repeated tests for the simple reason that one would have to do a billion calculations in order to come to a logical conclusion in the end; that is I take a rock, throw it against a glass positioned in these conditions, that is similar to that in the end... and I have a result because with a mathematical or physical calculation, as you are saying, we would be embarking on a discourse that, as we believe, would not give a good idea of how...

Counsel Maresca. - No, I am saying that perhaps a double...

Consultant. - No, that is my thought, I did not say...

Counsel Maresca. - A second evaluation is that which, I think, makes good a consultant's opinion.

Consultant. - Eh...

Counsel Maresca. - OK...

Counsel Maori. - I object to the question because these are remarks and not requests.

President. - Agreed.

Counsel Maresca. - I'm moving on to the questions.

President - Let us keep to questions, please.

Counsel Maresca. - Yes, however I'm saying with mutual respect, President, because all of us have attended hearings for years so we know what is an experiment is and what a calculation is.

President. - Yes, but during discussions perhaps.

Counsel Maresca. - Yes, perfect. {42}

President. - You'll have every opportunity.

Counsel Maresca. - OK, let's talk about the experiments you have performed.

Consultant. - Yes.

Counsel Maresca. - If I have understood you right, you have stated that you cast this stone up at hip height, is that correct? So the departure was, shall we say, at that height?

Consultant. - Yes, to put it roughly.

Counsel Maresca. - You are telling me that you launched...

Consultant. - Yes, yes, yes.

Counsel Maresca. - The stone at the hip

Consultant. - Yes, certainly.

Counsel Maresca. - Good, so you rule out that the thrower might have thrown it over his shoulder or from below?

Consultant. - I chose the position... I would say the most logical condition, for one can clearly throw...

Counsel Maresca. - Because if you did...

Consultant. - In whatever way...

President. - Sorry, let's wait until he has finished, please, so you chose?

Consultant. - To repeat, I chose... shall I say the most spontaneous mode, the most logical for a person; one could throw in some other way but I chose that one but it's clear one can throw from above, from below.

President. - That is, in your experiment, you launched it from the hip?

Consultant. - I launched it at the height of the hip as...

President. - With a trajectory that is somewhat from below upwards?

Consultant. - Yes.

President. - So it's from below upwards.

Consultant. - Yes, as one can see there, then.

President. - Please. {43}

Counsel Maresca. - So in performing the launch, did you take into consideration the fact that the stone weighed about 4 kilos?

Consultant. - Certainly, we chose a stone of the same weight.

Counsel Maresca. - Yes, because launching from the hip requires a greater force in holding the stone, obviously, relative to throwing from above?

President. - However he has told us that he used a stone of the same weight or an analogous one.

Counsel Maresca. - So that is your choice?

Consultant. - The choice... I took a stone of the same weight as the one in the exhibit, nothing more.

President. - Please.

Counsel Maresca. - Yes, I insist, President - I beg your pardon - but did you choose to throw it from the hip as the most logical action - you have said the most logical, why?

Consultant. - But the most logical to me.

Counsel Maresca. - Why? You are the consultant and should tell me why it is the most logical.

Consultant. - Because I am accustomed to throwing a stone in these conditions and I believe that it would be a substantial majority [of cases].

President. - Good. Please.

Counsel Maresca. - In throwing from the hip, did you consider having a frontal fence on site, one meter high, it seems to me?

Consultant. - But I have said that the launch was hypothesized from a distance of 3 meters, with one positioned before the fence.

President. - Excuse me, but the hand where you had it when throwing, where you hypothesize it to be over the fence, or before fence? I thought that this question...

Consultant. - Yes, I have said...

President. - If you are on the fence.

Consultant. - At the height of the fence; if I'm {44} carrying...

President. - The fence, around 50 centimeters high?

Consultant. - Approximately.

President. - If I throw it from below upward, I can hit the same, you put the hand beyond the fence?

Consultant. - No, above the fence at the height...

President. - Above the fence.

Consultant. - Above the fence, certainly.

President. - Please.

Counsel Maresca. - Above the fence you cannot impart power either?

President. - Excuse me, but...

Counsel Maori. - But these are comments.

President. - These are comments which perhaps could influence the evaluation of the consultant's work.

Counsel Maresca. - Perfect.

President. - Only questions.

Counsel Maresca. - OK, so you made the launch since you reported that it was located at the height of the window in your experiment, right?

Consultant. - Certainly, yes.

Counsel Maresca. - Did you evaluate the descent of the stone's trajectory or does the stone continue until the impact along the same line?

Consultant. - I have said that we have not made this calculation, we...

Counsel Maresca. - No, but also in the experiment, I'm saying.

Consultant. - But I did not notice that descent in trajectory.

Counsel Maresca. - Isn't it a parabolic course of... {45}

Consultant. - Perhaps it was, but I cannot confirm that it was the case basically; it did not occur to me that there was a decline in the trajectory because of the very short distance.

Counsel Maresca. - Good, in the choice of the experiment with the throw from the parapet, you ruled out that this launch could have been done from below under the window?

Consultant. - I repeat that... this experiment was made according to the bit of logic that it seems improbable to me that an attempt to throw a rock of 4 kilos to a height of 3 meters... of 4 meters from the ground because it seems to me it's 3 meters and 90, to break the glass, I did not consider that a hypothesis.

Counsel Maresca. - So returning to the experiment, you visited the locations, which we also did.

Consultant. - Yes.

Counsel Maresca. - You have seen the photos and the documentation, so your objective data on which you have built your consulting work are these.

Consultant. - Yes.

Counsel Maresca. - So far in the state of the site there are always the outer shutters about which you have already been asked, regardless of the shutters being open or closed, the question is: why did you not consider the presence of the shutters, which are always there if we visit the house today?

Consultant. - I believe that...

President. - I have already responded.

Consultant. - I have already responded to this question several times.

President. - Agreed, please refer to the responses given. Yes, please.

Counsel Maresca. - The question, President, was about the opening or closing of the outer shutters.

President. - However he has already explained how he had considered...

Counsel Maresca. - So it was not absolutely not considered.

President. - Yes, he has already answered: essentially he considered them completely back-to-back with the {46} outside wall.

Counsel Maresca. - One last question: the presence of the bag under the window with some items of clothing and also, partially, the rock itself - I have seen that in your reconstruction that was not recorded or mentioned; do you have an evaluation, a comment on the position of the stone relative to the bag, or is that, for you, irrelevant to the reconstruction of the dynamics?

Consultant. - I repeat that in the reconstruction, for us...

Counsel Maresca. - Because you placed the table, the bed...

Consultant. - We left the indispensable items of furniture, so to say, to be able to evaluate the diffusion of the fragments on the floor; we took no account of the rest.

Counsel Maresca. - One last question: the experiment you performed evaluating it in daytime, during nighttime, with daylight, artificial light?

Consultant. - One can see in the photographs that we started in the evening and finished when it was dark, that is we had all the conditions for a little light in the evening, in fact the filming was done with lamps, however if you refer to the fact of visibility, we did what has been shown to you, it was daytime, evening.

Counsel Maresca. - That is, the window was visible...

Consultant. - Certainly.

Counsel Maresca. - The contours of the window, the broken glass and other things.

Consultant. - Certainly.

Counsel Maresca. - OK, thank you, President.

President. - The other Civil Parties have no questions. The Defense of the accused.

Counsel Ghirga. - Counsel Ghirga, defense of Amanda Knox. I don't want... as you see, alternative hypotheses producing strong reactions, I'm talking about the Prosecution, but I am grateful to the Court for its broadmindedness, {47} as usual. I am repeating not (inaudible) to ask questions, you have used the materials of the Scientific Police from the site of the investigation?

Consultant. - Yes, the first investigation.

Counsel Ghirga. - Did you visit the scene?

Consultant. - Yes.

Counsel Ghirga. - Once?

Consultant. - Once.

Counsel Ghirga. - Have you seen the locations?

Consultant. - Yes.

Counsel Ghirga. - Then you explained the experimentation and conclusions, in favor of a toss coming from the outside, from three elements.

Consultant. - Surely.

Counsel Ghirga. - What are they - I would say the groove of the glass pieces above - that is, what are the three elements from which you are inclined, you conclude that the launch originated from the outside?

Consultant. - In the first place, the presence of glass fragments on the external and internal windowsills. Then the intrusion of glass fragments of fallen glass deep inside the...

Counsel Ghirga. - ... into the so-called grooving.

Consultant. - Into the grooving; the diffusion of glass pieces on... of the fragments of glass inside the room.

Counsel Ghirga. - Concerning the third element, these pieces of glass that went in all the way to the little blue carpet, to the bed, do you recall them upon the clothes or do you recall them on the ground and the clothes were scattered, in a different way? Here there is a problem: were the glass pieces over the clothes or on the ground.

Consultant. - This...

Counsel Ghirga. - Do you remember?

Consultant. - This problem... I know about this problem; I {48} looked attentively and anyone can have a look; from the photos, fragments do not appear to be upon the clothes; I have highlighted - we have seen earlier - I have also drawn red circles so we can find more of them wedged under the clothes; as for those on the floor, those above, I did not see any glass fragments above.

Counsel Ghirga. - Can you recall a small pile of glass near the window inside the room?

Consultant. - You see... in the documents, no I don't think I have seen them; when I visited the site, everything had been moved, so let's say no.

Counsel Ghirga. - If the question I am asking is not acceptable, you will correct it. Could a toss from the inside cause such a rebound that pieces of glass would be found near the small carpet?

Consultant. - Are you talking about the glass... about open blinds?

Counsel Ghirga. - I am talking about closed blinds, the blinds being these internal, white ones, not the external shutters.

Consultant. - Yes. With the window closed.

Counsel Ghirga. - We will hold them to be closed, OK?

Consultant. - But with the window closed?

Counsel Ghirga. - Yes, let's make these two hypotheses.

Consultant. - I apologize but if...

Counsel Ghirga. - Closed or open, you tell me that.

Consultant. - No, if it is thrown from inside with the blinds closed, it won't hit the glass, as...

Counsel Ghirga. - But I am asking this of you.

Consultant. - It will not hit it.

Counsel Ghirga. - But can you answer why?

Consultant. - Yes, yes, if it is thrown from inside with the shutter closed, clearly the glass may not break at all because the impact will be on the blind.

President. - And the other hypothesis... the blind open, {49} the glass open...

Consultant. - And the rock is coming from outside.

President. - Which you did before...

Consultant. - But in effect...

Counsel Ghirga. - But what about... the rock?

Consultant. - If one throws it from the inside towards the outside, the stone goes outside.

President. - Excuse me, the stone can also be thrown from the inside against the frame...

Consultant. - No, but I have explained...

President. - This is almost...

Consultant. - Yes, we have discussed it with...

President. - Earlier.

Consultant. - Earlier but now I have asked...

President. - So the glass pieces [or leaves of the window], asked the Counsel, in this hypothesis...

Consultant. - No, no.

President. - They could have spread...

Consultant. - No, no.

Counsel Ghirga. - No, thank you.

President. - You asked that...

Counsel Ghirga. - I wanted to know this question, thank you.

Consultant. - No, no.

President. - Yes, to exhaust the examination. Please.

Counsel Maori. - So the only hypothesis is that the stone was thrown from a certain distance, externally?

Consultant. - We conclude, on the basis of what we have shown, have observed on the site, etc., that the rock was launched from the outside towards the inside, that it broke in having been tossed through the glass.

Counsel Maori. - Do you exclude any other solutions?

Consultant. - For us... it is a result of a launch from the outside and there are no other... {50}

Counsel Maori. - Earlier, the Public Prosecutor Dr. Comodi asked you if you were aware of the hematic substance and so on...

Consultant. - Ah, yes, exactly.

Counsel Maori. - I'm going to... I believe it's on the record, the file with descriptive comments by the criminal police division of the Questura of Perugia, provincial office of the Scientific Police, November 2, 2007, and on page 6, one finds what refers to the question by the Public Prosecutor. If you could consult these record, they are Public Prosecutor's, if you can consult the report, see page 6, read that and give an indication of what is written there, as you see it.

Consultant. - OK, so in Filomena's bedroom...

Counsel Maori. - No, before that.

Consultant. - Master bedroom, no...

Counsel Maori. - This is it.

Counselant. - Yes, here it is, "the image of the window with broken glass, between a piece of glass left driven into the lower inner right frame [telaio] of the same and the internal groove [lit. gutter], there is a hairlike formation distinguished by - etc., etc. - the same is located on the external profile of the fastener of the slot of the latch - that is on the lock - there is a small trace of presumed hematic substance", that is what I have read.

Counsel Maori. - So this is what you have read.

Consultant. - Yes.

Counsel Maori. - And then... to a question from the Public Prosecutor...

Consultant. - Yes, to the question from the Public Prosecutor...

Counsel Maori. - You replied that you did not remember.

Consultant. - True, I did not remember that particular thing.

Counsel Maori. - What could be the record where you read it. {51}

Consultant. - I had read this but I did not remember.

Counsel Ghirga. - Counsel Maori, let us specify the file.

President. - Yes, surely, where is...

Consultant. - This is marked as page 17 of... that is page 6, OK, of 17, which is...

Counsel Maori. - Pages 16, 17.

Public Prosecutor Comodi. - Excuse me, President, can Counsel...given that it was a question by the Public Prosecutor that remains pending? What about a precise answer to the question...

President. - That is true...

Public Prosecutor Comodi. - If the blood...

President. - You have not given an answer, please.

Public Prosecutor Comodi. - The trace of blood, of presumed traces of blood, so I suppose a minimal trace, was it or was it not on the external windowsill, your response?

Consultant. - The presumed trace, the small presumed hematic trace on... corresponding to the fastener of the slot of the latch, as written.

President. - You are saying, where the internal shutter opens?

Consultant. - Where the blind opens, basically.

President. - The blind.

Public Prosecutor Comodi. - So on the inside.

Counsel Maori. - So on the external part.

President. - Excuse me please. Yes, the Public Prosecutor has exhausted the question.

Public Prosecutor Comodi. - No, I want you to answer if there were traces of blood on the pieces of glass from the external windowsill; I see that you have spoken of traces on blood, yes or no?

Consultant. - But I am reading this: the piece; I read it yesterday...

Public Prosecutor Comodi. - But tell me, yes or no.

Counsel Ghirga. - But why do you have to interrupt a question by the Defense, excuse me, President.

President. - Sorry, sorry.

Public Prosecutor Comodi. - No, this is a question of...

President. - Please, perhaps Counsel is right however...

Counsel Ghirga. - I'd doing a counter-examination...

President. - However let's take into consideration that this question remained pending...

Counsel Ghirga. - I understand but in this way...

President. - We have moved over to the questions...

Counsel Ghirga. - That is not OK.

President. - Yes, yes, it is true, the Defense Counsel will be able to...

Counsel Ghirga. - This is not OK at all.

President. - Sorry, sorry Counsel, the Defense Counsel will be able to - on this last question, which effectively was left suspended, awaiting this documentation - it will be possible to resume the counter-examination and give at last the word to the Defense once the consultant has finished. Please, the Public Prosecutor asked, are there hematic traces on the external windowsill or not.

Consultant. - No, they are not.

President. - That's in the position...

Consultant. - On the latch.

President. - (Inaudible) of the house, good, only on this... the Civil Party and the Defense may counter-examine, solely on this aspect which was effectively suspended, but there are no [questions], so the word over to the Defense, which has requested that the consultant remain on the stand to exhaust the examination. Please.

Counsel Rocchi. - Counsel Rocchi for the Defense of Sollecito; regarding the Public Prosecutor's questions, I suggest that they have {53} mixed up two levels which you distinguished well in your consulting work: the first is the state of the site, which you analyzed based on the documents from the on-the-spot investigation, which you carried out personally.

Consultant. - Yes.

Counsel Rocchi. - Can you tell us about the situation you found and the conclusion you reached on the basis of analyzing the state of the place found at the moment of the on-site inspection.

Consultant. - At the moment of the inspection...

Counsel Rocchi. - The on-site inspection both by the Police...

Consultant. - At the moment of the inspection, as I have spoken before of the window, all the details I have explained about the glass, about the position of the glass, of the casing and so on, and I saw fragments of the glass on the carpet which... reached close to the nightstand; the presence of this stone close to the table inside, on the edge of a black bag, slightly torn, the glass fragments beyond the stone on the floor. We put together a report of our findings; it confirms what was documented by the Police, that is, the glass shares on the window were still in the same position both on the windowsill and in the grooves; clearly there was nothing on the ground any longer because everything was moved, that is the small carpet was no longer in its place but was in another part [of the room] and there were other garments on the bed, so all in all...

Counsel Rocchi. - From the analysis of these documents and particularly of the photographs you have explained to us earlier and of the glass pieces detected in the... let's say stuffed into the blind - from this analysis, did you conclude that the toss could only originate from the outside?

Consultant. - Let's say that we were urged by this {54} to deepen the investigation to proceed to the experiment and see if the effects were such, because the fact that the glass fragments were stuck in the blinds makes clear that the people who broke the glass struck the blind and inserted these fragments.

Counsel Rocchi. - So for the moment I wanted to pay attention to this analysis, that is the analysis of the state of the site, of the photographs...

Consultant. - Yes.

Counsel Rocchi. - And so on... what is the conclusion?

Consultant. - That the rock was launched from the outside towards the inside.

Counsel Rocchi. - Good, then there is another level, the experimental level.

Consultant. - Yes.

Counsel Rocchi. - On the experimental level, did you take into account the state of the place found at the moment of site inspection, or did you imagine the state that the thief or whoever launched the glass had found?

Consultant. - I...

Counsel Rocchi. - Sorry, I meant "launched the rock."

Consultant. - As I have said, I imagined because I had to make... I need to see the impact on the glass; I imagine that the window was totally open, that is the glass was totally exposed to be able to go ahead

with the experiment; I did not take into account the fact that the window... the outer shutter could have been opened by half or less.

Counsel Rocchi. - So you took account of the state of those places before...

Consultant. - Certainly, before the site inspection.

Counsel Rocchi. - Of how they were found.

Consultant. - Sure.

Counsel Rocchi. - With a window that was still {55} intact.

Consultant. - Sure.

Counsel Rocchi. - And if necessary, with an outer shutter wide open or, at any rate, in a position to make...

Consultant. - To let the stone pass, certainly.

Counsel Rocchi. - Let the stone pass from the outside.

Consultant. - Surely.

Counsel Rocchi. - At the end of your analysis of all the data and of the experiments, you have reached...

Consultant. - What resulted is the response to the query, which is the stone was tossed from a distance from the outside.

Counsel Rocchi. - OK, so you exclude that it could have been launched from the inside of the apartment, that stone?

Consultant. - From the inside of the apartment, either in the conditions pointed out, that is with the blind open and drawn towards the wall or clearly with the blind completely closed because in the second case there would be no breaking of the glass; in the first case, the glass fragments would fall on the floor and would not be dispersed in the rest of the room.

Counsel Rocchi. - If the inner blind had been open, the blind (inaudible) of the glass, would the glass pieces be found stuck in the blind?

Consultant. - No, absolutely no.

Counsel Rocchi. - OK, thank you.

President. - There are no other questions, sorry, on this aspect there is one more small circumstance. You conclude that the rock was thrown from the outside towards the inside.

Consultant. - Yes.

President. - For that conclusion, did you consider the presence... that conclusion or another, the presence of possible pieces of glass below the pavement, whether there were any or not.

Consultant. - Well, since I did not find them to be documented...{56}

President. - You did not find them.

Consultant. - And I did not find them at the site inspection; I went down to see but I found nothing.

President. - There were none of these pieces of glass?

Consultant. - When I visited, no; in the official documents, I did not see them, no...

President. - And you said that the pieces of glass were in a homogeneous mode on the windowsill.

Consultant. - They were...

President. - Both on the external and the internal.

Consultant. - And the internal, yes.

President. - And enough of them?

Consultant. - And dense enough.

President. - I also wanted to ask: responding to a Defense question, you said, "an outer shutter is in a position to let the stone pass"; in a position to let the stone pass, you wish to say that the shutter... the leaf of the shutter must, had to... that the opening had to (inaudible)?

Consultant. - No, it had to be completely open.

President. - Completely open.

Consultant. - Certainly, yes.

President. - As you have said before?

Consultant. - As I have said before, completely open.

President. - I also wanted to ask you, the thrower from the outside, according to your conclusion, had to be in a position perpendicular to the glass being broken, or a little bit off that position and if off...

Consultant. - Well, I...

President. - Towards the right, no, for one looking at the window affected, or towards the left, that is taking account, obviously, of the possibility that the state of the place allowed it.

Consultant. - I believe that in the conditions as those I have hypothesized, that is, completely open, it is logical to think {57} of a perpendicular position.

President. - A perpendicular position, you have said that the shutter leaf is 28 centimeters long.

Consultant. - 28 centimeters, yes.

President. - So you showed also these measurements, between the lower windowsill of the window and the grille underneath which...

Consultant. - No, that I did not...

President. - If you have considered that.

Consultant. - No, I did not measure that, honestly.

President. - You did not consider that. Excuse me, did you measure the latch which allows opening towards...

Consultant. - No.

President. - On the frames [infissi] where there were pieces of glass, at what height was that?

Consultant. - I did not measure that, honestly.

President. - No more questions, you are discharged; we can file...

Counsel Maori. - President, only as regards your last question.

President. - Ah, that question, sure, sure. Please.

Counsel Maori. - Actually a clarification, obviously, only for the sake of completeness, of clarity, (inaudible) when you contemplated you experiment the possibility of a toss against this window with outer shutters open or also with the shutters half-open also but allowing for the entry of the rock?

Consultant. - I have considered, let's say at least open enough to expose the whole of the shutter leaf...

President. - Sorry Counsel but he has been asked this question explicitly many times...

{58}

Consultant. - Yes, yes, completely open (inaudible).

President. - Completely open.

Consultant. - Completely open.

President. - Adjoining the outside wall at 180 degrees...

Consultant. - Certainly.

President. - That's it.

Counsel Maori. - If they were slightly more closed relative to 180 degrees.

Counsel. - President, there is an objection because he has said it did not get past it.

President. - Excuse me please...

Counsel Maori. - I'll finish the question, then...

President. - Sorry, let us first... let us conclude the question.

Counsel Maori. - Up to the President.

President. - Will the consultant wait and then... please.

Counsel Maori. - If there was... the hypothesis is that not only at 180 degrees but at a different angle, 100, 120 degrees so semi-open but so as to allow the stone to enter, did you consider this hypothesis?

Consultant. - Look, I...

President. - We can allow this question; we shall acquire all the assessments on this point that the consultant may want to offer us.

Consultant. - Yes, I repeat that I did not consider the shutter and for this reason I considered it completely open, therefore I [did] not...

President. - Good, there are no other questions, I believe, is there discovery of the report?

Counsel Maori. - Of the report and also of the photographic album with the indications that are...

President. - It is acquired; the parties have knowledge of its usability. Let us take a break for five minutes.