

DeMohrenschildt, Jeanne. In the manuscript of DeMohrenschildt's book, which he was writing at the time of his death in 1977, he stated that he and Jeanne found the photograph in February 1967 among personal belongings they had stored in Dallas before departing for Haiti in May, 1963.

Two additional first generation prints, one of 133-A and one of 133-C, were also obtained from former Dallas Police Detective Richard S. Stovall on April 14, 1978. Stovall was among the police officers who discovered the backyard photographs during a search of the Paine premises on November 23, 1963.

The 1978 BBC television documentary entitled "The Assassination of President Kennedy \* \* \* What Do We Know Now That We Didn't Know Then" includes an interview with British forensic photography expert, Malcolm Thomson. At the request of the British Broadcasting Corp., Mr. Thomson examined copies of two of the backyard photographs. He found that they were fakes.

With your permission, Mr. Chairman, it would be appropriate now to show the BBC interview to illustrate how concern over the photographs has drawn public attention.

Chairman STOKES. You may proceed.

Mr. BLAKEY. Could the lights be turned down please?

[The documentary was shown.]

Mr. BLAKEY. Mr. Chairman, the committee has also asked Mr. Jack D. White to appear as a witness today. Mr. White has studied the backyard photographs for over 10 years.

Mr. White received a B.A. in journalism major, history minor from the Texas Christian University in 1949. Currently, he is vice president of Witherspoon and Associates, Ft. Worth's largest advertising and public relations firm.

Mr. White has served with Witherspoon in various capacities for over 25 years. He has done extensive work in all areas of reproduction, including photographic, mechanical, printing, and the graphic arts.

Mr. White has lectured in the United States, widely on the subject of the backyard photographs.

Mr. Chairman, I would note that Mr. White's testimony today will be split into two parts: The first dealing with the photographs, and the second in relation to the rifle.

But it would be appropriate at this time, Mr. Chairman, to call Mr. White to testify on the backyard photographs.

Chairman STOKES. The committee calls Mr. White.

Sir, please stand and be sworn.

Do you solemnly swear the testimony you will give before this committee will be the truth, the whole truth, and nothing but the truth, so help you God?

#### TESTIMONY OF JACK D. WHITE

Mr. WHITE. I do.

Chairman STOKES. Thank you. You may be seated.

The Chair recognizes counsel, Mr. Genzman.

Mr. GENZMAN. Thank you, Mr. Chairman.

Mr. White, will you state your full name and occupation for the record?

Mr. WHITE. Jack D. White, vice president of Witherspoon and Associates, an advertising and public relations firm.

Mr. GENZMAN. Will you please refer to the exhibits marked 179 and 180 which were previously entered into the record. Can you identify them?

Mr. WHITE. These are known as the backyard photos. Lee Harvey Oswald supposedly had them taken by his wife, Marina. They are Warren Commission exhibits 133-A and 133-B, and one which surfaced in 1975 during the Church committee hearings, which is marked 133-C.

Mr. GENZMAN. Have you analyzed any of these photographs?

Mr. WHITE. Yes; over a period of about 5 years.

Mr. GENZMAN. What led you to do this analysis?

Mr. WHITE. Well, in 1964 I read the Warren Commission report and I saw where Lee Harvey Oswald said these photos were fakes. Being in graphics myself, I thought I could do a good job of analyzing them.

Mr. GENZMAN. How much time did you spend on your analysis?

Mr. WHITE. It was over a period of about 5 years. I completed it probably about 3 years ago.

Mr. GENZMAN. Mr. White, what was your method of analysis?

Mr. WHITE. I utilized various methods. First of all was just scrutiny, you might say—just looking at the photos to see how things in one photo compared with things in the other photos.

I also made measurements. I made photocopies and printed them in various sizes. I made transparencies which I overlaid one over the other to make certain comparisons, and things of that sort.

Mr. GENZMAN. Did you scrutinize various features in the photographs?

Mr. WHITE. Yes, in particular the face and the background.

Mr. GENZMAN. Did you scrutinize the body?

Mr. WHITE. Yes.

Mr. GENZMAN. What opinions have you formed about the backgrounds of the photographs?

Mr. WHITE. I believe the backgrounds in the three photographs you see here are virtually identical. I think they were all taken from a single camera viewpoint. The backgrounds would have had to be either a single photograph originally, or else the camera for all photographs would have had to be on a tripod or some other support for stabilizing the camera in one position.

Mr. GENZMAN. What opinions have you formed about the heads in the photographs?

Mr. WHITE. The heads in A and B are identical to one another with the exception of the lip area, which shows strong signs of retouching. I was not able to adequately compare the head on C to A and B because I did not have an adequate quality print at the time I made my comparisons.

Mr. GENZMAN. Thank you.

What opinions have you formed about the heads in relation to the bodies?

Mr. WHITE. When you make the heads in A and B an identical size, the bodies are different lengths. In fact, all three bodies are slightly different lengths than each other if you make the heads the same size.

For instance, if you make the heads the same size, you might say that A has a normal length body, B has a longer body, and C has a shorter body.

Mr. GENZMAN. Did you determine whether the heads and the bodies are of the same individual?

Mr. WHITE. I did not do any extensive analysis of the bodies. Some critics believe these are three different bodies. I have nothing to say about that, but I do believe that the heads on A and B are the person called Lee Harvey Oswald, down to a point right below the lips. In fact, the face is a single photograph. It is not two different photographs of the same individual. It is a single photograph.

Mr. GENZMAN. Did you determine whether the bodies were originally on the background of the photographs?

Mr. WHITE. In my opinion, the bodies have been superimposed on the background. There is some evidence of this. I can't prove it, but that is my opinion.

Mr. GENZMAN. Based on your findings, what is your conclusion about the backyard photographs?

Mr. WHITE. Well, just as Oswald said, I think they are fakes.

Mr. GENZMAN. Do you regard these fakes as sophisticated or crude?

Mr. WHITE. They are extremely sophisticated, although they are not so sophisticated that the fakery cannot be detected. I deal in the graphic arts area all the time in my job. We frequently deal with photographers, commercial artists, people who do this sort of work.

If we were to undertake to fabricate a photograph like either of these, we would go to an expert to do it. We would get somebody who was an expert photographer, an expert artist, or a commercial art studio, because it is obvious that to fabricate the head onto the body and then the body onto the background, several sophisticated techniques must be used, including a matting process.

Matting, for the people who don't know about graphics, involves the use of masks and a pin-register system so that you can exactly superimpose something onto a background without the superimpose being noticeable.

What you do is take the figure that you are going to superimpose on the background, and you cut a mask around this figure. You make a positive and a negative of this, using one of them to outline the figure and the other to knock out of the background the area in which you want to print the figure. It is a very sophisticated procedure. It is not something that the average person could do. These were not made, in my opinion, by somebody with just a pair of scissors and some paste.

Mr. GENZMAN. Do you have an opinion as to whether Oswald hypothetically could have made these fakes?

Mr. WHITE. Even though he said to Will Fritz that he knew something about photography and could demonstrate how these photos were made. I don't think he could have acquired the expertise to fabricate them in the few months he worked at Jaggars-Chiles-Stovall in Dallas.

Mr. GENZMAN. Why do you think these fakes were made?

Mr. WHITE. It is fairly obvious after the fact that they were made to implicate Oswald in the alleged assassination by tying him to the assassination weapon.

Mr. GENZMAN. Mr. White, did you testify earlier that each backyard photograph has an identical background?

Mr. WHITE. That is my belief.

Mr. GENZMAN. At this time would you please refer to the exhibit marked JFK F-391.

Mr. Chairman, I would ask that JFK exhibit F-391 be entered into the record.

Chairman STOKES. Without objection it may be entered.

[The information follows:]



JFK EXHIBIT F-391

Mr. GENZMAN. Mr. White, would you identify this exhibit?

Mr. WHITE. This is some art that I prepared using photographs 133-A and 133-B. Let's for a moment look at the lower portion, if you will start at the bottom. The brown picture that you see on the exhibit is a portion of 133-B. The red picture is the corresponding portion of 133-A, which is a red transparency overlaid over the brown picture.

After printing these photographs to the same exact size in the darkroom and then having the red transparency made of A and laying it in register over photograph B, I then slipped a piece of white paper under the red transparency to block out the brown picture underneath.

If you will notice, where the red corresponds to the brown along the edges of the slip of white paper, you will see that every portion of the background matches perfectly. Starting on the left of the picture, you see that the shadows are a perfect match, then the post is a perfect match. All the fence boards are a perfect match. When you get to the corner of the garage it is a perfect match. Even the branches of the bush match perfectly.

Then to go to the center portion—which is at the upper part of—

Mr. GENZMAN. Mr. White, could you go over to the exhibit and point out these matches?

Mr. WHITE. All right.

What I was referring to here—notice that the shadows all line up in one picture to the other. The post lines up. The fence palings all line up. The edge of the garage lines up. The branches of the bush all line up.

Going to the upper part of the picture, again 133-B is in brown and 133-A is in red, and I have inserted a slip of white paper under the red to block out the brown. Notice here the steps line up perfectly. The post lines up. This shadow lines up.

Coming across, this post lines up perfectly. The edge of the garage lines up here perfectly. Even the shadow along from the edge of the roof of the garage lines up perfectly.

So I think we can safely say that the background of 133-B, which is in brown, is identical to the background of 133-A, which is in red. They have to be from a single camera viewpoint. If the camera moved side-to-side or up and down, you would not have such a match because you would have a different perspective.

Mr. GENZMAN. Mr. White, are the backgrounds exactly the same?

Mr. WHITE. There are a few very minor discrepancies. For instance, between A and B—it doesn't show here but over here it does—there is one reference point in the background which is so minutely out of adjustment that either the camera moved upward a fraction of an inch or downward a fraction of an inch between the two. But there is absolutely no side-to-side movement of the camera between the three pictures.

If you will notice right here, there is a highlight on the corner of the house just beyond this stairway post. It is a bright sunlit highlight on the corner of the house. It is exactly the same size here, here and here in all three photos. If the camera had moved side to side or up and down significantly, you would not have the

exact same foreground to background relationship between the post in the foreground and the corner of the house in the background. A very slight difference in movement would completely change the angle of perspective and you would not see three identical highlights.

Mr. GENZMAN. What might have caused the slight discrepancy which you mentioned?

Mr. WHITE. I can only think of two things and this is only speculation, of course. Being an artist myself, I recognized with everything else virtually identical in the picture, an artist fabricating this picture could have manipulated the background of this photograph A—or B for that matter, but I think it was A. All the area that is very slightly moved has straight edges around it—the stairway, the post, the fence and this post. It would be a very simple matter with a razor blade to slice this along these straight lines and move it up or down.

Now, the other possibility is, and it perhaps is a little more likely than that one, that instead of this being a single identical, original background print, there could have been more than one background print, but they all had to be taken from a fixed point like a tripod, or perhaps a camera resting on a car door or in the alleyway.

If the camera was on a tripod, all the backgrounds would be identical so it would not make any difference how many they took. But if there was somebody driving through the alleyway and they paused long enough to rest the camera on the car door, then I can understand how the camera did not move at all side to side and therefore all of these reference points are identical, but possibly the camera tilted a fraction of an inch up or down in the taking, and therefore you might have had a different reference point here. This reference point I am referring to is the roofline of the house in the distant background.

This post in the foreground, as related to the roofline in the background, would have varied widely if the camera had moved any significant distance. In fact, over the years researchers have taken thousands of photographs of this same situation.

After viewing many of these photographs, including some made by the Dallas Police and FBI, as well as by numerous private researchers, and even though these people tried to find the exact same viewpoint of this photograph; by checking the foreground and background relationships I determined that no one could find this exact same spot. I have yet to see a photograph that had this reference point the same and that reference point the same, even though people were trying to find the location from which this photograph was made.

Mr. GENZMAN. Mr. White, did you testify earlier that the heads of these individuals in the backyard photographs are identical?

Mr. WHITE. Yes.

Mr. GENZMAN. In making this determination, which photographs did you study?

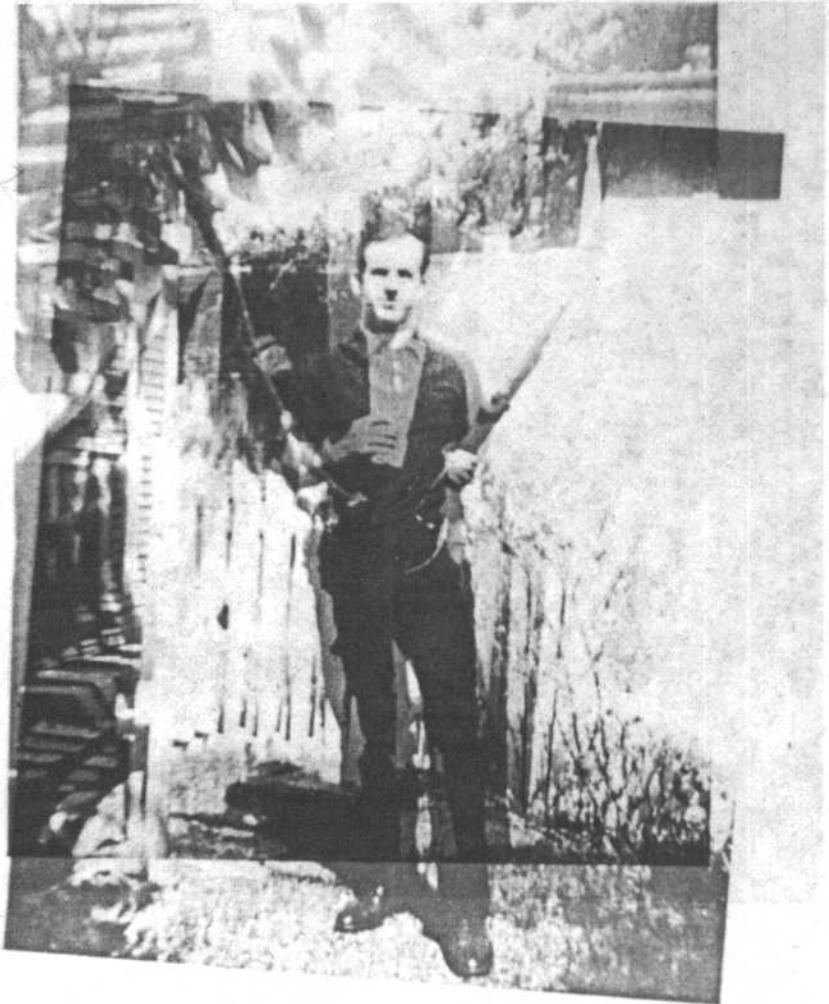
Mr. WHITE. I studied 133-A and 133-B, because up until 1975 I did not have 133-C, and when I did, it was only a magazine reproduction so I did not have a very good quality print to work with.

Mr. GENZMAN. At this time would you please refer to the JFK exhibits marked as F-270, F-392, and F-393.

Mr. Chairman, JFK exhibit F-270 was previously introduced into the record. I would ask that JFK exhibits F-392 and F-393 be entered into the record at this time.

Chairman STOKES. Without objection, they may be entered in the record at this point.

[The information follows:]



JFK EXHIBIT F-392





JFK EXHIBIT F-393

Mr. GENZMAN. Mr. White, would you identify these exhibits?

Mr. WHITE. Well, as I said, this one has previously been entered. The two exhibits here, 392 and 393, are artwork that I prepared in my study of these two photographs.

Now these are what are called the 3-M color keys. They are red and blue transparencies of photographs 133-A and 133-B.

Mr. GENZMAN. Would you point out on these exhibits how you determined that the heads are identical?

Mr. WHITE. Well, I started it out with the prints of the two photos that I ordered from the National Archives. I then made photocopies of them and printed them to the same exact head measurement, the top of the head to the bottom of the chin, so that the head measurements would be the same.

I then took these two prints to a photoengraver who shot a halftone negative and converted the photos to these red and blue prints that you see.

Mr. GENZMAN. Could you lift up the enlarged overlay to show each head?

Mr. WHITE. Yes.

As you see here, entirely in red is the head on 133-B. Entirely in blue is the head on 133-A.

Mr. GENZMAN. Do the heads match exactly?

Mr. WHITE. The heads match identically with one minor exception which I will point out.

All around the hair matches—the outside and inside edges of the hair. The eyebrows, the eyes, the ears, the nose, the nose shadow, the chin, all match exactly. There is no variation. However, the lips do vary.

On 133-B notice the lips seem to be turned downward in a frown, and yet on 133-A, which is the blue one, the lips are turned upward in a smile.

Now I am no expert in anatomy or physiognomy or whatever you want to call it, but my impression is that lips are connected to the face. I have tried this experiment in the mirror, and you can, too. Look in a mirror you will see if you change your lips from a smile to a frown other features on your face change. It is virtually impossible to move your lips without moving other features on your face.

Mr. GENZMAN. Why would there be this difference?

Mr. WHITE. I believe the original photo is probably the smiling photo. You can see strong evidence of retouching on B. I believe the lips on 133-B have been retouched so that the face would not appear to be absolutely identical to the other photo.

Mr. GENZMAN. Mr. White, did you testify earlier that in each backyard photograph one man's head is attached to another man's body?

Mr. WHITE. Yes.

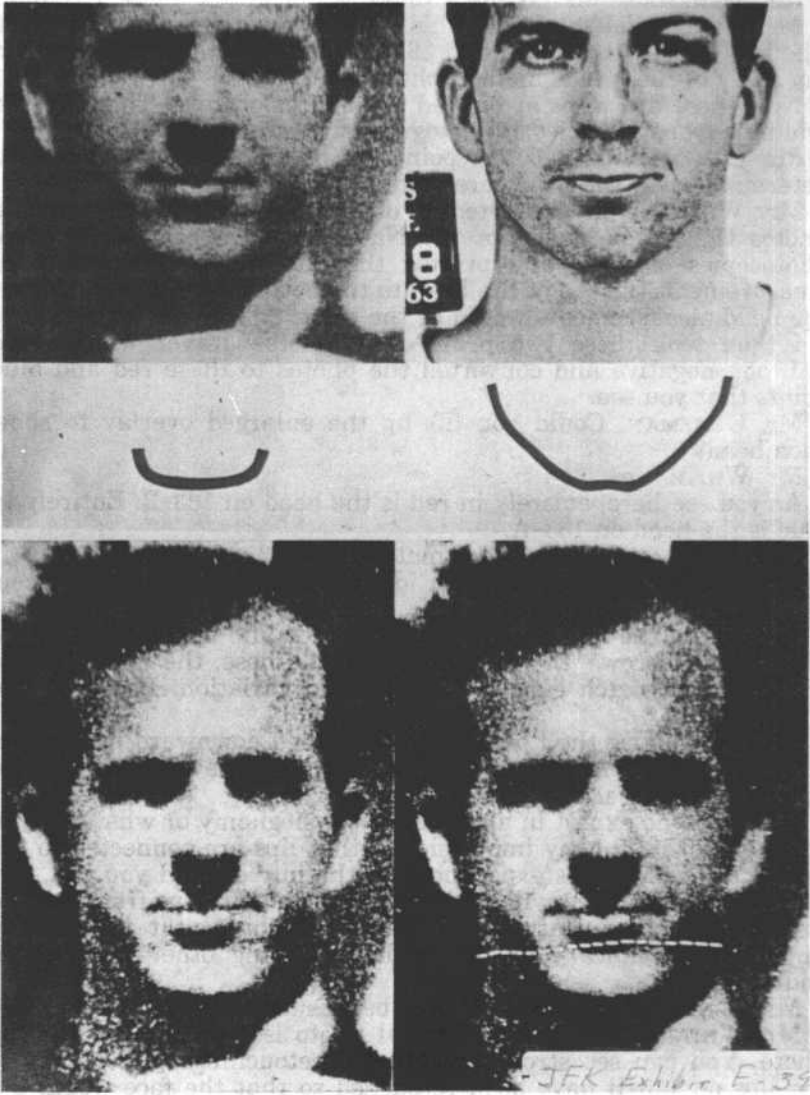
Mr. GENZMAN. Where were these attachments made?

Mr. WHITE. Well, as Professor Blakey indicated in his narration, it is widely believed that the splice occurs in the line straight across the chin under the lip.

Mr. GENZMAN. Mr. Chairman, at this time I would ask that JFK exhibit marked "F-394" be entered into the record.

Chairman STOKES. Without objection it may be entered into the record at this point.

[The information follows:]



JFK EXHIBIT F-394

Mr. GENZMAN. Mr. White, would you explain this exhibit?

Mr. WHITE. This is another exhibit that I prepared. In the center you see the Dallas police mugshot of Lee Harvey Oswald. On the left side you see the face from 133-A. On the right side you see the face from 133-B. All these head sizes have been printed to the same size. Notice the chin on the Dallas police mugshot is a rather pointed chin with a slight dimple or cleft in it. You will notice the same thing on this other Dallas police photo of Oswald in custody on exhibit F-270.

Yet, if we examine any of the faces in 133-A, B, or C, we see that the Oswald in the backyard photos has a broad, square, flat looking chin with no cleft or no sharp point to it.

Mr. GENZMAN. Mr. White, did you analyze the shadows cast by the figures in the backyard photographs?

Mr. WHITE. Yes.

Mr. GENZMAN. Did you find any peculiarities?

Mr. WHITE. Yes, several.

Mr. GENZMAN. Would you please refer again to exhibit 391? That is the three sections of the overlays of A and B.

Mr. WHITE. Yes.

Mr. GENZMAN. Can you explain the top display of this exhibit?

Mr. WHITE. Yes. Again, this is the same exhibit we saw before in which 133-B is a brown picture and 133-A is a red transparency overlay to the same head size over the brown picture. In 133-A you will notice that the shadow of the nose of Oswald goes directly to the center of his lips. Notice that in 133-B, the shadow of the nose goes directly to the center of the lips. Yet when we overlay these two pictures, we find that the head has tilted 4 degrees approximately from the A picture to the B picture. Yet the nose shadow moves as the head tilts.

In other words, in both pictures the nose shadow goes directly to the center of the mouth whereas when he tilted his head 4 degrees, the constant direction of the sunlight should have caused the shadow to move.

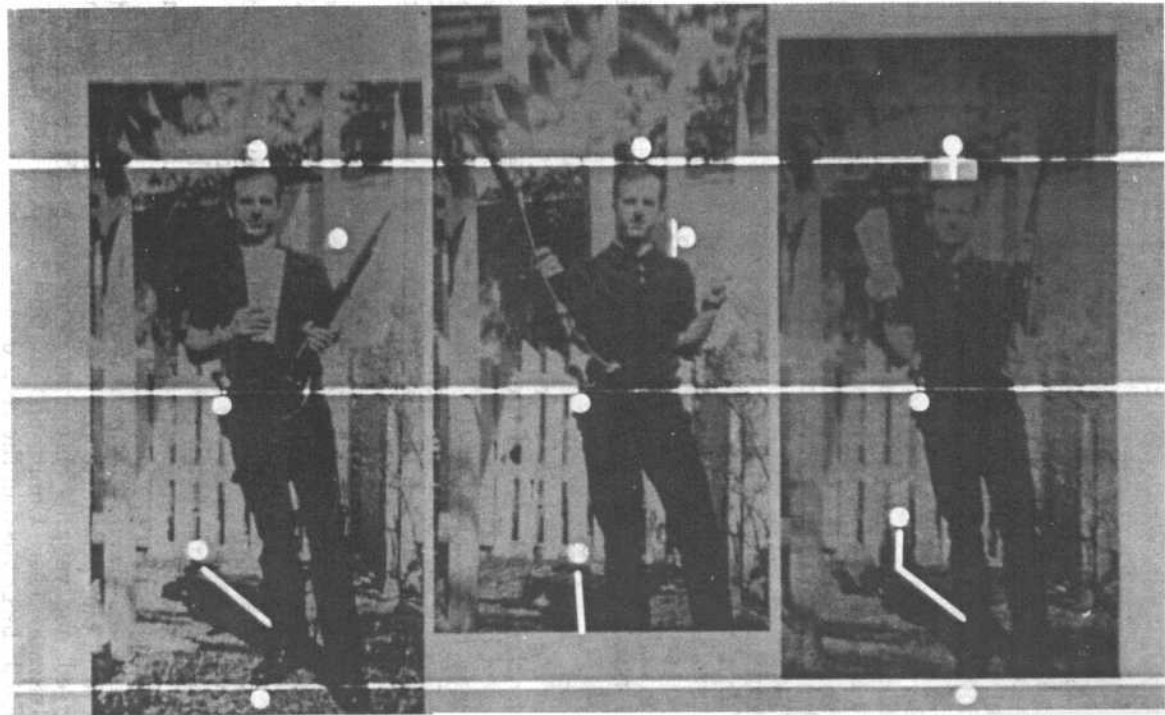
As you can see in A by this red arrow here, the sunlight coming in this direction would cause the shadow to fall to the center of the lips. Yet, as he tilts his head, the sun would have had to move in the sky 4 degrees to compensate for the tilt of his head. All other shadows in the picture are identical.

Notice the shadow on the post under the stairway. It exactly overlays from one picture to the other. This stairway shadow has not changed, and yet this nose shadow moved as the head moved.

Mr. GENZMAN. Mr. Chairman, on this I would ask that JFK exhibit F-395 be entered in the record.

Chairman STOKES. Without objection, it may be entered into the record at this point.

[The information follows:]



JFK Exhibit F-395

Mr. GENZMAN. Mr. White, would you identify exhibit 395?

Mr. WHITE. Yes. This is another piece of art that I prepared. It consists of pictures A, B, and C all printed to the same background size. The main difference you notice in them, besides the fact that I have cropped some off the sides, is that I have positioned them according to the vertical reference points; in other words, you notice that some are higher or lower than others.

Now I have positioned them so that the same point in the background is along the horizontal line in the three pictures.

Mr. GENZMAN. Did you notice any peculiarities on the shadows of these pictures?

Mr. WHITE. Yes. If you consider each photograph as if you are looking at the face of a clock, it is quite obvious that in 133-A the ground shadow of the figure is pointing to 10 o'clock. In 133-B, the ground shadow is pointing to 12 o'clock. In 133-C the shadow is again pointing to 10 o'clock, but even though the figure is shorter, it is casting a longer shadow; in fact, the shadow goes 6 or 7 inches up the fence.

Mr. GENZMAN. Thank you.

Mr. White, did you analyze the position of the body in backyard photograph A?

Mr. WHITE. Yes.

Mr. GENZMAN. Did you make a determination as to the body stance in 133-A?

Mr. WHITE. Yes, I think the body stance is in position out of balance with the background. If you compare the verticals in the background to the balance point of the body, you find that the figure could not be possibly standing in that position because it is out of balance. If you make a parallel line from the center of the chin that is parallel to this post in the background, you find that the point of balance falls approximately 3 to 4 inches outside the weight-bearing foot. You can try this yourself by suspending a plumb bob from your chin and in order to get it to fall at a point 3 or 4 inches outside your weight-bearing foot, you will be off balance and you will fall over.

Mr. GENZMAN. Based on this analysis, what is your conclusion as to whether the figure is part of the background or whether it has been superimposed on the background?

Mr. WHITE. This is what led to my conclusion that the figures have been superimposed over the background. In other words, if it is impossible for a person to stand in that position in that background, then the figure had to be photographed independently and then pasted, if you will, or superimposed photomechanically on a blank backyard photograph.

Mr. GENZMAN. Thank you, Mr. White. Would you return to your seat.

Mr. White, based on all of your findings, is it your conclusion that the backyard photographs are fakes?

Mr. WHITE. Yes.

Mr. GENZMAN. Based on your expertise, how do you think these photographs came into being?

Mr. WHITE. Well, the way I visualize is very similar to someone coming to our advertising agency with a job they want done. I think that possibly somebody came to a sophisticated art and

graphics department of some sort and they had several ingredients with them that they wanted made into a composite photo.

They had with them a backyard photo with no person in it. They had a single ID-type photograph of the person we know as Lee Harvey Oswald. They had a couple of Communist newspapers. They had a pistol and they had a rifle. And just suppose that I am this art department that they have come to, I can visualize someone saying to me "Here are these articles. I want them put together into a composite photograph. The person's face you have here, I want him to be holding the guns and the newspapers and then I want the figure superimposed on this background."

Well, being in graphics, I recognize that there are several techniques to do this, but it is not a simple matter. In order for our firm to do this, we would go to outside experts probably. We would go to an art studio or some firm which specializes in photographic composites. This is not something that could be done by someone with just a few weeks or a few months training. It would require the skill of a highly technical expert artist and photomechanical technician. And the steps that would be undertaken I visualize as being this. You have the blank backyard photograph, but you need to have a figure to put in it. So either in a studio or in an appropriate lighting in an outdoor situation, you photograph someone holding the gun and the newspapers in various poses. Of course, this person in my opinion was not Lee Harvey Oswald but some photographer's model.

Once these photographs, which were taken against a blank or white background, were completed, then an artist superimposed copies of the face on the various bodies in the place of the face of the real person who was photographed holding these objects. At that point some retouching was done. A mask was made which—by "mask" I mean an amberlith outline of the figure and the gun that is to be superimposed on the background. Then through a sophisticated technique called matting, a negative and a positive were made of this mask, and one of these was used to outline the figure; the other was used to knock out of the background—the area to be double printed with the figure holding the gun.

Then through the use of this pin register system to make sure the two images match exactly, the figure was printed onto the background. All this was done in a large size, I would estimate 16 by 20 inches. If we were doing the job, we would work with a 16 by 20 probably, even though the final results were going to be rather small.

Once this double-printing of the image into the background occurs, then final retouching has to occur, and I think this is where the shadows were added. The ground shadows, in my estimation from having examined them closely, are airbrushed onto the background with transparent watercolor over the existing grass.

By the way, at the time that these pictures were made, there is no grass on the ground in Dallas, and there are no leaves on the trees. The date of these pictures supposedly is March 29. I live in Texas, and I see the trees come out. It is usually late April before you have this amount of foliage on the grass, the bushes, and the trees. So I think the shadows were added by transparent retouch-

ing, just as the British photo expert said on the film we saw a while ago.

Some of the shadows were added improperly. For instance, the shadow of the post by the head of the figure on B is much wider than the same shadow on A. And also as he pointed out, when they cut their airbrush frisket, the knife must have slipped because the post becomes crooked in B and it is not crooked in A.

Mr. GENZMAN. Thank you, Mr. White.

Mr. Chairman, this concludes my questioning.

Chairman STOKES. The Chair recognizes Mr. Goldsmith.

Mr. GOLDSMITH. Thank you, Mr. Chairman.

Mr. White, when did you first form the opinion that the Oswald backyard pictures are fake?

Mr. WHITE. You mean an exact date?

Mr. GOLDSMITH. No, roughly.

Mr. WHITE. I would say about 5 years ago.

Mr. GOLDSMITH. And that was after how many years of study of these photographs?

Mr. WHITE. Well, I have been studying them and looking at them, say, for 15 years. I did not start these tests and prepare the artwork you see here until anywhere from 3 to 5 years ago.

Mr. GOLDSMITH. You have been looking at these photographs for approximately 15 years and approximately 5 years ago you reached the conclusion?

Mr. WHITE. About 5 years ago, I ordered copies of the prints from the National Archives in order to make a more detailed study. Previous to that, I had only seen work that other researchers had done, such as Fred Newcomb and some others.

Mr. GOLDSMITH. Examining the photographs, how many factors suggesting that they are fake were you able to find, again just estimating?

Mr. WHITE. I haven't made a count, but I would say 10 to 12 at least.

Mr. GOLDSMITH. Now you indicate that you found at least 10 to 12 factors.

Mr. WHITE. I would guess at that.

Mr. GOLDSMITH. In light of that, do you regard the fakery that has allegedly been done here to be sophisticated or crude?

Mr. WHITE. It is sophisticated.

Mr. GOLDSMITH. Have you ever examined the original exhibits? By that I mean the original first generation of prints of 133-A and B and the original negative?

Mr. WHITE. No. I have only seen the DeMohrenschildt picture in the original.

Mr. GOLDSMITH. So as to exhibits 133-A and B you have never examined the first-generation print and you have never examined the original negative; is that correct?

Mr. WHITE. That is true. I have only the prints that were furnished me by the National Archives.

Mr. GOLDSMITH. Do you know what generation prints they were? By that I mean if someone were to take a picture of 133-A or B, that would now be a second-generation print?

Mr. WHITE. That is right.



Mr. GOLDSMITH. And if someone were to take a picture of that, it would be a third-generation print and so on?

Mr. WHITE. True.

Mr. GOLDSMITH. The materials you were given, do you know what generation they were?

Mr. WHITE. I have no way of knowing. I would presume that they were the next generation after what the exhibit is in the National Archives. That is just a presumption. I have no way of knowing.

Mr. GOLDSMITH. And prior to that, when you indicated that you had thought that these photographs were fake, this was based upon the work done by other people; is that correct?

Mr. WHITE. Yes, on things I had seen in various books, magazines, and so forth.

Mr. GOLDSMITH. And these things that you had seen in various magazines and books, were they the first-generation prints?

Mr. WHITE. I have no idea.

Mr. GOLDSMITH. You must have an idea, because if they were in a magazine or in a book, could it possibly have been a first-generation print?

Mr. WHITE. Oh, no; obviously not.

Mr. GOLDSMITH. Have you ever had occasion to take the original negative from 133-B and analyze it with a computer by a technique called "digital image processing"?

Mr. WHITE. No, obviously not.

Mr. GOLDSMITH. Mr. White, I have in front of me a pamphlet that you put together for the committee.

Mr. WHITE. Yes.

Mr. GOLDSMITH. Do you recognize this?

Mr. WHITE. Yes.

Mr. GOLDSMITH. On page 31 of that pamphlet, I regret that we do not have this in exhibit form. I see that you have it in front of you.

Mr. WHITE. Page what?

Mr. GOLDSMITH. Thirty-one.

Mr. WHITE. Oh, yes.

Mr. GOLDSMITH. I see that you have taken a ruler and placed it by Oswald's body and also by his rifle; is that correct?

Mr. WHITE. Yes.

Mr. GOLDSMITH. Mr. White, do you believe that an object photographed can be measured simply by placing a ruler against the image in the photograph?

Mr. WHITE. No.

Mr. GOLDSMITH. When you measured the object in this photograph, what did you do beyond using the ruler?

Mr. WHITE. This is strictly a two-dimensional measurement. Obviously I did not take into consideration any perspective which might exist or any other considerations. It is just a mere measurement of the body from the weightbearing foot to the top of the head in each case and of the rifle from the muzzle to the butt.

Mr. GOLDSMITH. Without giving any account to other factors?

Mr. WHITE. That is true. I am not a physicist or any sort of a scientist who could determine anything relating to the perspective. We don't know how close the rifle is to his body. We don't know how close the camera is to the subject, so it would be virtually

impossible for just a plain citizen like me to interpret the perspective of this photograph.

Mr. GOLDSMITH. Have you had any training in analytical photogrammetry?

Mr. WHITE. No.

Mr. GOLDSMITH. Have you had any formal training in forensic photography?

Mr. WHITE. No.

Mr. GOLDSMITH. Have you had any formal training in the study of shadows in photographs?

Mr. WHITE. No.

Mr. GOLDSMITH. Mr. White, if the picture is authentic, would you expect all the shadows cast by objects in that picture to line up parallel to each other?

Mr. WHITE. I am no expert on that. I wouldn't have any conclusion unless you pointed some specific reference to me.

Mr. GOLDSMITH. Are you familiar with the concept known as "vanishing point"?

Mr. WHITE. Oh, yes.

Mr. GOLDSMITH. When you studied these photographs did you use the vanishing point concept to analyze the shadows?

Mr. WHITE. Not as such. I didn't see any point in using a vanishing point to analyze shadows.

Mr. GOLDSMITH. Mr. White, drawing your attention to the right side of photographs 133-A and B, did you detect any retouching there?

Mr. WHITE. I didn't really pay much attention to the marginal edges. I was mostly concerned with things in the center of the picture.

Mr. GOLDSMITH. At this point I would ask that Mr. White be given the original of 133-A and B.

Do you have those before you now, Mr. White?

Mr. WHITE. Yes.

Mr. GOLDSMITH. I would like to refer your attention now to the area around Oswald's left in the two photographs.

Mr. WHITE. Yes.

Mr. GOLDSMITH. If you look at the area that I am pointing to at the exhibits, I would ask you to examine that same area in the original photographs.

Mr. WHITE. Yes, I see what you are referring to.

Mr. GOLDSMITH. Are those shadows the same in each background?

Mr. WHITE. It appears to be some sort of imperfection. I can't tell whether it is a shadow or not. They don't appear to be the same though.

Mr. GOLDSMITH. I would now like to draw your attention to a rectangle that appears in the picket fence in each photograph, and if you look at the chart, I will point it out to you, here, and right over here.

Mr. WHITE. OK.

Mr. GOLDSMITH. Did you ever measure that rectangle in those two photographs to see if the measurements were the same?

Mr. WHITE. No.

Mr. GOLDSMITH. When you examined the backyard photographs and used the transparency overlay technique, in addition to that, did you ever actually conduct any measurements?

Mr. WHITE. Of what?

Mr. GOLDSMITH. Of different parts in the background to see if the measurements of those parts correspond to each other?

Mr. WHITE. No. However, I can say that I examined the parts of the photograph in relation to each other, and I recognized that in the darkroom technique employed to make these photographs appear to be shot at different perspectives, that certain darkroom techniques like easel-tilt were used which changed the measurements.

Mr. GOLDSMITH. Now I understand that you have examined them, but again you haven't measured them?

Mr. WHITE. That is true, I have not measured them, but there are measurable differences, I would agree. However, this is not necessarily—

Mr. GOLDSMITH. Mr. White, I would ask you simply to confine your answer to my question, so please wait until my next question, sir.

Now you made reference in your testimony earlier to two white portions that appear on the left side of each photograph. I am going to point them out to you now.

I believe this is one; is that correct?

Mr. WHITE. Yes.

No, it is higher than that, right up there, right there, yes.

Mr. GOLDSMITH. And up here?

Mr. WHITE. Yes.

Mr. GOLDSMITH. Did you ever measure those parts of the photograph to see if they were consistent with each other or if there were measurable differences?

Mr. WHITE. You mean with a ruler?

Mr. GOLDSMITH. With a ruler or any other technique?

Mr. WHITE. Well, I measured them with an overlay technique in which they appeared to be the same.

Mr. GOLDSMITH. Did you measure them by any unit?

Mr. WHITE. No, not with a ruler or any unit of measurement.

Mr. GOLDSMITH. Mr. White, you have made reference to several points in these photographs that suggest that Oswald's head is disproportionately—

I withdraw the question.

That the body of Oswald is not consistent in the various photographs in light of the head size; is that correct?

Mr. WHITE. Yes.

Mr. GOLDSMITH. To what extent, if any, did you compute photogrammetrically the effect of an object's tilt on its apparent length in the photograph?

Mr. WHITE. As I said, I am not a scientist. I don't indulge in that sort of thing.

Mr. GOLDSMITH. Mr. White, I realize you are not a scientist.

Do you know whether scientists consider the use of transparency overlays to be a good way of detecting differences between soft edged images?

Mr. WHITE. I have no way of knowing that.

Mr. GOLDSMITH. Thank you very much.

I have no further questions, Mr. White.

Chairman STOKES. The Chair recognizes Mr. Genzman.

Mr. GENZMAN. Mr. White, have you analyzed any rifle photographs connected with the Kennedy assassination?

Mr. WHITE. Yes.

Mr. GENZMAN. What caused you to do this analysis?

Mr. WHITE. I was led to this through my study of CE-133-A and B. Once I had determined to my satisfaction that these were fabricated photographs, I wanted to see if I could identify the rifle in the photographs as being the rifle in any other photographs in any of the Warren Commission literature.

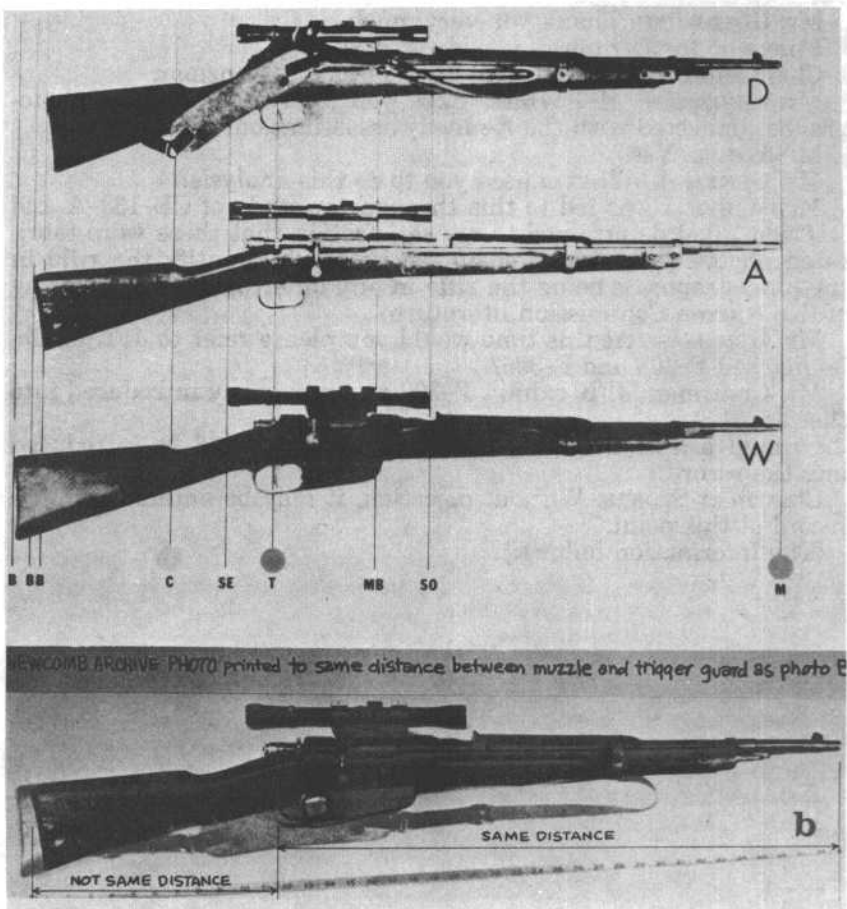
Mr. GENZMAN. At this time would you please refer to JFK exhibits marked F-208 and F-396?

Mr. Chairman, JFK exhibit F-208 was previously introduced into the record.

I would ask at this time that JFK exhibit F-396 be introduced into the record.

Chairman STOKES. Without objection, it may be entered into the record at this point.

[The information follows:]



## JFK EXHIBIT F-396

Mr. GENZMAN. Mr. White, could you go over to the exhibits—  
Mr. WHITE. Yes, sir.

Mr. GENZMAN [continuing]. Specifically, JFK exhibit F-208, and explain it.

Mr. WHITE. JFK exhibit F-208 is my very earliest attempt to analyze the rifle in CE-133-A and compare it to other photographs of the rifle.

Mr. GENZMAN. Would you identify the various rifles displayed?

Mr. WHITE. Yes. They are labeled "a" through "g" over on the right-hand side.

Photograph "a" is a print from exhibit CE-133-A; photograph "b" is exhibit 139 in the Warren Commission report, which the report tells us is the assassination weapon; "c" is another Mannlicher-Carcano rifle that I wanted to compare with all of these; "d" is erroneously labeled "Oswald's Rifle (Bolt Is Open);" this photograph I took out of the book "Six Seconds in Dallas." I learned later, much later than this exhibit was prepared, that this is not

Oswald's rifle, according to the 26 volumes. This is called "Replica of Oswald's Rifle," so therefore this labeling is erroneous. Nevertheless it makes a good comparison with the other rifles because it is another Mannlicher-Carcano.

Photograph "e"—this is Lieutenant Day's hand here, as he walks out on to Elm Street from the school book depository carrying the rifle. Now, this photograph has been reversed photographically by flopping the negative when it was printed just so it would be in the right orientation with the other photographs. You are actually seeing the opposite side of the gun.

Photograph "f"—again this is Lieutenant Day's hand holding the rifle up, on the third floor of the jail the night of the assassination so that the newspaper people could photograph it.

Photograph "g" is from Dallas Police Chief Curry's book, and this is the Dallas police file photo of the gun said to be the assassination weapon.

Mr. GENZMAN. Did you line these photographs up end to end?

Mr. WHITE. Yes. The Warren Commission told us that the assassination weapon was 40.2 inches long. In fact there is a tape measure in the picture there. So based on this, I assumed, perhaps erroneously, that all Mannlicher-Carcanos are 40.2 inches long. So in the darkroom, as I printed each of these negatives, I printed them each to an identical length from muzzle to butt.

Mr. GENZMAN. What did you determine from this study?

Mr. WHITE. Well, I determined very little actually. The first thing that I determined, that has not later been proved wrong, is that the gun in photograph 133-A seems identical in every respect to the gun "g" which is the Dallas police file photo. Other than that, I found that most of the reference points through which I extended vertical lines could not be made to line up. So I was really rather baffled by this because I couldn't understand why the various reference points shouldn't line up.

Mr. GENZMAN. Besides your determination that the backyard rifle matched the Dallas police rifle, would you characterize your results as inconclusive?

Mr. WHITE. Yes.

Mr. GENZMAN. Mr. White, what was your next analytical step?

Mr. WHITE. About a year passed between this study and my next one, because I was rather baffled by all this, and I really didn't know where to go from there, until a point in time when a researcher from California named Fred Newcomb furnished me a photograph of the rifle as it existed in the National Archives.

Mr. GENZMAN. Would you briefly describe the exhibit labeled F-396?

Mr. WHITE. OK.

Once I received this photo of the Archive rifle and studied it in connection with some of the others, I had what you might call a brainstorm, after hearing some rifle experts talk. When I appeared before Senator Schweiker and the Church committee, I talked to some rifle experts. They said frequently when somebody buys an old war surplus weapon like this, the first thing he does is modify the stock to fit his physique. Therefore the thought dawned on me that the wooden stock is changeable.

Mr. GENZMAN. Did you line up the metal parts?

Mr. WHITE. Yes. I made prints where the metal parts of the rifle, that is, from the muzzle to the trigger guard, were all identical lengths.

Mr. GENZMAN. After lining up the metal parts, what did you determine about these stocks?

Mr. WHITE. I determined that the butts were different lengths after lining up the metal parts.

Mr. GENZMAN. Does the photograph at the bottom demonstrate this discrepancy in the length of the stocks?

Mr. WHITE. Yes. Here we have the Archive rifle printed in brown, the Warren report rifle printed in red; all the way from the muzzle through all the metal parts, in fact all the way to the comb, which is this little notch in the stock of rifle. All of that matches exactly. Only from here back, less than one-fifth length of the rifle, does not match.

Mr. GENZMAN. Briefly what did you determine from your study?

Mr. WHITE. It is my opinion that we have been shown by the authorities more than one gun as being the assassination weapon.

Mr. GENZMAN. Thank you, Mr. White. Mr. Chairman, I have no further questions.

Chairman STOKES. Mr. Goldsmith?

Mr. GOLDSMITH. Mr. White, I just have one question.

Mr. WHITE. All right.

Mr. GOLDSMITH. When you did this study, did you compute photogrammetrically the effect of tilt on the way that the length of an object appears in a photograph?

Mr. WHITE. I conducted a study by photographing a yardstick from three different—

Mr. GOLDSMITH. Mr. White, answer my question. Did you compute photogrammetrically—

Mr. WHITE. What is "photogrammetrically"? Describe to me what "photogrammetrically" is.

Mr. GOLDSMITH. I just have one more question Mr. White. Do you know what photogrammetry is?

Mr. WHITE. No.

Mr. GOLDSMITH. I have no further questions. Thank you.

Chairman STOKES. The committee will recess until 1:30 p.m. this afternoon.

Mr. FITHIAN. Mr. Chairman.

Chairman STOKES. Yes, proceed.

Mr. FITHIAN. Will Mr. White be back after the recess?

Chairman STOKES. He will be back.

Mr. FITHIAN. Thank you.

[Whereupon, at 12:30 p.m., the select committee was recessed, to reconvene at 1:30 p.m.]

#### AFTERNOON SESSION

Mr. FITHIAN. The committee will come to order.

I will ask Mr. White to take the stand. While he is doing that, let me explain where we are before the House now.

Apparently, in about 12 minutes or so the resolution for the funding of this committee will be considered. During that time, of course, the members of the committee will need to be on the floor