THE KENNEDY ASSASSINATION

WHAT THE PHOTOGRAPHS SHOW

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A. INTRODUCTION:

Ever since the twenty-six volumes of evidence were published by the Warren Commission on the assassination of President Kennedy, researchers in New York, Maryland, California, Pennsylvania and Texas have been analyzing the evidence in minute detail. Since that time in October 1964, a great amount of additional evidence has been placed in the assassination files in the National Archives.

Some of the researchers have attempted to find out whether a conspiracy existed purely through analysis of the photographic evidence. These include principally, Ray Marcus - Los Angeles, Harold Weisberg - Hyattstown, Md., Lilian Castellano - Los Angeles, David Lifton - Los Angeles, and myself. The basic tenets with which this group have approached the situation is that photographs, when properly interpreted, do not lie.

If the collection of movie films (both professional and amateur), television tape recordings (some made from 16mm film), and still camera photos taken at the time of the assassination can all be obtained in their original form and properly analyzed, it is possible we will ascertain the truth about what happened on November 22, 1963. If there was more than one assassin, these photographs may actually show, identify and trace the real assassins.

B. CONCLUSIONS AS OF OCTOBER 15, 1967:

In my analysis to date which has utilized the work done by Ray Marcus, Harold Weisberg, Lillian Castellano and David Lifton, plus some of my own work, the following conclusions can be drawn with a reasonable degree of certainty:

- 1) The shots came from more than one direction.
- 2) There were at least two, and probably three, assassins firing shots.
- 3) The first shot was fired before Zapruder frame 202, probably at frame 189. It is improbable that this shot came from the Depository sixth floor window. The large oak tree was between the sixth floor Depository window and Kennedy at the time

of the first shot. Also the Hughes' film shows no rifle in the sixth floor Depository window and no person in the sixth floor Depository window from approximately one minute prior to and up to six seconds prior to the first shot.

- 4) The Zapruder film, the Willis 5 photo and the Betzner 3 photo show that the direction of the first shot was not on a line passing through the sixth floor window. In fact, the first shot trajectory, even taking the autopsy report at face value, passes through an area south of the corner of Houston and Elm at one end, and through the grassy knoll at the other end.
- 5a) The first shot could have been fired from the grassy knoll from a position between the fence and the stone wall or from the Cupola. In this case it hit Kennedy in the throat and remained in his body.
- 5b) The first shot could also have been fired from a point on the north curb of Elm Street near the Stemmons Freeway sign. In this case the shot hit Kennedy in the throat and exited from the back of his neck above the collar.
- 5c) The first shot could have been fired from the County Records building from a window higher than the first floor. In this case the shot hit Kennedy in the back of the neck and exited from his throat. If Commander Humes' testimony is correct this is the proper solution.
- 5d) Access to the autopsy photographs and X-rays would help resolve the source of the first shot. In any event it could not possibly have come from the Depository Building.
- 6) The second shot most probably was fired at about frame 226 and hit Kennedy in the back. It could have been fired either from some part of the Depository building other than the sixth floor window, or the second floor window of the Dal Tex Building, or the County Courts Building.
- 7) Another shot (either the third or fourth) hit Connally in the back at frame 237. This shot came from either the Depository Bldg, the Dal Tex Bldg, or the County Courts Bldg. It was probably not fired by the same man who fired the second shot, because two shots could probably hot have been fired in 11/18 of a second from the same rifle.
- 8) Another shot (either the third or fourth) narrowly missed the car and hit the curb on the south side of Main Street. It was probably fired from the Dal Tex Bldg second floor window at sometime between the first shot (frame 189) and the fifth

shot (frame 313).

- 9) The last shot (fifth) was the fatal head shot. It was probably fired from behind the stone wall or from the Cupola at frame 313. The head motion violently backward indicates this. It is highly improbable that the fatal shot was fired from the Depository window, because the Dillard photo taken within three seconds of the time of the shots shows there was no person in the window.
- 10) The photographs currently available to researchers partially confirm the above conclusions. No definite photograph has been found showing the Dal Tex Bldg or County Courts assassins. However, photographs establish the fact that the first shot probably was not fired from the sixth floor window of the Depository Building.

The Dal Tex second floor window is the most likely source for the curb shot, indicated by plotting trajectories in two dimensions and partially supported by the Underwood photo taken from the curb.

- 11) Two photographs indicate the presence and discovery of at least one and possibly two more rifles in addition to the one found on the sixth floor. These are Mentesana 2 and Willis 10, taken at 1:10PM and 12:45PM respectively.
- 12) Several photographs show that shots probably came from the Dal Tex Bldg and they show possible or probable assassins on the grassy knoll. No one of these photographs is conclusive. However, several of them taken together tend to confirm the existence of the possible assassins. The numbers of the men referred to are those assigned by Ray Marcus and used by the author in Exhibit 5 (map) (see also Moorman Photo #18).
- 13) The Martin Film: A movie taken by John Martin, a portion of which was incorporated into the Dallas Cinema Associates' film titled "President Kennedy's Final Hour" shows several things. It was taken beginning approximately eight seconds after the fatal shot. Man #5 can be seen framed in the Cupola doorway and moving to the north side of the arcade.

Men #s 2, 3 and 4 can be seen standing between wall and fence at the start of the film. After about a second or two, they begin running to the south and west along the fence and at the top of the grassy slope back towards the triple overpass. Man #2 has proceeded several feet back along

the top of the slope by the end of the film approximately four to five seconds later. What appears to be a white puff of smoke shows against the wall, puffing and growing, in the same position as in the Moorman photo, Willis #5 photo, and others.

A later sequence shows Billy Lovelady standing in front of the Depository Building at 12:45PM wearing a dark blue and red checkered shirt.

- 14) Willis #5: A color slide taken by Phil Willis shows man #2 in the crook of the stone wall at the equivalent of Zapruder frame #202. This is six seconds prior to the fatal shot. The man is facing south with an object about three to four feet long extending upward at a 45 degree angle from the position of the man's hands. The man is wearing a dark black cloak or coat. The man's position corresponds to that of the Martin film, the Moorman photo, Zapruder, and others.
- 15) Betzner #3: A black and white photo taken by Hugh Betzner Jr. about the time of the first shot shows man #2 in the same position as Willis #5. He shows up more clearly.
- 16) The Nix film: A film taken by Orville Nix during the time of the fatal shot shows man #5 in the Cupola doorway after the fatal shot. A blowup of an earlier Nix frame shows possible confirmation of man #5 in the Cupola corresponding to Moorman. Also man #2 appears in the original color version of Nix. The puff of smoke also appears in the color version.
- 17) Mary Muchmore Film: Miss Muchmore's camera was aimed too low to show the men behind the wall or in the Cupola. However, the puff of smoke shows clearly in the same position as in the Moorman, Martin and Nix photos. This film also shows a violent head motion backward after the fatal shot.
- 2apruder Film: The Zapruder film supported by Willis #5
 establishes the time of the first, second, third (or fourth)
 and fifth shots. An analysis of the film was made by Ray
 Marcus which places the time of the first shot at 189 by
 the motion of President Kennedy's right hand. His right
 hand is waving back and forth at the crowd along the north
 side of Elm Street for many frames. At 189 a sharp jerk
 occurs and from 190 to 205 the wave turns into a grasping
 motion toward his throat. By frame 205, JFK's right hand
 is clearly at his throat. At 206 his hand begins to disappear
 behind the Stemmons Freeway sign. This fact has two

significant aspects. First, the indication of his hand motion toward his throat showing he has been hit prior to frame 205. Second, any shot passing through JFK's throat after frame 205 would have had to pass through his hand. Prior to frame 207, JFK was behind the oak tree from the sixth floor window. The second shot is placed at 226 by analysis of the President's elbow and head motions; and the third shot timing at 237 is placed by analysis of Connally's head and shoulder motions.

The fatal shot can be determined at frame 313 to have come from the front by noting the President's head motion. Man #2 also appears in Zapruder frames 413 - 424.

Willis #5 confirms frame 189 as the time of the first shot because the picture was snapped (in reaction to hearing the shot) at frame 202. Allowing for the time the sound of the shot took to reach Willis, plus his reaction time, the 189 time would be approximately correct. Betzner #3 also confirms the time because he heard the first shot at about the time he snapped his picture.

- 19) FBI Reenactment Photos: The FBI reenactment photos published in Vol. XVIII clearly show that at no time was JFK's head open for a shot from the sixth floor window during the gap (or notch) in the oak tree. Claims have been made that the first shot might have been fired at Zapruder frame 186 at which time JFK's head appeared in a gap in the oak tree for a fraction of a second. Careful analysis of both the FBI and Secret Service reenactment photos shows that JFK's head was at all times below the bottom of the gap. The Secret Service photos were taken in December 1963 when not much change in foliage could have taken place.
- Mary Moreman Photo: Shows possible faces of four men behind the concrete wall, the fence and the Cupola structure at the west end of the arcade. Man #2 is in the crook of the stone wall. Men #3 and 4 are either behind the fence or between the wall and the fence. Man #5 is framed in the western doorway of the Cupola. The photograph also shows a possible puff of smoke at the end of the stone wall. (6 is the number assigned to a possible Dal Tex assassin.) A fifth possible man behind the fence, formerly labelled man #1 by David Lifton, has been demonstrated to be an optical illusion by comparing Moorman with a photo of the same area taken several months later.

- 21) David Weigman: A very important film was taken by David Weigman of NBC riding in Camera Car #1, six cars behind Kennedy. His camera was running almost continuously from the time he was about fifty feet from the corner of Elm and Houston (before the first shot was fired) until several minutes after the fatal shot. Weigman's film shows the Depository doorway and the people standing in it at the time of the first shot, taken from a distance of about 75 feet. (Much closer than the Altgens' photo.) It also shows several clear pictures of the grassy knoll area within a few seconds after the fatal shot. The film supports the probability that the man in the Depository doorway is Billy Lovelady. Man #2 can be seen behind the wall in several clear frames beginning a few seconds after the fifth shot. He is in the same position as in the Willis, Moorman, Zapruder and Martin photos.
- James Altgens: Mr. Altgens, an AP photographer, took three pictures in Dealey Plaza. The second one, published as the Yarborough exhibit in the Commission's volumes and taken 3.6 seconds after the first shot and one second after the third shot, shows a man on the fire escape of the Dal Tex Building just above the second floor window. He has obviously almost fallen off the fire escape. Just 4 seconds earlier, before the first shot was fired he was standing straight in a normal position for several seconds (see Hughes film). This would indicate the man was startled by something nearby such as a possible loud noise coming from directly beneath him. (This man remains unknown as do all of the other occupants of the Dal Tex Building)
- Robert Hughes: Mr. Hughes took a color movie from the southwest corner of Houston and MainStreets. It shows Kennedy's car proceeding down Houston and turning on Elm Street. It also shows the sixth floor window of the Depository Building. During this sequence, which begins 9.9 seconds before and ends 5.7 seconds before the first shot, no one and no rifle appears in the window. Coupled with the Dillard photo which was taken 3.7 seconds after the fatal shot, the conclusion can be reached that it is highly unlikely that an assassin fired three shots from the window. The total elapsed time between the last Hughes and the Dillard photo is 16.2 seconds.

Also, the two photos show that several Commission witnesses were imagining things they could not have seen. This includes Mr. Brennan.

24) Malcolm Couch: Mr. Couch, an ABC-WFAA photographer was riding in camera car 3, eight cars behind Kennedy. He took movies of the grassy knoll area shortly after the fifth shot was fired. They show man #2 and man #5 behind the wall.

- Puff of Smoke: Nine separate photographs show a possible puff of smoke at the corner of the nook of the concrete wall. The position corresponds to the location identified by Mr. Holland from the overpass where he saw a puff of smoke. Several other witnesses on the overpass also saw it. The photos are Nix 2A, Nix 2B, Hughes 3, Martin 2, Moorman 2, Weigman, Couch 1, Bond 4, Betzner 3. See also a photo of Holland in the book "The Scavengers" by Shiller. This identifies the spot where Holland saw the smoke as being the same spot shown in the nine pictures.
- Vehicles: Several vehicles of possible importance to the analysis of what happened appear in the photographs. These include several white station wagons, a laundry truck, a white roofed vehicle behind the Western Cupola, a train, a boxcar, and a large van like truck.
- 27) Men being arrested: Several photos show men being arrested or under arrest. These include:
 - a) Three tramps arrested near Railroad tracks
 - b) Larry Florer
 - c) Elderly negro
 - d) Cuban (or Mexican) and negro
 - e) Man in Ft. Worth
 - f) Man near rifle (not Oswald's rifle)
- 28) Witnesses: Several photos show witnesses and people under arrest in the sheriff's office and police station.
- 29) Inside TSBD: Several photos show actions inside and just outside the TSBD, including the search for and finding of the rifle on the sixth floor, the brown paper bag, the boxes and cartons, the Dr. Pepper bottle, lunch sack and chicken bones, and the shells.
- 30) Oswald's Arrest: Two photographers took photos of Oswald's arrest inside the Texas Theatre.
- 31) Tippett Shooting: One photographer took several photos of the people, cars and activity at the scene of the Tippett shooting just a few minutes after it happened.

C. UNUSED PHOTOGRAPHS:

There are many photographs taken during the assassination which were never tracked down or analyzed by the Commission or the FBI. Some of them probably show the real assassins actually firing the shots, or in the case of the Dal Tex Building, show indications of the shots.

Other photos probably show exactly what each assassin did and where he went after firing the shots. Enlargements may even make it possible to identify the assassins. Exhibit I lists all of the photos known to the author as of October 15, 1967. This chart lists objects or photographers which appear, or probably appear in each of the photos. The photos are divided into three categories: Still pictures, Movies, and TV or Newsreel footage. Efforts are continuing to locate all of the photos listed and to view and analyze them. These include the following: Moorman 1, Babushka Lady, Ron Reiland, Darnell, Atkins, Stoughton, Burrows, Grant, Beck, Powell, McCammon, Beers, Allen, Cabluck, Shulke, Herron, Sanderson, Jackson, Laird, Beal, Davis, Smith and several unidentified men and women appearing in other photos with cameras.

E., CHARTS:

Several other types of charts are being prepared. Exhibit 1A is a chart showing the times and frame numbers of photographs and movies used as timing references for all pictures. Times are expressed in seconds, negative for times prior to the first shot (Z189) and positive for times after the first shot.

Exhibit B shows all of the movies, still photographs and TV footage with the photographers' name, sequence or photo number, position, what the picture shows, and the time of the picture or sequence in seconds and in reference frame numbers.

Exhibit C shows the times of the pictures as above, except in graphical form.

Exhibit D will show the location of each of the men, two through six, (plus any other who may develop) from the first time they appear in any photo to the last time they can be seen. The photos or movie frames showing these positions will be listed thus providing a trail for following photographically each of the potential assassins.

Exhibit E & F will be a chart and map showing the locations of the cars and buses in the motorcade at all times during their passage through Dealey Plaza.

F. MAP - EXHIBIT G

It is difficult, if not impossible, to analyze the photographic evidence without use of an accurate map. The map, Exhibit G, is a reduced version of the map prepared for the FBI and the Commission by Robert West, Dallas County Surveyor. On Exhibit G, the scale is 1" = 20'. The position of all the photographers and their lines of sight have been placed on the map. Also, the postulated trajectory of the curb shot has been drawn, and can be seen to pass through the second floor window of the Dal Tex Building. The positions of men #2-5 and the puff of smoke as they appear in the photos of Moorman, Nix, Willis, Martin and others, are shown on the map. Other selected people and objects are also shown.

LIST OF EXHIBITS TO "THE KENNEDY ASSASSINATION - WHAT THE PHOTOGRAPHS SHOW"

Exhibit #	Description	Status (October 15, 1967)
1	Large Chart - All Photos	Needs updating and copying
1A	List - All Photos	Up to date
A	Timing Reference Chart	Needs entry of Martin & Hughes, Couch and typing
В	Timing Chart for all Photos	Needs entry of several analyzed photos and typing
С	Graphical Timing Diagram	Needs entry of several analyzed photos and typing
D1 .	Grassy Knoll Photo Chart	New photos to be added as discovered
D2	Trail Chart Man #2	New photos to be added as discovered
D3	Trail Chart Man #5	New photos to be added as discovered
D4	Trail Chart Puff of Smoke	New photos to be added as discovered
Е	Chart of Car & Bus Positions	Needs a lot more work to be completed
F	Map of Car Positions	Needs a lot more work to be completed
G	Map	Needs artistic redrawing and copying