The Hoax of the Century: Faking the Zapruder Film

*See also my chapters on the film in both High Treason 2, pp. 357-373, and Killing the Truth, pp. 319-336.

IN MY LAST TWO BOOKS I questioned the validity of the films in the case. As time goes by it is becoming increasingly clear that much of the publicly known evidence in the case, both privately held and that in the National Archives, consists of stage props. My questions concerning the films have stimulated much discussion and dissent. Many who suspected—or believed—the films were altered or fake got in touch with me and shared their research, ideas, and information. The lid came off one more can of worms! I found a very large number of people who had suspected—or believed—for a long time that the famous films of the murder might be altered or fake. Each person who approached often had a piece of the puzzle different from the next. A picture began to emerge. This was the first national notice that the Zapruder film is a massive hoax and is an animation.*

The real film of the assassination was taken by someone else, and is quite different. It was taken right alongside the car and showed all that is not in the Zapruder film, which was taken from much farther away. The first film was used by the FBI to reconstruct the crime, and it's still secret.

The Zapruder film is for public consumption.

In 1967, Professor Josiah Thompson, whom I respect, was a paid consultant on the assassination and its visual evidence for Life maga-
zine not long after the assassination. He had early access to the film and described his viewing of it there, writing that “if [the Zapruder film] is studied with the utmost care and under optimum conditions, it can yield answers to enormous questions. Where did the shots come from, and when were they fired? Limited in scope though it is, the Zapruder film is capable of answering these questions... Quite obviously, the Zapruder footage contained the nearest thing to ‘absolute truth’ about the sequence of events in Dealey Plaza.”

That is what they want Prof. Thompson and us to think.

The one thing that has become deadly certain is that far too much of the assassination evidence that critics and the public had relied upon for many years was phony.

There is no question not only that oil man H. L. Hunt had bought and paid for the local Dallas offices of the FBI, the Secret Service, and the CIA but that J. Edgar Hoover himself was “owned” by and conspired with his friends, the Dallas oilmen. Hunt employed former FBI men as well, so he was informed of all that happened there. They did not know —

A fast shell game went on at the Jamieson Lab in Dallas where Zapruder had taken the film to be developed. From there it may have found its way to the National Photographic Interpretation Center (NPIC) film lab in Washington. Erwin Schwartz, Zapruder’s partner, said that the film did not reach Jamieson until after 6 p.m.

Zapruder was asked by Wesley Liebeler of the Warren Commission, “... after you had the film developed, I understand Mr. Sorrels from the Secret Service came over and helped you get the films developed and you gave two copies of your films to Mr. Sorrels, is that correct?” It was at this point that Forest Sorrels, now deceased, of the Dallas Secret Service office, had to have gotten control of the film, and the film-lab game began.

“Yes. One we have sent to Washington the same night and one went over for the viewers of the FBI on Ervay Street... The Secret Service—I brought one roll there and they told me to dispatch it by Army plane or I don’t know what they had done with it but it was supposed to have gone to Washington, and one of them, I believe, remained here with Mr. Sorrels. He came to my office quite a few times to show them to different people.” Zapruder can’t get his lines straight, and this shows evidence of coaching. Officially, there was only the original and three copies of the film, two of which went to the Secret Service, and one copy and the original were sold to Life, but no sale had occurred on the day of the assassination. The official story is that the Secret Service gave one copy to the FBI.
Zapruder tells us that a copy of the film was flown to Washington that day, but it is completely unreasonable that a copy of a film of one of the most major crimes of the century would have been sent for study there, and not the original. The Dallas Secret Service and the Dallas FBI would have been working closely together and helping each other. Since Zapruder has said elsewhere that he retained a copy which was shown to the FBI, the Secret Service, and others in his offices, as he says above, there is an obvious contradiction in how many copies existed.

There are a couple of bombshells in all of this. Erwin Schwartz, Zapruder's partner, insists that Life never got the film until at least Tuesday, November 27. Schwartz accompanied Zapruder to the film labs and stayed with him the whole time the film was being developed and copied on November 22, and was with him also when Life's Richard Stolley collected the film at the Adolphus Hotel on Tuesday, he says. The copy given to Life was to be used to make stills. This would have given the conspirators plenty of time to alter the film before Life got it. However, Life's November 29 edition was printed on Tuesday, November 26th, which gives damn little time that day to get plates made for the printing presses from the frames in the film. The only answer to this is that Life must have got the film before Tuesday, clandestinely—perhaps on Saturday, November 23. I believe that additional, officially unaccounted-for copies of the film were distributed as soon as it was developed on the day of the assassination. Initial alterations were simple and easy.

Since Schwartz himself delivered the film to Stolley, he does not believe Stolley's claim to have been looking at the film before then.

"If Zapruder gave Stolley a copy to take with him, Schwartz doesn't know anything about it," Richard Bartholomew says. It makes no sense to me that Zapruder would have given Life the original film that Saturday without a check, and we have no knowledge of money passing until the more formal contract made on Monday, November 25. At that point, Life would cut a check and send it overnight to Zapruder and collect the film. On the other hand, the film Schwartz describes taking to Stolley was for making stills, and so would be a copy, not the original. Furthermore, Schwartz, whose memory could conceivably be dimmed by the intervening thirty-one years, does not think that Stolley even saw it that Saturday morning, and was gone from Zapruder's offices by ten or ten-thirty in the morning.

It would seem that Life did not officially have the film until Monday, November 25, the date of their contract with Zapruder. That would theoretically give them one day to prepare the photographs.
His gross ignorance about this film in particular and about movie film in general is simply astounding, yet he writes all of this from the depths of that ignorance. Not one of those he uses as authorities is any kind of an authority and I've never heard of any but one of them to p. 126. They are nuts and as nutty as he is in general and on this subject. What he quotes them on is what they made up from their own ignorance. At first I fell into his misuses of words from his ignorance and did not stop to think that in movie film there is no "negative" the word he used when he meant the original. The only true negatives in all this mishmash are copies of the positive film used in printing. All motion-picture and slide films are positives, as all that are shown other than by printing have to be. When copies are made commercially they are made automatically and that does not compensate for differences in exposure and thus the automatic copies, as I understand it, lose clarity.

Most of what he says here is impossible, all made up, largely by him.

Like on 123, watching "copy negatives" being made. The copies made in Dallas were all positives and all made automatically.

As he also has not mentioned to the point I've reached he has not mentioned the film that shows the sprocket holes by which the action is given it. They are on the original only except for special copying. They are eliminated when automatic copies are made, as they are unseen on projection.
Since *Life* was a news magazine and they had a very big story, if they were willing to spend an extra million bucks or so to speed it up, there may have been no problem with the short lead time. The deal was for a hundred fifty thousand dollars, to be paid at the rate of twenty-five thousand per year.

Schwartz confirms that all the employees of *Life* and anyone else who happened to be present were shown the film repeatedly while they were there, and he insists that he saw blood and brains come out the back of JFK's head, even though we do not see this in the film today. Schwartz said that Dallas police with shotguns were at Zapruder's office a half an hour after the shooting.

Philip Melanson argues in his *Third Decade* article, "Hidden Exposure: Cover-Up and Intrigue in the CIA's Secret Possession of the Zapruder Film," that the original film in fact went to the National Photographic Interpretation Center (NPIC) in Washington, and could have been altered there. He tells us that the technology to resize images, create special effects, and remove frames existed in 1963. The equipment was there to analyze films but not necessarily to alter them.

But Daryll Weatherly and I question whether the forgery would have happened there. It seems to me to be irrational for the film to have been altered at NPIC, unless we are looking at a blatant military coup. The alternatives are that they analyzed the film there, the film was altered somewhere else, and this is a red herring.

Researcher Paul Hoch discovered the NPIC story, when in 1976 he was able to obtain a batch of documents through a Freedom of Information Act request from the CIA. Item #450 was nine pages of documents relating to an analysis of the Zapruder film conducted for the Secret Service by the CIA's NPIC. Philip Melanson writes, "For the first time, there was evidence that CIA had possessed and analyzed the film. Apparently the CIA had gotten the film from the Secret Service.... Did NPIC make extra, unaccounted-for copies; or did the NPIC-produced copies somehow end up as the Dallas copies? Was NPIC producing third-generation prints; or had it somehow obtained the original?" An item in this batch of documents lists the time it took to process the film. It tells us that two hours were required to "Proc. dry," which always refers to developing original film. "If NPIC had been working with a copy, the first step would have been to print, then process." The item then says that it took one hour to do a "Print test." Melanson writes that "print test" refers to a short piece of film printed from the original and used to check the exposure—to see if the negative is too light or too dark—before printing copies from the original.
"Thus there is strong indication that NPIC had the original." The
print they made may have been from one of the three negatives
Schwartz mentions. If NPIC had a print, it made a negative from
that, then did the print test from it, which may be more likely,
according to assassination film researcher Martin Shackelford. At
the very least, the film was analyzed at NPIC for the number, timing,
and sequence of the shots, but it could have been altered there
as well.†

Melanson suggests that Zapruder may have made a bargain with
the Secret Service on the day of the assassination. "Whether someone
in authority asked or told Zapruder, indications are that he did
indeed relinquish it ... If Zapruder did manage to strike a bargain
with the Secret Service, the terms may well have been that the
Service took the original for a brief time (perhaps only eighteen
hours) but promised to keep the loan secret so as not to jeopardize
Zapruder's chances for a deal. If potential buyers knew that the
original had been out of Zapruder's hands, they might have per-
ceived it as secondhand merchandise; if they knew the government
was printing extra copies, the exclusivity of the purchase rights
might be in doubt. Exclusivity was very important to the deal, and
Zapruder knew it. Life's Richard B. Stolley recalled that through all
the chaos, Zapruder kept his 'business sense.' "10

"And why would the Secret Service be satisfied with a copy which
was less clear than the original?" Melanson writes. "Since it seems
certain that NPIC conducted its analysis on the night of the assassi-
nation, this greatly increases the likelihood that NPIC had the origi-
nal."11 But Melanson and Paul Hoch have not proved that the film
was there on November 22, 1963.

Stolley also said that "if the federal government had not been in
such disarray at that moment [immediately after the assassination]
somebody with authority and a sense of history would probably have
asked Zapruder for the original film and he probably would have
relinquished it."

In a letter to me, John R. Woods II, the author of an important
work on the visual evidence in the case, asks, "Did NPIC create
different versions of the film in order to create several different
versions in which the government could decide which film would
fit the scenario?"

We always have to be watchful for false trails and red herrings in
the evidence. To my way of thinking, it is just as likely that the film
might have been first roughly altered and a new "original" struck

† See also High Treason 2 by the author, pp 369-371.
off that day in Dallas. Over the next days and weeks the copies were made picked up and destroyed, with altered copies substituted in their place. 

I had high-level information in Dallas that the original Zapruder film (from Zapruder's camera) was first obtained by H. L. Hunt before Life bought what they thought was the original. The FBI, the Secret Service, and the military allowed Hunt to either control the evidence or be used as the front for control of it by those using him. The indication is that Hunt's people obtained it and passed it on to the FBI who sent it to headquarters in Washington shortly after it was developed.

In view of the close relationship between the FBI's J. Edgar Hoover and Cartha DeLoach and Life wherein the FBI would and did plant completely false stories on that magazine, we might suppose that if the FBI had the film, and if the case was being faked, then they may have fed frames from the film to Life as needed to fulfill the emerging official story. And for this we have a witness. Erwin Schwartz, Zapruder's partner, is related by marriage to Richard Bartholomew, a researcher. Schwartz told Bartholomew that after the film was developed, Schwartz took either the original or a copy of the film to Hensley Field Naval Air Station the night of November 22, and it was flown to Washington about nine or 9:30 p.m. Actually, the time may have been a little later, as Schwartz has the work being finished at Kodak at this time—or the developing was done a bit earlier. This would have allowed for alteration in Washington at NPIC or somewhere else.

Schwartz told Richard Bartholomew what happened earlier that day just after the assassination. He ran over to the Dal-Tex Building where the offices of their company, Jennifer Juniors, were located—they had the entire fourth and fifth floors. Two policemen were standing in the elevator vestibule with shotguns when Schwartz got back to the office at about 2:00 p.m. As Lieutenant Day was removing the rifle from the TSBD, Schwartz walked past them going to his office, saw Zapruder, and asked him why the police were there. "I don't know. I told them to go get somebody in authority. I'm not giving that film to them," Zapruder replied. Then Forrest Sorrels, head of the Dallas Secret Service, arrived with a reporter (Harry McCormack) from the Dallas Morning News. Zapruder told them what he had seen. Sorrels said he would like a copy of the film,
and the reporter said that they could develop it at Channel 8, a local TV station.

Zapruder, Schwartz, McCormack, Sorrels, and the cops went to a police car, and with the siren going, drove to the TV station, where they were sent on to Kodak. There they watched the film developed through a glass partition. The film was developed about 2:45 P.M. One of the cops then called Sorrels, who had to leave because of the capture of Oswald, and told him "you can see everything."

Bartholomew says that they had told Sorrels they would go and get a copy made for him. To do that, Jamieson made them a negative which they had to take back to Kodak for developing. The first time any money was mentioned was when they got out of the car at Jamieson. "A guy came out of the shadows and said, 'I'd like to offer you two hundred dollars. I'm with the Dallas Morning News— for every still we use off of your film.'"

According to Schwartz, they watched the copy negatives being made at Jamieson and only three were made. "The original was still intact. It had never been split. It was still on 16 mm film." They returned to Kodak where the positives were made from the three copies. About twenty or thirty people saw the film projected there several times. The two partners ate food from machines while the developing was going on. The work was finished close to 9:00 or 9:30 P.M. Sorrels then called them and asked them to come to the jail to deliver a copy of the film to him. Later, Sorrels asked them to take the film to the Secret Service office. Sorrels had not seen the film; it was to be flown to Washington that Friday night from Hensley field.

That night Schwartz was offered $10,000 just to introduce reporters from the Saturday Evening Post to Zapruder. By early the following morning there were many media people at their offices, and offers for the film were already at $100,000. Zapruder introduced Richard Stolley of Life and said he was going to sell it to the magazine. An agreement was drawn up and signed…Stolley then left. "The agreement was that Schwartz would bring the film up to him the first part of the following week. He did not leave with the film in hand." The film continued to be shown to employees in Zapruder and Schwartz's offices off and on through that Saturday.

There is an unconfirmed story that a report of the Los Alamos Scientific Laboratory found that the Kodak symbols were missing from the original film. We do not know if the Review Board has released this HSCA report. If true, that would mean that what Life
or Henry and Abraham Zapruder thought was the original film, isn't.

On December 4, J. Edgar Hoover informed Lee Rankin of the Warren Commission that he was told beforehand that the FBI had "a copy" of the film. "The film being referred to was taken by Abraham Zapruder, who, after making a copy available to the FBI, sold the film to *Life* magazine... The Central Intelligence Agency has inquired if the film copy in possession of this Bureau can be loaned to that Agency solely for training purposes." This is, of course, one copy too many. Richard Stolley of *Life* wrote his boss, C. D. Jackson, on November 25 in his contract with Zapruder, that three copies were made, one copy going to *Life* with the original, and two copies going to the Secret Service—one of these sent to Washington. The Secret Service gave a copy to the FBI, but the evidence that I've gathered shows that more copies were made, and the film began to proliferate right from the start. There is better evidence for FBI possession of the original in a memo from Cartha DeLoach at the FBI to M. Mohr quoted later in this chapter.

The story is that the Dallas Secret Service was the source of the copy that went to Hoover and the FBI. Certainly the film or films Zapruder and Schwartz took to Hensley Field went to both NPIC and the FBI in Washington. The second Secret Service copy was probably sent along to the Washington Secret Service office, though we would hope in a separate plane. None of this explains how a copy, which he showed to many people over the next weeks, remained in Zapruder's hands.

The *official story* from Stolley is that he got the original film and copy on Saturday, the day after the assassination. For this and the rest of the known history, see this endnote. The Chicago *Life* office had it on Saturday. C. D. Jackson saw the copy of it in New York on Sunday and decided to buy it. He had to see it on Sunday, therefore. We might theorize that the *Life* sale was being set up without Zapruder knowing that they might already have the film. A copy might have been made that Zapruder did not know about and sent to *Life*, while quick alterations had already been made in Washington or Dallas.

Schwartz is solid that the film did not go to *Life* until Tuesday, which gave them almost no time to use the film for their November 22 issue. Zapruder was not present when Erwin Schwartz gave the film to Stolley. It is possible that there was a preliminary contract made on Saturday, November 23, and either with or without cash, the deal was struck and Zapruder let *Life* have the film then, firming it up with the Monday, November 25, contract. It just seems peculiar
to me that he would have given them the film without both the cash and a written agreement.

Schwartz also said that Jamieson made three negatives and no positives, so they had to return to Kodak to have copies made. He was with Zapruder throughout the processing and said that the film was shown to everyone present several times, and that half the screen was blank, as it was still in 16 mm.

Zapruder was directed to Dealey Plaza to make his film. He claimed that he did not want to do it or plan to do it, but that his wife and his secretary, Lillian Rogers, talked him into it. It sounds like he was used, like so many others. Schwartz said that Zapruder didn’t care that Kennedy was coming, though another story claims that he intended to film JFK, but it looked like it might rain, so he left the camera at home.

It is relevant to look at the connections of Erwin Schwartz and Abraham Zapruder, whose son worked for the Department of Justice. If we are to talk about alteration of this film, then the background of its owner is pertinent.

Zapruder’s partner, Schwartz, was tight with the Campisi brothers (owners of the Egyptian Lounge). These were the two Mafia dons who were the hands in Dallas of Carlos Marcello of New Orleans. Schwartz was also tight with Jack Ruby. They gambled together and went to the same clubs to gamble as did H. L. Hunt. Ruby and Schwartz had the same rabbi. Schwartz had a good knowledge of Ruby’s activities and history without having read any books on the JFK case. And Erwin Schwartz hung out at the Carousel Club, Ruby’s joint. It would seem probable, therefore, that Zapruder knew Ruby. A massive amount of investigation and research over the years has proven Ruby’s connections and involvement with the mob.

A source states that “meeting Erwin’s friends would make you feel like the casting director of Goodfellas.” Schwartz loved to play golf at La Costa, a major mob hangout on the West Coast in the past. The lawyers for both Zapruder and Schwartz were Sam Passman and Shannon Jones. Passman also represented the Campisis, and Jones represented the CIA and did quite a bit of work for them in Texas.

The contradictory and confusing chain of possession for the Zapruder film would seem to identify it with the other bogus stage props in the National Archives.

The evidence is fast developing that all this material is fake—faked by the conspirators who planned the murder of John Ken-
nedy. None of it was ad hoc, after the fact, because somebody was trying to prevent a war, but was faked in concordance with the plot to overthrow Kennedy and all he stood for.§

ALTERATIONS OF THE ZAPRUDER FILM

In my last two books, *High Treason 2* and *Killing the Truth*, I maintained that the large blob showing on President Kennedy’s face just after the fatal head shot is an impossibility, since moments later he was seen at Parkland Hospital and there was no damage whatsoever to his face. Some have offered various explanations for what we see in the film. Some people believe that the “blob” is simply the inside of a large flap of skin that has fallen down which reflects the sun. The problem with this is that no one at Parkland saw such a flap. It would have fallen down in the emergency room and been noticed. Dr. David Mantik became convinced during a visit with us to the National Archives to view the slides of the film on June 23, 1994, that the “blob” is an unnatural add-on to the film and not a flap of scalp hanging down over the face. It cannot come from the laceration reported by some witnesses at the autopsy because the President’s hair leading down to his right forehead is clearly visible above the “blob” and undamaged, until the frames appear at about 335 when there is no evidence at all of a head above the blob.

The film is simply altered to show an apparent shot from behind. They want us to think the damage is to the frontal part of his head, backed up by fake X-rays. The blob obliterates a shot from in front.

I ALSO WROTE THAT IN SOME OF THE FRAMES following the fatal head shot, the figures of Jacqueline and John Kennedy appeared to be painted in, and in some frames appear to be cutouts. In several

§ Frame-by-frame study of the Zapruder film for those with access to a CD-ROM computer system may best be accomplished by use of Medio Multimedia’s “JFK Assassination: A Visual Investigation,” available for $39.95 by calling 1-800-237-6623. The disk contains four films of the assassination, including the Zapruder, Nix, Hughes, and Muchmore films, and an overview film with other footage included. Each Zapruder frame is numbered and can be studied frame by frame and in slow motion. Unfortunately, the poor resolution of CD-ROM obscures or eliminates details that are of great importance, and other means of study must be employed from slides or the actual film copies. The CD-ROM is also available from the Last Hurrah Bookshop (see Bibliography).
He says of what the film shows, and he has, unoriginally, argued all along that the back of the head was blown up, "The hole itself is blackened across the back of the head." There is no hole on or across the back of the head that is visible in the clearest of copies, the slides made for the Commission from the original. First the background on him and on this.

After he completed his promotional tours for his High Trash 2 he phoned me. He told me he was making a documentary with someone in New York and was going to go to the Archives to study the film. He had not done that by the time he completed two books! He wanted to know what to look for. I told him he would not want to know that but he insisted. So I told him the story of how Shaneyfelt saw to it that the Commission did not publish the last nine frames it was to publish, as brought to light in Whitewash II. As my exposure of the damage to the original caused LIFE to react, that caused the Archives to react. I was invited in to see those nine frames. It was explained that they were not published only by accident. These were the original slides made by LIFE, not later-generation copies now held at the Archives. What I saw, beginning with frame 335, the one he quotes Shackelford as seeing on what is not there to be seen, is that the several frames after it show neither any hole nor any blood. Which is the fact. Shaneyfelt made black and white prints through frame 334 where he was to have done that through 343. What he eliminated in this is the turning of the President toward Jackie as he falls over her. For two frames the back of his head, the shirt collar and the jacket are quite clear. Not even a hair seems to be out of place. I think this was about 336-7. I have small prints of those frames.

So he went to the Archives about three weeks later and phoned to tell me he was glad I had told him because he wanted to know the truth and he saw it. But he also knows and believes that he never makes any mistake so naturally he did not see what he saw and said he saw and that is the beginning of his claim that I am some kind of agent and was through H.L. Hunt part of the conspiracy to kill. If he admitted the truth to himself he would be admitting to himself that all he has said and done is wrong and that he cannot do. Thus all who do not agree with him are his enemies, out to destroy him and his truth.

The original is clear and takes simply enormous enlargement. When I saw those unpublished frames they were projected onto a screen about five feet wide. This gets me to the impossibility of the toying with the film and having that invisible.

The original film is only a tiny bit more than a quarter of an inch in width. If it is enlarged on projection to where each frame is an inch wide, the area is magnified not four times but, if the film were for the sake of argument, also an inch high the area would be sixteen times larger, not four, and that begins with a quarter of an inch. When this is carried forward to five feet the area magnified is quite spectacularly large. I saw and did see individual hairs and no hole, no blood, on the head of the clothing.
As I also explained to him all alterations had to be on the original otherwise they could not be identical on the copies made from the original. This is what led him to his present concoction, that the original was altered.

As I also told him when the original is so tiny any alteration could not avoid being very obvious on projection or on any kind of enlargement. If there could be such micro-faking. It is that small an original and I saw it five feet wide, as he could have or did. When the tiniest scratch on the tiny original is enlarged as much as on projection to about five feet it would be, what is invisible on the original would be quite large and obvious on such projection.

None of this is included in what to this point I've read and I am confident he will make no mention of it. It ends his work and what he thinks is his reputation.
frames, the entire front half of the head is missing, leaving only a stub from the back of the neck and back of the head. Before this happens, but after the fatal head shot, it seemed clear that in some frames the back of the head is not just in shadow, but signs of the gaping open wound described by all witnesses in the back of the head have been painted out with black paint. Unknown to me, Fred Newcomb and Perry Adams had written extensively on the Zapruder film many years before my observations of the painted faces, and had said this: "Although splicing marks were undetectable about frame 313, it is likely that frames were removed and the remaining retouched. The appearance of 313 is vital to the health of the scenario. . . . To camouflage evidence of a shot from the front, the actual exit wound at the side of the head was covered with opaque." 18 A few frames in one of the sets of slides at the National Archives, such as 316 and 317, appear to show the margins of the hole. The hole itself is blackened across the back of the head. In the Life original slides at the Archives, that area is what might be called "reference black." It is so dark and unnatural-looking so that it is not shadow. "Above it, the hair sticks out toward the back—as we see from the side in frame 335. This appears in all sets of Zapruder frames, but the features are clearer in the Archives set," Martin Shackelford told me.

As for painted faces and figures in the fatal car (none of this is actually painted on the film itself), many have noted the apparent art effects after the fatal head shot, but not many have had the courage to talk about it in public. I found that lots of people from the Los Angeles area assumed or knew that the film was fake. They called it a product of "special effects." In other words, for more than thirty years people have been suspicious or disbelieving of this film, but almost no one dared say a word. Which could have been done much more effectively, especially because no one knew the film was real, when proper evidence could have been gathered in advance."

VERSFIGS OF THE ZAPRUDER FILM

There are several main sources of the film. Two versions are probably the primary public source. The most widely known and publicized is the Life magazine version, which officially was bought from Abraham Zapruder the day after the assassination. When this film "leaked" out on television to the public, it was sold back to Zapruder for one dollar, and the Zapruder family has collected money for its use ever since, though charging researchers only a nominal fee. Life also made slides of the frames from the film and donated them to various libraries and research institutions. The film was also shown in various educational films, such as "The Vietnam War," which used it for educational purposes. Finally, the film was the subject of various documentaries and television programs, which used it to illustrate various points about the assassination. The film is considered by many to be one of the most important pieces of evidence in the investigation of the assassination. It is still widely shown and studied today, and it continues to be a subject of much debate and controversy.
Doug Mizzer says the cleaned-up version was made for public consumption. He put it this way: “This is how good it can look. It’s the final version.” And, indeed, it appears to be not quite the same as the others. Even this has been changed in various versions.

The Secret Service version was loaned to the House Select Committee on Assassinations in 1976. There is a version known as the “Kurtis film” which is dark and gloomy and the colors nearly gone so that it almost appears to be a black-and-white film. It was first shown on national television on the Arts & Entertainment Cable Network by Bill Kurtis in 1992 in a show called *Who Killed JFK?: On the Trail of the Conspiracies*. The film has a message at the bottom of the TV screen saying that it was being shown “courtesy: House Assassinations Committee.” That it is from the HSCA may be in doubt because the program was produced in 1992. Where did he get the film? The Bill Kurtis video version is therefore not the actual film.

Films transferred to video for showing on TV are altered by machinery in order to fit the video format of thirty frames per second. Some frames may be taped twice and others combine fields from preceding and following frames. Why is the film so dark, and why would he show such a poor copy?

Unfortunately, this version stops at frame 316. The HSCA had a clear copy of the Secret Service version of the film, and it was shown on *In Search of Lee Harvey Oswald*. PBS broadcast the clear copy of the original film when it televed the HSCA’s hearings. Only for *NUTS Researcher* often use the terms “Life version” or “Secret Service version” to refer to the publicly shown films which are derivatives of these, often heavily altered for television, or for screening with a projector with a speed different from eighteen frames per second.

Frames that are missing from the *Life version* are in the Secret Service version and “if you’re trying to sync a real-time audio tape to the film, you don’t want a film with splices in it,” Doug Mizzer writes. The Kurtis version and many *Life versions* are reframed after the car passes the lamppost to Zapruder’s left. The Kurtis version
There is no such thing as "the Life version" or "the Secret Service version."

Those nuts who are so indispenisible in his nuttiness do not have access to the original, which is the only thing his Life version can refer to, and only at the Archives can they have access to the Secret Service copy that without any question at all was made the day of the assassination at Dallas Eastman Kodak. If differences are really detected they have to come from second hand uses of what he refers to. However, however, as I brought to like in Whiteman, those frames of the original that were destroyed by Life in Chicago do exist in the copies other than the sprocket hole material that is masked out on copying.
has the frames enlarged at the time of the head shot. Though there may be nothing sinister in this, Robert Groden did the reframing.

In the earliest bootleg copies of the film, as in the October 1964 *Life* copy, JFK is at the bottom of the frame in Z-313. This is how the original film looked. When Groden steadied it, he also raised the frame, as the bottom is cut off by the projector during projection, thus producing the black bar effect at the bottom of the frame. That is the quickest way to differentiate a copy of the original film from a copy of one of Groden's steadied versions.

Mizzer says, "In different documentaries, the film is enlarged differently."

In addition, there is the Dallas FBI field office Zapruder film now located in the National Archives, but little is known about it at this writing. One might ask that if the local FBI had to continue to return to see the film in Zapruder's office, then how did they obtain this copy? And how, if Zapruder did not retain a copy, as was publicly claimed after the sale to *Life*, was the FBI able to see a copy in his offices for some time after? And, as explained above, if a copy or the original went to FBI headquarters in Washington, what happened to that? What happened to H. L. Hunt's copy? Why won't the Hunt family discuss this?

David Lifton, a researcher, has both a 35mm copy, and another copy obtained from other early sources. Lifton's film, said to be uncommonly clear, is being used for research. His video of the film is the same as the HSCA version that was being sold by the Assassination Information Center in Dallas.

There were bootleg copies that appeared at the time *Life* provided the film to Jim Garrison for his prosecution of Clay Shaw, which were copied and given to Mark Lane, and many copies made from that and given to researchers. There was a copy provided to Robert Groden sometime after the assassination and shown on a Geraldo Rivera show on March 6 and 27, 1975, for the first public showing. Many have felt that these men were used to show the film because the original had been altered and proved the government's case more than it disproved it. The government's case is protected by a false film that has key events removed.

John Woods, II, author of an important work on the visual evidence in the case—*JFK Assassination Photographs*—wrote me that he learned that there is a "European" version of the film which has no halo around the head at the time of the head shot (Z-313), but he was unable to verify this. Many people feel that the "halo" around JFK's head for a brief frame was added on to the film. The halo appears in the Nix (N-395) film, and the Muchmore film (M-
In 1978, the documentary, In Search of Lee Harvey Oswald, was made as a syndicated program and sold to individual stations. Later, the Arts & Entertainment network bought the entire package. On it, Robert Groden showed an unspliced version of the Zapruder film. Where did he get it? He was a consultant to the HSCA at the time, and they were the only ones in official possession of an unspliced copy outside of the FBI and the Secret Service, unless one believes that the CIA, H. L. Hunt, or the military had it. The copy Groden showed on TV, otherwise uncut, started at frame 133, omitting the motorcycles seen in the beginning of the film, and had all the frames in it which were missing from the Life version at the point of the well-known splices where they claimed they "accidentally" broke the film. Some versions have oddities that may be mistakes made by the forgers at the point of those splices: At about frame 208, the Kurtis version shows a wall in the background across the street, overhead of the Stemmons Freeway sign which in one frame has completely different sets of holes in it, separate from each other, doubling the number of holes. This is not a double image but is instead a repetition of two different images out of register with each other. We got a good video print of this forger's mistake or stretch-framing artifact. Frame 208 of the Life version is where there is another major splice. We also see double images in that frame of Rosemary Willis, the motorcycle helmet visible above the limo, the edge of the Stemmons sign, the corner of the wall, and other features.

"The obvious indication is that the background overlays were not perfectly lined up when the frame was rephotographed. From this frame forward is also where the sign does the most noticeable jumping around. Again, this occurs at the second splice point in the Life copy that starts at frame 208." The "Jumping Sign" version is the Kurtis version of the film, "and the rest of the mistakes," as Doug Mizzer wrote in the same letter.

Mizzer proposes that some of the available versions of the film, incorporating stretch framing, composite frames, and other cinematic alterations, may in fact derive from early, clumsily forged versions that may have been shown to the official bodies while a better-looking, permanent version was prepared. Today these low-quality bootlegs still fool people. One of the early forgeries seems to have been shown on Dallas/Fort Worth television in 1991 and is now doing double duty as bootleg film.

The biggest single question we are faced with when talking about
alteration of the Zapruder film is: Wouldn't the other films and photographs contradict it? Only three other films were claimed to show the shooting: those of Nix, Muchmore, and Bronson. The Bronson film was taken from one block away on the left side of the car and well behind it, too far, even if the camera was in fact running, to record information of any value about the shooting. As I have written in previous books, Bronson, who was taking snapshots, denies having gotten his movie camera going until Jackie was on the trunk of the car, after the last shot.

As for Orville Nix, his daughter stated that he didn't get the film back from the FBI in the same condition as the one he gave them. This film was also taken from the left side of the car during the shooting, so that little can be learned about the wounds from it, except that it appears to show a piece of skull fragment flying from Kennedy's head and landing on the trunk. Mrs. Kennedy then crawled out to the trunk to try to retrieve it, but we don't actually see this in the Zapruder film, either.

The Muchmore film, also taken from the left side of the car, seems to have a painted-in head explosion corresponding to frame 313 of the Zapruder film and looking not even similar to the one we see in the Nix film. It is a different angle and occurs an instant apart. But one sees a grayish white (pink in the original film) matter rather than the bright red we see in the Life version. The point of view is from behind. The Secret Service/HSCA version of the Muchmore film is very poor. Both the Nix and Muchmore films are damaged, as is the Life Zapruder film. One wonders how they could have become so damaged, unless the splices and burns on them cover up mistakes. How could anyone handling them do such damage to this priceless historical and criminal evidence?

We see in these visual images as-yet-identified people filming the murder, and know nothing of their films. One of them, possibly Bronson, is near Nix. Then there is sixteen-year-old Tina Towner, who operated a movie camera while her father took slides, standing near the corner of Houston and Elm. One would be inclined to believe that there was another film around.

The final problem to mention here is the tampering with the film by other researchers who chose to change this vast historical treasure still more—in some way other than that of the original forgers. Whether "image steadying," optical enhancement, "rotoscoping," blowups, stretch framing, or other means of alteration, this would seem yet another crime against our history when the ultimate effect is to divorce the viewer and the public from whatever would have been the most real version of the film.
The entire concept of "rotscoping" and "enhancement" of the priceless evidence in this case by researchers should come under the greatest scrutiny because some of the best technical people in the nation tell me rotscoping, or rotoing as it is known, refers to animation. This may be a "researcher's" major Freudian slip of the tongue, since the technique used to alter the Zapruder film was in fact a form of animation.

"Rotoing is most commonly known from Disney films that combine live action and animation," a reader wrote me from Japan. "The live action film is enlarged to animation cell size and a cartoon drawing is prepared for insertion. This inset is the roto. The process can also be reversed to put live action into a cartoon."

Daryll Weatherly explains rotscoping: "The rotoscope device allows a piece of film to be projected through a camera lens onto a flat surface, so that the outlines of inserted artwork and/or mattes can be drawn. Later, the same camera, in the same position, rephotographs the art work. An animation camera is constrained to move along a single line, toward or away from the animation table, so the insert will appear in its proper place as long as the camera is the same vertical distance away for projection and rephotographing. The separate parts (unless the scene is all artwork) are then combined using an optical printer." 25

A good description of rotscoping is in Roy Madsen's book, Animated Film—Concepts, Methods, Uses. 27

Madsen describes the method: "When the filmmaker plans to combine cartoons or titles with live-action footage or to matte out images in live-action scenes, he often employs a technique called rotscoping. Using a rotoscope unit, he projects each frame of the live-action background scene from the camera onto the animation tabletop. He can thus make layouts of drawings which correspond precisely to each frame of the live-action footage." 27

Raymond Fielding, in The Technique of Special-Effects Cinematography, explains how rotscoping sometimes is used as an image steadying technique:

"There may sometimes be unavoidable occasions when valuable footage is rendered worthless because of accidental vibration or jiggling of the camera.... The technique involved is tedious and costly, since it usually requires that each frame be rotscoped onto
an alignment chart where changes in image position which are due to jiggling can be plotted from frame to frame. During final optical printing of the shot, the process camera’s lens is moved from frame to frame so as to reregister the image, thus evening out vibration in the shot. This operation usually requires that a slightly reduced section of the master positive image be enlarged; otherwise, the correcting movement of the process camera’s lens would cause it to photograph areas outside the frame.28

It may be that those who have misused the technical terms all of these years in many national and local public appearances were actors saying lines they did not even know the meaning of, and they were never exposed publicly. Only a few people familiar with filmmaking got their number.

Chuck Marler thinks that it is very easy to make a duplicate copy of the film that zooms in closer to the image, therefore cropping out the background. He believes this has been done in an effort to eliminate important references and visual clues. Although Zapruder testified “he got it all,” President Kennedy’s head between frames 273–328 is at the very bottom edge of the frame. By this close cropping, the foreground references of the two ladies who were standing next to the streetlight and the Newman family were just barely eliminated from the picture frame.29

“Image steadying” eliminated a certain amount of the data on the frame in order to keep it centered. That action may have served the conspirators well, because those frames where the film jerked—sometimes during a shot—contained intrinsic information showing whether or not it had been altered or moved from some other part of the film.

The “optical enhancements” of the film, or narrowing of the field of vision, eliminate a great deal of background information so that one cannot compare parts of the film to see its alteration. The “enhancement” thus is a perfect means for the conspirators to counteract the data presented in the published frames by the Warren Commission. It plays into their hands if it is not a deliberate intent to cover up.

THE RED MIST

There is a widespread belief among many who believe that the film was altered that the red mist we see in frames 313–14, when President Kennedy is struck in the head, is an enhancement painted in. I had felt it was an event from around frame 324, when we believe
Kennedy is struck in the head from in front, that was combined with frame 315 in a composite frame, but numerous others studying the film say it is merely retouched. Newcomb and Adams noted this a generation ago: "The exploding, bloody halo was manufactured on the film in the area around the President’s head in frame 313." The halo is only present for one frame in the current film. Shackelford says that two frames in the Muchmore film show the halo, though one of them is damaged.

"The halo, a cartoonlike, red-orange burst that nearly obscures the President’s head, not only confuses the features of the head but also distorts the actual and less dramatic wounding. Furthermore, the burst occurs for one frame only—an eighteenth of a second—and does not appear on the very next frame. The film should have shown the burst developing and decaying over a sequence of perhaps eighteen to thirty frames. For example, a film made of the effect of a rock hitting a window would require a number of frames to record the moment of impact, the spidering and splintering of the glass, then the shattering effect of the rock, and the outward showering movement of fragments, and their eventual descent to the ground." Perhaps a more reasonable period for decay of the halo burst is five to six frames. Dr. Luis Alvarez, a Nobel laureate in physics, filmed exploding skulls, and the effect took the equivalent of five to six frames at 18 fps to dissipate the bone and substitute head matter.

There is a major problem with the sets of slides in the National Archives. On separate trips to the Archives, one is liable to see different things in the different reference sets. There was a hole clearly visible behind Kennedy’s ear in one viewing of frames 316 and 317 at the Archives, for example, and it was not visible the next time. Daryll Weatherly prepared the following memo for this chapter concerning the problem:

I have a very clear recollection that in June 1994, you pointed out one of the Zapruder slides in the head-shot sequence which had visible brush strokes darkening the back of Kennedy’s head. This was during viewing of the reference set in the Archives, the one that comes in a carousel. As of January 6, 1995, there was no such frame in the reference set or in the original set. The back of the head was still unnaturally dark in these frames, but there were no brush strokes.

I have a clear recollection that in June 1994, frame 336 showed a bright object coming out of the back of Kennedy’s head. Doug Mizzer pointed it out to all four of us.

I don’t think it is in the reference set I just saw. I may have looked in the wrong place for it, but I think I looked at all the
head-shot frames and I'm pretty sure I would have spotted it if it
was there.

Both of our Archives notes (from June 1994 visit) say that 'a
'red shift' occurs in the slides right at 312. My notes say that 313
has 'red-orange grass.' The reference set of slides that I saw on
January 6, 1995, become gradually redder, but are not suddenly
red at 312. At no time are they red-orange like some of the slides
provided by Zapruder today, ostensibly from the Archives.

The change from green grass to red more than once in the slides
in the reference set in carousels at the National Archives and on
the film slides possessed by Robert Groden indicate this red shift
related to the slides in the Archives, though it is not present in
their 'reproductive set' or the original slides. All the Groden slides
are very red, as is the Assassination Information Bureau slide set
from the 1970s. From The only work by Life in front or it could have been used.

There is no sudden shift from green to red in the reference set
at the Archives. The shift toward red is gradual. At no point does
the whole picture get as red as those slides that one gets if one
orders slides from the Archives. This gradual shift to red (brown is
perhaps a better description) may occur over time as the color
wears out. The red grass is explained by saying that different film
stock was used for some of the slides. But why? In other versions
there is no red shift and the grass remains startlingly green.

Shackelford says that this may indicate that "the frames in the
Archives sets appear to have been assembled from copies made with
two different film stocks, one of which shifted over time." Weatherly
just thinks that the developing solution wore out and was changed
before the slides were finished.

JAMES ALTGENS'S MISTAKE AND WHAT IT MEANS

Ike Altgens, the Associated Press photographer who took the most
famous pictures of the assassination from a position on the left side
of the car somewhat ahead of it as it approached, wrote Doug Miz-
zer a rather extraordinary letter on November 21, 1994. He outlines
the kind of mistake that crept into the official record through haste
and inadvertence, and in the process, gives us new insight that has
bearing on the subjects in this chapter we wish to illuminate.

I admire you for trying to put a square peg in a round hole—
a procedure that epitomizes what the Warren investigators faced
in reaching a conclusion with their investigation of the JFK assassination. Witness testimony, at variance from one another, created a major challenge for the members in reaching a unified decision.

A great deal of reliance was placed on the Zapruder movie, yet the experts had difficulty reaching a decision on feet per second in order to plot critical timing sequence, a key to the number of shots and intervals in between them. There were as many versions of what took place, as there were witnesses that presented a very confused scenario.

The feet per second issue refers to the speed the camera was set at, an issue that must have been foremost in photographer Altgens's mind as he wrote the above—realizing the crucial importance of the time it took to fire, reload, and fire the alleged murder weapon. If the camera had been running at twenty-four frames per second, the shooting was too fast for one gun to have done what it was supposed to have done. According to an FBI report, the FBI said that the camera was running at twenty-four frames per second. Zapruder told the FBI that he had the camera fully wound and on maximum zoom lens. The camera was taken back from Bell & Howell, which had requested it for its archives, and restudied by the FBI for the Warren Commission and found to be running at 18.3 frames per second. Zapruder then testified to the Warren Commission that “they claimed they told me it was about two frames fast—instead of sixteen, it was eighteen frames, and they told me it was about two frames fast in the speed and they told me that the time between the two rapid shots, as I understand, that was determined—the length of time it took to the second one and that they were very fast and they claim it has proven it could be done by one man. You know there was indication there were two?" This discussion with Wesley Liebeler was terminated about one minute later. Shortly before, Zapruder fearlessly told them that one of the shooters was standing behind him.

Josiah Thompson found that the camera did not have a speed setting for twenty-four frames, but only for eighteen frames per second and forty-eight frames per second, which is slow motion. This assumes that Zapruder did not originally have a sound movie camera, which takes pictures at 24 frames per second. I find it very strange that Zapruder, who knew very little about cameras and had not had one before, would state, as the FBI implies, that he had the camera set for 24 frames when it was later found that a setting for 24 frames did not exist on his camera. Although the following may not flow from this discrepancy, the government’s scenario needed to speed things up, so they decided that Zapruder was mistaken and his
camera was running at 18 frames per second, which accelerates the limousine by some 30%, since it might have stopped or slowed to nothing at a key moment in the murder.

It is also possible that there were simply different versions of the camera, but that would have surfaced by now. Question: It seems awfully convenient for the government to change Zapruder's testimony. If they know so much, let the government explain where Zapruder could have even gotten the idea that the camera ran at 24 frames per second—if it was not written on the camera or in his instructions.

Shackelford suggests an explanation: "The statement that the film at 18 fps was 'two frames fast' derives from the fact that movie silent speed was originally 16 fps. That's the speed at which Chaplin's films, for example, were filmed and projected originally—one reason they seem to go a bit too fast on a Super 8 silent projector, which runs at 18 fps, and definitely too fast at sound speed of 24 fps."

James Altgens wrote:

I am guilty of making an error in my deposition because I said that I was thirty feet from the President's limo when I made the picture showing the President after he received the first shot. I had turned my lens to infinity (my 105mm) which would be sixty feet. The other two lenses that I had in my pocket (a 50mm, and 28mm) have infinity at thirty feet. I called Mr. Liebeler's office the next day to correct that part of my deposition, but he had already departed for Washington. While Trask indicates in his report that I made an error, and the distance was sixty feet as opposed to thirty feet, he indicated this was his assumption, but I had already informed him that the distance should have been sixty, not thirty, as stated in my testimony.

As for my position of being alongside the limo at the time the fatal shot was fired, I believe we are dealing in inches. Realizing that the limo was constantly moving, with airborne fragments coming my way, I still maintain that those fragments landed at my feet. And, the reflex of JFK's head—back then forward—as claimed in the Zapruder film, I did not see the backward movement. When first told about it, I figured that it was an optical illusion; yet, in talking with some wild-game hunters, they have convinced me that upon first impact, the body moves opposite of the impact, then moves in the direction of the bullet. At the time JFK got the fatal blow to the back of his head, I was officially fifteen feet from the car—the scale on my camera showed that footage—a distance for which I had already prefocused.
"The frustrating part is that most of my previous work is meaningless now, because I've been analyzing what amounts to a cartoon."  

Extensive study by Doug Mizzer, a researcher in Baltimore, of the various films in the case indicate that there was a second shot to the head at frame 324 of the Zapruder film, a half second after the first head shot from behind. The conspirators evidently did not detect evidence in the materials that might contradict their official story, or care about possible mistakes in their hasty and sometimes sloppy forgeries, since they controlled the main levers of power in the nation as a result of their coup.  

Mizzer has shown us clear indication in the film that there was a shot at that frame from in front, and in the next frame, 325, apparent head matter falls to the trunk of the car just behind the seat where Jackie is sitting. The film appears to show considerably more damage to the head after frame 324 than after frame 313, when the first shot hits. Not exactly simultaneous, but close to it.  

Interestingly, he spotted the head matter on the trunk of the car in the basic *Life* magazine copy of the Zapruder film that has been out there for nearly twenty years. No one ever noticed it before. These frames, so far, have not been shown in the popularized Bill Kurtis (Arts & Entertainment cable TV) version of the film, which ends a few frames after the first head shot, at frame 316.  

Mizzer writes: "The shot originates from in front of the limousine and is the shot responsible for producing the hole in the rear of JFK's head." Martin Shackelford and I saw this in the National Archives version, putting the lie to the autopsy photographs. One good photograph from those frames will expose the forgery of the official back-of-the-head autopsy photographs, which show intact scalp in the back.  

Frame 326 shows a large blob of head matter on the trunk in the same position, and the material seen in the preceding frame has moved toward the rear. Frame 327 shows the blob and other head material moving farther toward the rear, and still farther in the following frame, 328.  

Mizzer has correlated what he sees happening in frame 324 with the Nix film, which shows substantial new damage to the head about that time, following the first head shot, as seen by the camera on the opposite side (the left side) of the street.  

"The impact of the second shot comes approximately a half sec-
and after the impact of the first shot. This means that they were almost simultaneous and is consistent with most of the earwitness testimony, especially that of the Secret Service agents riding directly behind JFK's limo. The majority of the agents testified that the last two shots were back to back or on top of one another."

Mizzer points out that "the first shot at frame 313 causes a shower of blood and brain effusion to be propelled forward from the right side of JFK's head toward Governor Connally. The physical evidence is that motorcycle officer Bobbie Hargis, who is riding behind and to the left of the limo, is struck with blood and brain effusion with such force that he thinks he was hit by the bullet." Billy Harper, a student, found a piece of skull bone on the grass to the left and behind where the car was during the head shot, and Mrs. Kennedy crawls out on the trunk to retrieve a piece of skull or brain. "The problem is," Mizzer writes, "the head shot at Z 313 could not have caused all of these conflicting actions!" He believes that a whitish-pink area seen in precisely the same spot described as missing both at the autopsy and in Dallas can be seen on the frames surrounding 367 of the film, and that the hole is clearly there. Unfortunately, it's not as clear as we would hope.

Mizzer's examination of the trunk area concludes that it is clean of any blood and brain effusion from Z 313 to Z 324. "In frame 324, Mrs. Kennedy has her right hand on the top left side of JFK's head. It is barely noticeable in the Z frame, but is easily confirmed by examining the same frame from the Nix film. In frame 325, her hand has started to rapidly move upward and back. In the following several frames her hand continues its backward movement until it is well behind JFK's head. This rapid hand movement is an involuntary reaction to the impact of the second head shot. The impact of the shot throws her hand up in the air and propels it backward." And then we see brain effusion on the trunk. The first piece falls off the trunk, and the second "is the piece Mrs. Kennedy crawls out on the trunk to retrieve."

"After the rapid backward movement of Jackie's hand, she regains control and places her right hand on the lower right rear of her husband's head. This is just below where the hole in the head should be. Her hand is in this position for several frames and blood and brain effusion can be seen on top of her white glove. This effusion is also on JFK's right shoulder, next to Jackie's hand, and in the following frames can be seen on his right arm. The placement of her hand on the back of JFK's head is also consistent with her Warren Commission testimony that she tried to hold his hair on."
Mizzer feels that none of the brain effusion is visible prior to frame 324 and "therefore could not have been caused by the head shot at 313. Absolutely crazy!"

"JFK's movements after frame 324 are also indicative of being struck by a second shot. In the frames following 324, his back moves away from the back of the seat and he starts falling toward Jackie. His body goes limp and as soon as Jackie takes her hand away from the back of his head, he falls over onto her lap, as she crawls onto the trunk... After 324, he goes limp, which would be consistent with the second shot removing the right rear of his brain."

Mizzer captions this as follows: "Notice the plotted point at Z 324, you'll see that it has veered off to the right of the line drawn through the rest of the frames. To me, this is an indication that something out of the ordinary has just happened. The movement that takes place from 323 forward to 329 is actually more rapid than the backward movement that starts after 313. From 313 to 321 when the President's shoulders strike the seat, his head has moved a distance of eight and a half inches in eight frames. From 323 to 329, the sideways head movement travels a distance of eight inches in only six frames."

MIZER points out that there appears to be a major discrepancy between the Zapruder and Nix films with regard to Clint Hill's actions. Hill testified that he grabbed Mrs. Kennedy and "put her back in the back seat..." This is what our study group saw in the Nix film, which was taken from the opposite side of the street from the Zapruder film. Nix was across Elm and more to the rear of the car than Zapruder. Hill is between Nix's camera and Jackie. He gets both feet on the step on the back of the limousine and moves forward so that he puts one hand on each of Mrs. Kennedy's shoulders. At one point he appears actually to be hugging her head and shoulders as he pushes her back into the seat. What I and a number of my colleagues see is not foreshortening from that angle that might make Hill and Jackie appear closer together than they are.

But the Zapruder film, taken from nearly a side angle, shows that Hill didn't reach her until she was back in the seat. I think this is good evidence of alteration because in the other film, Hill clearly does put his arms around Jackie's shoulders, just as he testified.

In the Zapruder film, he barely touches Mrs. Kennedy, with his right hand on hers, if at all. She backs up into the seat without his help. At this point a sprig from a bush obscures bits of the picture,
312—First shot impacts the rear of the head at the bottom of the hairline. (Entrance wound reported by autopsy doctors)

313—Second shot impacts above and to the right of the ear. Bullet does not exit, but is probably responsible for opening flap behind ear.

324—Third shot impacts behind right ear and blows out the lower rear of the head. Notice that the point plotted at 324 does not follow the curve.
and our attention has been directed away from the actions of Hill and Jacqueline by entrepreneurs (or propagandists) of the film to what was claimed to be a gunman in the bush.

Is it possible that Zapruder was a plant? I think the masterminds that planned this wanted to document the assassination on film so they could alter it, if need be, to support their story. It just seems too convenient, otherwise. If they could control the autopsy photos and X-rays, getting someone to film the assassination would be a piece of cake.  

Some researchers are puzzled by the fact that when the limo passes behind the lamppost, first the governor and then the President can be seen through the lamppost. (This is in the Kurtis A&E film.) “The reason we have that strange phenomenon,” Weatherly says of seeing through the lamppost, “is that the film was stretch-framed by taking parts of one frame and combining it with parts of another to make a slow-motion film. We don’t see this in the slides in the Archives because this is a technique for creating slow-motion film.”

Put it this way. If you take a film that runs at 18 fps and transfer it to, say, film that runs at 24 fps, you have to show more frames per second. Six new frames per second have to be made or created. This is done either by repeating a frame once, or creating a new picture from parts of two frames. The extra frames are usually composites of several frames, which helps “fool” the eye into seeing continuous motion when the film is run.

In the frames 313–316 in the Kurtis version, there is an additional frame in between each frame. Again, this is stretch framing. If we try to study this film on our television set by stopping action and moving the film forward one frame at a time, just about every other frame will have been invented in order to make the original film slow enough to be compatible with the 30 fps format of television.

It is reasonable that the FBI would have possession of primary evidence in the crime (or any crime they investigate), and in this case, the original film. They had possession of the film as indicated in an internal FBI memo dated November 23, 1963. The memo said that Gordon Shanklin, the agent in charge of the Dallas field office, “stated he did not believe that the film would be of any evidentiary value; however, he first had to take a look at the film to determine this factor.” Cartha DeLoach said in the same memo that “this matter would have to be treated strictly as evidence and later on a determination would be made as to whether the film would be given back to Zapruder or not.”

* * *
SOME OF US, like Mizzer, want to know "why the film has to be fine-tuned in the first place?" and "why does the limousine jump around so much from frame to frame in the so-called original? Why are the frames themselves so uneven in continuity? Why did the forgers make the splice for the missing frames so noticeable? Why did they enhance the head explosion at 313? Why, because it makes it that much harder to prove another splice was done or that another head shot took place. Unless you find another obvious splice point or head explosion, nobody's going to believe you! We all know that there wasn't any massive damage to the right forehead, but sure enough when the Zappruder film became public, it shows exactly what Zapruder stated on Dallas TV. The fix is in from the beginning!" Shackelford thinks that the film jumps around due to film movement within the camera's transport mechanism, not unusual in 8mm cameras. The effect is increased by holding the camera in one's hands, rather than mounting it on a tripod.

Mizzer discovered that in one version of the Nix film there is a large piece of blood-tinged skull or brain leaving the rear of the President's head. "In another color enlargement of this same frame from the A&E documentary, The Men Who Killed Kennedy, this piece of skull is not present!" It would appear that the A&E copy of the film was altered. "In Z frame 326," Mizzer wrote me, "and the identical frame from the Nix film, this large piece of brain and skull can now clearly be seen on the trunk of the limousine behind Jackie. The large piece only stays on the trunk for one frame in each film, but take note that it's the same frame in each film. Also remember that the motorcycle officer is struck by this debris and that AP photographer Ike Altgens commented that debris fell at his feet." This means that there was a shot from in front, and it hit Kennedy quite a bit farther down the street.

Orville Nix's original film disappeared in 1978 after it was returned to UPI by the HSCA. Excellent copies of it were shown ever since Wolper's 1964 Four Days in November, the 1973 Executive Action, and the 1978 Anthony Summers documentary.

OTHER INDICATIONS OF ALTERATION

There are repeated examples of good testimony describing things which are not now seen in the Zappruder film, giving further indication that the film has been substantially changed as time passed. For instance, Roy Kellerman described to the Warren Commission...
seeing Kennedy reach back with his left hand behind him for a point on the back of his right shoulder, where we are told he received a bullet. 46

The first time Dan Rather saw the Zapruder film, he said that the head "went forward with considerable violence" when he was shot. 47 Later on he saw the film again and corrected himself, saying that he made an honest mistake and that the film barely showed Kennedy moving forward: "At the risk of sounding too defensive, I challenge anyone to watch for the first time a twenty-two-second film of devastating impact, run several blocks, then describe what they had seen in its entirety, without notes. Perhaps someone can do it better than I did that day. I only know that I did it as well and as honestly as I could under the conditions. . . . Regrettably, it was not without error, in terms of what was unsaid about the movement of the President's head. . . . It is gruesome even now, and always will be, to talk about this scene, but the single most dramatic piece of the film is the part where the President's head lurches slightly forward, then explodes backward. I described the forward motion of his head. I failed to mention the violent, backward reaction. This was, as some assassination buffs now argue, a major omission. But certainly not deliberate." 48

I no longer think Rather made a mistake when he reported what he first observed. There was a violent movement of the head forward, lasting for a number of frames. We now see the forward movement only for the space of one frame in an eighteenth of a second, and the movement has been measured to be only two and a half inches. Nevertheless, it is worth noting the opinion of James W. Altgens: "According to KDFW-TV News director Eddie Barker (a CBS affiliate), he says that Rather (then a correspondent for CBS), gave out false information to the network about the assassination because in his haste to get reports from the station, he gave incorrect information to CBS. After being questioned by Walter Cronkite, he returned to the station for more correct news reports, then called in a correction to his earlier report. It seems Rather did not see the entire Zapruder film because he was anxious to make a report to the network. Barker was not pleased at all with the way Rather used and scavenged their KDFW-TV news office. Evidently, that episode did not deter him from becoming the CBS news anchor." 49

Perhaps Rather simply made a mistake, as he said, but I'm not sure.

Why would the forgers remove the violent forward head movement? Because they had a film showing two major and separate
shots to the head almost a second apart from different directions, and had to eliminate one of them. Later on, it was said that the action of a shot from the rear would create a "jet effect," the dynamics of which would draw the head back toward the shot. It would also be claimed that the acceleration of the car drew the head back, knowing that the driver would step on it. The fact is that a shot came from behind and drove the head violently forward, and either before or afterward another shot came from the left front and drove it violently backward. The forgers compressed the two shots into one.

The backward head motion is not as powerful a piece of evidence as many say for a shot from in front. David Mantik suggests the following: Suppose that the film showed much more powerful evidence of a head shot from in front, such as blood, bone, and brain matter flying out of the back of the head and that the head goes backward in the direction of this effusion. If the forgers removed the worst frames from that sequence, then the backward motion would be much faster. They could not remove the whole thing, so they just took out the worst, and left us with a fast backward motion.

The forgers eliminated most of the evidence of the first head shot except for the two-and-one-half-inch forward movement which they evidently did not notice in their haste, and compressed the action, aligning the bottom half of each frame with new and stretched frames showing the car moving along the street and grass and people going by in the background.

Dan Rather said a lot more. The issue that is avoided in his "mistaken interpretation" of the film above is that he is either a far worse reporter than we want to think, or he saw an entirely different film. Taken together with the extensive eyewitness information that the car stopped during the shooting, as well as many other events that are no longer with us in the film, this nation has to start looking at this film in new ways.

After the President was first shot, Dan Rather narrated what he saw on the film the next day: "Governor Connally, whose coat button was open, turned in such a way to extend his right hand out towards the President, and the Governor seemed to have a look on his face that might say, 'what is it? What happened?' And as he turned he exposed his entire shirt front and chest because his coat was unbuttoned—at that moment a shot very clearly hit that part of the Governor."56 We only see Connally's head during this time, as the rest of him is obscured by the highway sign.51

Newcomb and Adams wrote, "More evidence of tampering is indicated with the framing of the pictures, especially between frames..."
280–300. There, the heads of both the President and Connally scarcely appear, and almost disappear from view. This means that the original film was probably refilmed, and reframed, in such a manner as to remove certain material just below their heads.

"The possibility exists that the original Zapruder film was refilmed on an optical printer. Modern cinematography laboratories are equipped with optical printing machines that can generate a new negative without the 'errors' of the original. Optical printers can insert new frames, skip frames, resize the images, along with other creative illusions. One hour on the optical printer could eliminate the Connally hit." In consideration of the rather gross questions with regard to the present Bronson film's authenticity, as well as those proofs of forgery of the autopsy photographs and X-rays, one can presume, at this point, that the Zapruder film must be fake.

Connally is turned around looking at Kennedy when the car is behind the lamppost to Zapruder's left. It is quite possible then that Connally was hit with a shot from in front of the car to its left, from the storm drain on the bridge facing the car, and this bullet hit him in the back and came out his chest.

Motorcycle policeman Douglas L. Jackson, riding on the right side behind the limousine, saw Connally get hit: "Mr. Connally was looking back toward me. And about that time then the second shot went off. That's the point when I knew that somebody was shooting at them because that was the time he [Connally] got hit—because he jerked. I was looking directly at him . . . he was looking . . . kind of back toward me and . . . he just kind of flinched." So much of the description of the film that we have heard all these years has been a massive organized propaganda effort to cover up for the mistakes in the film, directing attention at other things. It is easy for critics to say that Connally was hit ten frames after Kennedy was, or a split second later, and so there must be a conspiracy, when there is no way to prove that he was hit either with the same bullet that hit Kennedy or one just afterward, as above. When this has been said about Connally did not fire more than one bullet?

The early team of researchers, Fred Newcomb and Perry Adams, nearly decoded the entire forgery of the film. Their research and insight into the faking of the film was extensive—and detailed in a book that was never published: Murder From Within. It appears that they were taken over and their landmark research into the film distorted with entirely outlandish ideas. Newcomb and Adams were
basically hurled aside—bitterly, it would seem—and forgotten. I re-
terrupt some of their ideas in this chapter, in hopes that it will give
leads to those now working on the fakery of the film.

Newcomb and Adams continued in the unpublished manuscript
with a description of the film. “Most available copies, when viewed
on a screen as a movie, are slightly jerky, especially in the movement
of the limousine. Perhaps the maximum number of cuts was made,
the greatest number of frames removed, without making it obvious
to the casual viewer.

“Certain items could not be altered, such as the President’s head
and body snapping backward, without elaborate artwork. But, of
those who have seen the film, the cuts are overcome by the way in
which people see the movie. The viewer’s focus is usually on the
President, not on the other people in the limousine.”36 Here, note
that many researchers have expressed the wish that the so-called
“enhancements” of the film should not focus on the President’s
head for just this reason.

“Some of the action depicted on the film that was difficult to
explain had to be eliminated. First, the limousine initially appears
on available copies some forty feet down from the top of the street:
it literally leaps into view. Yet, Zapruder stated that he filmed the
limousine as it turned onto Elm Street from Houston Street.36 The
copy that CBS reporter Dan Rather saw two days after the assassina-
tion apparently had the turn on it because Rather described it.37
The first frames deleted (155-56) probably showed the decoy shot
being fired. . . . Cuts between frames 207-12 likely relate to two
areas: reaction to the decoy (first) shot, and the second (throat)
shot.

“Between frames 207-12, the President seems to swing his head
very quickly to his left as if in reaction to the decoy shot. His action
sharply contrasts with the lack of reaction by those agents in the
front seat of the President’s limousine. The President’s reaction to
the second shot, which hit him in the throat, is missing. Zapruder
testified, ‘. . . I heard the first shot and I saw the President lean
over and grab himself like this [holding his left chest area].’38 We
no longer see this. Dan Rather said that ‘the President lurched
forward just a bit, it was obvious he had been hit in the movie.’ ”39
Interestingly, the Commission failed to print the frames missing
from Life’s version of the film, which had lost the frames 208-11,
covered by a splice of 207 to 212. From un

Newcomb and Adams end their chapter on the Zapruder film
with a discussion of “altering time.”40 Who needs this? Why?
IT IS NOT CLEAR JUST WHERE Zapruder started filming, or if he stopped the camera after the lead motorcycles passed by, as we see in the present film. Many think that frames have been removed between the first sequence of the lead motorcycles and frame 133 when we first see the limousine. It is possible that Kennedy was shot first once or twice with a poison dart or missile just after the car turned the corner onto Elm Street, and this had to be removed. Zapruder does not speak of stopping the camera.

What he told the Commission about the camera’s speed is of vast importance to the whole issue of the film’s authenticity. The FBI came to retrieve his movie camera, a Bell & Howell®. The Bell & Howell camera did not run at a uniform speed, simply because it was wound up with a spring and unwound at a variable speed. This alone shoots holes in the notion of the film as a “time clock of the assassination.” Associated Press photographer James Altgens, who photographed the assassination as it was happening, wrote Doug Mizzer the following: “I believe that in order for you to plot events as they happened, you must know the feet per second that Zapruder’s film was taken. The speed of that camera is variable depending on its winding. This is a camera designed mainly for personal use, yet it recorded the only full sequence of the assassination, becoming a very valuable instrument. Since the speed is questionable, you can readily see many questions about when the sequence of events took place.”

NEWCOMB AND ADAMS are convinced that some Secret Service agents shot at Kennedy from two directions or more. Their analysis is seriously impaired by the fantastic assertion that the driver William Greer shot both Kennedy and Governor Connally. This distracts attention from their massive research into whether someone near the limousine (not necessarily in it) fired a gun, and whether, at any point, the limousine stopped. One gets the idea that if agents really were involved in the shooting, their immediate control over the Zapruder film (through Forrest Sorrels), Marina Oswald, and other matters in this case tells us a lot. But more important is the possibility that Howard Donahue’s theory of a Secret Service man accidentally shooting Kennedy, unsupported by any eyewitness testimony or visual evidence, was one more straw issue raised for the purpose of knocking down the real facts.

“The alterations after the fatal shot probably were concerned with eliminating the limousine stop and the rush by Secret Service agents upon it. Indeed, the Secret Service made an effort ‘. . . to
Where the limousine first appears in the Zapruder film, at frame 133.
ascertain whether any [movie news] film could be found showing special agents on the ground alongside the presidential automobile at any point along the parade route."

There was extensive testimony that the shots came from either close to the car or in the car. At the time, some said the shots came from Secret Service men either in the car or close to it. "Photographer Hugh Betzner said that he "saw what looked like a firecracker going off in the President's car.""

Could anything like this have happened? Is there such a massive cover-up going on in this case that no one can even conceive of as thinkable the whole story of the great force that was used that terrible day in the ambush? That men shot Kennedy from alongside the street with poison fléchettes to freeze him in place, that a timed grenade was used under the car, that the car actually stopped during the shooting so that the long range snipers even two blocks away would not miss? Before dismissing such ideas as absurd, read the testimony in the following pages, and keep in mind that it comes mostly from sources that have been public for decades. The point is, researchers and critics for all of these years had us focused on some of the evidence in the case, distracting us from so much other evidence that the limousine stopped and that the shots occurred not at all where we were told they happened. And who has the time to find it all in the record?"

Betzner said that he saw what "looked like a nickel revolver in someone's hand in the President's car or somewhere immediately around his car." (This was probably sunlight glinting off the microphone in Kellerman's hand.) Even Associated Press photographer James Altgens said that shot came from "the left side of the car... if it were a pistol, it would have to be fired at close range for any degree of accuracy." Some of the Secret Service men did describe it as a pistol shot. A man (George A. Davis) looking down from the overpass into the car before it passed beneath, said, "he saw guns in the hands of the Secret Service agents with President Kennedy, saw President Kennedy slumped forward..." This was probably agent George W. Hickey of the follow-up car. The Zapruder film shows very clearly that the two agents in the front seat of the limo did not have guns in their hands. We see Kellerman talking on the radio, and that is about it. But what of Greer's early statement that it was he who talked on the radio—a statement he retracted.

"Well, the way it sounded like, it came from the, I would say from right there in the car," Austin L. Miller told the Warren Commission. Ralph Yarborough, the former Marine and the United
States senator from Texas, was three cars back from the limousine and insisted that there was gun smoke in the street. He said it clung to the car all the way to Parkland Hospital. This would seem terribly unlikely were it not for all the other witnesses who smelled gunpowder in the street. The street is not on the Knoll, nor could it come from the sixth-floor window, where no one smelled any smoke two minutes later when they got up there (Deputy Sheriff Luke Mooney was among them). They would have had to smell gun smoke had a rifle been fired. Billy Martin, another motorcycle policeman with the car, said that "you could smell the gunpowder...you knew he wasn't far away. When you're that close you can smell the powder burning why you—you've got to be pretty close to them...you could smell the gunpowder...right there in the street." Some of the other witnesses to the strong smell of gunpowder included the mayor's wife, Mrs. Elizabeth Cabell, who said that she was "acutely aware of the odor of gunpowder." Congressman Ray Roberts, sitting next to her, had smelled it also. Photographer Tom Dillard had smelled it. He "very definitely smelled gunpowder when the cars moved up at the corner [of Elm and Houston streets]." Virginia Rackley, Dallas police officer Joe M. Smith, and police officer Earle Brown smelled it. The Chicago Tribune put it this way that afternoon: "Seconds later the cavalcade was gone. The area still reeked with the smell of gunpowder." It's highly unlikely the smell came down from the window.

The film must have been changed because there were two strong head movements in opposite directions from two head shots a second or so apart, one from in back and one from in front. The two sequences were combined into one deadly visualization on the film in composite frames, and they decided to stick with the backward movement because of both its existence on other films out of the control of the conspirators and the difficulty of faking so many frames so quickly. The forward movement which Rather saw was simply excised. I.e. I reported it in 1966.

Abraham Zapruder described it in his Warren Commission testimony to Wesley Liebeler: "Tell us what happened as you took these pictures."

"Well, as the car came in line almost, I believe it was almost in line, I was standing up here and I was shooting through a telephoto lens, which is a zoom lens, and as it reached about—I imagined it was around here—I heard the first shot and I saw the President
lean over and grab himself like this [holds his left chest area]." Zapruder cried when he testified to this. There is no background in the film other than green grass at the time of the fatal head shot. Presumably, the zoom lens removed the rest of the city close by.

Chester Breneman, one of the surveyors of Dealey Plaza working from Life's slides made from the Zapruder film frames, said that the numbers of the frames were changed, and he described things in the frames that are no longer there. He told reporters that on November 25, 1963, he had still photos made from all frames of the Zapruder film by Life magazine and they showed "large blobs of blood and brain matter flying from Kennedy's head to the rear of the car." We don't see this anymore.

Dr. Pierre Finck described what the film showed in his report to General Blumberg: "I saw the movie several times, at eighteen frames per second and at slow motion. I also saw the 35 millimeter color lantern slides made from this movie, frame by frame. The movie and the slides show the President slumping forward after being hit in the back. Then it seems that Governor Connally has a spastic expression on his face, as he has been hit. His thigh is not visible and there is no evidence that blood appeared on his injured right wrist. Then came the shot through Kennedy's head." This is confirmed by Daryll Weatherly's examination of frames 242-78 in the National Archives, that there is no definitive evidence of blood on the wrist.

The film suggests that it was reframed after the sign, around frames 285-90, when we only see Connally's head, and not his chest during a time when he is turned halfway around and looking directly at Kennedy, long after he was supposed to have been shot at frame 235, at the latest. Again, Dan Rather saw a version of this film that showed Connally getting hit in the chest, perhaps at just that point.

Other versions of the film switch to blown-up frames showing only JFK and Jackie just after the car emerges from behind the sign, so that most background data is eliminated. The continual mixing of the different versions of the film on national television and in other presentations ultimately makes it impossible to know just what it is that we are seeing. In time, many more versions of the film can be expected to proliferate. In some of the same obviously modified (enhanced?) versions of the film, the Stemmons Freeway sign jumps around wildly and changes shape from frame to frame.

After the car passes the last lamppost before the head shot, during the key frames leading up to the head shot, the film starts changing and is reframed. The whole film is blown up at that point.
The Hoax of the Century

The blurs in the film are very pronounced, and they seem to be superimposed frames to make double images. This creates the illusion of movement, and fills in for missing frames.

For years, so much of the research on the film was limited to one or another of these wildly conflicting versions, and so misled countless people and produced very deficient or incompetent interpretations of what the film showed.

THE STOPPED LIMOUSINE

"For a chaotic moment, the motorcade ground to an uncertain halt." But the Newsweek writer was not a witness.

Some events described that day in Dealey Plaza during the shooting are no longer seen in the film. Quite a few witnesses insisted that the limousine stopped altogether during the shooting. Chuck Marler, a researcher in Riverside, California, studied the issue of the film independently of our team, and his publication of an article in The Fourth Decade seemed to be the first real notice in thirty years by someone in print in a research journal—outside of the assault I launched on the film in two of my previous books—that the question of the Zapruder film's authenticity was fair game.

But is there a confusion of the motorcade itself, versus the limousine stopping? Only a close analysis of each statement in the evidence might clarify it. Martin Shackelford writes, "The motorcade came to a halt in the confusion as the limousine sped off, then proceeded rather raggedly, as the films and photos show." But there is evidence that the limousine slowed nearly to a stop during the shooting. The films don't show this. It can't but analyses seem confused.

Penn Jones was the first to try to make an issue of the stopping of the limousine, and Marler gives this listing of witnesses: Dallas police officer Earle Brown on the railroad bridge over Stemmons freeway: "After it made the turn and when the shots were fired, it stopped." Officer James Chaney and others told Officer Marion Baker that "after the first shot rang out, the car stopped completely, pulled to the left and stopped . . . Mr. Truly was standing out there, he said it stopped. Several officers said it stopped completely."

Corroborating this was the supervisor of the Texas School Book Depository. Roy Truly said: "I saw the President's car swerve to the left and stop somewhere down this area." Chaney was recorded saying more to a radio reporter at Parkland Hospital shortly after the assassination: "The first shot we thought
was a motorcycle back-fire and then I looked to my left and saw President Kennedy looking back over his shoulder and when the second struck him in the face, then we knew someone was shooting at the President.

"When you saw the bullet hit him, what did you do?"

"He slumped forward in the car, he fell forward in the seat."

"And Mrs. Kennedy did what?"

"I don't know, when I'd seen it, he was hit, well I went ahead to tell Chief Curry's group there that he had been hit and we took him on to the hospital."

Senator Ralph Yarborough told the Warren Commission in an affidavit that "when the noise of the shot was heard, the motorcade slowed to what seemed to me a complete stop... after the third shot was fired, but only after the third shot, the cavalcade speeded up."

Mrs. Earle Cabell, the wife of the mayor of Dallas, told the Warren Commission that "she was aware the motorcade stopped dead still. There was no question about that."

James Simmons, standing on the bridge overlooking the car, said the limousine "stopped, or almost stopped," prior to the fatal shot. Simmons worked for the railroad and was standing on the bridge in a perfect place to see what was happening over on Elm Street as the limousine approached him directly. He testified at the trial of Clay Shaw in New Orleans, February 15, 1969, and was asked "Then did the car speed up?"

"Yes, after they got the motorcycle policemen out of the way."

One of the motorcycle policemen nearest the car, Bobby Hargis, said, "I felt blood hit me in the face and the presidential car stopped almost immediately after that."

Governor John Connally said: "... then, after the third shot, the next thing that occurred, I was conscious the Secret Service man, of course, the chauffeur, had, ah, had pulled out of line..."

Officer Billy Martin said the car stopped "just for a moment."

Martin was on the motorcycle next to Hargis. Officer Douglas L. Jackson said "that car just all but stopped... just a moment..."

Officer Marrion L. Baker said that the other police told him the limousine stopped completely. Joe H. Rich, a Texas highway patrolman driving Vice President Lyndon Johnson's follow-up car, said that "the motorcade came to a stop momentarily."

Robert Baskin, one of the reporters in the motorcade, said "the motorcade ground to a halt."

UPI's book Four Days said in a caption to a photograph made from a film: "The driver slams on the brakes..."

Newcomb and Adams wrote in their unpublished 1974 manu-
script that "some twenty other witnesses at various locations in the plaza confirmed the presidential limousine coming to a stop," and listed them.\footnote{101}

Even Gerald Posner, who is not a witness, said the driver of the car "slowed the vehicle almost to a standstill." It is a mystery how he arrived at this conclusion, since it isn't what is shown on the film—and that is the issue here.\footnote{102}

There was evidence that the motorcade stopped for a moment after having passed under the railroad overpass at the entrance ramp to the freeway, apparently to confer on directions and what had just happened. It would be easy to confuse this stoppage of the cars with a stoppage or hesitation on Elm Street in the Plaza itself during the shooting.

Time put it this way: "There was a shocking momentary stillness, a frozen tableau."\footnote{103} This was the terrible moment when we are led to believe that Kennedy was first shot, but of what are they speaking with this literary flourish? Certainly, there is little movement if any in the backseats of the fatal car for many frames before the fatal head shot. The whole scene seems to be a set piece moved from frame to frame.

We cannot see the first strike on Kennedy because it is conveniently hidden behind the Stemmons Freeway sign.

\begin{quote}
Certainly, frames showing the car stopped had to be removed. One might suppose that the car was actually stopped when it was hidden from Zapruder's camera by the sign. Stretch-framing the film with composite frames was a good way to get the car moving again. "What is clear," Newcomb and Adams postulated, "is that frames have been removed. Time has been deleted from the film. With time removed, the film is useless as a clock for the assassination."\footnote{104} Keep in mind how many times this nation has been told on television and radio and college lecture audiences that the film was a clock of the assassination. That is what they wanted us to think and believe.
\end{quote}

"Some of the altered frames are indicative of the car having been moving far more slowly than the admitted average speed of 11 mph," Daryll Weatherly says. If the car was moving slowly, the picture and background should be clear, with no blurring, but if there are conflicting vectors, then it is evidence of alteration to cover up a drastically slowed or stopped car. Other material may have had to be disrupted or removed, such as the actions of a bystander.

There is quite a blur of the film at frame 290, which might be
Zapruder's reaction to the shot that I think hit Connally at 286. Nobel laureate physicist Luis Alvarez said that this is the point where the Zapruder film showed that the President's car suddenly decelerated for about half a second from 12 to 8 mph. Greer probably took his foot off the accelerator. Alvarez speculated that Greer was reacting to the siren being turned on in the follow-up car behind him, but the important thing is his calculation based solely on the film that the car did in fact slow drastically just before the head shot one second later. The car may not stop in the film that we now have, but it comes perilously close. It may very well have stopped for an instant, and this frame or frames were removed.

My tendency is to think the driver was part of the conspiracy, and he stopped or slowed greatly until Kennedy had been struck in the head. Greer, driving slowly at about ten miles an hour, then turned around and looked at Kennedy and waited for it to happen. That could get his foot off the accelerator.

I have been told that it is irresponsible to accuse Greer of doing this, but the terrible fact remains that he failed to get the car out of there for long seconds after the shots began to fly.

The stopped or radically slowed car had to be removed from the film. Some people give the explanation that the car stopped because Jackie crawled out on the trunk, but this did not happen until well after the head shot, and both agents in the front seat are faced forward and could not know she was out there. The car is clearly racing after that, as soon as Clint Hill got a foot on the step at the rear of the car and had a firm grip. If the car did stop while she was on the trunk, after the fatal head shot, then why does it not show in the film? What reason would there be to remove that sequence? The car had to be stopped before she left her seat.

If the car was radically slowed or stopped, the other films would have to be rolling to capture it. The Nix and Muchmore cameras did not start again until just before the head shot. If the car was stopped or radically slowed in front of the Stemmons highway sign, closer to the corner of Houston and Elm, those films would not capture it.

Another belief is that Secret Service men tried to get in the car. It is not clear whether this merely refers to Clint Hill running after the car from the follow-up vehicle, or to others actually trying to get in, but once again there are several examples of testimony indicating that more than one agent tried to reach the car. Yet, the film does not show this. We only see Clint Hill running after the car, after the fatal shot.
I think the driver of the limousine, Greer, in the Altgens photograph has been completely painted over so as to show nothing more than his silhouette, and no flesh tones or detail (we see him in left profile turned all the way around to his right) in the windshield of the head-on photograph of the car—where we see Kennedy clutching at his throat. Similarly, according to Newcomb and Adams, the movie shows that "retouching is evident on the front of the limousine windshield on the driver’s side to obscure his movements."  

THE STEMMONS FREeway SIGN

There were three large highway signs on the right side of the last block of Elm Street, where the assassination took place. The first, nearest the corner, was that of the R. L. Thornton Freeway sign. The Stemmons Freeway sign was in the middle of the block and is the one hiding the motorcade from Zapruder during key seconds of the assassination. The third sign was near the underpass and directed drivers onto the Forth Worth Turnpike.

The Thornton Freeway sign was taken down just after the shooting, and replaced with a Stemmons Freeway sign, according to the testimony of the groundskeeper, Emmett Hudson. There is much evidence that the Stemmons sign was immediately moved after the assassination, but perhaps not by much. One good reason for its removal was to scramble its position for the reenactment. The sign appears to have been replaced for the reenactments, but did they put it in the same place it had been before? Was the Stemmons Freeway sign seen in the Willis photograph and moved in Zapruder’s film?

A study of the limousine indicated that it moved one foot per frame until it reached frames 197 and 218, when it was behind the freeway sign. Then the car crawled forward just ten feet within twenty-one frames. Doug Mizzer detected an oddity of the film during that period, with the sign lengthened side to side in successive frames. Mizzer demonstrated the changing configuration of the sign to us at a conference held in the mountains in California on June 4, 1994. Mizzer saw this without knowing that Newcomb and Adams had noted it twenty years before. There were different versions of the film, showing different things. The sign seemed to widen when one edge was in the area between the sprocket holes. Perhaps this is an effect of the camera operation.
One of the more disquieting aspects of all this is the grave possibility that crucial photographic evidence has been tampered with by researchers under the guise of so-called "enhancement," ostensibly to improve our understanding of it, but really to obtain a supposed copyright or to sidetrack us from real understanding.

Enhancing the film removes crucial data and makes forgery harder to detect. Marler comments, "When one views the Zapruder film without the close-up enhancements, the limousine reduces its speed significantly between frames 255 and 313—substantially more than the 1.2 miles per hour. This obvious reduction of speed prior to frame 313 also occurs as the limousine is becoming more perpendicular to the location of Abraham Zapruder—which should visually appear to be going faster, even if there wasn't a reduction in speed.

When tracking a moving object with a movie camera, the closer the object approaches the photographer, the faster the camera has to be moved to keep the object within the frame." 10

The present film has the car moving at the very slow speed of ten to eleven miles per hour,11 and our mathematical studies of the film along with my measurements of the distances between objects in the Plaza show that the car slowed down to seven or eight miles per hour at the moment of the fatal head shot.12

THE JIGGLES AND THE SHOTS

In 1967, CBS claimed that Zapruder's Bell & Howell camera may have been running a bit slower than the Warren Commission thought. CBS also believed that the first shot was fired at frame 186 (and missed), which was more than two seconds before Connally was hit but too late for the bullet to have been fired from Oswald's gun, and then fired again at Kennedy and Connally when they were both claimed to be hit.

It is interesting that the House committee found that a shot had been fired at frame 160, a very difficult if not impossible shot at a steep angle from the sixth-floor window looking down on the car. But the House had a second shot striking both victims at 188–191.13 Kennedy is clearly reacting by frame 200. If we count back forty-two frames from 190, we get a shot at frame 148 at the earliest for
the Oswald rifle's capability. The HSCA never thought through the conflicts in what they presented. Connally is not hit before 225, or perhaps 236—if he was hit at all then, which is what the Zapruder film now shows, according to many. Obviously, this gives us a few more shots than was possible for one man. Connally thought he was hit around frame 236. But then, he was looking at a fake film.

Try frame 285.

What happened to the shot at 186? The House said it hit. Many years before, CBS said it missed, basing their analysis on the fact that the camera jiggled at that point. They ignore numerous other jiggles which could just as easily have been caused by rifle shots as well. At frame 318, a split second after the fatal head shot at 313, the camera moves violently.

CBS found two additional jiggles: at frame 190 and at 227. It seems to me that any of these might in fact be reactions to shots, but not all from Oswald, if he fired any at all. Since CBS did not mention other jiggles, do they know something we don't—that these were in fact shots? Are they speaking to us with a forked tongue, like those Russian writers who could not mention the Tsar's name in their writing, but spoke of a “Certain Person”? Perhaps the media cannot come right out and say what they think, in the face of the awesome power they must know was behind all of this. It's all very convoluted. As long as they say Oswald did it and did it alone, they can give other evidence adding up to conspiracy.

For the record, Josiah Thompson points out that there are much greater jiggles, at Z 197, Z 210, and Z 331. If each of the jiggles in the Zapruder film is to be correlated with a shot, then at least six shots were fired in the Z 170–334 interval alone. This is not counting the jiggles (shots?) that appear both earlier and later. Life magazine supposed that the other blurs are most probably caused by imperfections in the camera mechanism that permit the film to move a short distance either toward or away from the lens.

CBS claimed that the camera was running slower than the Commission thought. The Warren Commission printed the manner in which the speed of the camera was determined both by Bell & Howell and the FBI, which came up with the same answer: 18.3 frames per second. How did CBS find that they were wrong? CBS did not have Zapruder's camera, so they used five other similar

**There are two important appendices at the end of Josiah Thompson's Six Seconds in Dallas dealing with the Zapruder film: Appendix B: Calculations From Zapruder Frames 301–330, and Appendix C: Calculation of Velocity of Presidential Vehicle From Zapruder Frames 301–330. Unfortunately, his book is very hard to find these days, and ought to be reprinted.
cameras for their tests, all of which ran at different speeds. Three of them ran faster than Zapruder's camera. The average speed for the five was within an infinitesimal .044 frames per second of that which the FBI and the manufacturer found. Thompson says, "Once again a so-called scientific test was used by CBS to throw dust in the eyes of its viewers."117

THE MAN WHO HELPED CONDUCT the surveys of Dealey Plaza for both *Life* magazine and the Warren Commission, Chester Breneman, said that the Warren Commission falsified their figures from the survey. "They [the figures in the survey] were at odds with our figures. After checking a few figures, I said 'that's enough for me,' and I stopped reading. For instance, on our map, we marked the spot corresponding to Zapruder film frame 171. The Warren Commission changed this to 166 before they used it in the report. The Warren Commission shows a 210 where we show a 208."118

Breneman saw some of the frames from the Zapruder film. Within days of the shooting, *Life* had a team of investigators in Dallas, one of whom wore a bulletproof vest. They used the frames from the film to study where the shots occurred. Breneman saw things on the photos of all the frames that no longer exist on the film, such as large amounts of blood and brain matter flying from Kennedy's head behind the car. Breneman was convinced that the shots came from two different directions.

Breneman described examining a bullet mark on the curb on the south side of the street. He talked about the highway sign being removed just after the assassination which he was told had a stress mark from a bullet. Nobody knows where the sign is. "It's my understanding that this particular sign was quickly taken down and no one has been able to locate it."119

The *Life* investigator with the bulletproof vest told him, "My life isn't worth a plug nickel on this investigation."

Surveyor Breneman said, "The only thing I know for sure is that shots came from two different directions."

HOW TO FORGE A FILM

Richard Burgess, writing in *The Fourth Decade*, describes how a film may be fabricated. My advisory say that this is accurate. Unfortunately, all that Burgess discusses in his short article is what one would have to
do to add artwork to an existing film frame. His example is what I call the “blob” on Kennedy’s face, which I’m sure has been clearly added onto the film, though I did not imagine that someone would take the last statement literally. A retouch artist does not paint on the film itself, which was Burgess’s interpretation of what I wrote in High Treason 2 about the “blob.” See pages 363-68 of that book.

“Any attempted modification would necessitate the enlargement of the film to 35mm (to maintain clarity, and reduce changes in color saturation and balance, contrast, and grain), various types of optical printing with travelling mattes, and then reduction back to 8mm. The conspirators would have to begin by rear-projecting each frame onto the back of an animator’s drawing table and tracing each successive frame of Kennedy onto a piece of paper. This is known as rotoscoping. (Robert Groden uses this term completely incorrectly when he refers to his image stabilization of the Zapruder film.)” Then an animator would have to animate the ‘blob’ by drawing it into the successive rotoscoped images of Kennedy’s head. These drawings would then be transferred to animation cels and painted. The area around the painted wound on each cel would then be painted black. Another set of cels would then be copied, but with the wound painted black and the rest of the cel clear. These images would then be filmed with an animation camera onto two sets of film, one with the wound surrounded by black (film 1) and the other with a black blob floating in mid-air on clear film (film 2). This is a travelling matte.”

Burgess continues, “Next the Zapruder film enlargement would be run through an optical printer with film 2 on top in correct frame register producing film 3. This film would show a black hole where the wound should be. Film 3 would then be rewound and film 1 (the wound surrounded by black) would be run through the printer exposing film 3 again. Since black does not expose the film, the surrounding black of film 1 wouldn’t expose the already exposed Zapruder film and, if the copying of the cels was done exactly and the job was done properly on a high quality optical printer, the painted wound would fit right into the unexposed hole in film 3 like a moving jigsaw puzzle piece. Film 3 is reduced back to 8mm and there you have it: faked Zapruder film.”

Daryl Weatherly, a mathematician with a background in physics, responds: “This is an accurate description of the basic technique that would be used, although a few things should be added. In the first step, enlargement to 35mm (or larger) film, the image area plus the sprocket hole area at the extreme left would have to be reproduced in the image area of the larger film, since the type of
film magazine used by Zapruder had an aperture that allowed light to reach this area. In the final step of reduction back to 8mm film, it would be necessary to use this same type of magazine to ensure that the sprocket hole area is exposed."

Mark Crouch describes this method of forging a film: "To alter a film at this level doesn't even require much equipment. The film is projected frame-by-frame onto the rear of a glass screen. The corrupted copy is then recorded frame by frame. When they reach the head-shot frame, they just add a little paint to the glass, shoot that frame, then clean the glass. They then project the next frame, redo their little touch-ups to match perspective, then go on. They really only have to do about fifty frames and the alterations are very nondescript, like enlarging the 'blob' and blacking in the back of the head and the limousine." This is called "aerial imaging" photography.

THE ARGUMENT FOR AND AGAINST FORGERY

Crouch then presents a very good argument for why and how the forgery would have happened.

The truth about the Z-film is that it was never meant to be micro analyzed the way it has. The real 'evidence' of Z-film alteration is more subjective than objective. If you believe, as I do, that a trained and directed team of assassins were in the Plaza, then you must assume they observed Zapruder standing up there with his camera. The assassins would have had no way of knowing if he'd innocently panned his camera toward them just before or during the assassination. Therefore, if there was a trained and directed team in the Plaza, they would have been very concerned with what Zapruder's camera may have recorded. This is essential if you believe they were not only there to kill Kennedy but to frame LHO. The whole frame-up around Oswald would have melted like a snowball in July if there was clear photographic evidence of another shooter.

"Logic would therefore dictate that (and I'm assuming that Zapruder was not an accessory before the fact) the plotters or their agents would have to: (A) examine the Zapruder film closely before it was released for any incriminating evidence and (B) if it were incriminating they would have to either alter, destroy or sequester it."

"What would the plotters be most worried about (aside from the film actually showing an assassin)? The obvious answer is evidence of frontal head entry. To conceal this they would need to..."
do three things which would have required only minor touch-ups on certain frames: They needed to conceal evidence of a bullet striking the forehead at the hairline. The flap/blob does this quite nicely. They would also need to darken in the hole in the back of the head that all the witnesses saw. This, too, required only a little touch-up of a few frames. The last thing they had to do was to obscure the white-pink matter that splattered the rear of the limo. This, too, is nothing more than a little blackout touch-up work.

"Take a look at some of the raw NBC footage from the ER entrance at Parkland. Kellerman and Greer have spread a tarp over the back deck of the limo! It must have been and should have been a mess, but I don't see a damn thing in the Zapruder film."

But Doug Mizzler has found brain and head matter passing along the edge of the trunk for four frames of the film.

"This is in response to Richard Burgess's article "On the Authenticity of the Zapruder Film" (September, 1994, Fourth Decade) in which he attacks any notion of forgery, while admitting that half of the forward part of Kennedy's head is missing in a series of frames sometime after the head shot."

Burgess says that "since the Zapruder film does not match the eyewitness testimony, it is claimed that someone has darkened the back of Kennedy's head, thus obliterating the damage of the occipital-parietal area, and painted on what Livingstone calls 'the blob,' a red area that covers Kennedy's face and seems to reproduce the wounds of the autopsy photographs."

Burgess starts with a logical fallacy: "Arguments of fakery should arise from peculiarities within the film itself, not from comparison with other evidence." This is a simplistic and preposterous distortion of criminal investigation. Yes, the intrinsic clues of forgery are contained within the film itself, but that is only one method of proof. The principal means of covering up this case has been just that sort of false argument: that the observations of the witnesses to gunmen in front of or to the side of the car is mistaken because there was no medical evidence of frontal shots; that the observations of a large hole in the back right rear of the head is false because the photographs and X-rays do not show it; that the observations
of a very small hole indicative of an entry hole in the throat are inaccurate because there was no gunman in front.

You can’t easily dismiss the testimony of thirty people that the limousine stopped completely during the shooting. We don’t see this in the film, if they mean the car stopped completely, except for the scene in the car. There are a lot of things we no longer see in the film. Shots were removed, and those that the film makes us aware of, are moved farther up the street. The film removed time and space.

Daryll Weatherly, a lecturer in mathematics at the State University of New York, utilizes vector analysis—one of the tools of physics—for identifying altered frames, and this is explained in his article in the Appendix.

Burgess attempts to technically debunk the possibility of forgery, but is way off base. I suppose it is hard for the average person to imagine how it could be done. They give up quickly, forgetting that there are plenty of master forgers around who know how to do these things.

It does not help for Burgess to state that “Livingstone believes that all one needs to do is draw or paint on the surface of the film.” I did not express myself quite correctly in the statement he refers to in High Treason 2 (p. 155). I did not mean that the paint was actually put on the film. An entirely different means is used to animate an actual film from real life. Color transparencies or mattes are used. Faking film is nearly as old as the art of photography itself. I meant that paint is used both to create the image one wishes to add, and to retouch a picture or frame. Paint is used to cover over and make opaque that which is to be removed, and to create an image. It is used on a clear celluloid acetate (same as film strip, but thicker) or other material and then photographed on an animation stand to make a new picture. Even paper can be used.

Burgess says that faking the “blob” would be a job for “masters.” It was, and they did it. But it was relatively easy to create. Burgess’s caveat to the problems in faking all of this is not substantial. It was easy to misstate my belief as to how the forgery was done. Burgess wrote that I “believed” that it was simply painted on the surface of the film. It is a painting that was composed with the film. In some frames, the whole scene in the limo is clearly a painting, especially Jackie’s face.

The “blob” I wrote about in High Treason 2 is clearly a fabrication. This year, Dr. David Mantik, Daryll Weatherly, Doug Mizzer, and I spent many hours in the National Archives studying the frames of the film. Mantik said that its location appeared to change
from frame to frame. The “blob” on the front of the face does not correspond to any anatomic structure whatsoever. Close study clearly shows that it is not a flap of skin, brain, or scalp.

At one point after the fatal shot, President Kennedy’s head becomes a mere stub, or stump as some call it, missing the entire front quarter of the skull from just in front of the ears to the top of the head, with the face gone. The most major mistake of the forgers was to leave only the rear stub of a head for several frames. Through the missing area we can see Jackie’s dress perfectly where her husband’s head ought to be. See p. 366 of *High Treason* for my earlier discussion of the stump.

For the preceding frames before “the stump,” we have “the blob” to mystify medical people and any of us who thought about it. The “stump” and the “blob” will be the ultimate undoing of the film and the cover-up.

It is impossible, knowing what we know now, for the Zapruder film not to be fake, and it is anything but a completely true image of the wounds Kennedy received that day in Dallas.

The film once showed the second head shot, which was not simultaneous with the rear head shot. It came from the front—but farther down the street than frame 312. The film still has the evidence of the second head shot from in front.

Concerning the grain structure on the film, Burgess says, “The film into which this animated wound was to be set is very grainy; yet the animated wound would not be. It would show up instantly, since it would share none of the surrounding original grain (which it obviously does in the existing film). There is no way this could be faked. Even if the animated wound were filmed on 8mm film first and then enlarged to 35mm, the shifting grain structures would be different enough to reveal the joint, especially when blown up (as all images of the head by necessity are).”

Weatherly replies: “His argument has a basic weakness. The contention that composite images would have to show an irregularity in grain structure ignores the final step, reduction to 8mm film to simulate a camera original. The graininess of 8mm film would be an asset there, imposing a new grain structure on the entire scene.”

Burgess tells us that any addition of an image to the film that had not been there during the original photography would not be as sharp as the rest and easily detectible. “This lack of sharpness would create a ‘matte bleed,’ that is, there would be an obvious ‘line’ around the matted wound where the image of film 1 did not fit exactly into the hole in film 2.”

We are familiar with many movies, advertisements, and photo-
323 appearance of head wound

326 head wound

327 similar

328 head wound

329

(320 similar)
333

(334 blurred, otherwise similar)

335

337
graphs that composite different images in one scene with no detectable evidence of it. Burgess betrays a flaw in his understanding of industry techniques able to do this for generations. They wouldn't do it if their work was not professional, and they do it all the time, though prior to 1977, composite movie frames were detectable, if one knew what to look for.

The basic thrust of Burgess's argument seems to be that the film cannot have any animated material, because an attempt at fakery would cause it to have the very features that lead us to suspect animation.

His argument seems to be that animation would make the "blob" look animated. That is a major reason why we think it is animated, not just the fact that no such wound was later seen by anyone: It looks patently fake, bobbing around on the head as it does in the moving film. The still slides of the film at the National Archives, in addition, show the "blob" to be unreal. It is rather obvious.

Burgess says that another "problem would be one of paints. How could the animator achieve a realistic-looking wound that didn't look like paint? The flap in the Zapruder film is obviously glistening flesh; reproducing that to match the colors, tonalities, and light source of the Zapruder film would be a job for a master."

There are many realistic artists throughout history who could paint things so realistically that they cannot be distinguished from a photograph. There are plenty of masters around. Burgess also makes a fallacious assumption here, that the wound is realistic. It isn't. It is unreal, since it does not and cannot correspond to any anatomic structure of Kennedy or known wound of his. It does not look real at all. The slides in the Archives clearly show that it is not a flap, but in fact a "blob" as I have said. Burgess says that "reproducing" (he means producing) a wound would be a job for a master. He seems to be saying that a master could do it, but there are no masters. This is untrue.

As for the realism of the "blob," a photograph of a brain taken in the bright sun could have been used for the compositing, but it is little more than a bright spot on the film. This is no problem for an artist. In addition, no one has been able to determine just what the "blob" is, beyond theorizing that it is a flap of skin. It could not have come from Kennedy's known head wounds.

Another problem with the "flap" theory to explain the "blob" hasn't been addressed by Burgess and other critics: How could the flap hang down on the front of the face when the only possible position of a laceration along the right side of the head could not
allow a flap to fall anywhere but down and certainly not reach around to the front of the face. What we apparently see is almost an entire brain hanging out of his right forehead.

Burgess says that the animation cannot work because the final version of an altered film would be three generations removed from the original. He then makes a patently false statement to bolster his argument: that the film is of "generally poor quality of the image to start with." Weatherly replies that, "Regarding the number of generations removed from the original that a fake would be, who is ever going to see the original? What we actually see are various 'enhanced' copies and slide sets, which we expect to be multiple generations removed."

Good copies of the film, such as the original Life slides in the National Archives and copies of it there, are crystal clear. Burgess has been looking at cheap bootleg copies and videos. "The final version [of the animation] would be so murky as to be almost useless, even with fine grain, low contrast 35mm masters and specialized color duping film." Wrong again. Working from a good original, the loss of definition would be little more than a copy of that original, though it went to 35mm and back again. Certainly, with good copy equipment, it is very hard to distinguish between an original and a first copy, especially when no one will ever see the original. The slides in the Archives are copies of copies and they are crystal clear. It is an amazing experience to see them.

"No matter how good the equipment, the wound is so small on the original film [as I noted above, probably no bigger than half or quarter the size of the head of a pin] that any image would lack sharpness, a problem exacerbated by the grain and the low quality optics of Zapruder's camera." Burgess again makes several inaccurate statements off the top of his head without citing any source material to back them up. Zapruder's Bell & Howell camera was their top-of-the-line commercial offering. The optics were very good, and that is easily seen in good copies of the film, where the clarity is quite startling.

In addition, the "blob" is clearer, in fact, than the head it is attached to. This counters Burgess above, but we don't know why it is so clear except to offer the possibility that the equipment and techniques used were superior to the camera and film that was being altered.

Burgess (and other critics of the film alteration evidence) fail to explain why in the frames following the head shot around frames 335-37, there is only the rear stub of Kennedy's head, and we see Jackie's shoulder and arm very clearly where his face and forehead should be. This
clearly demonstrates that something else happened in that car during those terrible moments that had to be so drastically changed, and changed so fast, that they pasted in an incomplete image of John Kennedy's head with an apparently whole brain hanging out of the right eye over Jackie's torso.

Burgess agrees that part of the head is missing: "As Kennedy's head bounces forward from its backward thrust, it is obvious that a chunk of the top and side of his head is missing. As it moves forward one can see Jacqueline's face and shoulder right through what ought to be Kennedy's head. If the film were fiddled, this portion must have originally been covered by Kennedy's intact head." 128

It is at this point that we know that the famous film is fake. It was done to trick the Warren Commission, the FBI, the Secret Service, and Life into believing that Kennedy was shot in the head from behind with a bullet that blew out the forward part of his head. He may have been shot from behind, but the bullet did not damage the forward part of his head, and only exited the right temple, at most.

Burgess puts forward another argument: "The greatest problems, however, are of blurring, registration, and adding missing background. Since Abraham Zapruder had his camera set on maximum telephoto and had no tripod, the images jump around quite a bit even when Zapruder is relatively steady; hence the importance of image-stabilization.... It would have been impossible in 1963 to add anything to the film or alter any successive images and duplicate a realistic blur." 128 The latter statement is just bullshit.

The rotoscope process has as its primary intent the accurate registration of the mattes which causes the composite images to go where they are supposed to go. Again, Burgess has not done his homework and makes an illogical statement. The machine does not exist to leave a trail of shoddy work and clues of compositing. As for the blurs, assuming that a photograph of a brain was not used to composite the blob with the head, and that it is simply artwork, any blurs become that much easier to paint. Remember, artwork and animated cartoons are drawn on large boards and then reduced down, in this case to 35mm film or even larger. Burgess finally mentions that it might be necessary to add missing background. Again, that is no problem. That is what photo retouch artists are all about.

Burgess, a classicist at the University of Ottawa, says that adding the blob or any other change would never work. He flies in the face of countless similar commercial and artistic alterations of
film, such as popular movies of real people and scenes which have cartoon characters added to the film. Originally, this effect was not done with computers, and the same matte technique described above was used. Two or more images were combined with one.

"If one accepts the theory [as I do]," Timothy Cwiek writes, "that President Kennedy's killer never wanted the lone-assassin theory accepted by everybody, then the taking of the Z-film makes all the sense in the world. The film was not shown to just anybody... It was released to certain people, at different times, so that the new rulers could safely reveal their bloody work and gain therefrom the deference they felt entitled to. By the time it finally was shown to the public a dozen years later, no one was in a position to do anything about it. The important thing to remember is the film was released slowly and carefully—always on the killer's terms.

"For years, we researchers have viewed the Abraham Zapruder home movie as a great accident in history, a wonderful instance of the perpetrators being caught with their pants down. I would suggest, to the contrary, that the Z-film is just one more indication of the control of the situation that President Kennedy's killers had in Dealey Plaza that terrible day."

It is a tragedy that early suspicion of the film, such as the major analysis of forgery done by Newcomb and Adams, was suppressed or taken over or discredited with false leads and misinformation planted on them like poison.

Those who pandered the film all these years have suppressed dissent, and perpetrated a massive propaganda campaign which not only fooled all of us, but got us hooked on the importance of the film to prove evidence of frontal shots which in fact could not be proven by those methods. We were misdirected—as we were with so much else in this case: the trajectory, the wounds, the autopsy, and the rifle and the bullet. Our critic-leaders have been our own worst enemies.

In this case, if thirty witnesses stated that the limousine stopped during the shooting, and we don't see it in the film, then the presumption must be that the film is wrong and has been altered. If the original maps showing where the shots arrived were altered to move the shots up the street, there must be a reason for it, and we begin to get an idea of that reason when numerous people, including Dan Rather and Ike Aligens, described seeing things and being in certain places at the time of the shooting which no longer appear in the film.
KENNEDY'S MOTTLED JOWL

Kennedy's right cheek and jowl is very mottled or puffed up in the frames in the 280s. This seems unnatural, even if he had been shot in the throat or the back. This might be further evidence of composite frames that were not done perfectly.

THE “BLACK DOG MAN”

Martin Shackelford has exploded the myth of the “Black Dog Man,” which was thrown out to the research community as someone perching with a gun behind the concrete retaining wall on the Grassy Knoll in Dealey Plaza. Shackelford credits Robert Cutler, Richard Trask, Bill O’Neill, and Matthew Smith for providing elements he pulled together in order to expose one more trick played on us by undisciplined and hasty “research.” The problem with visual evidence is that it's like looking at a crystal ball through a fog. People can claim that almost anything is in a picture—and it may be difficult if not impossible to disprove it.

Abraham Zapruder’s employee, Marilyn Sitzman, reported that she saw a young black couple having their lunch on a bench [no longer there] in front of and below the pedestal where she and Zapruder were standing while they filmed the motorcade. An enlargement from the Betzner photo, published by Matthew Smith, definitely looks like a woman. The HSCA noted flesh tones on the photo image and it is clear from good color copies of the fifth Willis photo that the flesh tones of the image are darker than those of most of the other people in the picture, including Zapruder and Sitzman. When she stood up, she apparently set her orange pop bottle on the concrete wall, where it appears, orange tone visible in a good enlargement, in the third photograph by Jim Towner. Both Marilyn Sitzman recalled seeing the bottle and Barbara Rowland “mentioned police in-
specting a pop bottle. One of the pop bottles broke and left a pool of red pop, which photographer Malcolm Couch assumed was blood at the time, as he told the Warren Commission. Shackelford continues:

An image often mistakenly cited to bolster the theory of an assassin in this location is frame 413 of the Zapruder film, which shows the back of a man's head and a straight image which somewhat resembles a rifle. The image of the 'rifle' passes between Zapruder and the leaves of the bush, indicating it [probably a branch] was closer to Zapruder than the leaves [similar images, though not as long, appear elsewhere in the frame, also crossing leaves]. On the other hand, leaves appear between Zapruder and the man's head, indicating the man was beyond the bush." Robert Cutler established that the man is probably one of the three men on the Knoll steps, visible in the Moorman photograph, the Muchmore film, and others.

"The preponderance of the witness and photographic evidence," Shackelford writes, "indicates that the figure long referred to as 'The Black Dog Man' was in fact a young black woman, part of the couple having lunch on the Knoll that day. Logic tells us that an assassin is unlikely to have positioned himself in plain view of Zapruder and Sitzman. In addition, Sitzman clearly stated that no shots were fired from any location that close to her." "Black Dog Man,' rest in peace.

BILL GREER'S HEAD TURNS

One of the claims involved the second set of two head turns of the driver of the limousine, Bill Greer, when he looks at the wounded Kennedy behind him while driving. The first set of turns under discussion starts in frame numbers 280–84. At 284, Greer is turned all the way around, looking behind him at Kennedy. This sequence ends when he starts to turn his head forward at 290. At 295, his head is turned all the way forward again. It takes him four to five frames to turn his head each way. No one disputes that those head turns take several frames to execute. But at frame 302, Greer turns his head back to look at Kennedy again. Our observations on repeated occasions in the National Archives viewing the slides of the film together indicate that the second set of head turns again take
several frames each time, but other observations first put forward by Noel Twyman and repeated at ASK 1993 in Dallas by David Lifton claim that there is a head turn of 150 degrees executed in one frame.

I need to correct a sentence about this in *Killing the Truth*, p. 334. That page deals with the hole in back of Kennedy's head, and just following, the incorrect text reads, "Greer turns back toward the front at frame 316. There is a very clear picture of Greer turned to his right at 317." This last sentence meant that he had turned enough that his head was now 90 degrees from forward, faced directly right. The first sentence should read, "Greer starts his turn back toward the front at frame 316." Greer continues to turn and completes his turn forward by 320.

Chuck Marler mentioned the rapid head turn in the May 1994 issue of the *Fourth Decade*, and published more information on this in the November 1994 issue, using this language: "Mr. Twyman [Noel] obtained excellent color prints made from the Zapruder film, and in studying the frames noticed that in frame 302 William Greer was looking straight forward and one frame later (frame 303) the driver's head had turned approximately 150 degrees and was looking over his right shoulder at Kennedy. Greer held this position through frame 316. Again, one frame later (frame 317) Greer is looking straight ahead. The obvious and inescapable conclusion is that at two separate occasions, William Greer had turned his head approximately 150 degrees within one frame. As Zapruder's camera was operating at 18.3 frames per second, Greer made this movement in .056 second."

Twyman has conducted extensive interviews with Erwin Schwartz, Zapruder's former partner.

Experiments with athletes and others conducted by Twyman and Marler with cameras moving at 18 fps show such a movement is impossible. But is the head turn done in just one frame, or does it take more? Intense study of the slides made from *Life*’s copy of the film for the National Archives by Martin Shackelford, Daryll Weatherly, Doug Mizzer, David Mantik, M.D., and myself, indicate that there is no one-frame head turn. Some among us thought that it took three to four frames, and Weatherly and I felt that the head turns took four frames, as with the earlier turns. The same is true of Greer's head turn back to looking forward starting at 316. It is claimed that this is done in just one frame, but again, the *Life*/National Archives version of the film shows it taking at least three frames and probably four.

Knowing the sources Twyman, Lifton, and Marler replied upon
(David Lifton’s versions of the Zapruder film, including a 35mm reel, the Medio Multimedia CD-ROM version probably made from the film provided by the Zapruder family attorney, Jamie Silverberg, and a claimed observation seen in the reproduced frames in volume 18 of the Warren Report), one must ask if one film has been altered differently from the other. In other words, as the above researchers claim, is every other frame removed from the film in certain sequences during the shooting to speed up the car when it might have stopped, or is there some other explanation?

I would like nothing better than to be able to find evidence of alteration if we could prove that Greer turns his head completely around in an eighteenth of a second, and then back again in another second. Another possible explanation is that the source film for the above claim is different from the National Archives version.

So then we have to investigate just where researchers, the National Archives, Life, and the others got their films. That is the job of the presidentially appointed JFK Assassinations Records Review Board, which is in charge of collecting all such material. A clue to the films’ origins might provide us with the answer as to who has been altering or tampering with such evidence. The reader might want to study the major chapter on the Zapruder film in my last book, *Killing the Truth*.

There was another development in the Twyman/Marler thesis of a rapid Greer head turn, as first put forward in the *Fourth Decade* article, “William Greer’s Impossible Head Turn,” in November 1994. On December 27, 1994, I received a letter from Chuck Marler revising his claims. The bottom line of what he is left with is a turn of somewhere between 100 and 130 degrees.

On January 20, 1995, a clarification came from Marler. He states that his estimate in *The Fourth Decade* of a head turn of approximately 150 degrees is described as being made in four frames, not in between two frames. “My December 27th letter to you clearly describes a 150-degree head turn in four frames which contains an impossible 120–130 degree turn in one frame. . . . the absolute minimum one frame movement was 100 degrees.” This is very different from the originally published statement that “in frame 302 William Greer was looking straight forward and one frame later frame (303) the driver’s head had turned approximately 150 degrees and [he] was looking over his right shoulder at Kennedy. Greer held this position through frame 316. Again, one frame later (frame 317), Greer is looking straight ahead.”¹⁴² Now we have the whole turn taking four frames instead of two. But what of the one big turn

What a waste of time!
of one hundred degrees he says happens between two frames? It doesn’t happen.

Our team studying the film is sure that (a) there is no significant change of head position discernible in the two sets of frames (302-03, 316-17), and (b) as they appear in volume 18. or in the Archives.

Daryl Weatherly then drove down from New York State and we went to the National Archives to observe the film close up. We were allowed to study carefully the original Life slides of the frames given to the National Archives. We think that Twyman has made two fundamental errors of observation.

The first error was to suppose that the head itself was turned 150 (or even 130) degrees backward on the body in order to look back at Kennedy. It is probably impossible for a human head to turn more than 100 degrees, and even with peripheral vision, the driver had to move his legs to the right as far as they would go, keeping his left hand on the wheel, and turn his body about 45 or 50 degrees maximum to the right. As he is doing this, his head is turning an additional 90 to 100 degrees. This gives us very close to the 150 degrees Marler and Twyman say Greer’s body is turned.

The above researchers had not taken into account the body itself making one-third of the total turn, which puts it within the realm of possibility, and also dovetails with the angular movements we, as well as Shackelford, saw. At no time does Greer’s head turn more than fifty degrees in a frame, excluding the body’s additional turn.

Another possible mistake in observation is that Twyman and Marler may have been fooled by two badly blurred frames preceding Greer’s final movement to face forward (which he reaches at frame 319). It is impossible to have any idea what Greer is doing in those frames. It is possible that those frames were removed from the film that Twyman and Marler studied. As for Greer’s turn to the rear beginning at frame 300, Shackelford, Weatherly, and I agree that the National Archives film shows that the first part of the turn shows his head turning 40 degrees. By frame 302 the head has turned 30 more degrees. At frame 303 the head has turned 45 degrees, and at frame 304, the head has turned 25 degrees, for a total of 140 degrees in five frames.

Shackelford thinks the turn back starting at frame 315 is a total of 150 degrees, and his head has turned 45 degrees by frame 316; another 30 degrees by frame 317; 25 degrees by frame 318, and 50 degrees by frame 319.
I believe that Greer's head is turned around to look at Kennedy in the Altgens photograph, said to be taken at frame 255. Perhaps all three turns were one turn while the car was actually stopped, but when the film was re-created by the forgers, they made two separate ones—repeating one of them twice, to give more of an illusion.

Marler, a county official in California, strongly believes that the alteration of the Zapruder film concealed 'what happened 'behind' the sign, the slow speed or stopping of the limousine—which means increased reaction time for the Secret Service to respond, the true wounds to Kennedy's head, and the double head shot to Kennedy.' I took Marler's measure in a meeting in California in December 1994, because I was concerned he was being used in some way and that his information was false. Before anyone jumps to engage in character assassination against those of us (now many) who believe this film to be fake, I'd like to say that Mr. Marler is a man of very fine character, a religious man. He provided the biblical quote at the beginning of this book, which I substituted for the one I already had.

Marler gave some additional reasons to suspect tampering: 'The Zapruder film was at the CIA(NPIC)—the most sophisticated film lab in the world; the film was sealed away from public view for twelve years; the splices and damage at Z 155-56 and 208-11. After working for hundreds of hours editing 8mm film, it is difficult to believe two separate accidents occurred. I think the splices were used to conceal mistakes: The reproduced photographs made from the slides Life provided for the Warren Commission were dark and of extremely poor quality. It is suspicious that the Muchmore film has a split at (M 468) approximately the same location of Zapruder frame 313 (the head shot); the rear of Kennedy's head is blackened by dark shadows when corresponding locations of Governor Connally and Mrs. Kennedy are plainly visible; Kennedy's backward movement after being shot seems extremely fast.'

Catch that last observation? The famous backward head snap may be too rapid to be caused by a shot from the front, especially one that went through the head. How many exploiters of the film mentioned that? And how many eyewitnesses described the head snap before having seen the film? Probably none. Frames may have been taken out of the head-shot sequence and that would have speeded up the backward movement. This evidence of alteration is overlooked by those who must believe the film is authentic in order to prove their case that JFK was shot from in front.

I'd like to add to Marler's observations that the film was altered to remove shots—which perhaps primarily required the removal of
a single frame for each shot erased (if more than one), and the addition of a massive wound (the "blob") on Kennedy's face and the right front of his head, which could be painted, rephotographed, and added to the picture. When examined closely, the blob is so out of register as to lack all credibility.

**RED HERRINGS**

Not only do we have to contend with different versions of the Zapruder film with little or no way to know their origin or authenticity—some with "enhancement," some with retouching, some with frames removed, some with frames added or repeated (stretch framed), some with image steadying (which removes parts of the original), some with different frame numbers than others, and some that apparently were deliberately altered for the purpose of giving people an idea to sell—but we have apparent "red herrings" planted in the films by the forgers to make decoding of the ultimate forgery more difficult.

There may be things seen or perceived in various versions of the film that are tricks played on us. Other claims (among many examples) involve everything from streaks seen on the film purported to be bullet tracks, to muzzle flashes. It would be nice if some of this holds up under scrutiny, but usually hard-nosed researchers put them down as "artifacts."

Some see the driver of the car in poor bootleg copies of the film turn around and shoot Kennedy, streaks on the film at the time of the head shot that show bullet tracks coming in, and microsurgery the detection of using very sophisticated splicing. Do copies of the film exist that really support these assertions? Or are we looking at altered films or videos which might give the impression that these things are happening?

**THE PROBLEM WITH THE Stemmons Freeway sign, its actual removal and movement after the assassination, and its wild jumping around in some versions of the film (apparent stretching) have caused a problem for researchers. The sign appears to grow and stretch when it slips into the sprocket area as the camera pans to the right. This is probably an effect of the camera mechanism. All other objects entering the sprocket area do the same. Another red herring may be the American flag on the right**
fender of the limousine. Many note that the flag hangs relatively limp along part of the street, whereas the presidential flag on the other fender flutters merrily. The flag is limp in the Altgens photo as well. This is not evidence of alteration of the film, necessarily.

One of the early, widely distributed bootleg copies of the film seems to be shot from the photos of frames reproduced in volume 18 of the Warren Report, since both show the bottom of the preceding frame at the top, and the top of the following frame at the bottom. Is there any other technical explanation for this phenomenon?

SUMMARY

Ultimately, the background of the fatal car’s driver, fifty-five-year-old William Greer, will go down in history as a key to the truth of the assassination. This man did not drive off when the shooting started. Instead, he turned around twice and stared at Kennedy after the shots began and did not get the car out of there until Kennedy’s head was blown apart, a time span of at least six to ten seconds. And what of Kellerman, who sat beside him? Between the two Secret Service men, they should have got that car moving. Kennedy would have survived his first wound easily. Why did the Secret Service permit a man that old to drive the car in the first place?

Greer was a Protestant from Northern Ireland who lived on the estate of Henry Cabot Lodge and worked for him before he became JFK’s driver. Greer must have felt some antagonism for Kennedy, at the very least, for his trip to Catholic Ireland and for his peccadilloes.

Kennedy’s driver was linked to a man who benefited greatly from the assassination: Henry Cabot Lodge, a scion of an old, prominent, and very political New England blue blood establishment family. Lodge became the ambassador to Saigon in South Vietnam and literally ran the war from his embassy. The military didn’t run it. The CIA didn’t run it so much as Henry Cabot Lodge ran it. Lodge apparently wanted the war that Kennedy tried to stop, just as Robert McNamara, Kennedy’s Republican Secretary of Defense in his bipartisan cabinet, evidently wanted it and worked for it for years after Kennedy was dead and Johnson prosecuted the war.

There was a fortune in that war for the Dallas-Fort Worth families and defense companies, such as Bell Helicopters and General Dynamics, with so much investment in the arms industry at stake.
ONE OF THE EXPERIMENTS that should be conducted is to film—using a 1963 Bell & Howell camera identical to Zapruder's—a car coming down the center of the street from Zapruder's pedestal with the full zoom lens on, to see if the developed film eliminates all the landmarks, such as lampposts and structures in the background. The famous film has not a single object during the fatal head-shot period that tells us where this is happening with reference to the Plaza. We are asked to assume that the zoom lens has brought us in so close that there is nothing else in the picture except the limousine and its occupants. Two women were standing beside the lamppost to Zapruder's left and they are entirely eliminated from the film, with the car appearing to be over their heads due to Zapruder's elevation.

In the appendix by Daryll Weatherly, we will learn that the film is in fact an animation, with parts cut out and moved from one section to another. Weatherly presents the physics of vector analysis to demonstrate his belief that the film is an animation. Those who took over this film and sold it to us were therefore doing the work of the cover-up. They never questioned the film's authenticity or allowed such questions, and viciously attacked those who asked. We were not even to think that the film was not authentic. Some people became targets for destruction because of this. No wonder. The film is a key to the case, and has been the principal means of covering up the real shots showing there were more than one gunman.

The Zapruder film was used to direct attention away from what really happened during the shooting. Although it seems to show evidence of a frontal shot, it does not prove it; the "jet effect" and "neuromuscular reaction" countered that, whether true or not. The film distracted researchers from asking significant questions, or they were prompted to ask questions about the action in the film that did not really matter. The idea was to sell the film as the most significant piece of evidence in the assassination.

The first third of the film was massively manipulated because that is where the first shots were fired. An entire sequence of the limousine turning the corner was taken out. A second head shot occurred farther down Elm Street and was combined with what we now see. The differences between CE 585 (the December 1963 Plaza survey map) showing where the shots fell, and the May maps (CE 882 and 883) are major. The December map shows the last shots happening farther down the street than the official story had it. The first survey has a chart showing where three shots hit the car, almost evenly
spaced, but all three of these maps were printed in such small format that they cannot be very well read, if at all, and almost no one would notice this. More about this in the next chapter.

We were hypnotized with this film, and ultimately it was an exercise in mass mind control. It was never a "time clock of the assassination" as we were told, but the exact opposite. Time and action were removed. That is how we were tricked.

As Professor Philip Melanson has written, "It is possible that the film of the century is more intimately related to the crime of the century than we ever knew—not because it recorded the crime of the century, as we have assumed, but because it was itself an instrument of conspiracy."[43]

In the art of the film business, anything is possible. It is, after all, an art.

The next chapter deals with the major discrepancies between the findings of the criminal investigators (the FBI and the Secret Service) as to where the shots landed, and what the Warren Commission said and the film now shows.
Botw relating to "December 4" on l's page 122:

This is consummate dishonesty. He gives no source and he dares not. He took it from Photographic Whitewash, where I published the letter in facsimile on page 143. He writes about this as of December 4, 1963 but in fact that letter was dated December 4, 1964, after the Report was out. It was a year after he says!

This deliberate misrepresentation is his basis for alleging there was still another copy not accounted for.

Photographic Whitewash also includes what LIFE said about when and how the original was damaged. I brought that to light in WW. It was when a copy was being made in Chicago (and Livingstone has even the timing of LIFE's use wrong from his notes and what he and they made up). But having used Photographic Whitewash as I indicate above, he had to know the truth because it is also in that book, earlier in it. In short, he both cribs and suppresses from that book, which he has. He had to suppress the truth because it destroys all he had made up, proving it to be impossible.

He even contradicts himself because he has to make all of this up on whether there was a contract for the use of the film, as the notes on the pages reflect.