The JFK Autopsy Materials: Twenty Conclusions after Nine Visits

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Introduction

I examined the JFK autopsy materials at the National Archives (NARA) on four separate days in 1993, on two days in 1994, and on two days in 1995. This review included the photographs, X-rays, clothing, magic bullet, and two metal fragments removed from the skull. My most recent visit (day # 9) was on 12 April 2001. Nearly six years had passed since my eighth visit, during which time the Assassination Records Review Board (ARRB) had come and gone. In addition, during this six-year time interval, my initial findings had been published in two books: (1) Assassination Science and (2) Murder in Dealey Plaza, both edited by James Fetzer. To place the significant discoveries of this ninth and last visit in context, the major conclusions from my initial eight visits are first summarized. (Additional conclusions of somewhat lesser interest, although still important, either have been or shall be summarized elsewhere.)

Visits # 1-8 (1993-1995)

- 1. Shortly after the autopsy, a large white (i.e., relatively transparent) patch was superimposed (in the darkroom—not on a physical skull) over the posterior portion of both lateral skull X-rays during the production of altered copies. These are now part of the official collection at NARA. This left unaltered a large, dark area at the front of the skull, which made it appear that a posterior bullet had blown out the front. Even Humes, during his ARRB deposition, repeatedly expressed his bewilderment at this dark area, most likely because the white patch subconsciously confused him. An obvious corollary to this conclusion is that both original, lateral skull X-rays have vanished—without a trace.
- 2. Shortly after the autopsy--by using a simple, double exposure technique in the dark room--a 6.5 mm, metal-like object was superimposed over an authentic, but smaller, metal fragment (within the right orbit) on the original, frontal X-ray during the production of a copy film. This altered film is now part of the official collection. The evidence for this forgery derives from eight separate lines of evidence, most based on optical density (OD) measurements of the X-rays. During their ARRB depositions, the autopsy pathologists did not recall seeing this object on 22 November 1963-nor, for that matter, did anyone elseincluding the radiologist. This X-ray forgery was done with a single purpose: to incriminate Oswald via the 6.5 mm Mannlicher-Carcano carbine. Within the past several years, Larry Sturdivan, the ballistics expert for the House Select Committee on Assassinations (HSCA), has also stated his absolute conviction that this 6.5 mm object cannot be a bullet fragment. This new interpretation of the 6.5 mm object (as an irrelevant artifact) totally contradicts the Clark Panel (1968) and the HSCA (1978), both of whom interpreted this object as an authentic bullet fragment. Even more to the point, this object played a crucial role in their conclusions-which have now been thoroughly undermined. The extant frontal X-ray, therefore, also cannot be an original but must be a copy. The original has vanished without a trace. Therefore, no original, unaltered, X-ray remains.

- 3. At the front of both lateral skull X-rays is a fist-sized dark area that is devoid of brain tissue. This is in dramatic disagreement with the brain photographs, which show nearly intact brain on both sides of midline. On the other hand, it is remarkably consistent with the substitute brain hypothesis as advanced by Douglas Horne, and which is supported by multiple lines of evidence. Furthermore, the autopsy photographer, John Stringer, told the ARRB that the photographic film that he used for the brain photographs was different from the extant film that shows the brain—which would also be consistent with the substitute brain scenario.
- 4. Based on OD measurements of all three skull X-rays, more brain is missing on the right side, but a substantial amount is also missing on the left. This latter conclusion, especially, is in serious disagreement with the brain photographs. Diana Bowren, a Parkland nurse, looked inside the skull while preparing the body for departure and noted that about one fourth of the left brain was missing. This would be quite consistent with the OD data, but in total disagreement with the autopsy photographs.
- 5. Based on both OD measurements and on hot light observations of the X-rays, the right skull is missing anteriorly to the forehead, very near the hairline. This is consistent with both the face sheet from the autopsy and with Boswell's drawings on a skull for the ARRB.
- 6. The black and white prints of the X-rays, listed in Burkley's Memorandum of Transfer (26 April 1963), no longer exist. Nothing is known about their disappearance or their present location.
- 7. Based on 3D viewing of the autopsy photographs with a large format stereo viewer, the scalp hair on the posterior head photographs (b & w # 15, 16 and color # 42, 43) appears starched and flat, i.e., not naturally 3D. (Also see comments below from day # 9.)
- 8. On the posterior photographs of the head, the famous "red spot," identified by the HSCA as a bullet entry, is remarkably difficult to see in both b & w photographs (# 15, 16). Furthermore, several hairs emerge directly from this so-called wound in the b & w images; oddly, such hairs are not as obvious on the color views (# 42, 43). On the b & w images, this site does not look at all like a bullet entry wound. These observations were made with a magnifying lens that incorporated two different powers. During his HSCA testimony, chief pathologist, James J. Humes, made similar denigrating comments about the supposed entry site on the b & w images,
- 9. When the anatomic landmarks from the skull X-rays are integrated with similar landmarks from 3D viewing of the mystery photographs of the large skull defect a clear conclusion emerges: the large skull defect must lie at the right rear. This is in marked agreement with virtually all of the Parkland and Bethesda medical personnel, just as Gary Aguilar, M.D., has shown so clearly. (Because the b & w images (# 17, 18) are cropped, the color images (# 44, 45) are essential for this exercise.)
- 10. There are only seven distinctly different autopsy poses of the body; all of these can be seen in popular books. Likewise, there are seven color images of the brain, none of which is in the public record. Only a sketch of one view was published by the HSCA.
- 11. When the shirt is buttoned, the two slits just below the collar overlap perfectly. No fabric appears to be missing—meaning that a scalpel might well have produced these slits

(as has been suggested by the nurses, who cut off the clothing). The appearance of these slits is not at all consistent with the passage of a bullet (and no tests ever showed the presence of metal at this site). When a live model at NARA modeled the coat for me, the hole in the coat lay about ten centimeters (four inches) inferior to the scapular spine. This is not consistent with the autopsy photograph of the back wound, which lies close to the level of the scapular spine. When Steven Tilley, JFK Liaison at NARA, aligned the top of the shirt and top of the coat at my request, I could see that the hole in the shirt lay 1.5 cm inferior to the hole in the coat. In order to explain the low-lying hole in the coat, partisans of the single bullet theory have necessarily had to argue that the top of the coat was bunched up—by more than four inches, according to the measurement noted just above. On the other hand, they have been oddly silent about the hole in the shirt. Since this hole appears to lie even lower, they must argue that the shirt was also bunched up, perhaps even more than the coat—despite the fact that there is no photographic evidence that the shirt was bunched up at all and despite the fact that JFK was wearing a back brace that should have kept the shirt in place.

- 12. CE 399 (the magic bullet) contains only four grooves, which is the expected number for a Mannlicher-Carcano bullet. The available photographs are misleading. An accurate count of the grooves can only be done at NARA.
- 13. As viewed at NARA, CE 843, the larger metal fragment supposedly removed from the skull, is pancake shaped and 3 x 2 x 2 mm. This is in striking contrast to its appearance on the skull X-rays—where it is more nearly linear at 7 x 2 x 2 mm. No tests performed on this fragment can explain its odd transformation in shape and size, nor has any official explanation ever been advanced for its current, and dramatically different, shape.

Visit # 9 (12 April 2001)

None of the prior conclusions are changed; on the contrary, they are reinforced.

- 14. There are remarkably many, tiny metal fragments widely scattered on the skull X-rays—even on the left side as well as on the inferior skull, including at least four near the chin on the frontal X-ray. This striking, and heretofore ignored, observation is hardly compatible with the passage of a single, full metal-jacketed, Mannlicher-Carcano bullet near the top of the skull, but might more easily have resulted from a hollow point or mercury bullet—or perhaps even from shrapnel from a bullet that was not counted by the Warren Commission.
- 15. All three skull X-rays show a (spatially consistent) fuzzy, gray cloud within the fragment trail that extends across the top of the skull; this fuzzy cloud seems more consistent with mercury (i.e., as extruded from a bullet) rather than lead. I am, however, unaware of any existing experiment with mercury bullets shot into skulls that could test this conclusion; this should therefore be viewed instead as a hypothesis ripe for experiment.
- 16. There are 20 color transparencies (this was the only color format exposed during the autopsy) of the body, and 18 b & w negatives, yielding a total of 38 images of the body. There are 7 color negatives and 7 b & w negatives of the brain. Altogether then, the NARA set once included 38 + 14 = 52 independent images. On 19 May 1969, however, pathologists Humes and Boswell noted that one color negative of the brain (#49) was

missing. It has never been located, which now leaves only 51 images. There are 14 X-ray films; these include 11 of the body and three of the late arriving bone fragments.

- 17. There is no photograph of the Harper fragment, nor is there any documentation of it at NARA. This evidence, previously held by the FBI, has vanished into thin air.
- 18. No matter how the stereo viewer is employed, the upper scalp hair on the posterior head photographs looks starched and flat, i.e., two-dimensional. This is how two precisely identical photographs appear when viewed in stereo. In a bizarre image over the left top of the head, the hair extends well out into space, looking as if it had been glued into position. When the paired photographs are reversed (left for right), or even when they are each rotated by ninety degrees, this odd appearance of the hair persists. This is true both of the color transparencies and of the color prints. Such a 2D effect would occur if the same photograph (of extraneous hair) had been inserted (as in a soft matte technique) into two slightly different views of the same pose. This conclusion that the upper scalp hair (just where there should be a large hole, according to the score or more of witnesses assembled by Gary Aguilar, M.D.) forms an unnatural 2D image in the stereo viewer is strikingly at odds with the HSCA, which implied that the stereo images appeared normally 3D. By contrast, stereo viewing of the hair on other photographic pairs in the autopsy collection seems normal.
- 19. One photograph of the back (color transparency #38) cannot be an original, but must rather be a copy. As a corollary, one of the related color prints must be an orphan it has no obvious parent.
- 20. The most important conclusion from day # 9 is this: the left, lateral skull X-ray must be a copy. The supporting evidence for this is totally new, simple, and straightforward. Since we now know, beyond any doubt, that at least this one extant skull X-ray must be a copy, several elementary questions immediately arise: (a) Where is the original? (b) Why is there no documentation for the missing original? (c) Why was the film copied at all? (d) Why is there no record of its copying? (e) Who copied it? (f) Why have all of the official panels, and NARA, too, insisted to the present day that all of the X-rays are originals and that none are copies? (g) Finally, and most importantly, was it copied in order to alter the image?

Evidence for the New Conclusions

- 14. These fragments are obvious to the unaided eye on close inspection. Since direct copying from the X-rays is not permitted, I employed an alternate technique to locate and to sketch all of these metal fragments. I first placed a transparent piece of graph paper over an X-ray; immediately adjacent to this (on a light box) I placed an identical, but opaque, piece of graph paper. I then located each metal fragment in two dimensions on the transparent graph paper overlying the X-ray; after finding the same site on the opaque graph paper, I outlined each fragment's size and shape with good precision.
- 15. This fuzzy cloud looks quite different from the obviously metallic fragments: (a) it appears translucent rather than transparent, (b) it is very large compared to the fragments, and (c) it has ill defined, sometimes almost invisible, borders.
 - 16. I examined and counted each of these.

17. This is based on Steven Tilley's answer to my query.

18. I brought my own large format, stereo viewer to NARA. Each pose of the body is represented by at least two, nearly identical, photographs—slight differences between each member of a pair are the necessary condition for 3D viewing. Such viewing was particularly useful for the mystery photographs with the large skull defect (b & w # 17, 18 and color # 44, 45).

19. In the photographs of the back (b & w # 11, 12 and color # 38, 39), on the left side, there is a small, well-circumscribed, dark area (perhaps a blood stain—or maybe even a wound) just above and to the left of the fourth knuckle. Because of the controversy over the superior-inferior level of the back wound, I had asked myself if this dark area might be the authentic back wound (moved to the left side by the simple expedient of turning the negatives over in the dark room and then making a print). To my amazement, when I examined this site closely in the pair of color transparencies, the dark area was absent from one of them. Instead, in one transparency, precisely this same site was hypopigmented, with a thin, dark, horizontal line traversing its center—but the dark area was definitely missing!

Since the only color films exposed at the autopsy (of the body) were transparencies, the color prints must have been prepared later from the transparencies. Since the color prints of this particular pose of the back display the identical dark area on the left side of the back (as do the b & w images), the next question was obvious: do the color prints derive from the sole color transparency that contains the dark area? To answer this question, the color prints were examined simultaneously with the stereo viewer-- from which a typical 3D image emerged. Such a stereo image can occur only if the two color prints are at least slightly different—they cannot be identical. Therefore, there are two, slightly different, color prints, each of which must derive from a different color transparency-and each of these two transparencies must display the dark area. But since only one color transparency shows such a dark area, one of these color prints is an orphan-i.e., there is no second color transparency with a dark area to serve as a parent for the second print. Only two reasonable possibilities exist: either (1) the body was altered at the autopsy at this specific site in the short time interval between these two exposures (besides seeming totally pointless, if not downright deceptive, no one has recalled such an event) or (2) a second color transparency (that originally contained the dark area) was first used to produce the second color print, after which this transparency was photographically altered to appear as it now does.

In any case, the odd color transparency with the hypopigmented area really does exist—and so does the orphaned color print. (The b & w images show no such paradoxes.) The probability is therefore very high that at least this one transparency is not an original, yet it survives today in a set of twenty images of the body, all of which are officially regarded as originals. But if even one of these is not an original, what certainty can there now be that the other nineteen color transparencies are originals? Even more to the point, what certainty remains that none of these other nineteen has also been altered? Or, in view of already noted evidence for photo-alteration (i.e., the odd 2D hairpiece seen in stereo images of #42, 43), perhaps this question should instead be limited to the remaining eighteen.

¹ After my visit, I sent a specific letter of inquiry on this point to Steven Tilley. His letter of response is attached.

20. On the left, lateral skull X-ray, just anterior to the cervical spine (see enclosed image) is an apparently hand drawn inscription, not previously discussed by me—or by anyone else. It looks like an upper case letter T, lying on its side, with a slight separation between the two perpendicular strokes. It is the only hand drawn symbol that I could find on any of the three skull X-rays. This inscription is quite transparent, as if emulsion had been removed from one side of the film. In fact, small black traces, suggesting residual islands of emulsion in a sea of gray, are still visible. OD measurements support this conclusion of missing emulsion from one side: ODs inside the inscription are 1.05, 1.44, 1.42, 0.92, and 1.42, yielding an average value of 1.25; ODs just outside are 2.29, 2.44, 2.37, 2.44, and 2.43, yielding an average value of 2.39. The ratio of 2.39/1.25 = 1.91, being a little less than two, is precisely what would be expected for emulsion missing from one side.

By way of comparison, at one edge of this same film, emulsion has obviously peeled up from one side of the film; short segments of this detached layer are obvious to the unaided eye. Furthermore, where emulsion has completely separated, the shiny plastic film base is easy to see. As would be expected, light transmission is greater through this single emulsion site. That the emulsion is still intact at this same site on the other side of this double emulsion film is also obvious.

Now if emulsion is truly missing from one side where this hand drawn inscription appears, then the interruption of the emulsion surface should be easily visible to the unaided eye (like paint scraped off an oil painting). Here then is the chief discovery of this ninth visit: no emulsion is missing! Even when the emulsion is closely inspected—using reflected light glancing off the surface at a wide range of angles—the emulsion appears entirely intact over this site on both sides of the film. Both surfaces are as slick and smooth as a freshly iced hockey rink. Emulsion is neither missing nor disrupted in any way.²

Only one explanation is possible—this left, lateral skull X-ray is a copy. The reason, of course, is that the emulsion of a copy film would be fully intact, yet at the same time it would faithfully record any areas of increased transmission (i.e., missing emulsion) from the original. A simpler—or more straightforward—proof of film copying is unimaginable.³

One final comment seems pertinent. Two other odd features of this particular left, lateral skull X-ray are: (a) there are no Kodak identification numbers anywhere on it and (b) this film has never appeared in any publication. It can only be seen at NARA.

² It is essential to note at this point that the X-rays are stored inside transparent plastic sheets and that viewing is virtually always done with the X-rays inside of these sheets. For this particular inspection, however, it was critical that the X-ray film be viewed directly, with no intervening reflections. Steven Tilley was gracious enough to remove the X-ray from its protective sleeve so that the naked surfaces of the film could be viewed directly.

³ Any significant new discovery in this JFK case is often measured against a single standard—i.e, is it a smoking gun? Well before all of the 60,000 new documents had been released by the ARRB (and surely before she had read all of them), one board member (Anna Kasten Nelson) assumed the garb of a Biblical prophet: she proclaimed *in print* that there would be no smoking guns in this case. In view of the new evidence described here, however, I would propose a somewhat different metaphor. To summon up an image of Moses rather than the prophets, this new discovery is rather less like a smoking gun than it is like a burning bush.