# **CONTACT PROFILE**



Document's Author: Douglas Home/ARRB

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**Contact Description** 

**Contact Name:** 

Earl McDonald

Company: Title:

National Archives Conservation Office Former Bethesda Medical Photographer

Category:

Witnesses/Consultants

**Street Address:** 

Phone Number: FAX Number: E-mail Address: HSCA Letter Sent:

## **Additional Information**

ARRB became aware of Earl McDonald by accident in March, 1996, while he was photographing the 5 members of the Review Board at Archives I where he works. He volunteered to ARRB staff that he used to be the Medical photographer at Bethesda, and knew John Stringer, the autopsy photographer, because John Stringer had trained him during the 1970s. David Marwell, ARRB Executive Director, invited Mr. McDonald to visit ARRB's offices and discuss his Bethesda experiences with ARRB staff.

### MEETING REPORT



Meeting Logistics

Date: 03/21/96

Agecny Name: Witnesses/Consultants

Attendees: David Marwell, Jeremy Gunn, Tim Wray, Doug Horne

Topic: Bethesda Medical (Autopsy) Photography

## Summary of the Meeting

Mr. Earl McDonald, presently an employee at the National Archives, met with ARRB on 3/21/96 at ARRB's offices to discuss how autopsies were photographed at Bethesda in the 1970s, and to discuss his knowledge of John Stringer, who was his instructor in Medical photography.

McDonald told us he was stationed at Bethesda from 1972-1980, and that after being trained by John Stringer as a medical photographer, he served as the Bethesda autopsy photographer from 1972-1980. He said John Stringer retired sometime during the late 1970s, prior to 1980. Mr. McDonald said that from 1986-89 he himself became the senior instructor in medical photography at Bethesda, just as John Stringer had once been. This tour was his last tour of duty; he retired in 1989 when it was over. He is presently a civil service employee of NARA and works at Archives I.

Knowledge of John Stringer: said Stringer would never say anything to his students about the JFK autopsy except: "They took my film away from me and I never saw it again." He said that John Stringer was an award-winning medical photographer, and a very exacting teacher with an almost photographic memory.

Regarding Bethesda autopsy photography as he knew it in the 1970s, his remarks are summarized below:

-the photographer who shot the autopsy would always develop his own film (both black-and-white and color) in the lab at Bethesda; this was virtually mandatory, not only from the standpoint of pride and professionalism, but from a technical standpoint, since the photographer might have to alter the "normal" chemistry (strength) of solutions in the lab, or alter developing time, based on how he shot the pictures. He said that the Ektachrome E3 process required the replenishment of chemicals (control strip) as you worked, and was very tricky work--in his words, "everyone had his own recipe" for developing color film. If a photographer did not develop his own work, the only other activity that it would be given to (in the 1970s) was AFRRI, Armed Forces Radiological Research Institute, which was on the grounds at Bethesda.

-When asked by ARRB, he said that he could not recall one instance of autopsy or medical film being taken to the Navy Lab at Anacostia for developing; he thought that would be very strange, since he said that facility was surrounded by barbed wire, had the reputation of doing "secret" photo-intelligence work of some kind, and everyone he knew had the impression that no one was supposed to talk about the kind of work that went on at Anacostia.

-in the 1970s he said all medical photography was in 35 mm film format, but that he was aware that in the early 1960s that the medical field was transitioning from the 4 X 5" Press Cameras (Speed Graphics) to 35 mm, and that it was his impression that in those days, either or both may have been used for autopsies.

-he said that use of a tripod with a Speed Graphic camera at an autopsy was mandatory for proper focus, since before shooting each picture, the photographer had to first remove the lens cap, open the shutter, focus the image on a pane of frosted glass in the camera, then (without moving the camera) close

the shutter, insert the duplex film holder, and then shoot the picture.

- -he said that floodlights or a flash would be required for autopsy photography.
- -He said that types of views shot at autopsy would include the following sequence:
- -Full Body Shots (left and right lateral views, plus obliques from both sides, plus from above on a ladder), including sequential Full Body Shots as clothing or wrappings were removed, piece by piece;
- -All photos at an autopsy should display an autopsy card with the autopsy number written prominently on the card (AYY-###), with the two digits after the A being the year (i.e., "A63" for an autopsy in 1963), and the ### being the sequential number of the autopsy performed that year; if a close-up view was too close to show the card in the field of view, he said the autopsy number would characteristically be written on a piece of tape place on a ruler or straight-edge, which was usually in close-up photos for purposes of scale.
- when photographing trauma such as a wound, he said that there would usually be a series of three views, such as a wide-angle first, then a medium field-of-view shot, and then an extreme close-up, so that one would have references to refer to for authentication and identification when viewing the photos later.

-he said that the regimen for use of autopsy tags, and for taking full body photos and varying series of increasing close-ups of the same wound are things that would not have changed between 1963 and the 1970s, because they were standard practice; and that furthermore, it was John Stringer who had taught him these procedures.

-he said that although the "resident" (by this he meant resident pathologist at Bethesda, since almost all autopsies were performed by the residents who were in-training at the Naval medical school at Bethesda) would ostensibly direct the photographer to take the photographs he wanted, it was in reality a two-way process, in which the photographer would often prompt or remind the pathologist on duty if he were forgetting important or standard views that he had failed to direct be taken. He said a nervous resident would often direct that many extra photographs be taken, especially during an unusual autopsy, but that the photographer on duty would normally help avoid or prevent significant photographic omissions from occurring during an autopsy.

-during his tour of duty, he said that it was common in 35 mm format photography to use rolls of black-and-white or color film; and in the case of the Speed Graphic camera, either black-and-white duplex film holders; black-and-white film packs (called "Press Packs") holding 16 sheets of film; or duplex holders which held 2 separate sheets of color film.

-After reviewing publicly available reproductions ascertained by ARRB staff to be faithful (if degraded) representations of authentic autopsy photos in the National Archives, Mr. McDonald offered up the following general observations of discrepancies between the official collection of autopsy photos at NARA and what he would expect to see if he had shot the autopsy himself:

- -There are no autopsy tags visible in any photos;
- -There are no whole body photos in the collection;
- -There is no photograph of the brain (at autopsy) immediately following removal from the cranium;
- -There is no photograph of the inside of the skull (following removal of the brain) showing the condition of the inside of the cranium;
  - -There is no photograph of the reassembled skull;
  - -There is no photograph of the chest cavity;
  - -There is no extreme close-up of the back wound;
- -There is no wide-angle view and/or medium-field view of the cranium viewed from the outside (to go with the extreme close-up in the collection).

When asked by ARRB staff what grade he would assign if he were asked to grade the present collection of autopsy photos, he said he would grade them "quite low," because among other reasons, the collection was not comprehensive (that is, did not represent the range of views that should have been depicted from either a normal autopsy, or especially of an autopsy involving gunshot wounds).

After reviewing the appearance of the morgue in the extant autopsy photos, Mr. McDonald said that he never saw the stirrup used (for the head of the deceased) as it is in the autopsy photographs of President

Kennedy; he does think the autopsy table is the same table that he saw at Bethesda, however, and says he does remember a hole in the metal frame at the head of the table (to which the stirrup support is fixed in the autopsy photos). He elaborated that he always saw a rubber chock, or block (reddish-gray in color) used to support the decedent's head at the autopsies he photographed between 1972-1980. He said the autopsy tray in the photographs does look familiar to him. He said there was no wooden furniture in the morgue at Bethesada while he was there in the 1970s. Although he said there was a telephone in the room at the Bethesda morgue, he does not remember a telephone being on the wall in the location shown in the extant autopsy photographs; rather, he thought he recalled the telephone in the room being behind the person who would have taken the photo in question (left lateral view of President Kennedy's head), near a sink next to a counter with shelves above it. When asked if he remembered the tile walls in this photograph, he said that he didn't think he remembered seeing any bare tile walls, because the morgue as he remembered it from the 1970s was so cluttered with lockers, and cabinets, and a large chalkboard, that he didn't think bare walls were visible anywhere. He did recall that the scales in which organs were weighed were located at the foot of the autopsy table.

Adjacent to the morgue on one side was the cold storage room, or anteroom, which contained cadavers in cold storage awaiting autopsy; adjacent on the other side was a small office, containing a desk, a filing cabinet, a couch, and a second telephone (separate from the telephone in the morgue).

Mr. McDonald also discussed film orientation of original sheets of film, and relayed to us a technique for identifying how each piece of film was oriented when shot in the camera: essentially, each piece of film has notches in it which can be felt with the fingers (in the dark in a dark room)---as 4 X 5" film sits in the Speed Graphic camera, the emulsion side faces the lens, the image is recorded upside down on the film, and the notches are on the bottom left corner of the film as the film sits in the duplex film holder in the camera. Therefore, if one were to view developed sheets of original film outside the camera looking at a right-side-up image, the I.D. notches should be in the upper right-hand corner of the negative or positive transparency. Black-and-white negatives from 4 X 5" duplex film holders contain four v-shaped notches, and 4 X 5" Ektachrome color positive transparencies contain two notches, one square shaped and one v-shaped. Film from a black-and-white film pack or "press pack" does not contain notches. [NOTE: subsequently, ARRB staff checked the original autopsy films of President Kennedy (i.e., black-and-white negatives, and color positive transparencies) for these notches, and determined that color positive transparencies #26-48, and #50-52 do indeed contain the expected double notches; black-and-white negatives # 1-18 do indeed contain the expected quadruple v-shaped notches; and also ascertained that black-and-white negatives # 19-25 contain no notches, which would indicate that they were not individual sheets of film from a duplex film holder, but rather part of a black-and-white film pack.]

Further discussions of film processing revealed that there are (and were) two ways to make color prints from color positive transparencies: (1) directly from the positive transparency, with reversal paper, called "R" paper, sometimes called "CIBA" prints; and (2) by making a negative (or "internegative") from the color positive transparency first, and by subsequently making color prints on regular print paper from the internegative. [NOTE: It would appear that this is how color autopsy prints were made from the color positive transparencies---by first making an internegative.]

Mr. McDonald also observed that when black-and-white prints are made from color negatives or positives, that the color red turns to black, when panchromatic black-and-white film ("pan" film) is used. The brighter and deeper the shade of red in the color negative or positive, then the darker shade of gray or blacker the resulting black-and-white image will be. END

### MEETING REPORT



Document's Author: Douglas Home/ARRB Date Created: 12/17/96

Meeting Logistics

Date:

12/12/96

Agecny Name:

Witnesses/Consultants

Attendees:

Doug Horne, Earl McDonald

Topic:

Doug Horne Discussed Basic Photography Questions with Earl McDonald

## Summary of the Meeting

On Thursday, December 12, 1996, Doug Home visited Earl McDonald in his office at the National Archives to discuss general photography issues prior to ARRB's interview of Saundra Spencer.

Questions and answers are summarized below:

- Q: What developing process was used to process color negative film in 1963?
- A: A developing process called "C-22."
- Q: Please describe the physical process involved in developing 4" X 5" color negative sheet film.
- A: The time required would be less than one hour. There are three methods which could have been used in 1963 to develop color negative sheet film:
  - -a sink line, or hang line (a method used at Bethesda);
- -a "dip-and-dunk" machine, sometimes called a Pako machine (brand name), in which individual sheets of film hung from clips attached to trees which were moved both horizontally and vertically along a processing line via an automated track;
  - -a basket machine, sometimes called a Rolar machine (brand name).
  - Q: What types of B & W negative sheet film could be used in 4" X 5" duplex holders in 1963?
- A: Tri-X; Portrait Pan; Plus-X Pan; Plus-X Portrait Pan. The "dual" surfaces on Plus-X Portrait Pan film allowed retouching of the negative with an ordinary pencil.
  - Q: How much film is in a press pack, and is the film in a press pack always B & W?
- A: 16 sheets of film are in a press pack; Earl McDonald only saw B & W film in press packs--never saw color film from a press pack. He said the press pack was a yellow and green metal box which attached to the back of Graflex cameras. The only film he ever saw in film packs was Tri-X film. Separate from press packs, but similar in nature, he said that there were adaptor devices (or magazines) which would hold six 4" X 5" sheets of film only; these sheets of film could be either color or B & W. Developed film from a film pack (sometimes called a press pack) would NOT have any notches in the edges or corners of the film; very thin sheets of film are used in film packs. Sheet film used in the 6 ea adaptors is regular sheet film--it is of a regular thickness, and does have notches in the edges near the corners commensurate with the type of film used.
- Q: Could a "normal" Navy photographer who was not a medical photographer easily distinguish metal probes in a cadaver after only briefly examining B & W negatives of the image?
- A: Yes, because anyone familiar with photography knows that metal objects which are at all rounded reflect light as "hot spots" which show up as very dense, black streaks in negative images—the blackest, densest part of B & W negative images is always the brightest, most intense light source, and in the case of a photograph of a cadaver with probes in it, the metal probes in the image would invariably show a "hot

spot" on the negative, quite different in appearance from the light reflected from the surface of the cadaver, which would represent the light from an electronic strobe or bulb flash unit reflected off of the rounded surface of the metallic probe. (McDonald then remembered, from his own specialized experience as a medical photographer at Bethesda, that medical instruments during surgery, and probes during autopsies, were always the most prominent--the darkest--portions of a B & W negative image, because of the fact that they reflect the intense light from a flash unit off of their rounded surfaces.) Even though he had memories relating to his specialized experience as a medical photographer, he felt that any professional photographer would know a "hot spot" reflecting off of metal when he saw it in a B & W negative.

Q: If color positive transparency film were inadvertently developed using the "C-22" (color negative) process--for example, if the technician believed the transparency film was really negative film-- what would the developed images look like?

A: The developed images would be negative images (NOT color positive transparencies), but would be similar to color negatives without the orange, or yellow, color base which is normally present; i.e., they would look like "wierd" negatives, but the images would definitely be negative, rather than positive.

Q: If Ektachrome E3 Color Positive Transparency film was exposed to light (i.e., ripped out of camera and exposed for a long period of time to ambient light) and developed properly, what would the images look like?

A: The film would be clear--transparent.

Q: If Ektachrome E3 film was exposed normally inside the camera to photographic images, but developed incorrectly (using the C-22 process for color negatives), what would the images look like?

A: The images would be negative images, but without the normal orange or yellow color base.

Q: If I were to show you a strip of 120 Ektachrome E3 film which had been developed, and was 90% black, but is clear (transparent) in an uneven manner along the edges, and which contains 3 very dark images, what could possibly explain this phenomenon?

A: It could have been exposed to 3 images under ambient lighting conditions (without flash), then removed from the camera in such a manner that the film immediately rolled up around the spool with the paper backing protecting all of the film except for the edges; if developed normally, the portions of the film edges which had been exposed to light would develop a transparent (clear) image, and the remainder of the roll would develop black where not exposed, and would develop a very, very underexposed positive image where the three frames were exposed under ambient lighting conditions. Mr. McDonald noted that if someone were using an electronic strobe flash, but had the camera incorrectly set on the bulb setting (M sync), vice electronic setting (X sync), then the electronic strobe flash would have gone off before the shutter opened, and when the shutter opened, the only light available would have been ambient lighting, thus producing an underexposed image.

Q: If a 4" X 5" sheet of Ektachrome E3 film were unexposed, but developed, what would the film look like after it was developed?

A: It would be black--a translucent, but very dark black.

Q: If a 4" X 5" sheet of Ektachrome E3 film were unexposed, and NOT developed, what would the sheet of film look like?

A: It would be opaque, but not black. The color might be beige, or light green; it would be a peculiar, opaque color. END