

Excerpt from "This Morbid Life: Essays" by Loren Rhoads

Mortuary Science for the Absolute Beginner

A friend affectionately referred to me as death-obsessed. After some soul-searching, I had to admit this is true. I am fascinated by the cold husks we leave behind when the essence—whatever you call it—that animates our flesh has gone. Where better to study death than at a mortuary school?

In November 1993, the San Francisco College of Mortuary Science gave an informational tour, which I eagerly attended. I knew ahead of time that we could not view any actual corpses, since that was against California state law. However, the tour would include a video of an embalming, which was purported to be quite graphic. My stomach fluttered while we waited for the tour to begin.

The tour group gathered in the mortuary college's Chapel A. We looked like a fairly normal bunch of people, though many of us carried notebooks. For once, my morbid curiosity didn't seem out of place.

At the front of the chapel loomed a large stained-glass panel of Christ praying in Gethsemane, his face upturned toward streaming yellow light. The window glowed malevolently red as taillights flashed by outside on Dolores Street. What had I gotten myself in for?

Our tour guide was Jacquelyn S. Taylor, President of the San Francisco College of Mortuary Science. She wore a conservative pine green dress with gold buttons at her collar and cuffs. Black would have overwhelmed her fair complexion. She looked serious, trustworthy, sympathetic: not at all ghoulish or weird or scary. Her appearance put me at ease, as she undoubtedly intended.

Taylor began with a short history lesson. Mortuary science in America gained acceptance during the Civil War, when vast numbers of people were dying far from home. Intravenous embalming—replacement of the blood by chemical preservatives—kept soldiers' bodies intact long enough for them to be shipped back to their loved ones. The original undertakers were cabinetmakers, simply because they also built the coffins. Taylor said that salesmen would travel around giving short lessons on embalming procedures to anyone who showed interest, in hopes of selling their wares.

The San Francisco College of Mortuary Science opened its doors in 1930. In the 1990s, they graduated seventy students a year, as opposed to a peak of four hundred per year after World War II, when GIs flooded the job market. In the past, the funeral industry was a family business. In 1993, ninety-five percent of the College's students had no prior experience with corpses. The average student was thirty-one. Thirty percent were women, true of the mortuary business nationwide. People were attracted to the field for a variety of reasons, mostly economic.

Whenever the economy took a downturn, Taylor said, the College benefited: the IRS could only employ a limited number of displaced workers, so job-seekers turned to the other constant in the death-and-taxes duality. All of us in the tour group laughed, relieved by the humor,

however slight.

As a service to the community, the College offered low-cost funerals. Like a beauty academy or a dental school, Taylor said, the College provided necessary services for people who couldn't afford licensed professionals, while giving valuable learning experiences to their students. Under supervision, students met clients, arranged funerals, and did the actual embalming.

The State of California required only nine months of study and a one-year apprenticeship for a mortician's license, but the College of Mortuary Science taught a full-year program. Tuition cost \$8400, plus \$700 for books and lab fees. Starting salaries in the industry ranged from \$18–24,000. A master mortician might make \$40–50,000. Taylor told us the only way to become rich was to own a funeral home. Consequently, the College offered courses in small business management.

Taylor moved on to the “meat” of the subject: what exactly happened to the dead? Nothing to be squeamish about, she assured us, explaining that decomposition was a very natural process. Immediately after death, the body's proteins began to break down and return to their original elements. Sometimes there was no immediate outward sign of this process. Depending on atmospheric humidity and temperature, some bodies could last several days without embalming. The higher heat and humidity rose, the quicker rot spread.

The rate of decay also depended on a body's composition. A moist, fatty corpse dissolved quickly. A muscular body, one with less moisture, remained intact longer but got worse rigor mortis, which “passed off” more slowly. Rigor, which locked the corpse into whatever position it lay in, usually began three hours after death. Twelve hours later, the body became completely rigid. (Hence, the term “stiff.”) Rigor could last three or four days, after which the body became flaccid again. Taylor explained rigor as the depletion of adenosine triphosphate in the muscles. She said that soreness after exercise was the same chemical reaction—lack of adenosine triphosphate—but since the living continued to move, the muscles didn't lock up to the point of complete paralysis. If the mortician was in a hurry, rigor in a corpse could be broken up with massage.

According to California law, a corpse must be disposed of within twenty-four hours of death, unless it was embalmed or refrigerated. Disposal generally entailed either burial or cremation. My husband Mason asked about taxidermy. Taylor thanked him for asking an entirely new question; she thought she'd heard everything. She wasn't aware of any law against stuffing a human skin, but guessed that the health officials would balk because they like to keep track of human remains. The innards of the body would still need to be cremated or buried.

In the U.S., most bodies that would eventually be cremated were embalmed first, so that the family could hold memorial services. In Japan, that was standard procedure: to have a viewing, then cremation. In cultures like ours that favored burial, embalming was used as a temporary procedure. It typically lasted only a month or two, though it could last longer if underground conditions were conducive. In the right circumstances, embalming could keep dissolution away forever, as in the case of Vladimir Lenin or Chairman Mao.

Taylor invited us to watch a video designed to introduce embalming to potential students. She apologized for the 1960s organ music that opened the tape. Under the mortuary chapel's saccharine cherubs, clutching their chubby hands beneath their chins, Taylor switched on the VCR.

The old woman in the video was the complete opposite of the tubby cherubs. She looked half-mummified as she laid on the embalming table. Her mouth gaped as if in terror. Her half-

open eyes glowed brightly white, like moons. The mortician in the video said that her eyeballs had flattened due to dehydration. Loose skin hung from her skeleton, draping her bones. A white towel covered her breasts; her skeletal hands lay on another towel folded across her hips. I was unquestionably grateful not to see her shriveled sex. The face was gruesome enough.

Even though she was quite visibly dead, I could not depersonalize the old woman. Her corpse retained gender in my mind. I could not think of her body, even though it was clearly uninhabited, as an “it.” Because I attributed a personality to her, I empathized with the indignities her corpse suffered. Taylor told us later that the old woman had been indigent, so she had no family to protest the immortality she attained by starring in this training video.

The mortician pulled on clownish heavy rubber gloves, more like janitor’s gloves than sensitive modern latex. Clutching wads of cotton with long forceps, he swabbed her eyes, nose, and mouth “to remove mucus.” He wiped each area a second time with diluted embalming fluid to kill bacteria.

Next, he combed her hair and lathered it “generously.” Suds foamed up around her grimacing face. Her head bobbed loosely on her neck. Someone in the audience behind me whispered, “That’s what you look like at the beauty shop.” On the screen, the mortician rinsed out the shampoo “thoroughly, in order to remove all scabs and scales from the hair.” Then he combed her hair out to dry “in a manner that would allow it to be styled later.”

The body was washed with antibacterial soap and “well rinsed, to remove residue.” He massaged her face with cream to break up its stiffness. The shiny lotion brought a semblance of life back into her face, adding highlights to her cheeks.

He placed tan plastic caps over her eyeballs to give “more normal curvature” to the lids. These “eye caps” have little plastic spines to grip the inside of the eyelids and hold them closed. One at a time, the mortician lifted the eyelids with his probe and pulled them up over the caps: like tucking someone into bed. It was difficult for me to watch. I have a phobia about foreign objects near my eyes.

This lady’s nose was sharp as a beak from dehydration, so the mortician padded it out from the inside with “pea-sized plugs of cotton, drawn well forward.” He also packed her cheeks with cotton.

Since she was missing some teeth “and dentures had not accompanied the body,” the mortician cut a clear plastic “mouth form” to fill out her mouth. This “provided a surface on which the lips can be posed.” With a needle gun, he inserted needles into her gums, four to each side, as anchors for jaw wires. After her jaws were wired shut and the wires turned inward, her lips were rolled down over the plastic. I was taking notes and missed what kept the lips from peeling back. We wouldn’t want Granny to snarl in the middle of her funeral, would we?

The mortician scraped beneath her nails and filed any that were “jagged or unsightly.” I wondered if someone would polish them later, when makeup was applied and her hair styled. To what extent were we going to beautify the dead? The hands and fingers were massaged with cream to break up the “cyanotic effects,” which had left the old woman’s fingers looking bruised and purple. Afterward, Taylor explained cyanosis by likening it to your fingers turning blue with cold. It meant your blood was not carrying enough oxygen to your extremities.

To begin the actual embalming, the mortician located the femoral artery where the thigh joined the hip. He cut the skin with a scalpel, then pushed the muscle tissue aside with a blunt probe to expose the artery and vein underneath. He noted the “sclerotic condition, which was common with age and found in many bodies”: the arteries had become lumpy with cholesterol plaque. It made them tough to open.

He lubricated the needle with massage cream and inserted it into the artery, aimed toward the heart. His arterial embalming fluid contained a chemical preservative diluted with disinfectant and a softening agent. The preservative the Mortuary College used was formalin, which is formaldehyde diluted with water to a thirty-seven percent solution. An average adult required two or three gallons of the mixture. The fluid plumped the tissues up to restore a more lifelike appearance, firming the lips, nose, and earlobes in place. Therefore, “it was important that they are positioned before embalming begins.” The mortician recommended light massage of the neck to drain the blood from the head.

Embalming fluid, pumped into the femoral artery, forced the corpse’s blood out of the femoral vein of the opposite leg. The entire process of replacing an adult’s blood with formalin took approximately two hours. Autopsy or traumatic death might double the time if the circulatory system had been compromised. I’m not sure if the mortician patches together the severed veins, or if he just stitches the wounds closed and does the best he can. More research is required.

In the video, blood ran the length of the white porcelain table into a drain past the corpse’s feet. In San Francisco, the blood drained into the public sewage system. Taylor said it was no more contagious than what living people flushed down their toilets, but I wasn’t completely reassured.

When the drainage fluid ran clear, the embalming was complete. The mortician cauterized the incision with undiluted embalming fluid. Then he used a curved needle, like an upholstery needle, to suture closed the drainage point in a pattern like a baseball. He informed us that the body orifices were tamponed and packed with cotton but, to my relief, that procedure didn’t appear in the video.

After hairstyling and makeup—which I was disappointed not to see performed—the body would be ready for “final disposition.” Students at the mortuary college always did cosmetics, even if not requested, in case the survivors decided at the last moment they wanted to view the body. I’d love to see a textbook for mortuary cosmeticians.

Following the video, Taylor debunked several urban myths. Corpses do not suddenly sit bolt upright at a ninety-degree angle, a feat impossible for most living people. Dead people’s hair and nails might seem to grow because, as the body dehydrates, the skin shrinks and pulls back. Grieving survivors might swear they’ve really seen such things happen, but they are “obviously very emotional.” Taylor’s tone of voice implied that mourners might be less than rational. She did admit that human bodies will sigh or “expel gas” as they decompose. I can see how that might inspire a few urban myths.

One of the mystery writers in the tour group asked about the legal aspects of death. Cause of death was usually determined before a funeral home received a body. When someone died at home, the family doctor generally established what was responsible. A hospital usually anticipated what the cause of death would be. In obvious cases of violent death, the coroner or medical examiner (the title varied from place to place) investigated. The law required morticians to report anything suspicious. Taylor said that one of the scariest moments of her life was having a doctor stand over her shoulder, asking her to help establish cause of death.

Someone asked about living people being embalmed by accident. Taylor said she would like to say that it never happened. However, when she worked in Oregon, her co-workers were about to embalm an infant that was “not as cold as they thought it should be.” They called a doctor, gave the baby CPR, and saved the child’s life.

Taylor hurried to add that the odds of a live embalming were extremely small. Most bodies

have been refrigerated for several days before they reach the embalming table. Thanks to modern mortuary science, no one survives the embalming process. Once your body travels through a funeral home, premature burial is no longer any concern.

Another person asked how AIDS had impacted the funeral industry. Not much, Taylor said. Assuming that every dead human body was infectious, undertakers took “universal precautions.” The HIV virus was fragile, easily disposed of, and too large to pass through latex. If the next plague was small enough to permeate latex, Taylor said she would get out of the business. She told her students to keep an eye on her, like a canary in a coal mine.

The tour group left the chapel and moved on to the coffin room. Several display models gaped invitingly to reveal complex pleated interiors or tiny ruffled pillows. Some coffins came with an offer to plant a memorial tree in a national forest. Others had tiny ID capsules, so the coffin could be returned to the place of burial if a flood washed it from its grave. (During the Mississippi flood in 1993, numerous cemeteries actually *were* washed out—and there was no way to identify the bodies plucked from the floodwaters. They have since been re-interred in unmarked graves.)

We stood in the freezer room, which was a fairly large room lined with stainless steel drawers, just like in the movies. I was sorely tempted to pull a drawer out and measure myself against the tray inside. Taylor told us that a body could be refrigerated indefinitely. I wondered, but didn’t ask, about freezer burn. The freezer at home eventually ruined chicken. How cold do funeral homes keep their coolers?

In the embalming room, I trailed my fingers over the cold white porcelain table. The pump that forced formalin into the veins of corpses was a squat, harmless-looking machine smaller than a breadbox. Bottles of bright pink soaps lined the walls of the room. I think I was numb by then, preoccupied by the memory of that sad old woman, enticing generations of undertakers into the business.

We peeked into some of the classrooms—polished wood, rows of student desks, chalkboards—nothing out of the ordinary. Not even a human skeleton hung on a coat rack.

The tour concluded in the Mortuary College’s cafeteria, where a member of the student council sold sweatshirts emblazoned with the school’s logo. Wish I’d bought one!

We feasted on apple cider and Just Desserts pumpkin cookies. You’d be surprised what an appetite death will give a person.