
PANDORA'S
BOX
JAMES CARD PRESENTS G·W·PABST'S PANDORA'S BOX
(1928) & LUIS BUNUEL'S L'AGE D'OR (1930) SUNDAY
NOVEMBER 9 · 7:30 PM WHEELER AUDITORIUM

Light Work

The Seventies

I road Amtrak west from Illinois in August 1975.
San Francisco was an oasis dream to me then, an all-you-can-eat menu in the Sunday Pink Section of the San Francisco Chronicle with several dozen cinema screens, ads for amazing music by legendary groups and singer-songwriters, poetry readings by the City Lights Books Beat pantheon, Zen centers and Tibetan Buddhist temples, and Liberation in the air.

My plan was to start studying film at San Francisco State University that fall likely living in a dorm. My home town friend Patty had established herself a year before in an ascetic single bedroom apartment in Berkeley. Patty met me at the Amtrak station in Emeryville and packed me and my two cardboard boxes of possessions into a cab to her home.

Patty sang me Joni Mitchell's Chelsea Morning and showed me the way to get from Berkeley to the San Francisco Transbay Terminal and from there to ride the M Streetcar to San Francisco State University at 19th and Holloway. The entire journey took an hour but on September morning one my eyes filled up with wonder. I walked onto campus and looked for the financial aid office.

I had made a hash of my application to San Francisco State and failed to plan ahead for financial aid which no wonder at all was not there for me. I had student loans from my first two years of college in Illinois and Wells Fargo Bank would not extend another. I road the rails and the bus back to Berkeley and sadly said to Patty I might need to go back to Illinois. "Oh don't do that! Stick around. Get a job. Get your California residency like me. I'm going to UC in a year. You'll be fine." She set my immature mind to ease.

Patty had planned for a Labor Day weekend off from her Kaiser Pharmacy job and left for a camping trip near Truckee with her friend Eva Poole who had been a teacher at our high school. I opened the Yellow Pages phone book and looked for film industry jobs. I applied for a job at Audio Brandon Films in Oakland offering my resume of film library experience from Rockford and Normal, Illinois. Then I rode the F Bus back to the Transbay Terminal and walked my way to 611 Howard Street to apply at W.A. Palmer Films. I was given an immediate interview with the film laboratory manager Bill Hunter. He had a Clark Gable look about him, tall dark lean and handsome under a Seventies mustache. He smoked a cigarette in the interview and minimized my library inspector experience. "Film prints are replaceable. We handle camera originals and when we put them through stainless steel printers if a splice is made bad the steel wins." I must have lowered my eyes. "But Mr. Palmer saw on your application you went to Northwestern. We have an opening for an apprentice color timer. The one thing I'll tell you is that black is the most important color in film printing. The job pays one hundred dollars a week. After a three month probation the pay goes up substantially. Do you want the job?" My eyes widened and I said "Yes!"
Bill Hunter said, "you start Tuesday after Labor Day. See you at nine o'clock sharp."

Berkeley

I camped in a sleeping bag in Patty's living room decorated with Tibetan tanka prints until she sublet the place on Garber Street to me while she spent winter in a Taoist monastery in Colorado. She taught me to cook several vegetarian dishes and I learned more from the Tassajara Bread Book and Diet for a Small Planet. She introduced me to artisanal roasted coffees at the Caravansary store on College Avenue, manually grinding the beans by crank turn in the morning and filling the nose with their narcotic perfume (hat tip to Herb Caen for that one). We were smokers then, she smoked cigarettes, and I smoked a pipe with a very pleasing fragrant tobacco Patty and I discovered in a head shop in Normal when we were in Illinois State University our sophomore year. We had dinner together after work, often chatting long whiles after with tea and tobacco and Patty singing Joni Mitchell and Judy Collins songs to me. We were platonic but really quite close friends that fall in 1975. We shared the pleasures of a Judy Collins concert at the Greek Theater on the UC Berkeley campus, Tibetan dance at Zellerbach Hall, a bus ride and beach walk in Bolinas, and a hitch hike to Santa Cruz for Patty to look at the campus. Patty was an avid reader especially fond of Heinrich Boll at the time. I was in my Beat period and found much of Kerouac, Burroughs, Ginsberg, and Snyder at the very fine Berkeley public libraries. And of course Patty put J.D. Salinger and Richard Brautigan books in my hands too.

I knew within a week in Berkeley I would not be going back to Illinois and thought I was in paradise. That autumn in 1975 Berkeley was crackling with creative energy. David Lance Goines made elaborate posters from Art Deco and Art Nouveau influence for the Pacific Film Archive founded by his friend Tom Luddy. Both men were one time paramours of Alice Waters who had begun her restaurant Chez Panisse in the beginnings of a gourmet ghetto on Shattuck Avenue. The folk guitarist Robbie Basho was active then giving concerts in Berkeley at the Julia Morgan Center on College near our Garber Street apartment.

Patty and I would at least once a week stroll past People's Park to Telegraph Avenue to browse Cody's Books or Moe's Bookstore or Shambala Books where Patty indulged her interest in Asian philosophies and tales of the Himalayan explorer Alexandria David Neel. We would have an Indian dinner or go for crepes and exotic coffee and pastries. Patty stocked up at the Body Shop getting artisanal soaps, oils and shampoos and purchased teas and herbs from Lhasa Karnak that made our apartment smell wonderfully.

After dinner many nights in the week I would take my leave and go to the Pacific Film Archive evening show and especially the Wednesday night screening at Wheeler Auditorium where Tom Luddy would host a visiting filmmaker like Wim Wenders, Jean Eustache, and Jean-Luc Godard. Patty would once in a great while take in a film too and we sang our way home after watching Black Orpheus.

We shopped for food from the bins at Ma's Revolution of the People's Food Collective or the Berkeley CO-OP. An apartment near Ma's Revolution was raided that fall and the FBI bagged Patty Hearst who was living with Wendy Yoshimura. Berkeley still had a radical residue from its Sixties peak activism. But there were peculiar new social movements. One was the Unification Church ("The Moonies") and they tried to recruit fresh young things like myself with overly friendly solicitation by adherents to Reverend Moon's mission. Our downstairs neighbors were members of Werner Erhard's EST organization and brought Patty and me to a large EST gathering in the Sheraton Palace Hotel. Patty and I gave the meeting a few minutes of its weirdness and then slipped

out to the bar under the Maxfield Parrish Pied Piper mural. We probably had White Russians or Kalua and coffee, our mutual favorite of the day.

A week before Christmas, I saw Patty off at the San Francisco airport for a visit with her parents Gail and Dorothy before her winter stay at the Colorado Taoist retreat. Patty and I wrote several letters each week to each other. She addressed hers to "Grasshopper", the nickname she gave me. She wrote a beautiful cursive and I dabbled at calligraphy in mine to her. Her letters include her original poems and light hearted toss offs she called "Thirty Second Ancient Chinese Wisdom". I kept the apartment until she returned maintaining an asceticism that one hundred dollars a week from Palmer Films could afford. Homemade granola and Tassajara Bread loafs, rice pilafs, potato soups, and a Diet for a Small Planet cheese pie. It was a sublime time.

W. A. Palmer Films

William A. Palmer owned the building at 611 Howard Street and Second Street. The day I entered and reported for work, September 2, 1975, he was 64 and had made a very impressive career since his student days at Stanford University in 1932. In 1934 he documented the construction of the Bay Bridge during the Great Depression for the Columbia Steel Company. "Bill" climbed the heights of the bridge as it was built. In 1936 he founded W.A. Palmer & Co., later to become W.A. Palmer Films.

When America went to war in 1941, Bill became a defense contractor making training films for the War Department, government work that would support his business for many years to come. His employees then included Stewart Macondary, an Army Air Force photographer who served in the Pacific, and Lew Smith, a film editor that Bill had saved from jail as a conscientious objector put to use for the war effort cutting film.
Stewart was born in San Francisco and was the great grandson of early San Francisco settler Faxon Dean Atherton, for whom the city of Atherton is named, and Maccondary Lane on Telegraph Hill is named for his family and was fictionalized in Armistead Maupin's Tales of the City. Stewart's high school prom date was Olivia DeHavilland. He was a sound recordist for Bill after the war using Bill's impressive invention: magnetic tape.

This following section comes from Bill's obituary in 1996.

"The accepted standard for professional motion picture production in the 1930s and '40s was 35mm film. 16mm was considered an amateur format. Palmer was among the first in the country to use 16mm film for commercial productions. During World War II, his compact 16mm technology enabled him to produce color sound films made aboard aircraft carriers at sea that greatly reduced the training time required for U.S. Navy pilots and their crews.
Working with Bing Crosby, ABC, and Ampex just after World War II, Palmer was the essential catalyst that began the era of high-quality audio magnetic tape recording in America. Palmer and his colleague, John T. (Jack) Mullin of San Francisco, perfected an American version of the German "Magnetophon" high-fidelity audio tape recorder in 1946. A memorable Palmer-Mullin demonstration of their magnetic recorders at the MGM studios in Hollywood in October, 1946, grabbed the town's attention with a stunningly clear recording of a studio performance by Jose Iturbi, George E. Stoll and the MGM Symphony Orchestra. The new medium was demonstrably superior to the then-new method of optical film recording for the production of film sound tracks, the MGM 200-mil push-pull system. In just one year, Palmer and Mullin took audio recording from "poor" by today's standards to contemporary analog quality. A critical listening test of the early MGM and Bing Crosby recordings made on the modified Magnetophons reveals sonic quality perfectly acceptable for any network or local FM broadcast today.
Using the Mullin-Palmer tape machines in 1946, Merv Griffin in San Francisco was the first U.S. performer to master a commercial disc on tape, "Songs by Merv Griffin", with Lyle Bardo and his Orchestra. The next year, crooner Bing Crosby became the first to go on the air coast to coast with magnetic tape, using the Mullin-Palmer tape decks to record and edit his Philco Radio Time show on the ABC Radio Network for the 1947-48 season, a revolution in an era of "live" unedited broadcasts. By the summer of 1948, using the new Ampex version of the Mullin-Palmer machines, all of the radio networks were producing shows on tape, as well as using the new medium to time-shift programs for daylight savings broadcasts. Burl Ives, Les Paul, and other performers quickly adopted tape to produce their shows and record albums. The work of Palmer and Mullin led to an

almost immediate acceptance of tape as the standard American recording method for radio, film sound tracks, and records, a sweeping technical revolution.
Meanwhile, the two engineers provided Ampex Corporation in Redwood City, California, with essential help in perfecting that company's Model 200, the first U.S. commercial professional audio tape recorder, introduced in 1948. The Palmer-Mullin and Ampex machines also spawned magnetic data recording for computers and instrumentation (1949), and later, videotape recording (1956). Without the incredible headstart that the two engineers gave to Ampex and the rest of the industry, we probably would not have had high-quality magnetic audio recording until the Germans came back into the world market in 1950. Mullin would not have gone to work for Bing Crosby and built for Crosby Enterprises the world's first working videotape recorder prototype (1950), and Ampex (which might not even have existed by that time) would not have built their successful videotape recorder (VTR) in 1956, the VR-1000.
With his wartime Hollywood connections, Palmer was the catalyst that made it all happen and set in motion a new industry. Jack Mullin says, "I was just an unknown engineer in San Francisco. Without Bill Palmer, I never would have been able to get my tape recorders known among broadcasters and film producer."

In the 1950s, Bill, Stewart, and Lew were joined by cinematographer Joe Dieves and Technical Director John Corso to film a series of science fiction television programs called "Captain Z-RO". It ran from 1951-1953 as kinescopes, film recordings of television broadcast, using Bill's invention of a camera that used 3-2 pulldown to take out the synchronization bar roll of a 30 frame per second television image recorded onto a 24 frame per second film. Later the series was shot on 16mm in the San Francisco studio of Bill's company. It ran in national syndication until 1960.

In the 1960s W.A. Palmer Films offered film printing, sound mixing, and art department graphics and titles as a full service post production facility for commercial, corporate, industrial, government, educational, and art film makers. The company could develop black and white film but did not yet offer color and contracted color processing with Highland Labs on 90 Tehama Street. Highland Labs was run by Barry Brose, a maverick much like Bill Palmer, who made audio recordings by cutting disks called Vitaphones. Bill made Stewart Maccondary his Vice-President, John Corso his general manager, and Kay Kibby his executive assistant as an administration that founded an Employee Stock Option Plan ("ESOP") to raise capital to built the company's color processing laboratory. The ESOP was also a way to defeat a NABET union representation election by offering staff profit sharing instead of a union contract. It bitterly divided the staff and the vote losers moved on to become some of the first employees at Industrial Light and Magic under union contract there.

From the lobby entrance the receptionist Pauline Ballistreri paged the lab manager Bill Hunter who met me and walked me to the punch clock, handing me my card to clock in at 9AM and out at 530 PM with an hour off for lunch or a half hour lunch and a half hour of break time. We walked down a very steep and narrow staircase to the basement where at the counter I met the client services rep named Joan Moon and the assistant lab manager Joe Ramirez. Joan buzzed the locked door entrance to the laboratory which was required for the classified document work the lab performed for the Departments of Defense and Energy. Around a five foot wall on the right was the timing department where I met my supervisor Preston Richard and his assistant timer Winston Fong with whom I would apprentice. Both wore Palmer Blue laboratory coats, protection from chemicals I was given the middle film bench. I already knew how to work a Maier Hancock film splicer from my film inspection jobs at the Rockford Public Library and Illinois State University. In a few minutes I learned to use split reels and crank film winders. My first day I learned to assemble 16mm camera

originals, both negative and reversal (a development that made a positive image in the original film source in one generation). A "timer" was an industry job title from the silent era when a lab worker altered film exposure by varying the time a camera roll was submersed in the developing tank to push or pull the exposure in *f*Stops. In 1975 a timer would inspect the developed camera original and assign a printing exposure as a numbered printer light.

Our lab had several types of film printers. One optical printer (the "E" printer) had a projector and a camera side to rephotograph the original image projected onto the camera lens. The other printers, "A-D", were made by Bell and Howell and were contact printers which sandwiched the camera roll and raw print stock in the printer "gate". Printers stood stationary in a dark room with light only coming from a projector lamp through the gate or aperture to print source to copy. A badly made splice could bump in the gate or jam on a printer roller sprocket wheel to scratch, fold, spindle, or mutilate someone's unique camera roll. While assembling rolls to print, I added white film leader, ten feet on the head end with four for threading the printer, a "Print sync" X marked with sharpie pen ink then hole-punched with six more feet to the first splice where the printer light would begin to expose the print. The tail leader was six feet long to tail punch sync and four for the roll out. Using a metal roller synchronizer I measured the distance from head to tail sync as the length to write on a print ticket so the printer operator could have sufficient supply in the dark room and the front office could charge for service by footage used. (Here is the Palmer film price list from 1978).

After assembling the printing reel tail end out, I taped the end down with paper tape with a courtesy fold on the end to make work easier for the printer in the darkroom. The roll went into a 2" by 12" square white cardboard box. Timers wrote a white paper tape label for the side of the box with with the work order number following "L" for laboratory.
I added a paper tape label and hand wrote the client name, the project title if known, the work order number proceeded by an "L" for laboratory, and the date. I wrote up a print ticket with this same information, the printing machine assigned A through F appropriate for the task, whether the print was silent double perforated stock or single perf stock for sound, the print stock number (then it was 7387 for Kodachrome, 7390 for color reversal print normal contrast, 7399 for lower contrast, 7381 for color positive, and 7252 for color reversal low contrast printing intermediate. If the film read the right way through the base side of the film it was "B" wind, if it read through the emulsion it was "A" wind. B-wind printed from heads to make an A wind print on contact. A-wind printed from tails to make a B-wind contact print. My print ticket instructed to print from heads (PFH) or from tails (PFT) to tell the printer the printing direction. If a source had optical sound from the camera or because it was a sound print the printer could be told to print full aperture to expose single perf film from edge to edge so the optical sound track printed through. If a source was silent we wrote "print aperture" on the ticket so that the sound side of the film would print dark. If the source had edge numbers these keys would print on the sprocket driven side. If key numbers were on both sides you could print full aperture and expose both sides of the print with these numbers to aid a negative cutting conforming editor to match original to an edited work print. If the printing roll was a "one-light", the timer would make a best guess for an average exposure for all of the footage and "Light Ten" was in the center of the twenty light range of the Model A printers we called "A" and "B". Last thing I would put the print ticket on top of the white storage box on a shelf in the next room down the hall where an operator would chemically clean the film to heads using trichlorethylene dripped onto pads on a motorized film winding machine that was probably invented by Stewart Maccondary in his machine shop on the first floor facing Howard Street.

One by one I met my new colleagues. But the first I would never meet is the other color timer named Gary Wells who phoned in to Preston on my first day to announce he quit without notice.

This secured my place more than I knew at the time. The printer operators would come by and stick their heads over the wall in front of my bench to check out the new kid. I was the youngest employee in the company at 21 dislodging 26 year old Winston Fong from that status. Winston's uncle Kevin Chan ran the printing department and color consistency control with the wet lab at Highland, eyeballing the color on test strips dunked in the processing tanks and then trimming the printer filter packs to adjust for differences in chemical temperature and alkaline/acid balance. Next I met Winston's cousin York Lee who ran the "A" printer and would receive many of my work print rolls. Next to meet was Arnold Jensen, a part time printer and firefighter in the East Bay, who ran the B printer. Gene Binge was our optical printer operator, an Oklahoman rightwing redneck with a drawl and a wicked sense of humor good for a joke or a poke. Doug Cheng was the C printer operator, the machine that made the custom timed answer prints. And finally I got a hello from Paul Hartman, a genial fellow of about 30 who was a serious photographer on his own time and who made release prints in the F printer. Work prints and release prints were the profit driver for the lab and in many ways supported the whole company. Answer prints were expensive to make, labor and skill intensive and the color timer who programmed them was the artist in the laboratory. Preston was treated very well by the best customers who would bring him bottles of booze at Christmas to show appreciation for making their films look their best.

Then I met Bert Gould, an older gent on the staff who worked with Stewart to maintain the printers and also ran a film preservation service through Palmers making intermediates from 35mm and 8mm for organizations like the Hoover Institute at Stanford. He also oversaw the black and white chemist and film processor near the laboratory toilet and freight elevator. I would meet there in a few days the next hire named Greg Chapnick. Bert became a Bay Area preservationist of respected status in years after out time together.
The film cleaner named Steve would also run film cans back and forth to Highland Labs. These processed prints would be stacked by him in the Assembly Department where I met other younger people in the lab who seemed of my ilk, even living in Berkeley as well, all fresh out of the local city college or art schools.

The lab was a loud whir of activity, Joan and Joe, the assemblers and the printers strutting up and down the hall shouting to move things along to make various deadlines and cutoffs for processing, shipping, lunch, or break time at the bar.
Lunchtime day one I met the staff from other departments on the higher floors and the hierarchy of the company was very clearly stratified with we in the lab as subterranean proletarians. The lunchroom could seat about a dozen at a time and the noon shift was the lab, the shop and the sound department by custom. The editorial/producers services team and the administration and middle managers would usually eat later at 1PM or offsite. But Vice President Stewart ate with the lower lot at noon and I grew fond of him for it. Stewart would heat up his leftover dinner on the electric stove and sit at the head of the table. He would leave at half past and take his constitutional post prandial city walk, a habit of his I would borrow in my future work life. To Stewart's left was Gordon Schaeffer, his sideman in the engineering department who built the Palmer interlock projectors that could run a work print on one side and stay in sync with the magnetic film soundtrack sprocket driven on the other side. I think that was a Stewart invention using Graflex projectors for the base. Next chair was George Montgomery in Sound who read aloud from his copy of the San Francisco Chronicle when it amused him. His sidekick next seat down on the left was Al Jackson who made electro -printed sound tracks using another of Bill Palmer's inventions which produced surprisingly good sound by unorthodox means that baffled the Kodak representatives. Al was a Marine reservist who took night school classes at San Francisco Art Institute with a gruff bluff that was his joke on you. He would comment on George's comments

often taking a stand just to stir things up. To Stewart's right were Kevin and Preston and Winston and Arnold and Doug. The children's table as it were had a few lounge chairs where Paul, York, and I sat back and kept quiet. I ate my vegetarian sandwiches made from the Tassajara bread I made at home in Berkeley and had my nose in a paperback while my elders held forth.

We grabbed another cup of Farmer Brothers coffee after a half hour and headed back downstairs to the lab. Winston would play his AM radio with top forty pop tunes he and Preston sang along with like Neal Diamond, Preston's particular favorite. The Rock and Roll San Francisco sound I liked came out of the next door down, the cleaning department where long hair Steve played KSAN-FM. Jefferson Airplane's Miracles and Eddie Money Two Tickets To Paradise and an emerging Patty Smith "g-l-o-r-i-A!"captured my ear.

The rhythm of the day was pretty steady pace until 3pm. That was break time and the men in the lab would exit en masse for the nearest bar at Folsom and 2nd Street to play liar's dice over a beer. Kevin Chan would have a Beefeater's Gin and Tonic. I was pretty skinny at 21 and a beer in the middle of the day gave me a definite buzz. Day one I worried I might wreck somebody's original camera roll but wonder of wonders I never did. At 100 dollars a week pay it was not something I could long afford and begged out of this ritual after a few months. It was good for boosting morale and solidarity with the older men. The bar had a juke box that played Grover Washington's *Mister Magic* a sweet tender jazz funk chart that fit the vibe of that time in middle seventies San Francisco, slack and wistful.

After a drink we all climbed back downstairs for the afternoon rush of dailies. Winston and I dropped all other assignments and assembled the 100 foot camera rolls for rapid printing and processing. The work prints would be developed and assembled for pick up by filmmakers before the end of the day at 530pm. We all clocked out then without fail. Any overtime was put in at the beginning of the day at 7AM by the timing department and a couple of the printers, Gene and Arnold. For putting in a long day, Bill Palmer paid us another three dollars for "dinner money". Another fifteen dollars a week and I could have brown rice and veggies in Berkeley.

I made friends with colleagues young and older, and all were older as I was the youngest employee when I started at 21. Jess Larson was maybe in his late fifties and a genial man of all trades who had been part of the film production crew assisting Joe Deaves the cinematographer and building sets for the Captain ZRO television show. Jess invited me to his home for dinner with his wife Mary to talk of former days at Palmers but even more to show me the solar panels and water conservation technology he had built himself, well ahead of the Green tech soon to come out of California.

I immediately bonded with three Jewish men on staff: Steve Rubinstein, Greg Chapnick, and Alan Rothfarb. Reading about cinema and beat literature in the lunch room caught their attention to a kindred spirit. We all liked jazz too and would go to films at the San Francisco Art Institute, Gary Snyder poetry readings, and jazz performances. Greg and I took in Keith Jarrett, Charlie Haden, and Jan Gabarek trio with orchestra at the Oakland Paramount Theater. Greg eventually returned to Baltimore but we corresponded by letters and resumed our friendship when he later returned to become a negative cutter. He was best man at my wedding. Alan and I grew closer when I moved from Berkeley to a Tenderloin apartment near his in June 1976.

In the New Year 1976 I completed my apprenticeship in the color timing department of the Palmer Films laboratory. My supervisor Preston assigned me my first "answer print", a step up in the skill set where the color timer eyeballed the edited print rolls of a film and assigned light values to print

each shot to order. The timer wrote a program on index cards addressing the clips by feet and frame count and coding numbers of variable brightness in lights from zero to fifty with 25 in the middle of the scale as the best light for a neutral gray card to reproduce in print. One adjusted the numbers —two for each red, green, and blue light valve—to mix color passing through a dark room contact printer. The handwritten card was punched into a computer tape to automate the printer, using a technology invented by women automating their weaving looms in the early Industrial Revolution in Britain. The holes read from the bottom vertically in values 1,2,4,8,16, and 20. Punch holes running horizontally counted feet and frames. A row above the lights had holes to code fades in and out in values of 16, 24, 48, and 96 frames duration. The timer's judgements became computer coded light. The skill in making these judgments was an asset W.A. Palmer proudly traded to his customers, bragging that his staff was so skilled they did not require video analyzers to read a negative. In fact we learned to eyeball a color negative and reverse in our minds that a dark magenta face would print brightly over-exposed and green were we not to punch 32 RED 38 GREEN 32 BLUE into a paper tape.
My first answer print was for Warren Sonbert for his film *Rude Awakening*. Preston had discerned correctly that I was the staff member most happy to work on the "art films". Warren and I did not meet until it was time for him to see his film printed, developed, and projected by me in the assembly department projection room. After screening he returned to the lab office while I rewound his new print onto a Palmer Blue reel in a Palmer blue can. He said nothing but thank you to me and paid in cash in very large bills for an answer print that probably cost him $800 in 1976 dollars. He was very gracious to me and the others in the office. The photo in the BAMPFA article is a fair record of his clean cut good taste. He made a very good first impression and won my lasting respect.

One of our clients did his own color timing. This enigmatic fellow was Jordan Belson, a maverick filmmaker of the San Francisco art cinema scene. I had shown his film *Allures* as part of the Kinetic Art Film Festival in my high school cinema club in 1971. He handed in his film rolls and timing cards and Preston had me inspect the rolls for properly placed printing cue tabs. I then punched the computer tapes for the Bell and Howell Model C printer and Mr. Belson returned in a few days to retrieve his answer print. Within a few years he was working on segments of the film *The Right Stuff* directed by Phil Kaufman. His film contribution became the upper atmosphere light show Chuck Yeager witnessed like a hallucination.

The lab also welcomed other luminaries of the San Francisco avant garde. It was thrilling for me to see face to face Larry Jordan, Bruce Conner, Bruce Baillie, James Broughton, and Gunvor Nelson. Many others from The Canyon Cinema Collective brought their films to our laboratory. The Bay Area film schools included San Francisco State University, San Francisco City College, the San Francisco Art Institute, Mills College, The California College of Arts and Crafts, Diablo Valley College, DeAnza College, Stanford University, and UC Berkeley.

But W.A. Palmer Films made a lot of its money serving the Departments of Energy and Defense through UC Lawrence Livermore Laboratory and UC Los Alamos National Laboratory. Our company had national security clearances and several employees were required to get security clearances to work on nuclear energy and weapons films. For a few years I had these clearances but I turned them in with conscientious objection to working on them. To his great credit W.A. Palmer did not fire me over this and made this accommodation along with letting me go part-time to go back to finish college. I will always respect this decency from a Conservative Republican elder with possibly a side of Bohemian libertarianism in him.

Kay Boyle and 419 Frederick Street

I started cinema studies at San Francisco State in the fall of 1976. My friend from the Palmer Films Art Department Ada Helus-Fleiner had a friend with a vacancy to rent in her Haight Ashbury home. Ada met me at 419 Frederick Street to introduce me to Kay Boyle, a Creative Writing professor at SF State and a literary and political legend I would soon learn more about. It was a sad October night as her son Ian had that day seen his pet dog get run over and killed. But Kay carried a tray of apéritif Dubonnet and Pernod to the shared first floor kitchen to welcome me and drink a welcome toast with my new housemates Ian, Rita, and George. The rent of a furnished bedroom was $75 a month and was a life saver for my student years 1976-1978. Leaving the squalor of my Tenderloin studio, I felt I won the lottery living in a beautiful room with elegant furnishings of Rattan table and chairs and a queen size bed and a fine view toward the back of Carl Street and the beginning of Parnassus Heights. The green Victorian had a penthouse apartment for Kay who I could hear through my ceiling typing at 11PM every single night without fail. My room and neighbor Rita's shared a bathroom with an enormous clawfoot bathtub. Kay's son Ian had his own suite facing out on Frederick Street. George had a garden apartment off the main floor kitchen we tenants shared. George lived for free or very reduced rent as he served as garden and home maintenance man and ran errands for Kay including valet parking her car in a very difficult neighborhood for street parking.

Off the first floor kitchen was a dining room infrequently used for household dinners but it was full from floor to ceiling with Kay's vast library. A mantle over the fireplace supported the family coat of arms and family tree of Baron Josef Frankenstein, Kay's last husband and Ian's father, who had been a State Department diplomat before McCarthyism ran him out. He is buried in the Presidio National Cemetery for his service to his country adopted after fleeing the Nazis in Austria.

The library opened into the parlor living room where Kay received her famous friends and the tenants could use the phone. I admitted a time or two her friends Jessica Mitford and Bob Treuhaft, Leo Litwak, Joan Baez Senior, Dan Ellsberg. The hallway had a tenant's mail stand of white plaster hands, a found sculpture from Kay's friend Marcel Duchamp. A frequent visitor was Kay's friend Ruby Cohn, a UC Davis Samuel Beckett scholar. Other literary lights included Muriel Rukeyser and Grace Paley. I was told to never admit anyone past the parlor without an appointment with the exception of James Baldwin who could climb the two flights of stairs to her apartment any time he liked.

The ground floor was the meeting room for Amnesty International Group 80, the Haight Ashbury Chapter Kay founded with her jail mates Joan Baez senior and junior and her attorney Jerome Garchik and his wife Leah who became the toast of San Francisco journalism and literary society herself after raising her son Jacob Garchik, now a well known composer. The meetings would alternate Thursday nights between Kay's and the Garchiks and attendance was always best at the Garchiks thanks to the fabulous spread they served with good wines.

Kay insisted these meetings be work sessions and we were all expected to hand write one letter on behalf of of each of our three adopted political prisoners. Kay watched to see that we addressed, sealed, and affixed postage to our envelops and she collected them to insure they were posted. Letters to dictators and/or authoritarians were never answered except one day an answer came to the hands of Duchamp addressed to me! Kay contained her curiosity long enough for me to get home from San Francisco State where she waited at the hands while I opened it. Our political prisoner, a Pakistani television journalist had been freed. Kay took the letter and photo copied it and forwarded it to the Amnesty International office in Palo Alto. Our Group 80's pressure campaign had worked. I think the Frederick Street tenants were gathered for a celebratory glass of Kay's Dubonnet.

Kay recruited me as a companion to a few public events as designated protege. These included poetry reading political benefits where I had dinner with her and Muriel Rukeyser, a very impressive poet with serious political conscience. Kay took me to Glide Memorial Church to meet her friend the Reverend Cecil Williams who toasted Kay to the Sunday congregation. Kay wanted to hear a popular speaker at an anti-apartheid rally in the Fillmore. When the preacher took the stage with a squad of militaristic body guards, Kay sounded retreat: "I heard this in Europe in the thirties and this guy's a fascist." We fled the venomous words of Reverend Jim Jones. He would be dead in a mass suicide inn Guyana within a year.

The highlight of the year was Kay's birthday celebration given as a benefit for Amnesty International. Scott Beach would sing her The Internationale. Many toasts. Once or twice the San Francisco Mime Troupe performed. Venues included The Plough and the Stars Irish pub, Cafe Tivoli, and The Basque Hotel. Dinner was served with a chance of sitting across one of Kay's legion of famous friends. My then sweetheart and I sat across a shy, unassuming fellow who gave his name as Frank and answered to what he did as "I work at the Exploratorium". Well, he founded it and he and his brother Robert Oppenheimer invented the atomic bomb in Los Alamos, New Mexico in the 1940s.

Kay would summer in Paris and visit her friends there that included Samuel Beckett. She was the sort who would walk a picket line for your union, or sell her Haight Ashbury home for a dollar to the Black Panther Party before letting her daughter steal it for a commune of dubious idealists. She went to prison trying to stop the induction of young men into the army in Oakland bound for Vietnam. When the victorious Vietnamese started putting their own in reeducation dungeons Kay and the Baez women split from the rest of the American Left denouncing the human rights violations. Kay could be arbitrary and one day's dear friend would be an unmentionable in another day's conversation. But she was fiercely loyal to the friends she kept and only a few were there for her funeral. She is now remembered more for her literature than her political life but even that admiration ebbs. T.C. Boyle is the author taking up the space on the book store shelf she once ruled.

New Ways in the Golden Age

In 1978, I finished cinema studies at San Francisco State University. Perhaps the best experience was some of my professors especially John Fell, Robert Bell, and Ron Levaco. The undergraduate program had a semester with an artist in residence. My classmates could not agree on a hire until I suggested Robert Kramer, a member of Newsreel and a political feature filmmaker of some renown. Robert charmed everyone in his class interview, was hired, and he showed us innovative independent films in class. I missed by a year the chance to study under Irving Saraf who promoted his student Ron Jacobs to his assistant at the new Saul Zaentz Film Center in Berkeley.

I made three films then. One was to gain admission to the undergraduate core. THE POWER WITHIN was my homage to Bruce Baillie's multi-layer image printing with my housemate Ian Frankenstein reading a Gary Snyder poem. A second film KODAK KOLOR KONTROL was a Jean-Luc Godard/John Berger inspired film essay about laboratory color management and Bill Palmer was its first audience. He demurred that he thought it was very funny despite being an obvious Marxist critique of film technology practices. I thought he would fire me but again he did not.

My third film I made with my classmates and my then sweetheart. It had a very small success as a propaganda film for The American Indian Movement organizing against uranium mining on Indian lands. It left me very deep in debt at Palmer Films. A much dearer cost was the loss of my college friends and my sweetheart in the fractures over the group filmmaking. I have my share of the blame. I never undertook this method of filmmaking again.

One of the final days of film school I attended an open house at a new company called One Pass Video in San Francisco's China Basin. My film production teacher spoke about the Rank Cintel telecine they had and said I should check it out.

Ed Reingold hosted the telecine presentation. His front row center guest in a packed room was John Korty who was taking in the new way of color grading a film from the original negative scanned and recorded on videotape, one inch analog the top offer of the medium at that time. Also in the crowded audience were Stuart Maccondary and Gordon Schaefer of the engineering department at my job. They were amused I was there and said something about me coveting this new device. If anyone could have persuaded Bill Palmer to buy one of these it was these two men. That would never be.

In 1979 I returned to full time color timing at W.A. Palmer Films. The Hunt Brothers of Texas manipulated the price of silver and the silver shock of September 1979 quadrupled the price of the metal essential to film image capture. Kodak raised prices and Palmer Films cut costs by laying off four of my friends. The ESOP employee stock ownership plan at work had no profits to contribute. Workers who had voted against union certification earlier in the decade began to doubt their futures with the company. My lab manager Bill Hunter resigned and pursued his own business as a negative cutter and eventually a producer of right wing political advertising. Some of my friends left the lab and found work at Industrial Light and Magic, a new special effects company founded to work for George Lucas's STAR WARS trilogy: Peter Amundsen, Jeff Doran, Michael Moore, Bill Kimberlin. Lucas's Skywalker Sound hired Sandy Bailo, Marilyn McCoppen, and Gary Summers who would win multiple Oscars for sound mixing. Some like Jonas Thaler would head for the Los Angeles industry. My Amnesty Group 80 friend Ada left our art department to become a scheduling producer at One Pass Video.

The Saul Zaentz Film Center began to add employees to support feature filmmaking editorial and sound mix departments. Phil Kaufman's THE RIGHT STUFF put to work a group of local special effects makers who had emerged from the John Korty Company in Mill Valley. Gary Gutierrez's USFX would grow into Colossal Pictures.

Something was taking off in the Bay Area cinema world that would become The Golden Age.

The Eighties

In 1980 I became the lead timer at Palmer Films. Preston took a chair as negative cutter upstairs. Winston joined his wife's family in a Civic Center Chinese restaurant, presumably a brighter prospect.

I developed my skill at eyeballing color negative and mentally predicting the color and density of the positive. I could get some films right on the first answer print, a saving for the filmmaker and a higher efficiency for the company as projects moved to lucrative intermediates and release prints faster and more numerously.

San Francisco had a healthy maverick cinema at the time. There were animators like Doug Haynes with his collage optical printing surrealism in COMMON LOSS. Nathaniel ("Nick") Dorsky hand processed 16mm film and made montages of the random events he expected to replicate in perfect consistency in photochemical print making. The avant garde came to Palmers with loyalty, many of the teaching mentors making it their preference. George Kuchar, Larry Jordan, Gunvor Nelson, James Broughton were college faculty.

The independent feature took off in the Eighties in San Francisco. Rob Neilson, David Schickele, Gene Corr and others in Cine Manifest made 16mm feature films. Palmers extended enough credit to Wayne Wang, Rick Schmidt, William Farley, Jon Jost, and some others to launch their projects and CHAN IS MISSING made Wayne Wang a celebrated peer of the likes of Jim Jarmusch. I projected his first answer print and he asked me, his first audience, if I thought he had a movie.

The staff at Palmer Films included filmmakers working a day job. Vince Collins joined the art department as camera operator. Vince was an established local animator with a psychedelic pop art style with pictures that morphed across improbable regions of his imagination. He made a sponsored film for the National Park Service commemorating the bicentennial using U.S. Blues from the Grateful Dead, permission uncertainly granted. The printer operator Michael Cassidy made a Ray Harryhausen inspired ATTACK OF THE GIANT BRINE SHRIMP, a send up of the dominant religion of his home town Salt Lake City. My SF State classmate Sally Lewis completed her senior film WAITRESS based on her personal history of professional abuse at Zim's Restaurant. The most prolific filmmaker was fellow timer Lewis Motisher who made "ironic spectacles" at first in their shared digs in Canoga Park and then from 48 Landers Street. Lewie's EYE OF THE WIZARD took a Harryhausen leap at sword and sorcery fantasy starring the phantasmagorian Kim Salyer, the founder of Video Arts, the impresario at the last great post house in San Francisco OK, maybe it was Spy Post. Or is it Rough House?

I might have lingered in the job forever had Mr. Palmer not announced he would sell the Howard Street building and move the company to South San Francisco. I did not have a car and getting to work would be an added expense for a salary that had not grown substantially. It seemed likely the client base would also defect to another lab like Leo Diner or Monaco. I considered buying Greg Chapnick's negative cutting business but bailed out after donating labor cutting negative for a Philippines political documentary.

In 1984 rumors spread that a Detroit lab "Allied Film and Video" wanted to buy a San Francisco laboratory. One agreed to sell: Leo Diner Films. Roy Diner became the general manager of Diner+Allied and they prepared to move into a larger plant on Third Street to make room for video duplication, 35mm negative processing, and a Rank Cintel Mark III Flying Spot Scanner. I asked for an interview. Roy had heard of me through Greg Chapnick and some of the filmmakers who took the film I timed to an intermediate internegative and got a better price for release prints from Roy. Roy moved the decimal point per foot one place and it was enough to move. I wanted to move too. I was offered a temporary position as relief for their timer Owen Klatte who was undergoing wrist surgery and for their dailies timer Nanda Sonpatki who had scheduled a month return to India. I

learned to use a Hazeltine video analyzer to see the negative in positive display. I always gave my eyeballs a second opinion on the light table of the film bench. And I was trained to print.
My temp job was scheduled to end at the new year but January 1985 Roy gave me the position to be the second Rank Cintel colorist to be trained by Mark Sterne, the lead. It was the step ahead I had coveted since the One Pass demonstration years before. One Pass's colorist Joe Murray was the top in town and claimed much of the advertising industry work. Diner+Allied aimed for a different approach. The telecine was the modern merger of timing and printing and the money making for the business would be videotape duplication. 200 VHS machines at one go would copy from the one inch video master that Mark and soon I would make. Session time was a premium $300 an hour, a small fortune then. The frugal industrial filmmaker wanted to work fast and cheap. But the local cinematographers saw the telecine as an extension of their camera work and wanted to attend and supervise film transfer grading. The cowboy hatted David Myers came in, a tower of a man who looked like he had parked his horse outside riding in from Woodstock or a Grateful Dead concert. Glenn Carroll and Mickey Freeman of the Pier 42 Group were affable friends of the Leo Diner days who despised One Pass who often stole the clients they had brought in. The timing department mastered an internegative of KEROUAC for director John Antonelli and his editor Will Parrinello supervised one of my first telecine masters of a San Francisco independent feature. Their company Mill Valley Film Group became one of my long term freelance accounts when I started my own business in the digital cinema era soon to be discussed.
The color grading craft added new skills in my toolset. I learned to read vectorscopes to measure hue and saturation and waveform monitors to measure luminance and chrominance. The waveforms had limits marked where the low end of dark blues and reds might transgress on video synchronization signal. The high ends of hyper luminance yellows, cyans, oranges and greens might interfere with the audio signal carrier. Chroma in black or white would be called out as incorrect by an inspector. Learning the scopes would prevent transgressions that would get a film transfer bounced.
The Rank Cintel had a color grading computer called AMIGO that moved three throttle sticks for Lift (shadows), Gamma (midtown range) and Gain (highlight range). A twist of the shaft inside the joystick throttle would raise or lower the three independent ranges. A push of the joystick would add or subtract primary RED, GREEN, BLUE and secondary YELLOW, MAGENTA, and CYAN. Sliding levers would saturate or desaturate the six separate secondary colors, a unique departure from the photo chemical color grading and printing. The color grading decisions stored on a floppy disk in a very primitive color grade program time based at edit points. What seems so limited to me now was revolutionary to me then.
I had a good year in my post before Roy moved me into a middle manager position, supervising timing and telecine. Peggy Surgent of Positive Video Orinda lost her telecine seat when the company shut and Roy took the opportunity of offering my chair to her with the understanding she would deliver her customers. A few important ones came. Peggy became a nervous wreck in morning rush hour traffic from the East Bay and did not last long. I took back some of the telecine work in the afternoons and early evenings to wait out my rush hour misery returning to Oakland.
Bill Smith had made a significant investment in the Rank Cintel Mark III which had an advantage over One Pass's Mark II with XY-Zoom. It allowed Mark Sterne an opportunity to take from them the Raspberry Beret music video Colossal Pictures had animated for Prince with an unfortunate frame size cutting all picture inside title safe instead of action safe area. It needed a ten percent enlargement that we could do. Bill Smith also invested in international release duplication and his video engineers equipped our Rank to work in PAL 625 line 50hZ 25 frame per second video standard. An early user of this service was the computer graphics department of Lucasfilm that once sold to Steve Jobs would be named PIXAR. Tin Toy, Red's Dream, and Luxo Jr were mastered for international release by Mark Sterne and me. Mark also mastered episodes of SEABERT for Mill

Valley Animation. The team would move on to join with Gary Gutierrez and Drew Takahashi to build Colossal Pictures. The most influential member of the crew was the supervising editor Edgar Burcksen who would advance the use of post production electronic cinema that made the co-evolution of companies One Pass Video, Diner+Allied, Industrial Light and Magic, and American Zoetrope.

In 1987 I took one step forward and one step back. I suppose together it was a sidestep, a useful dance move in swing and jitterbug but not for building your craft. The step ahead was moving in with my new sweetheart into her Castro District home. Mimi Lyons finished her three year Masters Degree program in Landscape Architecture at UC Berkeley and invited me on my first trip to Paris and Rome. I passed my audition and when she finished her longer stay she invited me to move in. The step back or to the side was accepting an offer at One Pass Video to be what I thought was the supervisor of their telecine department, a potential step forward. I took a 30 percent cut in pay and learned on day one that the job was in fact a scheduler of telecine and other post services. The telecine staff regarded me as their subordinate. From 1987 to 1988 I sucked it up and learned as much as I could about the modern uses of electronic post production at the down of true digital video. The strength of One Pass was the constellation of a Mark IIIC telecine with a new DaVinci color grading / edit controlling main frame computer along with a digital Quantel Harry compositor station. This afforded film to digital effects compositing that an emerging young director named David Fincher incorporated to design an elegant music video for Bourgeois Tagg. The addition of New York's famous digital effects compositing editor Bill Weber in Edit Room 2 scored a raft of new business with Colossal Pictures and Industrial Light and Magic's new Commercial Division. My managers had the good sense to assign the Colossal and ILM Commercial accounts to me and I became the post proper in the company for these rivals somehow fitting both in the schedule in competition with each other and in competition with my fellow post producers wanting the rooms for their Ad Bums and Editorial services. It was all very nerve racking and I did not make a secret of how much I hated my job. Even so, middle management had plans to promote me without being sufficiently direct with the plan.

And so in the fall of 1988 Roy Diner asked me to come back to replace Mark Sterne who was leaving for Seattle. I did not hesitate to accept. My boss at One Pass threatened me if I stole clients. I assured her they were not likely to come or said to myself would they be wanted. I did not like my job at One Pass Video but I was very fond of the people who worked there and even most of the customers I had, short of a few ad bum men who you can see a version of in MAD MEN. Of these peers some were most instrumental in my personal advancement in my craft. They were Colossal's editor Edgar Burcksen who became an editor at ILM and Lucasfilm and Bill Weber who I would join again at Western Images and again in our digital cinema nonfiction freelance enterprises. I would work again with One Pass editor Glen Scantlebury on cutting edge technology for American Zoetrope's independent features. My One Pass colleague Jimi Simmons and I would team up again for the revolutionary post production of The Young Indiana Jones Chronicles for Lucasfilm.

Diner+Allied had an alliance with the sibling Allied companies and Allied Dallas had a young and imaginative telecine engineer named Larry Anderson. Larry came to San Francisco to help update the Rank Cintel for expanded utilities. We added an OTARI 1/4' audio tape reel to reel player for sound synchronization chasing audio timecode to lock to the picture transport. Larry also tricked out the sprocket wheel frame counter for the 35mm picture gate so that the frame advanced every two perforations rather than four, enabling us to transfer Tekniscope aspect ratio images using the cameras acquired by American Zoetrope for independent feature production. 2- perf used half the film stock and was closer in aspect ratio to Cinemascope 2.39 to 1. 35mm was still a finer film grain and 2-perf printed more successful than a 16mm blow up to 35mm. Francis Coppola's son Roman was the executive producer for the Commercial Pictures Indie division of American Zoetrope. They

filmed a western, a horror thriller *Clownhouse*, a rock and roll comedy *Smash Crash and Burn,* and a science fiction thriller *Indigo.* Using standard 35mm again Commercial Pictures produced *Spirit of '76* directed by Lucas Reiner. Diner+Allied became a dailies telecine to accommodate electronic cost production using at first Montage videotape based non-linear editing and later laser discs made at Diner+Allied for the Lucasfilm EditDroid. The telecine operator entered human readable latent edge numbers plus frame counts into a character generator that would visually burn into the film transfer for negative cutter matching. The practice was anathema to most of the local negative cutters and Zoetrope's cinematographer Robin Mortarotti cut the Techniscope negatives for the western project *Gunslinger* directed by Christopher Coppola and for *Clownhouse*.

The Rank could also transfer to the PAL television system, 25 frame per second 50mHz. This brought in the dood a new client, a branch of Lucasfilm called PIXAR. PIXAR was a computer graphics company of PhDs who hired John Lassiter out of Cal Arts as their animation director. We recorded their earliest films *LUXO Jr., Tin Toy* and *Red's Dream.* The company seemed to have minor prospects and George Lucas sold it off to Apple's Steve Jobs.

The Nineties

In 1990 I took a few months off from Diner+Allied for an extended honeymoon living in a Paris suburb with Mimi and her parents. I tried to write a screenplay which was a lamentable failure. But we had a very fine time together for one of the few years we all had left together as a family.

I returned to Diner+Allied and helped the take off of the optical disc making business. Once again Edgar Burcksen and I crossed paths as he was an editor consulting with the design of the EditDroid.

EditDroid used optical discs for random access non-linear editing in a less cumbersome storage method than the Betamax video cassettes of Montage. Lucasfilm made 24 EditDroids to be used at Skywalker Ranch on a new project under development, *The Young Indiana Jones Chronicles* for ABC Television. American Zoetrope acquired an EditDroid for a feature film *Wind* directed by Carroll Ballard, edited by Michael Chandler in the Zaentz Film Center in Berkeley. A few editorial services also purchased EditDroids to nonlinearly edit television commercials.

Then in 1990 Kodak incorporated KeyKode, a machine readable edge number. An Evertz barcode reader attached to the Rank Cintel telecine generated characters to burn into the film scan. A second timecode from field audio could be used for synchronization and also burn in. At the request of American Zoetrope, Diner+Allied purchased an Aatoncode reader which synchronized sound timecode sent from the audio field recorder to the camera. This allowed a cinematographer to keep filming without having to pause to slate picture and sound clap. The method was perfect for the production of *Wind* on multiple racing sailboats under photography direction by cinematographer Jon Toll. Diner+Allied at that time in Northern California was the most advanced telecine to assist electronic editing.

In 1991 I began several months of full days telecine scanning and sound synching dailies for American Zoetrope's *Wind* with regular contact with Michael Chandler's assistant editors, Bob Sarles and Ruby Yang. Michael requested that dailies be recorded in scene order which would require partial transfers of film rolls instead of efficient one time handling of a negative. Bob Sarles disagreed with the method as extra handling of the negative and massively slowing down the dailies transfer such that production in Australia would have to wait up to a week before knowing if production on sea had worked or not. Chandler fired Sarles and hired Yang. Bob went on to continue a very impressive career as an editor, director, and producer. Bob's method finally won out when Zoetrope producers Fred Fuchs and Tom Luddy saw the cost overrun of my telecine session time billed. They eventually fired Michael Chandler.

Equipment salesmen heard about what Diner+Allied was doing. Aaton Camera's West Coast agents tried to get a Super 16mm gate on our Rank to help sell their Aaton cameras to U.S. independent filmmakers. A Toronto salesman named Brian Shaw appeared with the OSC/R software system that could automate the logging of film keycodes and sound time codes, transfer frame rates, camera and sound rill numbers and produce negative cut lists from the database and an edit decision list from a non-linear editor such as the EditDroid.

I could not help the sale but once again I had a visit from Edgar Burcksen and I mentioned OSC/R to him. His eyes widened across his Dutch poker face. Edgar was consulting on a project for George

Lucas he could not elaborate very far but he took an inventory of what Diner+Allied could do for him.
Edgar reported back to his new boss Rick McCallum, the producer hired by George Lucas to run his new idea *The Young Indiana Jones Chronicles*. Edgar was also talking with his post colleagues at Western Images, Jonathan Keeton and Bill Weber. Both Bill and Jonathan had been visual effects editors for Edgar's Colossal Pictures projects.

Burcksen and McCallum would develop an elaborate and unorthodox production and post production methodology for a television series that relied heavily on visual effects to show early twentieth century historical events reenacted. Production would use Super 16mm cameras for most non-effects production and pin registered 35mm cameras for visual effect compositing. Editorial would use the laser disc storage EditDroids Edgar had consulted on. Western's Jonathan Keeton advised that effects work would look best using 30 frame per second pin registered film transfers. Lucasfilm had proposed a multiple seasons series for ABC and the project would have an enormous post production budget sufficient for Lucasfilm to pitch Western Images equipping their new Townsend Street office with a dedicated telecine capable of Super16mm and pin registration 35mm along with a sophisticated tape to tape color grading system to balance out visual effects and non-effects transfers. The transfer of all footage at 30 frame per second would accommodate effect compositing in both Western's Quantel Harry and its new digital editing conforming room. The entire edited conform at 30 frame per second would be cine-compressed converted to 24 frames per seconds in Harry in a proper 3/2 pulldown continuous field cadences. Production dailies would be transferred at 24 frames per second in London and possibly in San Francisco at Diner+Allied. The OSC/R software database manager was the missing link. Edgar reported my news of it. The President and General Manager of Western Images suddenly became interested in me. too.

Michael Cunningham and Michele Acosta were gifted at taking Jonathan Keeton and Bill Weber's talent and shopping it to Robert Stover, the owner of Western Staffing Services and its subsidiary Western Images. The Lucasfilm television series could underwrite the new digital editing room and a new telecine service. Young Indy work would make for a second shift for several years. And the day shift opened for Western Images to go after lucrative advertising work especially for Colossal Pictures and Industrial Light and Magic Commercial division. Western hired a video engineer from Chicago named Jim Bartel to design the new post suites. Jim worked in Chicago with David "DC" Cardinali a Southern Rocker out of Atlanta with a sharp mind for telecine technology and a great gear head. Western recruited DC to head up the telecine department. Then they recruited me to be a telecine technical director. I was wary at first remembering the fake out One Pass threw me in 1987. But it was clearly the great new ride and I had better get on board. In the summer of 1991 dailies for *Wind* were supposed to wrap up and it would be a good time to exit Diner+Allied. Especially with One Pass now known as Editel SF with two ad world telecines and a new hot effects Rank Cintel URSA with a DaVinci Color Grading station at Western Images, the Diner+Allied station would become obsolete and Detroit would unlikely pay for an upgrade.

As I learned back at the One Pass open house in the Seventies, one had to leap with the technology and not stay too long as I had done at W.A. Palmer Films. I jumped to Western Images in September 1991. And it was the longest job I ever had working for anyone other than myself.

Within a few days working with DC I thought I had made a mistake to move. My job title technical director was meaningless. DC ran the show and the new room was his toy box. I did get a film bench and film supplies and bought a hot splicer at the local vendors DC did not know. I knew many of the ad clients from my time at One Pass including the Colossal Pictures folks. DC was a

brilliant technician but interpersonally tone deaf with the San Franciscans who did not take to the Southerner at first. A producer at Goodby Silverstein and Partners was furious that he did not seem to listen to anyone from the agency in the session I assisted him. I read the room he paid no attention to behind his head. I smelled trouble but kept my mouth shut. We hired a telecine assistant Scott Higgins left unemployed from the fire at Editel that burned down the whole place except for the two telecine bays that general manager Ruth Scoville had over-spent her budget on and which cost her a Presidency. Ruth had saved two rooms that could be moved to another company called On Tape Productions.

With DC and Scott running the room by day I was freed up to become the second shift telecine colorist we realized soon enough that we would need to do the Young Indy project. I abandoned thoughts of leaving Western and happily took the new role. DC and I worked together much more successfully that way with a mutual respect. DC caught on with the Colossal Pictures mavericks and the new work coming from ILM Commercial. Dan McNamara, my friend and former colleague at Diner+Allied and One Pass lead the editors at ILM Commercial and could handle DC in a session that would support him quietly and get the interests of ILM served too. It occurred to me that his mind and the mind of our in house producer Lisa Maserati were very compatible. They seemed perfect for each other and before I could coax them they had already begun dating. They would marry very soon.

The night shift assembled a team to meet the Lucasfilm television series's needs. Orin Green ran the second shift like the Bill Graham security officer he once was. Orin would work to three or five in the morning and then arrive by Five PM for another go five nights a week. Orin would rise to become a visual effects compositor at Western and later Radium and other feature effects companies.We had a night receptionist to feed the crew and staff the phones until around 10 PM and this is where I met Marc Hochman, a disabled veteran of the Israeli Defense Force and a future co-founder of SpyPost, the last telecine house in San Francisco. My telecine was the first suite down the hall. I had an assistant to manually log keycodes and timecodes as I worked through an EditDroid negative pull list. OSC/R did not work right away but soon we would automate the data entry. Mt first assistant was Michael Scott who would go on to become a California Wine Bar owner in Japan. Another assistant was Robert Caruso, a colleague from Diner+Allied who went from a struggling music video director to a staff director for ILM Commercial which sustained as a career past the life of ILM Commercial. My colleagues in Master Control included Greg Gillmore who would eventually become the online editor for the series, Greg Kibler who would join the telecine department as DC's assistant and later the night shift telecine operator when I came to days, and Michael Blanchard who would join Lucasfilm as the post production show runner and eventually George Lucas's right arm in digital post production at the beginning of *The Phantom Menace*. The next suite down was the digital online edit room first staffed by Pat Caballero, then Alan Chimenti, and then Greg Gillmore. Pat would co-found the editorial service See Spots Run. Alan would become a highly sought after music video editor and then a top commercial editor nationally with a strong background in visual effects from his time at Western Images and Radium. Next room down was Harry and the loud grunge rock pouring out of it after 7PM was spun by my One Pass friend Jimi Simmons. Jimi would rise from Young Indy to become a Vice President at Western Images and after a short period of freelance after the close of Western, Jimi would be a digital effects artist in Boston and one day a novelist. Other night staff digital effects artists included Mark Holmes and Joe Btattisani who became their own stars at the craft in other companies after our ship slipped beneath the waves of the San Francisco Bay.

The many rooms of expensive hardware required a staff of video engineers directed by Jim Bartel with Tim Mundorff our first liaison in telecine as Tim had a background as an assistant cinematographer. Tim has watched *2OO1: A Space Odyssey* more times than any human being I know and the capital Os are not typos as Tim's detailed knowledge of Kubrick's design will explain with little prompting. Tim would interact with the support people at other companies: Neil Kempt at Rank Cintel and later DaVinci, Gary Adams, Dean "Hey Dude" Humphis and Dwayne Maggart of DaVinci, and the grand wizard of telecine Mike Waldie of Video Engineering LTD, U.K. who invented the PINUP pin registration gate. The gate required precise transport of the film frame by frame governed by the electronics cards in the racks of the URSA below the transport cabinet. A plunger would push out of the cabinet wall and into the side of the gate and push a cam lever inside the gate block. The pins were two, one full fitting tight inside the perforation and a second slightly smaller to guide the film to contact the edge of the film to the aperture edge guide. The concept here was for the URSA transport to repeat the action of the physical piece of celluloid acetate film as it had been registered in a cameo with mechanical pin registration scan of the pinned film frame. would be sent as a still image to an Abekas A66 frame store. The Time Logic telecine editor on a PC workstation running a CP/M operating system would interlock the telecine, the Evertz key code reader, the Abekas A66 disk recorder and a D1 digital video tape recorder to offload the pin registered still image sequence and corresponding film and videotape keycodes and timecodes to a database stored in both the OSC/R laptop computer and in the TLC session log stored on a floppy disk. It all sounds like a Rube Goldberg concatenated stream of gear, wheels, chains, and steam. The PINUP gate marinated in a daily diet of WD40 and Waldie would accept no substitute industrial lubricant. It was brilliant when it worked right and murder on celluloid triacetate film when it went off. Waldie invented his own color grade system called Russell Square which though brilliant did not find a market in the United States. The XYZOOM feature of the Rank Cintel Mark III had Mike Waldie for a father. Waldie was a popular telecine engineer on the West Coast which suited his hobby of scuba diving among sharks off the Channel Islands.

A Young Indy show needed a post runner and Alison Smith took that on. She had a very hard job pulling a day shift at Skywalker Ranch followed by at least a half night shift at Western Images. She needed to drive an hour between the Ranch and Western, one way in rush hour, and then a half hour ride home to Marin County. She lasted for the entire two years of ABC broadcast before handing the show over to Kristine Hanna who carried on after ABC cancelled and George Lucas persisted with syndication hopes. The plan involved a future production of many companion documentaries to make a package of educational resources for the George Lucas Education Foundation.

A typical show would use dailies made in the UK on Betacam SP videocassettes burned onto laser disks for EditDroid. The editors for the show Edgar Burcksen and Louise Rybecky would prepare an edit decision list that had a film pull list for retransfer at 30 frames per second at Western. We eventually learned not to over grade our pass and that a flat pass would make for a much better tape to tape color correction session. We did not learn soon enough to make a fist pass color grade before brining the show for review with George Lucas at Skywalker Ranch. I drove a conform check tape to the Ranch and sat with George in the editing office for a color spotting session for him to direct and the comment was usually "the dailies looked right". We transferred. clips with no idea what a show looked like and sometimes the offline edit made clear that a scene was shot day for night. I so wish I had a do-over because we were inventing the method as we went and now a very common flat pass/first grade review follow works well for series television shot on film, video, or digital.

The shows were all made on time, one episode a week, and Edgar won us all an Emmy for his editing of the pilot episode. The methods invented by Jonathan Keeton, Bill Weber, Edgar Burcksen, and the Lucasfilm/Western Images consortium would inform the design of the second trilogy of Star Wars features. George Lucas took the laboratory experiment of Western Images and rebuilt Industrial Light and Magic into a digital cinema laboratory that he and Francis Coppola had long dreamed. Two years on the series was a career high point for me but not the peak. There was more climbing and learning to do.
DC Cardinali resigned from Western Images in 1993 after two years to return to Atlanta, a concession to the needs of his family. He stayed a star colorist there for a very long time. Western's President Michael Cunningham and General Manager Michele Acosta offered me the chair as lead colorist which I held from 1993-2001. I was able to finish up as the ABC series colorist on Young Indy but became a full time commercial colorist. Our principle effects work clients ILM and Colossal Pictures plus a few animation companies like Olive Jar and Will Vinton Studios won contracts for national television ads and San Francisco had its golden time in commercial advertising filmmaking. A large rise in salary paid for a mortgage on the house in the Castro District and was fortunate to have when Mimi had two years of chronic fatigue syndrome. We could afford vacation travel in Europe and we made it England, Ireland, Scotland, Wales, France twice, Spain, Portugal, Italy, Austria, and French Polynesia as well as Hawaii, the Southwest, the Northeast, Washington DC, British Columbia, and Quebec.

A colleague editor at our sibling editorial service Good Pictures advised me that all of us had at best a five year run before another flavor would be the darling of the ad bums. Agencies in San Fransisco especially Goodby Silverstein and Riney and Partners were eager to work in the rising shops i Santa Monica. The arc of my commercial career had gravity taking over especially as the cutting edge of telecine technology had been captured by the Phillips SPIRIT. The devise did not need pin registration as electronic stabilization was arriving in software improvements in the compositing stations. The look of film transfers was a leap ahead and Santa Monica had them. They also had a rising star named Stefan Sonnenfeld who launched Company 3 with Mike Pethel and began to build an international association of the top colorists across continents. Commercial telecine in San Francisco was on death watch.

I would get one more technological advancement chance at Western. SONY had produced a telecine they were having trouble marketing. They approached Western as a house that might be able to get some good press using it in a sophisticated media market. Jim Bartel and I had been impressed with the demonstration we saw at the NAB convention in Las Vegas in 2000. The promised electronic stabilization impressed me. It would get us at Western over the new High Definition broadcast threshold too. SONY offered free use of a telecine for six months. Western sprang for a new high definition daVinci color grading and editing controller and a high definition grading monitor.
I was not long with the machine in place before I regretted its arrival. The image capture was a video camera receiving a lamp projected image much like a photochemical optical printer. The image was not crisp, very grainy, and to get it to sharpen required video detail processing that made hard contour edges. The stabilization was erratic. The transport was sprocket driven and noisy. Six month did not get us a showpiece project and Western's owner could not be persuaded to buy a lot of expansive new post equipment when the bookkeeping show a large sales decline compared to the heady days of Young Indy and daytime effects telecine billing of lucrative pin registration sessions. The SONY VIALTA telecine was removed and later sold to a Seattle post facility. I had a very brief stint as a VIALTA demonstrator at Las Vegas NAB 2001 and in two Seattle facilities in 2001 before 9/11 changed the world.

Western Images re-installed the URSA GOLD 4444 telecine and I had a few months where some days I was the only room working. I was terminated July 5th, 2001 with a ten week severance package. September 11th caused a massive cancellation of media advertising orders and Western Images did not survive the period of my severance pay time. Meanwhile, I began a freelance career and brought an animation television series The Phantom Investigators to Varitel Video on the weekends for six months, The contract brought six figures to the Varitel bottom line and kept their doors open for a while longer but it too went under after ILM Commercial joined Colossal Pictures as closed companies. The older era of commercial advertising in San Francisco ended.

My commercial career was lucrative but not memorable. I was able to work on feature documentaries of some importance at Western. These included *500 Nations* which Edgar Burcksen edited for Kevin Costner and kindly brought to us after he had finished up at Lucasfilm. I also met Lourdes Portillo and her editor Vivian Hilgrove on *The Devil Never Sleeps* and made two long lasting friends of these exceptional women. Telling Pictures brought us Paragraph 175 and Celluloid Closet. The Fred Korematsu Story for PBS renewed my taste for social issue documentary. It would become the core of my future in the digital cinema. And Bill Weber and David Weinstein brought me the color final on their Sundance bound *The Cockettes*. Bill and I would cross to a new territory, long-form nonfiction cinema.

The Western Images customer who would have the most influence on my future in the post Western digital cinema era was PIXAR. I began my PIXAR association with PAL broadcast television film transfers in 1986. PIXAR had a brief spell making computer graphics for advertising and they needed our URSA telecine. After the success of Toy Story PIXAR brought out A Bug's Life. PIXAR's head of studio John Lassiter was unhappy with the look of film transfers for home entertainment and wanted a more direct route from the digital computer master to DVD release. Bill Kinder was the head of post production and we had met in the commercial phase of the relationship. He inquired about going through the DaVinci color grading station with a D-1 videotape source. We devised a way to pass the signal and enhance the contrast and saturation with some spot grading using DaVinci power windows, one circle and one rectangle shape with some keyframe animation capability. PIXAR's director of photography Sharon Callahan came to supervise the recordings and we became professional friends. Sharon craved the DaVinci toolset and I became something of an unofficial adviser while the company considered purchasing a digital color grading station of itself. I had private hopes of landing a position inside PIXAR. I wished on the wrong star. But Bill Kinder saved my career another way.

In 2002 it looked like it was over for me in the telecine business. I did see it coming. I started night school at UC Berkeley Extension in the Technical Writing certification program. I took three classes and applied for work as a technical writer at ESC Entertainment in Alameda. Warner Brothers Studios formed ESC from UC Berkeley computer scientists and veterans of Industrial Light and Magic and New Zealand's visual effects veterans. Allies from Western Images days recruited me and talked me up against the wishes of the ESC President who had his own candidate in mind. But I was charming in my interview with Joe Takai, the visual effects supervisor, and JD Cowles, the visual effects professional who was head of training for the company. JD liked that I had been a film timer. My manual for the SONY Vialta telecine I had written for my Tech Writing One class was sufficient for hire. I was never more out of my depth in my professional life. I worked with people twenty years my junior with vastly more current skill sets in every aspect of computer graphics, visual effects, and basic command of the Windows personal computer at the command line code writing level. I somehow managed to keep the job for two and a half years through the completion of Matrix Reloaded and Revolutions, films I detested. The experience was a terrific kick in the ass and I learned a world of new from a younger generation whom I came to respect enormously. They have gone on to great work I am sure. And I got out of technical writing as soon as I could.

In 2004 I began to freelance as the night shift telecine operator at Retina, a two room post boutique launched at considerable personal financial risk by my former One Pass colleague Scott Williams. Scott had built a company around the premise of luring the dashing dean of advertising telecine Bob Festa away from Santa Monica to the revived advertising scene in San Francisco with a place for his pleasure boat in the San Francisco Marina. Festa bailed. Scott substituted a light weight from Atlanta by day and by night staffing with Chris Martin from Varitel Video past. Chris was an instant star on the Phillips Spirit Telecine and the ad world of San Francisco wanted him in the day time chair. We had made friends at Varitel where Chris assisted my shoe horn in on the weekends with The Phantom Investigators. Chris convinced Scott and the Retina manager Rob Lazarus to give me a spot in the night chair. It was awkward with a whiff of the has-been on me.

But I did bring in a project that was a lasting legacy for Retina when it and all the ephemeral ads faded out. Retina's name is on the box for the DVD of the restoration of THE GRATEFUL DEAD film directed by Jerry Garcia of the Winterland concerts and the stunning opening animation by Gary Gutierrez and his allies at John Korty Films in Mill Valley. My allies in the restoration were David O. Weissman of Video Arts and Bob Marty, an ace editor from the House of Zaentz. We transferred the 35mm Color Reversal Intermediate to 1920x1080 High Definition video with scene to scene color grading in the hardware DaVinci 2K. We included DVD extras of 16mm negative scans of music videos not in the feature including Uncle John's Band.

Retina sank under financial gravity no other post production company in San Francisco could escape. Chris Martin and Katrina Nazzal astutely contacted the troika in command of SpyPost who crafted a deal to relocate the Spirit and DaVinci. Rob Monaco of Monaco Labs was a suitor briefly but was outbid.

SpyPost did not bring me on staff. Chris and Katrina convinced the Spypost owners to let me freelance at night as I had at Retina. It worked out after a fashion in 2005 but it was not a living.

I returned to Illinois to be with my dying father for his last week in hospice. While there I received a phone call from Jim Moye of Monaco Labs asking if I would work a contract as the digital intermediate color grader on Finn Taylor's *The Darwin Awards*. Jim and the Monaco family had invested in film scanners and a color grading and editing station called SCRATCH from a the company ASSIMILATE, two marketing misnomers. I agreed. I read the manual a few days before meeting Finn Taylor and his cinematographer, the legendary Hiro Narita. The SCRATCH was a clunky system in that early version and it was clumsy to work with although Hiro was patient while supervising the grading sessions. We became colleagues of great mutual respect. I worked again with Hiro on another feature directed by Tim Boxell which we graded at Spypost and another feature directed by Jacob Kornbluth. Hiro would also bring me on board later in my own business with his clients Lynn Hershman, John Korty, and Eleanor Coppola.

I also freelanced at Zoetrope Aubry Productions (ZAP) in the Presidio Film Center. ZAP, Monaco, Spypost and PIXAR hired me for freelance but none offered enough work to employ me full-time. I was contracted briefly at PIXAR on *The Incredibles* as a color grading consultant which was enough to bring pressure to bear on the director of photography to reclaim full control of her grade. As sort of a consolation prize, Bill Kinder handed me a loan copy of FINAL CUT PRO, a software application Steve Jobs had bought from Macromedia, the company across the hall from us back when Western Images was thriving. One day I came up the stairs on Townsend Street and could not get into the front door at Western because the entire team of Macromedia was out in the hallway to welcome the visit of their new owner Steve Jobs. I did not know then how auspicious the occasion would be for me, too. Bill had imagined the Apple application would work as a DaVinci in my hands and I saw a way to prove him right. Steve Jobs bought PIXAR too while he was at it.
Bill Kinder got me a gig using Final Cut Pro to color grade the documentaries PIXAR was producing internally of the making of *The Incredibles*. It was the launch of a department that would last 20 years getting the PIXAR people digitally memorialized. And the work on *The Incredibles* docs with Final Cut Pro gave me the confidence to explore using it in my own home office and on house calls with Bay Area independent filmmakers.

I phoned Dave Van Hoy of Advanced Systems Group in Emeryville. Dave had integrated the equipment used by Monaco on *Darwin Awards*. I asked Dave for a system of equipment for me to go freelance. My late father-in-law had provided in his will a modest five figure gift and I used it to purchase my gear. I devised techniques using Final Cut to emulate a DaVinci and word got out. I offered a service outside the facilities who would not offer me a staff position. And I became their competitor. I was early on the scene in Northern California and I was often the call a starving documentary filmmaker made after getting a five figure quote from the post houses. In 2006 I was in takeoff as my own boss self employed in The Digital Cinema.

Mimi and I sold our San Francisco Castro District single family home and purchased a luxury condo on the tenth floor of the new Fillmore Heritage Center in 2009. The residential tower shared a building complex with Yoshi's SF Jazz Club and Restaurant, the Jazz Heritage Center, and the jazz supper club 1300. Our view to the North on Fillmore Street was stunning and our second bedroom became my new office. My clients said it felt like a Manhattan skyscraper experience and some would take in an evening at the jazz club after working the day together.

I kept up my investments in new gear and software. I transitioned a Final Cut Pro station to a new DaVinci software based system. My free lance work outside shrank to a few accounts, one at PIXAR and one in Berkeley on the series Aerial America for Tusker Communications. My clients were

nominated for Academy Awards and one Megan Mylan won for her documentary short *Smile Pinki*. One year I had six films in the Sundance Film Festival and ten in the Mill Valley Film Festival.

I was also invited to guest lecture or train at UC Berkeley School of Journalism, the Stanford Journalism Department, San Francisco Art Institute, San Francisco State University, Syracuse University, San Francisco City College, and an in person masters class for four days at Hong Kong University. I would love to inspire younger people to enter the craft. I am doubtful that I am succeeding at that transmission of the craft and I am letting go of my expectations. Others have already come along to carry on in San Francisco quite well enough without me.

September 2025 is the fiftieth anniversary of my first day of work in Northern California cinema. Whether out of habit or dedication I have stuck to one craft. It has afforded me a comfortable living in a wonderful community of peers among people I regarded as great cinema artists. I have enjoyed the variety—the Bay Area Avant Garde, the auteurs of the Eighties Independent narratives, the special effects wizards advancing from the practical and photochemical through to the digital era, the maverick animators working solo or in the houses of PIXAR and Colossal, and perhaps my favorite set: the independent documentary non-fiction makers. Commercials were not my favorite activity but I did get to work with some highly creative folks there especially in the San Francisco of the nineties.

The craft took me through the photochemical laboratory, the film to video transfer telecine in post production studios, and the digital cinema co-evolving with advances in computer hardware and software. The World Wide Web enabled me to carry on during the COVID pandemic and has given me a means to work from a cozy hermitage surrounded by a beautiful garden on the incomparable Santa Barbara Riviera.

I have had great good fortune for a working class man who fell in love with cinema in his Midwestern working class childhood. The future is indeterminant and impermanent.

—-Tail Sync—