A different kind of Red Scare

by Mark Henderson

The capacity audience at Ottawa's National Arts Centre was waiting expectantly. In a few moments, a 70mm, stereophonic print of Kubrick's *2001 : A Space Odyssey* was going to begin, but unknown to them, a difficult decision was being made high up in the projectionist's booth. Cy Foley, the NAC's veteran projectionist, was in a quandary. He had screened the film earlier that day only to discover that the print was so badly faded it was almost completely red. The other colors had retreated to the point that the film was almost unwatchable.

With typically quick judgement, Foley shoved a makeshift color-conversion filter in front of the lens, hoping to absorb enough of the red to compensate for the severe color imbalance. It was not the first time Foley had been forced to take such action, and the problem wasn't about to disappear overnight. A print of *Gone With The Wind* was shown at the NAC previously, and the color was so badly faded that every exterior scene seemed to have the famous Atlanta fire raging in the background.

The list of examples goes on and on, from Canadian classics like *Goin' Down The Road* and *Kamouraska* to the biggest and gaudiest Hollywood blockbusters. Color fading is a fact of life for every projectionist and anyone who catches an older film on the late show or at the local film society or repertory house. And the film doesn't have to be that old either, for the majority of films produced in the past thirty years have used color film stock which is sure to fade within as little as two or three years, under average room temperature conditions. In short, our cinematic heritage is quickly turning beet red or garish purple while the solution to the problem is at arm's length.

Most films which fade are shot on Eastman Color film stock, and given that corporate giant's pervasive hold on the international market, color fading knows no national boundaries. This means that the Canadian film industry is in danger of having its efforts nullified unless preventive steps are taken immediately. Although some Canadian films are being protected in cold storage vaults, a large number are suffering from exposure to the ravages of heat and moisture : the main enemies of color film.

Color films will continue to fade quickly unless they are placed in atmospherically controlled cold storage vaults or protected through a procedure which uses black and white separations to preserve each color component. Both methods are expensive and the logistics of locating and collecting films for archival protection can be mind boggling.

Canadians such as Sam Kula, director of the National Film, Television and Sound Archives in Ottawa, and Len Green of the National Film Board, have been concerned with the problems of color fading for some time. It has never been a secret that the color dyes used in the film products of Kodak, Fuji, and others are "fugitive," but the institutions Kula and Green represent are lacking in proper preservation facilities to varying extents. And with sufficient funding not forthcoming in the foreseeable future, color fading remains a chronic dilemma.

It is ironic yet somehow typical that the impetus for immediate action has come from south of the border in the person of Martin Scorsese, the director of *Taxi Driver, Raging Bull, New York, New York,* and others. This bearded, slightly built, 40-year old New Yorker has been aware of the effects of color fading for several years now. He has seen some of his earlier films such as *Mean Streets* suffer from density loss in their cyan and yellow dyes, resulting in a red or magenta hue that utterly destroyed the original color balance. As a filmmaker who takes great care in utilizing color for aesthetic effect, Scorsese's artistic intentions have been rendered futile. Yet it was not until Scorsese read a pioneer article on the subject by Bill O'Connell in late 1979 (Film Comment : Sept.-Oct., 1979) that he became aware of the urgency and magnitude of color fading and decided to do something about it.

"I finally just couldn't stand it anymore," says Scorsese. "Forget about me as a filmmaker. I'm just sick and tired of it as a movie-goer. I've had it. I'm getting older and I'm sick and tired of seeing these pictures year after year get worse and worse."

Obviously angered by the situation, Scorsese quickly availed himself of the facts and figures on color fading. With the help of associates and experts, he set the wheels in motion and in April, 1980, he launched his campaign against color fading. The war of publicity and words was underway.

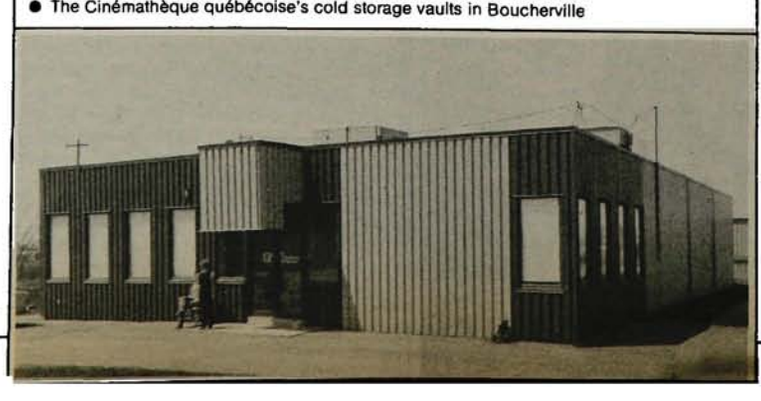
Scorsese proceeded to circulate a petition among the international film community, including the Hollywood studios and all major film archival centres. He then sent a list of the petition's 300 signatories to Eastman Kodak in Rochester, New York, along with a strongly worded letter demanding the development of a new permanent release, or print stock. Laying the blame squarely at the feet of Kodak, he warned :

> ***We believe that Eastman Kodak must recognize its responsibility to the people it services, and must assume a major role in the research and development of a stable color film stock. We ask and expect your full cooperation in this matter, and beseech you to act immediately. We will not accept token gestures... We care so much that we intend to use every means at our disposal to find the solution that threatens our work. We know that the solution exists and we feel it is long overdue.***

Among the people Scorsese recruited for support was director Steven Speilberg, whose early box office hit *Jaws* is already showing signs or deterioration. As Speilberg has noted, "after only five years, the blue is leaving the water of *Jaws,* while the blood spurting from Robert Shaw's mouth gets redder and redder."

Another Scorsese supporter was the

● The Cinémathèque québécoise's cold storage vaults in Boucherville



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internationally acclaimed cinematographer Nestor Almendos, who photographed such films as ***Days of Heaven, The Marquise of O, The Black Stallion,*** and ***Kramer vs Kramer.*** He speaks for his profession when he says, "in ten years, the films I've made I'm sure will have vanished. The museums of the future will have lots of black and white films and nothing from our time. This doesn't belong to private enterprise. It's a cultural heritage. I think governments should provide funds."

The Scorsese campaign apparently took Kodak by surprise and generated a host of newpaper and magazine articles, setting off a flurry of concern throughout the film world. Archives, laboratories, distribution companies, and business and cultural organizations were forced to re-examine their operations as well as the needs of their film preservation facilities. The net effect was overwhelming emotional support for the survival of color movies, and bad publicity for Kodak and the other film producing companies.

The first victory came suprisingly quickly. In short order, Eastman Kodak broke the tradition of secrecy surrounding technical information and released its color stability statistics, a move unprecedented in the history of film, both still and moving.

A point that Scorsese attempted to emphasize and which was ignored by the majority of press reports is the scope of the problem of color fading. Scorsese didn't want to merely pressure Hollywood into preserving films made on Kodak or Fuji stock, he wanted to find a solution which would rectify the color problem for all films, from the home movie level upwards. As his campaign assistant Mark del Costello points out, Hollywood films "are just the tip of the iceberg. We're talking about anthropological and historical films, all of which are made on the same stock. Then you have amateur films, which are the biggest part of the iceberg." Costello believes that the technology and the specialized facilities required to preserve color films from deterioration should be made available especially to those who cannot normally afford them. This is where government funding, corporate responsibility, and the organization of film makers and producers become important factors.

Still, the role of Eastman Kodak in finding solutions to color fading was a primary objective of the Scorsese campaign. Henry Wilhelm, a private, Iowa-based film researcher and former employee of Kodak, is blunt in his criticism of that company, charging that it "has been negligent in informing the public on just what the projected life of their dyes is. I know they have the capability to do substantially better... Is it alright for Hollywood movies to disappear? Documentary footage? Television film? I really can't believe that is an acceptable state of affairs."

Wilhelm asserts that the fading of color motion pictures is a relatively easy problem to solve and that Kodak could accomplish the task at little cost to itself. He mentions the fact that the old Technicolor process which was dominant in Hollywood from 1935 to 1952 was infinitely more stable but was phased out for economic reasons.

Kodak's chief information officer, Henry Kaska, takes up the defense of his company's past performance by arguing that it was merely supplying what its customers demanded. He cites the failure of Kodak's Low Fade color stock in the late 1970s to generate significant interest as an indicator of Hollywood's "apathetic" attitude to the problem of color fading.

Another point of view is offered by Klaus Henricks, a widely reknowned researcher and Canada's reigning expert on the chemistry of photography. An employee of the Public Archives of Canada in Ottawa, Henricks thinks it is unfair to blame Kodak for unstable color film, because in 1952, "the film companies honestly didn't know how (the new) color dyes would behave." He feels that Kodak can't be faulted for simply satisfying market needs and places the question of color fading in a more philosophical perspective. "There is an inherent law in our capitalistic economic system and that is : there isn't a thing in the world that some can't make a little cheaper. People who go by price alone become that man's lawful prey."

Henricks points out that the Eastman Color process in a chromogenic one, whereby the film's color is added in the development stage. With this process, colorless dye couplers imbedded in the film emulsion combine with an oxidation product of the developer to form dyes during the actual development stage. Because of the chemical nature of the chromogenic process, it is impossible to make the dyes more stable. The Technicolor imbibition process which adds dyes directly to the exposed black and white film strips (there are three – one for each primary color), doesn't need dye couplers and produces a much more stable color image.

Arguments attempting to determine exactly how the Eastman Color process came to dominate the world film market at the expense of Technicolor (which phased out its imbibition labs between 1976 and 1978 due to lack of demand) is a complex one incorporating the nature of cinema as an industry and an art form. But the simple fact is that Eastman Color has been with us for 30 years now. A recent Kodak pamphlet sums up the mentality which has ignored color stability to the point where Kodak's Low Fade stock was not used because it cost a mere 10% more than the standard Kodak color stock. In part, it states :"dye stability has not generally been a paramount consideration, because the useful life of the theatrical print is generally much shorter than the time required for any visible fading to occur." It is this attitude that must be dealt with today, and one which Scorsese addressed in his campaign to persuade Kodak to develop a permanent print stock.

There are many cold storage vaults for film throughout North America, including several in Canada. One of the most advanced is located in an industrial park in suburban Montreal. It is owned and operated by the Cinémathèque Québécoise and has separate vaults for color, black and white, and nitrate films. The color section is the largest of the three, containing many recent Canadian productions and a smattering of films from around the world.

Upon entering the Cinémathèque's vaults, one is confronted with controlled mayhem. Row upon row of plastic and metal film cans are piled from floor to ceiling, spilling out into the cramped office space at the front of the building. Depending on the film's type, the temperature is kept between 2 and 10 degrees Celsius with a relative humidity of 50%.

The vaults have gauges which are regularly monitored to ensure that atmospheric conditions remain constant. In addition to prints, the Cinémathèque also holds original negatives and materials from the various intermediary stages of film production. There are over 8,000 titles in all, and with operating costs for 1981 totaling $22,420, the expense for one year is less than that of producing black and white separations for a single film.

There is some disagreement between the advocates of cold storage and those who feel that black and white separations are the best way to preserve color film. It seems that cold supporters are in a majority, however, including Gisèle Côté, the chief conservation officer of the Cinémathèque québécoise. She feels that the cold storage unit is her institution's most valuable single possession, ensuring the survival of thousands of rare or valuable films. Without cold storage, future Canadians would be deprived of seeing their cinematic heritage as it was originally conceived and intented.

When one looks at the archival situation at Canada's two main cultural institutions, the urgency of some kind of protection for color film becomes painfully evident. The National Film Board, unbelievable as it may sound, does not have a cold storage vault for its color films, resulting in a situation which Wilhelm has labelled "a disaster... The Film Board produced the first full-length feature on Eastman Color print film... ***The Royal Journey...*** in 1951. It has faded tremendously. I visited the Film Board two years ago and was told they do not have cold storage, so a lot of material is now, I'm sure, unprintable."

Instead of cold storage, the NFB keeps its color films in a dark vaulting area at 20 degree Celsius and between 40 and 50% relative humidity. While this may retard the deterioration process somewhat, it is clearly not suitable for long term preservation, and is certainly inadequate for a filmmaking entity of the size and stature of the NFB.

The Canadian Broadcasting Corporation is Canada's other major institution which shoots its productions on Eastman Color film. The negatives and prints from CBC productions are stored at the Public Archives vaults in Ottawa, which does have cold storage, but which has been called by an anonymous source, "a joke." Apparently, the Public Archives is having problems keeping the vault's humidity constant, a factor which will cause color film to deteriorate.

The NFB, CBC, and Public Archives depend exclusively on government, or public, funding for their continuing operation and survival. Without proper storage conditions, their work is being seriously undermined, indeed rendered futile, by the lack of support from bureaucrats and policy makers who have consistantly placed cultural matters on the back burner of their list of priorities.

There has been a positive development, however. While color films made in the last 30 years are still in serious jeopardy, it seems as though the future for color film looks much brighter (as opposed to redder). This year, Kodak responded to the pressure exerted by the Scorsese campaign and announced the introduction of a new, more stable color film stock that will replace all existing color stocks now on the market. Identified by the numbers 5384 and 7384 (for 35mm and 16mm respectively), accelerated laboratory testing has shown that these new stocks are up to 10 times more fade resistant than existing color film. Sam Kula, the director of the film archives in Ottawa, feels this is a great step forward. "If the labs switch to the new Kodak," says Kula, "we will automatically pick up 15 to 20 years of fading resistance at room temperature instead of six or seven. In 25 years or so, dye stability will no longer be a factor, because we will have overcome the present limitations in the existing technology."

Whether Kula's prediction is an accurate one is a major bone of contention among archivists and filmmakers, but it is clear that improvements in the preservation of film are forthcoming and will be implemented if the funds are allocated quickly and adequately.

Only time will tell whether the developments and explosion of interest in preventing color fading over the past three years have been sufficient in checking the serious situation color film now finds itself in. If any more time is taken arguing and pondering over the methods and strategy to be used, instead of rushing to place all color films in cold storage, our cinematic heritage will turn an ugly red; a testament to our society's blatant disregard for the cinema. Now that the counterproductive forces of secrecy, apathy, and ignorance have been challenged, subsequent generations will thank Martin Scorsese and all the other concerned individuals who brought the plight of color motion pictures to widespread public attention. The cinema has now achieved a certain measure of dignity for itself and Scorsese has assured that it has a fighting chance to achieve the lasting respect it deserves.

● Scorsese assistant Mark de Costello

● Henry Wilhelm in his Iowa lab