fobn Muir (played by Ben Goger)

## Spirit of Yosemite: photographing "nature's grand cathedral"

fith his breathtaking new film **Spirit of Yosemite**, David Vassar has come full circle. Vassar has been making documentaries for 30 years. His first documentary was filmed at Yosemite when he was only 19. It was recorded on color positive stock with a 16mm hand-cranked Bolex camera. The film won a student contest and got Vassar a job with the National Park Service.

Vassar returned to the national park three decades later to produce Spirit of Yosemite for Greystone films. The project was two years in the making. It will be shown to visitors at Yosemite 15 to 20 times a day, in a specially designed high definition theater featuring a DLP projector and 5.1 surround sound. Leon Silverman, whose company LaserPacific performed the HD transfer from IP, calls the film "a poem about the changing of the seasons at Yosemite. It's really a lyrical, moving portrait of a national treasure. The images are stunning."

Vassar and cinematographer Chris Tufty wanted to go against the grain with the visual style of the film. "We wanted people to immediately see that this was not a television program," he says. "We didn't have any of the constraints. We sought a meditative, peaceful feeling. We wanted to show visitors what kind of connection was available to them in the park, if they had the patience to seek it out and be open to it."

Park Service representative Eric Epstein required that it be shot in 35mm format. Acting partially on the active of Silverman, Vissar decided to take the images all the way to the interpositive stage, and then transfer to HD.

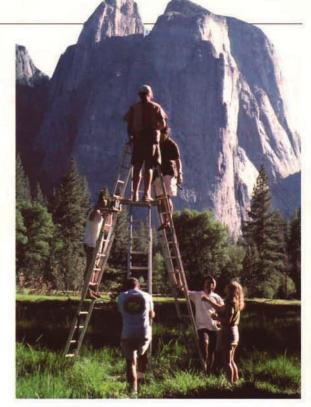
"Leon convinced us that with the transfer technology evolving so quickly, in five years we might have to come back and re-edit the whole show," he says. "This way, no matter what happens, we have an archival quality version of the film that can be down-converted to any foreseeable electronic format."

He continues, "John Muir called the Sierra Nevada 'the range of light.' There are some shots in the film where you have seven or eight stops of latitude in the same frame. With a subject like this, you don't want to compromise."

Vassar explains, "We had to carry this gear to some very remote locations, in backpacks. To get it to the base camp, we used mules. If something goes wrong, you lose three days. We knew we could rely on the mechanics of the film cameras at 12,500 feet."

Vassar wanted a slow, hypnotic editing pace for the film, so the shots are mostly long and lingering. He estimates that there are 170 shots in the 23-minute film and only 25 cuts. The calm pace is enhanced by very long dissolves, achieved at Foto-Kem on a printer that allows "clutching" between gear ratios. Some dissolves last as long as 288 frames, or 12 seconds.

One particularly memorable shot depicts the changing of the seasons at Yosemite. On the screen, spring becomes summer, summer becomes autumn, autumn becomes winter, and the camera tracks to the right.



Filming in the spring, from a 15 foot "ladder pod".

The shot was accomplished using incamera techniques. The crew laid dolly track along a bicycle path that crosses the Superintendent's Meadow and then captured a moving shot. The crew spray painted marks along the tracks, allowing them to re-lay the same tracks on three separate occasions over a 14-month period. Tufty took a frame of the previous shot and put it in the gate to line up the image, and made the same shot. The length and speed of the shot were calculated using a stopwatch for a guide. The three shots were optically dissolved together on an Oxberry ® optical printer at Howard Anderson Company. The finished shot runs 90-feet, or about 60seconds.

"I love the fact that we are using traditional in-camera techniques on this film as well as the latest high definition transfer and DLP projection technology," says Vassar. "It's the best of both worlds. The DLP projection means that the show can be projected perfectly thousands of times. By using film we captured the mystery and grandeur of Yosemite."



