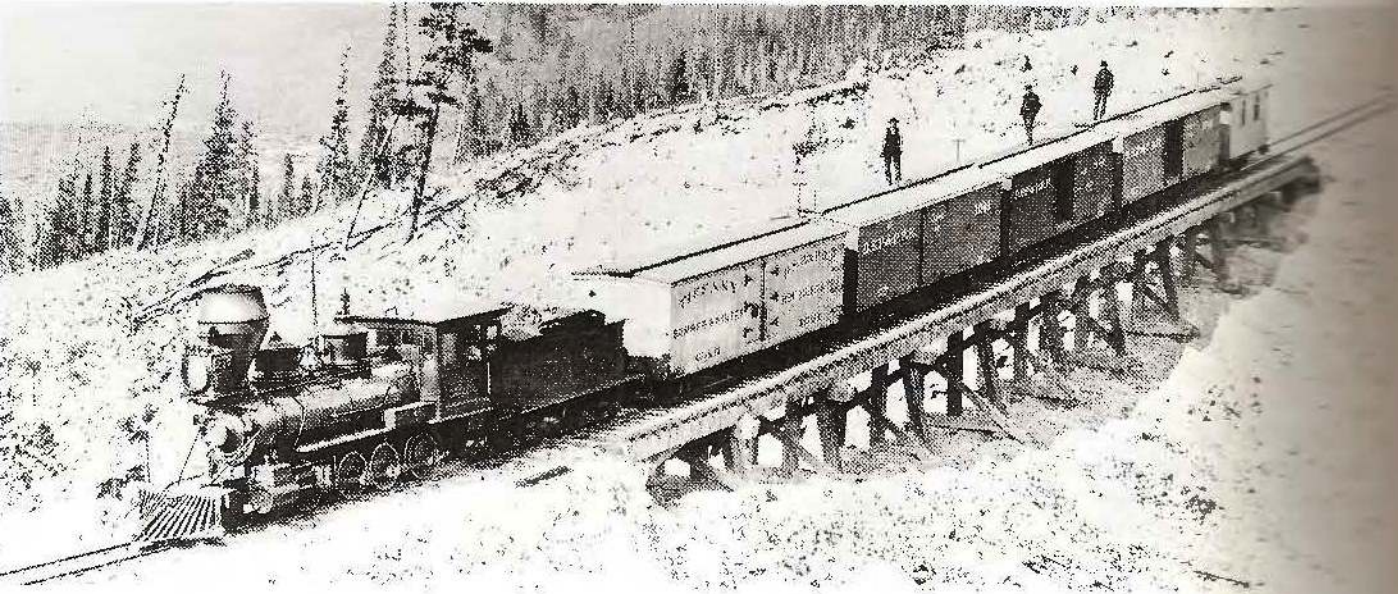


# THE COLORS OF SOUTH PARK: DETERMINING COLOR FROM EARLY BLACK-AND-WHITE PHOTOGRAPHS



BY MALLORY HOPE FERRELL

PHOTOGRAPHS BY THE AUTHOR AND FROM THE AUTHOR'S COLLECTION

**F**OR MANY YEARS, historians hotly have debated the colors of some early Denver, South Park & Pacific and Denver, Leadville &

Gunnison equipment. Part of the reason is the way glass plate negatives reproduced photographic tones.

Before 1933, most black-and-white films and glass

**Above.** 2-8-0 Number 217 on Fremont Pass in the 1880s with a light colored Tiffany reefer and raycar. William Henry Jackson photo.

**Below.** When Cooke Locomotive Works built it in 1883, 2-8-0 Number 63 had a Russia iron boiler jacket, an ash tab, and gold leaf lettering with red shading.

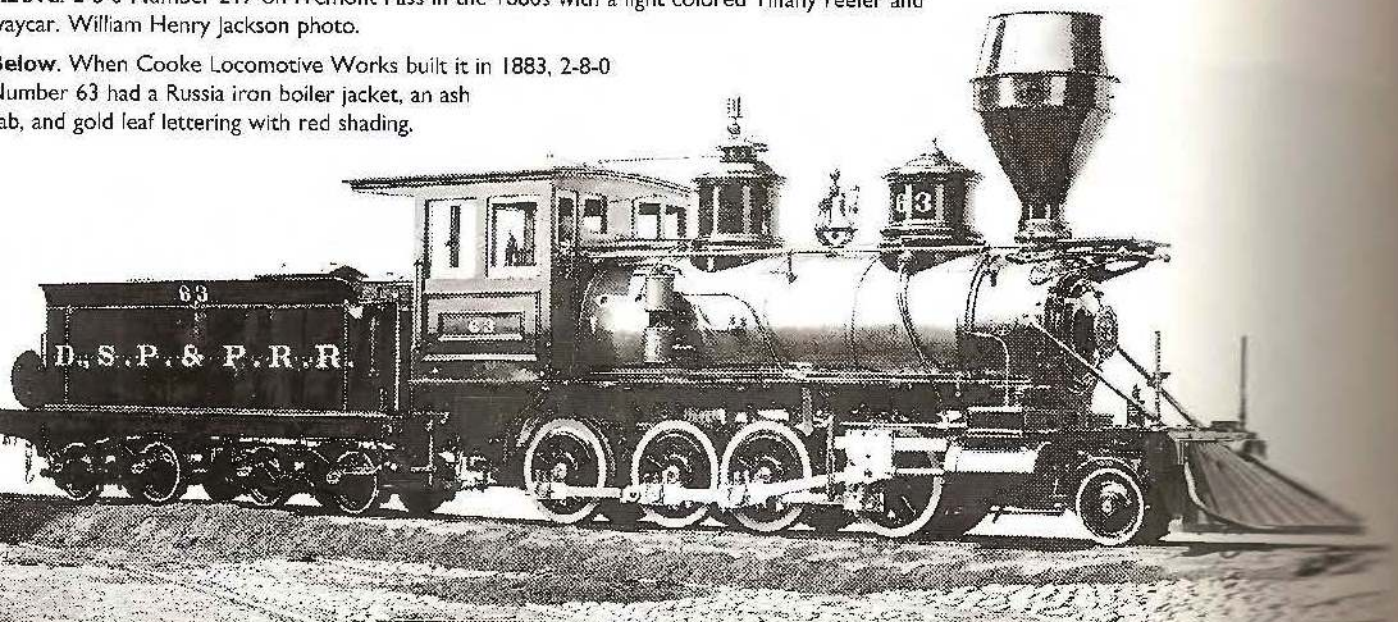






Figure 4: Jackson photographer's special train at Webster in 1886. The locomotive is Mason Bogie 2-6-6T Number 42 with Waycar Number

...had orthochromatic based emulsions. They were unable to distinguish between many shades. Basically, early and early film orthochromatic emulsions could not see the shorter wavelengths of light. The longer wavelengths, specifically those within the red family, had the most effect on glass plate and early film chemistry.

For example, the red tones of an original scene would appear darker than they might with modern film.

Color films also fail to distinguish between such close shades as white and yellow. To make matters worse, shades of green, blue, and tan or brown appear very similar. Gold lettering sometimes failed to record properly. Often a locomotive's gold or a tender's mustard yellow lettering appears nearly black and becomes nearly invisible.

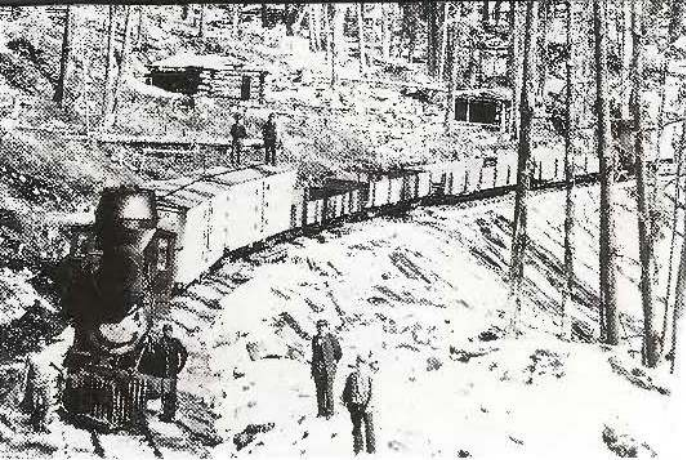
Even an early photograph of a Denver, South Park & Pacific steam switchstand would be unable to tell us whether the stand were white or yellow. The accompanying photograph of a Denver & Rio Grande train on Marshall Pass shows how difficult it is to identify colors. Careful analysis of its gray scale spectrum might yield some information about the relative values of certain colors.

After the mid 1930s, Kodak introduced panchromatic films. They allowed faster exposures and the more sensitive emulsions could render a much wider range of gray encompassing the entire color spectrum. By the late 1930s, Kodak introduced dye-based Kodachrome color film and, later, Ektachrome. While Kodachrome produced "bluer blues", most images have held their color value over sixty years. Kodachrome slides from the 1930s maintain good color with only slight tonal shifts. On the other hand, many Ektachrome and Anscochrome color slides from the 1950s often show fading and drastic color shifts toward magenta and purple and are virtually worthless as good illustrative transparencies. Special storage conditions and refrigeration only seem to prolong those color shifts.

Figure 5: Rio Grande Number 402, the Shoshone, drifts down the west side of Marshall Pass at Shawano around 1883. Note the two early







**Left.** A D,SP&P 2-8-0 with two Tiffany reefers near Woodstock, Colorado, 1882. **Right.** Cascade Creek, 1888. Note the red and white waycars.



expensive and rarely applied. He notes such colors as white, black, ochre, and mineral red came from fairly common and inexpensive pigments. For example, white comes from lead and mineral red from iron oxide.

Many freight cars, including those on the D,SP&P and DL&G, were Tuscan red, a darker shade of mineral red. We now know early South Park waycars (caboose) were a very light color, either off-white or light yellow. By the early 1880s, some waycars were mineral red. Several 1880s photographs in my book, *The South Park Line* (Hundman Publishing, 2003) show Tiffany refrigerator cars and a light colored caboose in the same scene. Their color appears identical. Both light and dark cabooses also appear in the same photographs reflecting an overlap in the South Park waycars' color scheme.

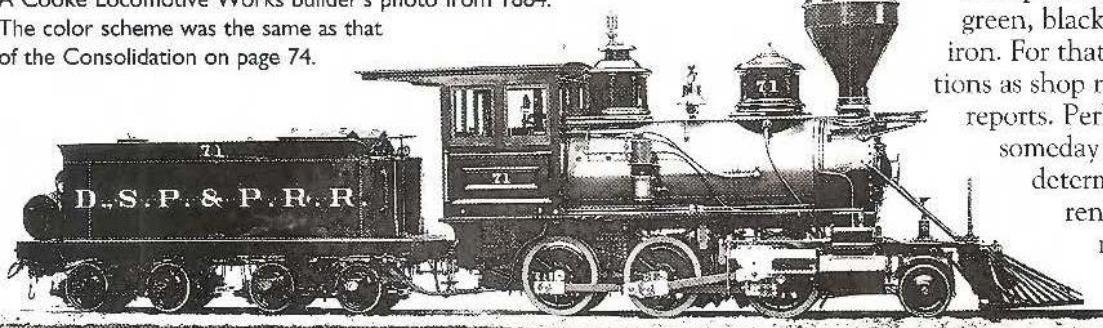
Some evidence suggests the Tiffany Summer & Winter reefers were white even though we know the later Colorado & Southern reefers were yellow. Richardson concludes, "Considering all the evidence, the color of the South Park cabooses and Tiffany reefers is what it looks like: White!"

My own opinion is the South Park's switchstands probably were white because white, red, and black paints between 1870 and 1910 used less expensive pigments. Such colors as yellow were more expensive to mix and maintain. Similarly, I suspect the South Park's waycars and reefers were plain, inexpensive white.

But maybe not.

Back in the early 1960s, I was able very closely to inspect the paint layers on a former D,SP&P Tiffany refrigerator car as it rested, without trucks, near the

A Cooke Locomotive Works builder's photo from 1884. The color scheme was the same as that of the Consolidation on page 74.



Colorado & Southern's Leadville enginehouse. It probably had served as a storage shed since sometime before the fall of 1903 when government regulations mandated Janney patent automatic couplers. The reefer had retained its link-and-pin couplers and unique door hardware. As I scraped through the various paint layers, I found faded boxcar red on top of layers of what I would call "straw yellow"—but no white.

After the Union Pacific took over the line in 1880, the passenger cars generally were standard UP Pullman green with black trucks and simulated gold leaf lettering. All freight cars except reefers continued to be oxide (Tuscan) red but boxcar side and end fascias were white. In 1885, after the UP renumbered all its equipment, some cars received complete repainting; others, especially boxcars, received a large black rectangle to block out earlier lettering. Inside the block, the UP painted "Union Pacific" in white along with small individual road initials (such as DL&G, KC, or U&N) beneath the car number. Coal cars and flatcars generally received simpler white "Union Pacific" lettering and, in some cases of cars with side boards, the shops painted a smaller black rectangle over the old number.

A mixture of equipment with lettering in different styles lasted well into the 1890s. If you want to replicate a specific car, it is advisable to consult photographs from each period. For example, some DL&G work cars retained D,SP&P lettering in the late 1890s.

Today's technology still is unable to determine the exact color of a D,SP&P Tiffany refrigerator car or whether the boiler of a specific 1902 locomotive was green, black, blue, or natural rusted iron. For that we need such descriptions as shop records or newspaper reports. Perhaps a brilliant scientist someday will devise a way to determine the gray scale renditions of orthochromatic emulsions. Until then, you "pay your money and take your choice."