

Optical system utilized microscope

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An optical system using a microscope was used by film technician Robert J. Groden to study the Bronson film that indicates movement in the 6th-floor "assassination window" of the Texas School Book Depository minutes before President John F. Kennedy was shot and killed Nov. 22, 1963.

The study of the film continues. But in three days of work, Groden used the microscope arrangement to focus in and enlarge minute parts of the 8-millimeter movie film and to make slides of what he saw.

No retouching was done on any of the film; however, Groden was able to draw out the colors involved when making prints off the movie film.

In all, 92 frames of the Bronson film

show the 6th-floor window, all taken during a period of slightly more than seven seconds. When viewed consecutively, Groden said, the images change in a manner consistent with what would be seen if a person walked toward or away from the window.

Of the 92 frames, slides were made of 19 that indicated movement. And of those 19, nine were selected and copied in black and white for use in *The Dallas Morning News*.

These black-and-white photos are enlarged by almost 100 times over the original 8-millimeter film.

Groden said it should be possible to develop much more information from the film if its contents were computerized. But, he said, this takes a great deal of time and money.