

Donna Matrazzo The Writing Works

19300 NW Sauvie Island Rd. Portland, OR 97231 (503) 621-3049 matrazzo@msn.com

> U.S. Geological Survey Yellowstone National Park

"BEYOND THE CALDERA: A Journey Deep Below Yellowstone"

Final Script

"BEYOND THE CALDERA: A Journey Deep Below Yellowstone"

FADE IN:

1. A sequence of shots at Old Faithful, with a group of about 50 excited grade school children, waiting for the eruption with enthusiasm and impatience.

CHILDREN'S VOICES:

(Counting down, a bit giggly and not quite in unison, disappointed when it doesn't happen, starting over with ten, then yelling with glee when it does.)

NARRATOR: (voiceover)

SKYROCKETING OLD

FAITHFUL.

<u>dissolve to:</u> A MONTAGE OF STUNNING GEOTHERMAL IMAGES

For example:

2. A close shot of bubbling, boiling gray goo; some bubbles burst and spatter.

GOOEY GREY MUDPOTS.

3. With glimmering sunlight, an expansive pan across Mammoth Terraces.

SHIMMERING TERRACES.

4. Looking down into the deep captivating turquoise of a pool like Morning Glory or Grand Prismatic.

SUCH GEOTHERMAL

FEATURES ARE THE LURE

AND LEGEND OF

YELLOWSTONE.

5. People walk along a boardwalk behind one of the features with a great amount of rising steam; the steam seems to envelop them and they disappear behind its shadowy shapes.

BUT REALLY, THE MOST

WONDROUS FEATURE OF ALL

... IS HIDDEN UNDERFOOT:

6. ANIMATION

a) A stylized transition in which the white wispy steam transforms into a mysterious, intriguingly-colored background like the images from the earth's core in the Goode/Pierce *Geology* book.

A SLEEPING VOLCANO.

... ONE OF THE LARGEST,

MOST EXPLOSIVE VOLCANOS

ON EARTH.

TO SEE IT TAKES A JOURNEY

THAT BEGINS DEEP BELOW

YELLOWSTONE ...

b) SUPER TITLE: Beyond the Caldera A Journey Deep Below Yellowstone

... BEYOND THE CALDERA.

<u>dip to gray and up to:</u> 7. A GRAY SCREEN. SUPER: **Two million years ago ...**

<u>special effect transition to:</u> A SPECIAL EFFECTS MONTAGE OF IMAGES THAT ATTEMPT TO RECREATE THE EXPERIENCE OF THE COLOSSAL HUCKLEBERRY RIDGE ERUPTION -- ONE OF THE MOST TREMENDOUS VOLCANIC EXPLOSIONS EVER ON EARTH.

THE SOUNDS ARE IMMENSE, THUNDERING -- THE SCENES COALESCE IN A PROFUSION OF OVERLAPPING LAYERS, BLURS, FLASHES BETWEEN BLACK AND WHITE, MORPHING ... WHATEVER IT TAKES.

For example:

8. Giant fountains of incandescent, 1800-degree-F ash blast into the stratosphere.

9. A pyroclastic hurricane: a speeding maelstrom cloud of fiery glass bubbles, shards and pumice churns and scours the landscape.

10. White-hot froth boils out from fractures in the earth's crust.

11. Immense trees instantly uprooted.

12. A mountain is decimated.

13. The sky turns jet black.

14. Ash flow surges onward, smothering all in path.

15. The magma chamber roof collapses, a circle of landscape sinks into an immense depression, several thousand feet dept -- a caldera more than 60 miles long and more than 30 miles wife.

16. A forest -- its animals, birds, trees and streams -- vaporizes into varicolored puffs of steam.

dissolve to:

17. SOPHISTICATED ANIMATION OF A 3-D MODEL a) An illustration simulating the Yellowstone landscape before the Huckleberry Ridge eruption.

MUSIC: An exciting sound in rhythm with the animation <u>UP AND UNDER</u>

NARRATOR: (voiceover)

NO ONE HAS EVER SEEN

b) In a quick sequence:

- The tremendous explosion.
- Ash blasted into the stratosphere.
- The pyroclastic hurricane.
- The caldera collapse.
- Oozing lava flows.

...A VOLCANIC EXPLOSION AS

IMMENSE AS YELLOWSTONE'S

HUCKLEBERRY RIDGE

ERUPTION:

TWO THOUSAND, FOUR

HUNDRED TIMES THE POWER

OF MOUNT ST. HELENS.

c) A sterile, steaming moonscape.

NEARLY ALL LIFE WIPED

OUT ...

d) Pull back and back to see ash cover thousands of square miles and traveling on the wind.

... OVER THOUSANDS OF

SQUARE MILES.

ASH CIRCLING THE GLOBE.

AGAIN AND AGAIN...

<u>dissolve to:</u> 18. SPECIAL EFFECT -- SWIRLING ASH CLOUD. Swirling ashes fill the screen, as though we ourselves are trapped in an ash cloud.

... STILL VISIBLE TODAY AS

FAR AWAY AS THE GULF OF

MEXICO.

THAT ASH IS ENTICING

EVIDENCE ...

dissolve to:

19. SPECIAL EFFECT: SWIRLING TEMPERATURE -COLORED "FAULTS" MAP.

Looking like a mysterious stylized hot- and cold-colored "galaxy," something like the "Late Cenozoic Normal Faults" map from pages 22-23 of the Goode/Pierce *Geology* book.

... LURING SCIENTISTS TO ITS

SOURCE BELOW.

<u>dissolve to:</u> 20. ANIMATION. THE EARTH/GLOBE a) The globe spins, and the "Hot Spot" locations are highlighted.

SCATTERED ACROSS THE

GLOBE ARE 40 OR SO SITES

THAT GEOLOGISTS CALL

"ACTIVE HOT SPOTS" ...

b) The "Hot Spot" locations begin to glow red-orange.

... WHERE MAGMA FROM

DEEP IN THE EARTH'S

INTERIOR RISES TO THE

c) Zoom in to the glowing red-orange Hawaiian islands locale. SUPERIMPOSE: A scene of lava spewing from one of the volcanos.

IN OCEANS, LAVA ERUPTED

AT A HOT SPOT CAN BUILD

ISLANDS, LIKE HAWAII.

d) The Yellowstone Hot Spot location glows red-orange, and shows a regional uplift, like a ball beneath a rug.

UNDER CONTINENTS,

HOT SPOTS CAN LIFT ENTIRE

REGIONS.

OVER TEN MILLION YEARS

AGO, THE YELLOWSTONE

"HOT SPOT" APPEARED,

UPLIFTING THE AREA.

d) The North American plate drifts southwestward over the Yellowstone Hot Spot.

SINCE THEN,

THE NORTH AMERICAN

PLATE DRIFTED ...

e) The location of today's states and the outline of Yellowstone National Park appear, as the Hot Spot nears the park.

... ABOUT AN INCH PER

YEAR ...

g) Overlay a version of the brilliantly-colored "digital topography" map, but clearly delineating the string of uplifted Volcanic Fields.

... IN ITS WAKE, LEAVING A

500-MILE-LONG VOLCANIC

TRACK ...

h) Focus in on the "Yellowstone Plateau Volcanic Field."

... LEADING TO

YELLOWSTONE.

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To see the complete script, contact me at matrazzo@msn.com