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# Raton Mesa

# National Monument

*a proposal*

IN  
STORAGE



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

ON MICROFILM

Cover painting "**FISHERS PEAK**" by Arthur Roy Mitchell,  
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SYNOPSIS

PRELIMINARY  
NOT FOR PUBLIC RELEASE

Raton Mesa near Trinidad, Colorado, about 200 miles south of Denver, is the highest, most scenic, impressive and accessible of a scattered group of lava-capped mesas straddling the eastern half of the Colorado-New Mexico boundary. It and its highest part, Fishers Peak, are well known landmarks dating back to the days of the Santa Fe Trail which traverses Raton Pass on its southwest flank, today crossed by an interstate highway. Three distinct, easily recognized vegetative zones, mostly forest, lay on its slopes; the Mesa top is a high mountain grassland.

Ancient lava flows covered portions of this region, the Raton section of the Great Plains physiographic province, millions of years ago when the surface was much higher. These flows protected the mesas from subsequent erosion which has carried away the surrounding territory, leaving Fishers Peak today towering 4,000 feet above the City of Trinidad. Lavas at Capulin Mountain, a National Monument located nearby in New Mexico, though at a lower elevation, are thought to be much more recent.

Raton Pass was a strategic point on the Mountain Branch of the Santa Fe Trail during the Mexican and Civil Wars, and to travelers past and present a climactic gateway to the southwest.

It is beautiful country, the scene changing with the seasons; the summer climate on the Mesa top pleasantly cool compared to the plains below. The land, mostly in a few large private ownerships, is used primarily for cattle grazing.

As a remnant of a former High Plains terrain, Raton Mesa is an impressive geological feature of national interest, presenting dramatic





Mesa Country - magnificent scenery



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evidence of the tremendous amount of erosion which has taken place in this section of the Great Plains province. The unusual combination of scenic, scientific, and historical qualities makes it nationally significant and deserving of consideration for addition to the National Park System. It meets suitability and feasibility requirements for such designation.

Three progressively larger alternative plans are presented for preserving and interpreting a representative portion or all of Raton Mesa. A fourth plan, to supplement any one of these three, would provide an interpretive tour from Capulin Mountain National Monument to Raton Mesa via a scenic road-parkway.

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## INTRODUCTION

Raton Mesa is the highest, most scenic, impressive, and generally accessible of a group of scattered, lava-capped mesas which begin at Fishers Peak near Trinidad in southern Colorado, and extend southeasterly almost 100 miles into New Mexico.

Studies of this area were initiated by the Midwest Region, National Park Service, in 1961, and continued intermittently until 1965. This report is a result of these studies.

Studies such as these play an important part in the long-range efforts of the National Park Service to identify areas of sufficient importance for inclusion in the National Park System. The eventual objective of these efforts is a system of National Parks, Monuments, Historic Sites, and Recreation Areas that will be representative of America's natural and cultural heritage, and provide adequate outdoor recreation opportunities for our rapidly growing population.

The purpose of this report is to present sufficient information about the Raton Mesa country so that the public may understand its significance to the Nation, what the National Park Service believes should be done to preserve it and make it available for the use and enjoyment of all, and the alternative plans by which this might be accomplished.



## SETTING

### Location and General Description

The Raton section of the Great Plains physiographic province straddles the Colorado-New Mexico boundary in the southeast and northeast portions of these respective states. This area, bordered by the Colorado Piedmont on the north, the Park Plateau on the west, the Las Vegas Plateau on the south, and the High Plains on the east, lies between two major streams, the Arkansas and Canadian Rivers. These originate in or near the Sangre de Cristo Mountains to the west and flow to the Mississippi. High mesa lands form the divide between them and are drained northward into the Arkansas River, chiefly through the Purgatoire, eastward through the Dry Cimarron, and southward into the Canadian. The basalt rock which caps these mesas is all that remains of ancient lava flows that covered more extensive portions of this region several million years ago when the surface of the High Plains in this vicinity was perhaps three to four thousand feet higher than now.

Raton Mesa, located in Las Animas County, Colorado, was also called Cimarron, Chicorica, Raton Mountain, the Raton, and other names, by early settlers. Interstate Highway 25 lies at the base of its western slope along the old Santa Fe Trail. Its highest part, Fishers Peak, elevation 9,627 feet, rises more than 4,000 feet above the City of Trinidad and the Purgatoire valley, and dominates the landscape particularly as seen from the plains to the north.

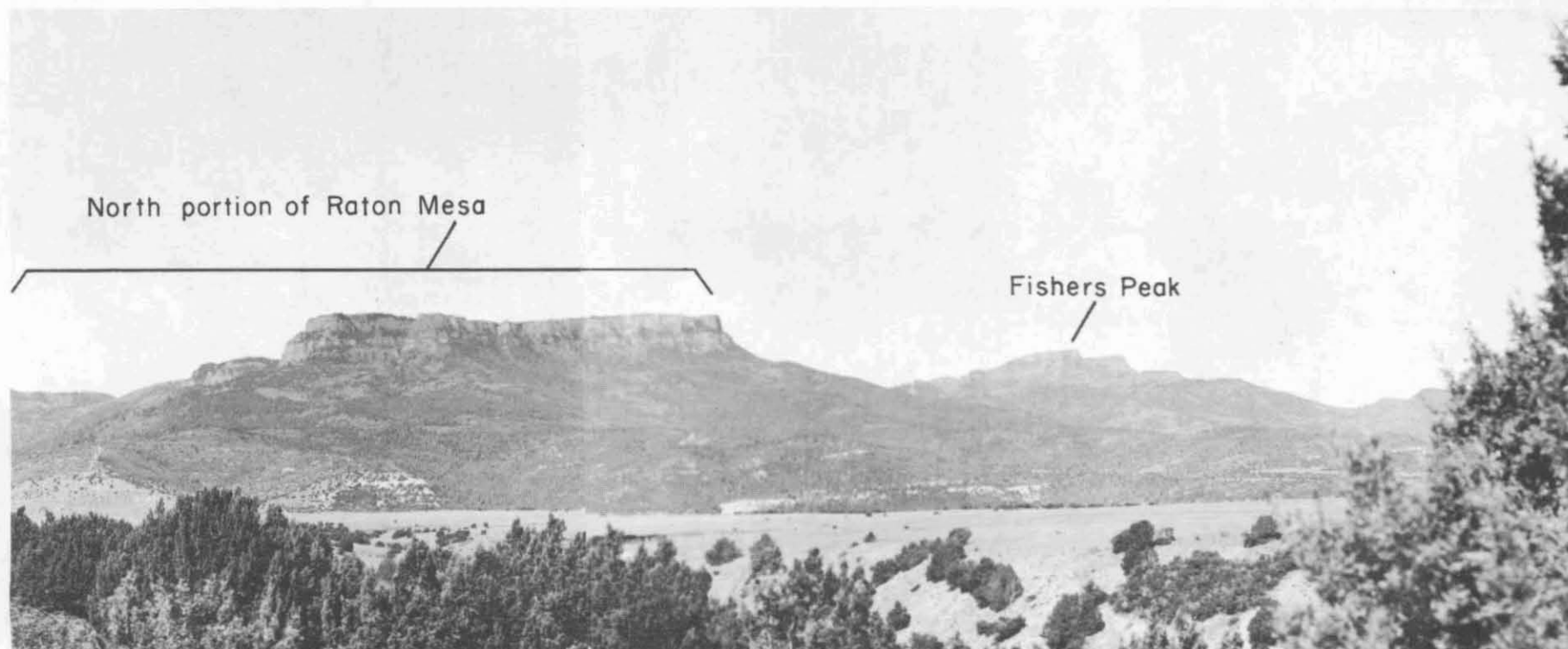
Raton Mesa's steep sides and fairly level top readily identify it as a mesa. It has become a well-known landmark dating back to the days of the Santa Fe Trail which traverses Raton Pass on its southwest flank. A small valley separates it from Bartlett Mesa to the south and Barilla Mesa to the east. Small, generally intermittent streams such as Frijole, San Francisco, and McBride Creeks, drain the Mesa's slopes and flow northward with steep gradients into the Purgatoire River.

The rim of the Mesa top is irregularly shaped, having a perimeter of about 41 miles. The relatively flat surface, gently undulating in places, covers an area of about 11,000 acres, roughly eight miles north by south and seven miles east by west, and slopes slightly eastward.

On the north a sharp ridge connects Fishers Peak to the rest of the Mesa. Fishers Peak was cut away from the main part of Raton Mesa years ago by erosion, leaving an isolated, flat-topped 18-acre remnant. Aside from wildlife and a few hardy climbers, nothing is known to have set foot on it. Here is a relic of the past, the surface of which, due to its inaccessibility, may be of some importance to science.

Raton Mesa is beautiful at any time of year--mantled with snow in winter; conspicuous in spring when the vegetation displays many shades of green; cloud-covered in summer, or momentarily outlined during a night storm when lightning appears to dance on Fishers Peak; and striking in fall with the yellow foliage seen against the dark evergreens.

An early traveler, Susan Shelby Magoffin, kept a diary during a Santa Fe Trail trip in August, 1846, and recorded her impressions.



The gaunt, blocky profile of Raton Mesa and Fishers Peak has long been a well-known landmark.

...Left camp this afternoon early August 13. Came to camp again at sunset, and just at the entrance of what is called the "Raton" a difficult pass of 15 miles through the mountains.

...It is surrounded by most magnificent scenery. On all sides are stupendous mountains, forming an entire breast-work to our little camp situated in the valley below. To the south is... "the pinnacle" of the mountains, a great rock Fishers Peak towering above everything around.

John T. Hughes of the 1st Regiment of Missouri Cavalry with Doniphan's Expedition, traveled through Raton Pass and described his impressions.

On the 6th August 1846 we advanced...and encamped on a spring branch issuing from the base of the Cimmaron Peak Fishers Peak...several men ascended to the summit of this lofty mountain, elevated many thousand feet above the plains and valleys below. The scene was truly grand and magnificent. The Spanish Peaks, twin brothers, in the midst of desolation, rose still above us to the westward, lifting high into the heavens their basaltic pillars and spurs, girt with clouds, and glistening with perennial snow; while towering still above these rose the grander and loftier summits of the Cordilleras Sangre de Cristo Mountains like blue, amethystine clouds in the distant southwestern horizon.

On the 7th...the advance was sounded. Our route led up a narrow defile...called the Raton Pass... Progressing...up this...with mountains precipitously rising on both sides, we arrived at a point where they suddenly diverge on either hand,...the knobs and peaks of basalt and granite, projecting into the region of the clouds, present a scene of true sublimity. This display of the Almighty's power is sufficient to extort reverence from the lips of an infidel... Near this romantic spot we encamped for the night. The grass was abundant and of excellent quality, the water cool and refreshing.

#### Climate

The climate of the surrounding plains is pleasantly dry. Daily temperatures range greatly. Summer days, usually hot, are relieved by cool nights. Most winters are mild with little snow and few protracted cold spells. Precipitation from prevailing western winds averages 20 inches annually.

The Mesa top has much the same climate modified somewhat by the higher elevation. Precipitation is about twice that at Trinidad and there may be three times as many rainy days. On a still summer day with temperatures of 100° on the adjacent plains, the Mesa top may be 15° cooler, with a refreshing westerly breeze blowing. During winter the high elevations may receive heavy snow and strong winds. At times Raton Pass is blocked by snow.

#### Vegetation

A trip from the surrounding foothills to the Mesa top reveals a succession of distinct and easily recognizable vegetative zones. These include a variety of plant types, locations, textures, and colors--a dynamic changing scene in which the more obvious effects of altitude, moisture, exposure, and soil are apparent.

Stubby, squat trees, namely; Rocky Mountain and one-seeded juniper, and pinon pine, interspersed with some grasslands, dominate the lowest zone, the foothills, roughly between an elevation of 5,500 and 7,000 feet. Shrubs found here are mountain mahogany, gambel oak, serviceberry, rabbit brush, soapweed, shrub cactus, and skunkbush. Some grasses are blue grama, needle and thread, western wheatgrass, Indian rice, little blue stem, side oats grama, and galleta.

Predominantly a chaparral, the oak-mahogany zone above the foothills extend from elevation 7,000 to 8,500 feet. A shrub growth of gambel oak and mountain mahogany covers most of it. However, on favorable sites some trees develop larger. These include Ponderosa pine, Douglas fir, aspen, New Mexico locust, and Rocky Mountain maple. Other shrubs are

serviceberry, snowberry, chokecherry, hawthorne, and ceanothus. Grasses, less abundant than on the lower foothills, include Arizona fescue, slender wheatgrass, Parry's oat grass, and Kentucky bluegrass.

At 8,500 to 9,500 feet elevation, the transition to forest is complete in the spruce-fir zone. This consists primarily of Colorado blue spruce and white fir, which cling tenaciously to the steep, rocky slopes. In places they grow in cracks and pockets on the precipitous sides of the dark, green-gray lava which caps the Mesa top. Here too are found aspen and gambel oak, the latter now a small tree rather than the shrub found at lower elevations.

A high-mountain grassland on the comparatively level surface of the Mesa is the highest zone. The rocky soil here is very shallow. Much moisture does not contribute to plant growth on the Mesa top because it quickly percolates through the porous lava cap. Under the resultant arid conditions, small shrubs and grasses compose most of the Mesa top vegetation, principally shrubby and herbaceous cinquefoil, snowberry, wild rose, peavine, fringe sage, locoweed, pussytoes, timber oatgrass, Arizona and thurber fescue, Junegrass, pine dropseed, mountain muhly, and Kentucky bluegrass. Many of these display conspicuous flowers. More than 50 species of wild flowers, mostly on the Mesa top, add a maze of spring color. Cattle grazing, by cropping the taller herbaceous plants, has allowed more sunlight to reach the smaller flowering perennials.

In sharp contrast to the grassland of the Mesa top are a few small, isolated stands of white fir and aspen growing in the more moist, protected





Aspen and white fir occupy depressions on the Mesa top.



The transition to forest is complete in the spruce-fir zone, here with aspen in the foreground.

depressions. Widely separated individual or small groups of white fir, few in number but most noticeable, tower sentinel-like over the low shrub-grass surroundings.

Forest growth is generally denser and taller on the north and east slopes where the moisture percolating through the lava cap is available and conserved by the afternoon shadows.

### Wildlife

Seldom disturbed by more than a few people, the Mesa provides excellent wildlife habitat. Antelope, mule deer, coyote, and black bear are fairly numerous. Of the smaller animals, the cottontail rabbit, porcupine, skunk, gray fox, badger, weasel, and various species of squirrel are common. Mountain lions have been seen.

Over 69 species of birds nest in the foothills. The wild turkey thrives here. The roadrunner, more likely to run than fly when alarmed, can be seen darting along the ground. Some bald and golden eagle nest at higher elevations. Several species of hawks and owls are present.



Scattered white fir, sentinel-like, on the grassland surface of the Mesa.



## GEOLOGICAL BACKGROUND

### General Description

The Fishers Peak area is the highest portion of the Raton section of the Great Plains physiographic province. First defined as an element of the Great Plains by the classical work of Fenneman in 1931, this classification is continued by Thornbury in his recent (1965) "Regional Geomorphology of the United States". He describes this area as follows:

The Raton section as a whole may be described as a group of plateaus and mesas in advanced stages of dissection. Lava-capped mesas are common and give evidence of repeated extrusions of basalts and andesites...Highest of the basalt-capped mesas are Raton, Barilla and Johnson Mesas. A total of eleven lava sheets can be identified on Raton and Barilla Mesas and eight sheets can be seen on Fishers Peak...The individual lava flows vary in thickness from 100 to 500 feet. The maximum relief that has developed since the outpouring of the lavas is about 4,000 feet, which is the amount of relief between Fishers Peak and the valley of the Purgatoire River...The age of the oldest lavas is uncertain. Those on Raton, Barilla and Johnson Mesas rest on gravels of uncertain age.

### Remnant of Ancient Great Plains

The Great Plains physiographic province, generally speaking, is surfaced with a vast mantle of gravel, sand, and other sedimentary debris washed away from the Rocky Mountains which have been undergoing erosion for millions of years. At one time the Plains surface was much higher than at present, but subsequent erosion has lowered it to its present level. The Raton Mesa area represents a portion of the once higher surface.

In this vicinity, vigorous erosion by the Purgatoire River and tributaries of the Canadian has lowered much of the former High Plains surface, but beneath the lava caps of the Raton and neighboring mesas

it has been preserved. Protected from erosion by thick lava flows, these mesas rise high above the surrounding territory which has been carved away since the lava flows occurred.

As remnants of a former High Plains terrain, the Raton Mesa and Fishers Peak are quite significant, presenting as they do clear-cut evidence of the tremendous amount of erosion which has taken place in this section of the Great Plains region. A view eastward from the Mesa top across forty miles of plains, nearly a mile below, is more awesome--once the concept of erosional process has been grasped--than a view of the Grand Canyon. Here it is easy to visualize the hundreds of cubic miles of rock removed by the eastward flowing streams below, still actively carrying out their "mission", even today.

#### Rampart of the Rockies

Although the bold escarpments of Raton Mesa and Fishers Peak are due to erosion and their main significance is that they represent a "souvenir" of a former High Plains surface, still they are only a few miles from the rugged slopes of the Southern Rockies. In this vicinity, these mountains are composed of two elements, (a) the Spanish Peaks--striking examples of eroded igneous intrusives, and (b) great up-thrusts of ancient rock now carved into the Sangre de Cristo Mountains. The Spanish Peaks region is famous among geologists for the remarkable system of igneous dikes that crisscrosses it. The Sangre de Cristos extend north and south, linking the Rockies of central Colorado with the high country of northern New Mexico.



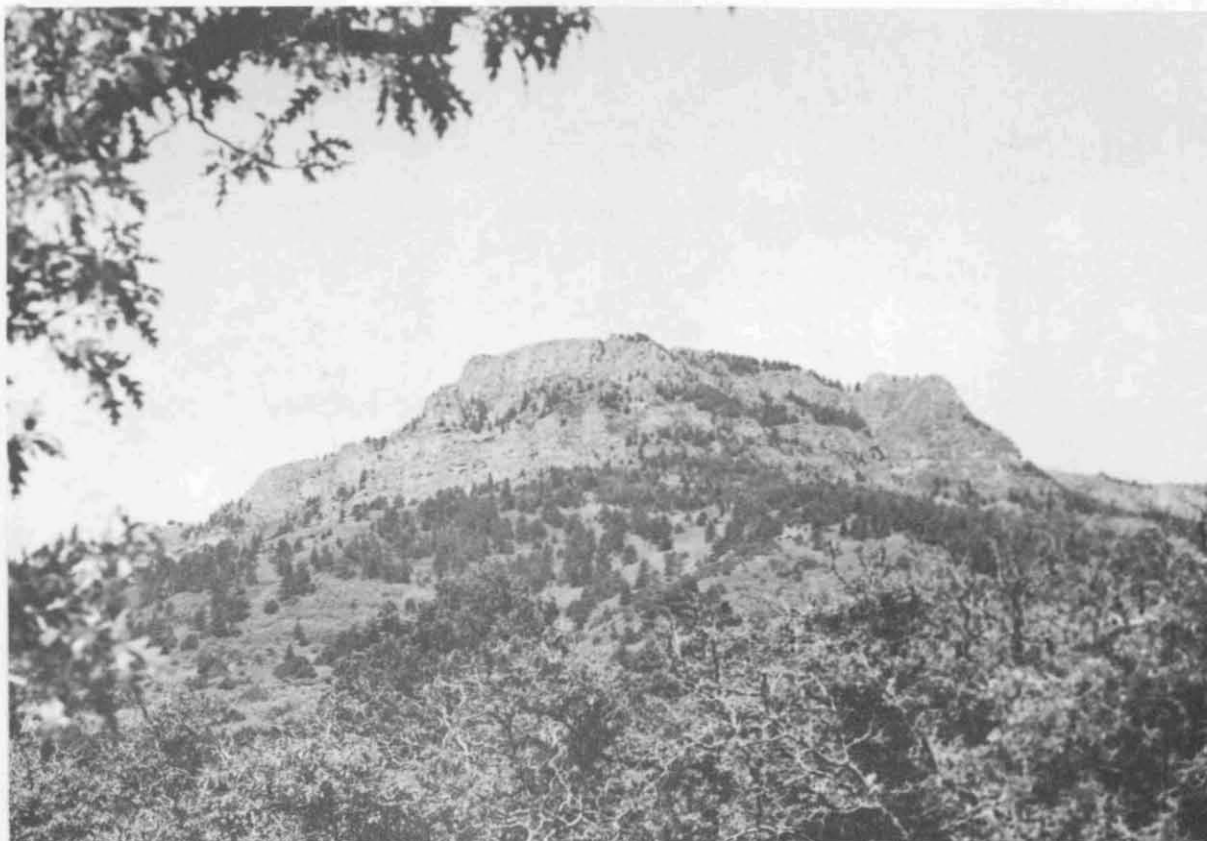
To westward travelers on the Santa Fe Trail, the Santa Fe Railroad, and modern highways, Raton Mesa and Fishers Peak have traditionally been outliers of the romantic Rockies toward which early travelers so patiently plodded. As such outliers, and preserving as they do late Tertiary or early Pleistocene erosion surfaces, interpretation of the Southern Rockies since that time can more logically be presented here than in most National Park areas where the main features are either too far or too near.

#### Rock Formations of the Area

The erosion which formed Raton Mesa has exposed along its slopes the gently dipping beds of underlying sedimentary rock. Some of these outcrops are visible, though generally talus covers them. The rocks proper have no particularly unique features, except that the rich coal deposits within certain formations have long been important in the regional economy.

The Purgatoire River valley has been carved entirely into the widespread Pierre shale. But a few hundred feet above its soft exposures--so characteristic of the Great Plains--are other formations more characteristic of the Southwest. Called the Trinidad Sandstone and the Vermejo formation, they are also of Late Cretaceous age (70 million years old or more). The Vermejo formation is made up largely of dark shales, mixed with soft sandstone. It contains many alternating layers of coal. Certain sites along the outcrops are famous for their content of fossil leaves and impressions of subtropical and warm-temperate plants.


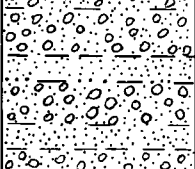
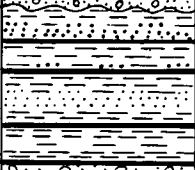
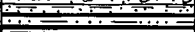
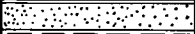
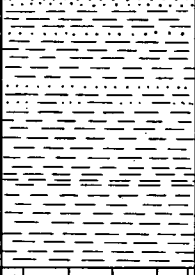

Resting upon the Vermejo beds are thick alternating layers of sandstones and shales which make up the Raton formation of Paleocene age.



"A total of eleven lava sheets can be identified on Raton...Mesa..."

THORNBURY; "REGIONAL GEOMORPHOLOGY OF THE UNITED STATES"



SYSTEM AND SERIES		FORMATION	THICKNESS IN FEET	COLUMNAR SECTION	LITHOLOGIC DESCRIPTION
Quaternary	Pleistocene	Lava flows	250—500		Dark greenish gray basalt.
TERTIARY	Paleocene				UNCONFORMITY
		Poison Canyon	1,000—1,250		Buff to yellow sandstone and conglomerate. Thin yellow siltstone and shale.
	Paleocene				UNCONFORMITY
		Raton	900—1,000		Buff-gray and dark-gray sandstone and siltstone. Conglomeratic sandstone at base. Coal
CRETACEOUS	Upper	Vermejo	0—200		Gray sandstone, siltstone, and shale. Coal
		Trinidad Ss	45—150		Buff sandstone
		Pierre Shale	1,400—1,750		Dark-gray to black shale. Buff sandstone and siltstone near top.
		Niobrara	400—700		Gray shale, yellow chalk, and gray limestone.

All Geologic data by: Ross B. Johnson  
U.S. Geological Survey 1963.

# Generalized Columnar Section Of Rocks Exposed At Raton Mesa

NATIONAL PARK SERVICE  
UNITED STATES DEPARTMENT OF INTERIOR

DRAWING NO. RMS 7200  
DATE: 5/64  
PREPARED BY: RICHARD K. WEAVER

These also contain many beds of coal and an abundance of warm-temperate and temperate plant fossils.

Another Paleocene formation, the Poison Canyon, overlies the Raton. It contains many massive beds of conglomerate, made up of coarse sand and pebbles with local occurrences of cobbles and boulders of many different rock types, mostly Pre-Cambrian. It probably reflects violent erosion of the early Rockies which were being elevated at that time. An unconsolidated thin sheet of gravel rests upon the Poison Canyon formation. These gravels, too, reflect erosion of the highlands to the west as well as the surface on which they lie.

Capping these sedimentary strata on the mesas and Fishers Peak are layers of basalt and other lavas. Although only narrow bands today, these flows once were widespread. The average thickness of individual sheets is about 30 feet, but the total thickness of lava may be as much as 500 feet on Raton Mesa. Several different periods of volcanic eruption are generally recognized in this area. Those which capped Fishers Peak and the Raton Mesa were the earliest. Eruptions evidently continued long after the surrounding territory had been lowered by erosion. The very recent lavas of Capulin Mountain, and other craters 20 to 30 miles south of Fishers Peak, are believed to have accumulated during the past few thousand years.

The last phases of this volcanic period are interpreted at Capulin Mountain National Monument, where eruptions occurred within the last 10,000 years. Fishers Peak, although higher in elevation, exemplifies much earlier eruptions, with time since they occurred measured in millions



Interpretation of the lava cap (above) would complement the related story of the volcanic activity at Capulin Mountain National Monument (below).



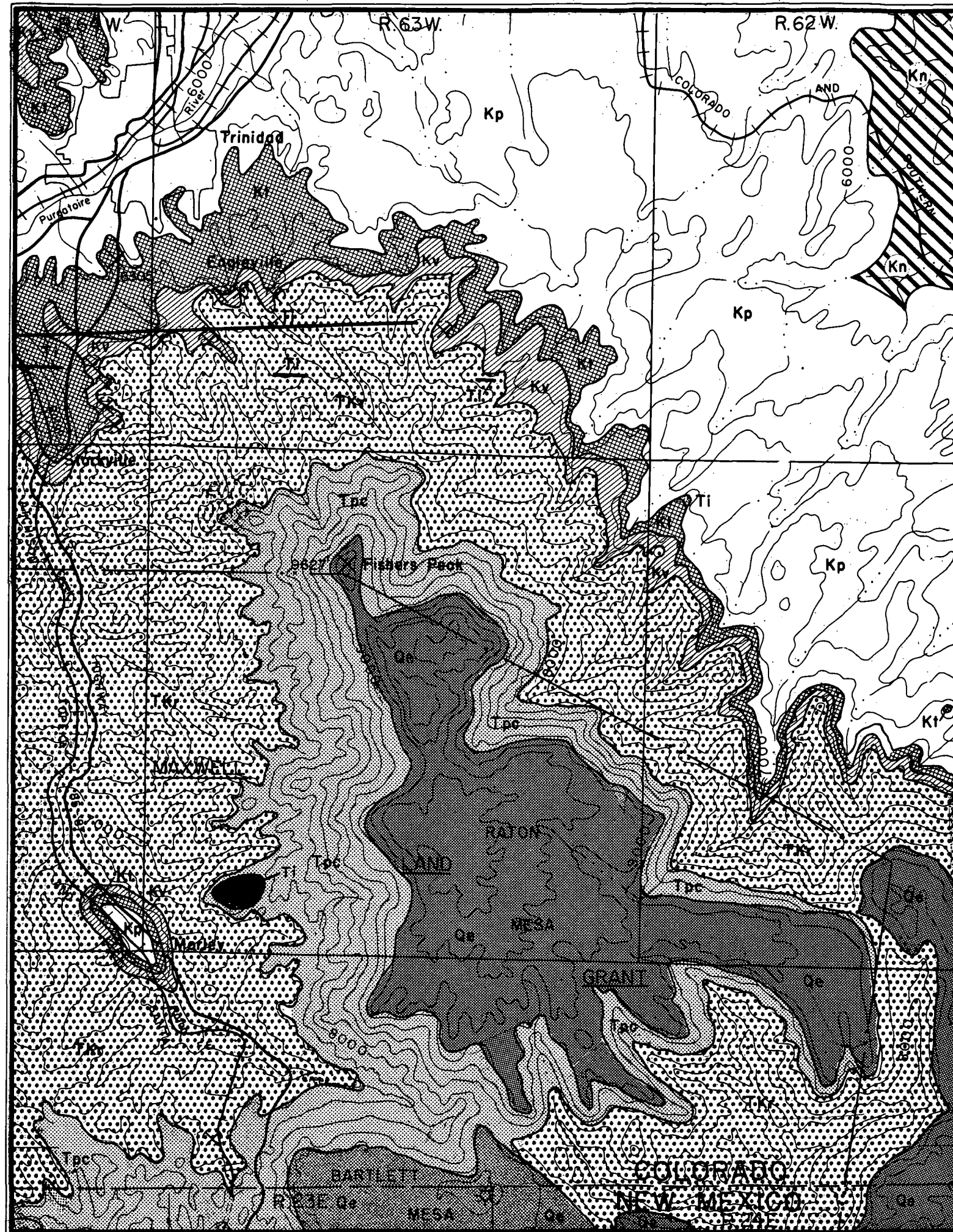
of years. There is no duplication of story here; quite the contrary. An interested visitor would find that his understanding would be greatly augmented by visiting, first, the millions-of-years-ago flows atop Fishers Peak, and then the relatively recent volcanic phenomena of Capulin Mountain National Monument.

#### Landscape Forms

Mesas are the characteristic topographic form in this area. Such landscapes are commonplace in large areas in New Mexico and Arizona, a few hundred miles southwest. They are uncharacteristic of the vast regions extending a thousand miles north and east. Few travelers to the old Southwest forget their initial mental image of Fishers Peak and Raton Mesa--the first they see--even though they may spend months of subsequent travel in areas where such landscapes are commonplace.

Fishers Peak marks an important "gateway" to the Southwest--the romantic "Land of Mesas and Pueblos". The gaunt, blocky profile of this high rock mass has given it a special value to travelers who have passed over historic Raton Pass during the past 120 years. Both a "gateway" and a "farewell", the lava-capped summit of Fishers Peak has an intrinsic value far beyond that which an objective analysis of its geography would provide.





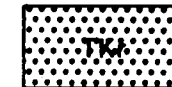
## EXPLANATION

### SEDIMENTARY ROCKS

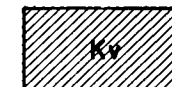


Poison Canyon Formation

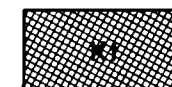
### UNCONFORMITY



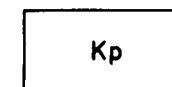
Raton Formation



Vermejo Formation



Trinidad Sandstone

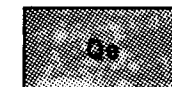


Pierre Shale



Niobrara Formation

### IGNEOUS ROCKS



Extrusive rocks  
(Lava flows)



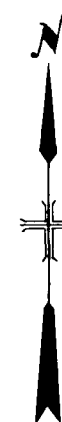
Intrusive rocks  
(Plugs and Dikes)



Extinct volcano



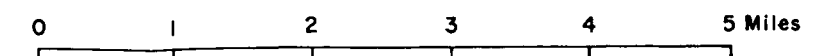
Coal Mine



# GEOLOGIC MAP OF RATON MESA AREA COLORADO AND NEW MEXICO

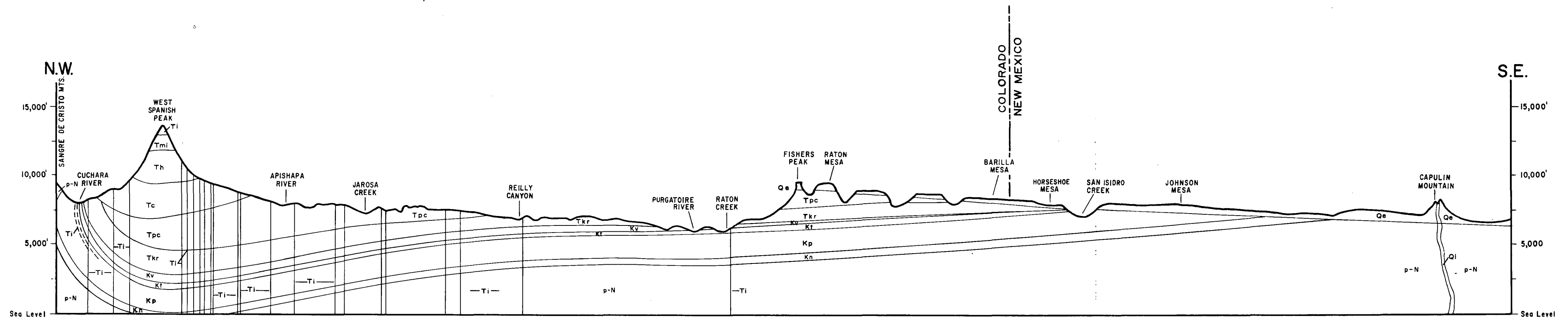
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All Geologic data by: Ross B. Johnson  
U.S. Geological Survey 1963.



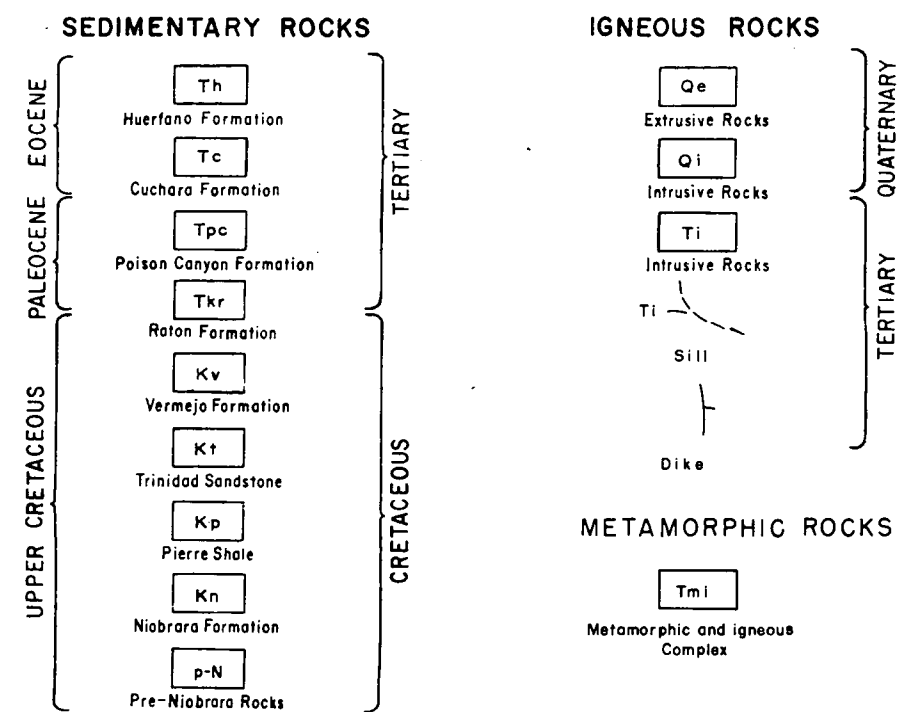
SCALE  
CONTOUR INTERVAL 200 FEET

DRAWING NO. RMS7202  
DATE 6/64  
PREPARED BY: RICHARD K. WEAVER



All Geologic data by: Ross B. Johnson  
U.S. Geological Survey 1963.

## EXPLANATION



0 4 8 12 Miles  
SCALE  
1:250,000  
Vertical Exaggeration 4:1

# Diagrammatic Structural Cross Section through West Spanish Peak, Fishers Peak, Raton Mesa, and Capulin Mountain.

NATIONAL PARK SERVICE

UNITED STATES DEPARTMENT OF INTERIOR

DRAWING NO. RMS7201  
DATE 5/64 Revised 9/3/65 D.E.R.  
PREPARED BY: Richard K. Weaver

## RATON PASS - SANTA FE TRAIL LANDMARK

Slightly lower than the Mesa top and about three miles to the southwest, is the defile over which passed many travelers and freighters on the Santa Fe Trail, historic highway of commerce. This section of the Trail between Trinidad and Raton, New Mexico, a distance of over 21 miles, crossed Raton Pass.

Those who traveled this way viewed this steep passage, which was both barrier and gateway, as the climactic challenge of the long journey to Santa Fe. For ahead, under the looming cliffs of castellated Fishers Peak, lay a winding, rugged trail that claimed many wagons and animals as the price of passage.

For travelers from Colorado Territory, the Mountain Branch of the Santa Fe Trail was the primary route to the southwest. For travelers from Missouri and other eastern points, the Cimarron cut-off to Santa Fe (via present northwest Oklahoma) was more direct. However, the Cimarron route was more dangerous than the Mountain Branch because of hostile Indians and a waterless desert. Accordingly, a large percentage of overland travelers preferred the well-watered and better protected Mountain Route, and so "Raton Pass" became almost synonymous with "Santa Fe Trail".

Raton Pass and the Mountain Branch bore heavy traffic at the following critical moments in western American history:

1. The Army of the West used this route in 1846 on its way to the conquest of New Mexico. Colonel Kearny had heeded trader's warnings that his men and animals would not survive the waterless Cimarron Desert in midsummer. He chose the longer, better-watered Mountain Branch.

Fishers Peak probably takes its name from Captain Waldemar Fisher of Kearny's army, who presumably climbed the peak for reconnaissance.

2. During the Civil War the Trail through Raton Pass was the strongest link between the far Southwest and the Union. Fear of Confederate raiders from Texas and increased Indian activity on the exposed Cimarron cut-off forced virtual abandonment of that route, especially in the years 1861-63. But, shielded by the very mountains they cursed, the freighters continued to bring supplies to the isolated Union troops in New Mexico--through Raton Pass.

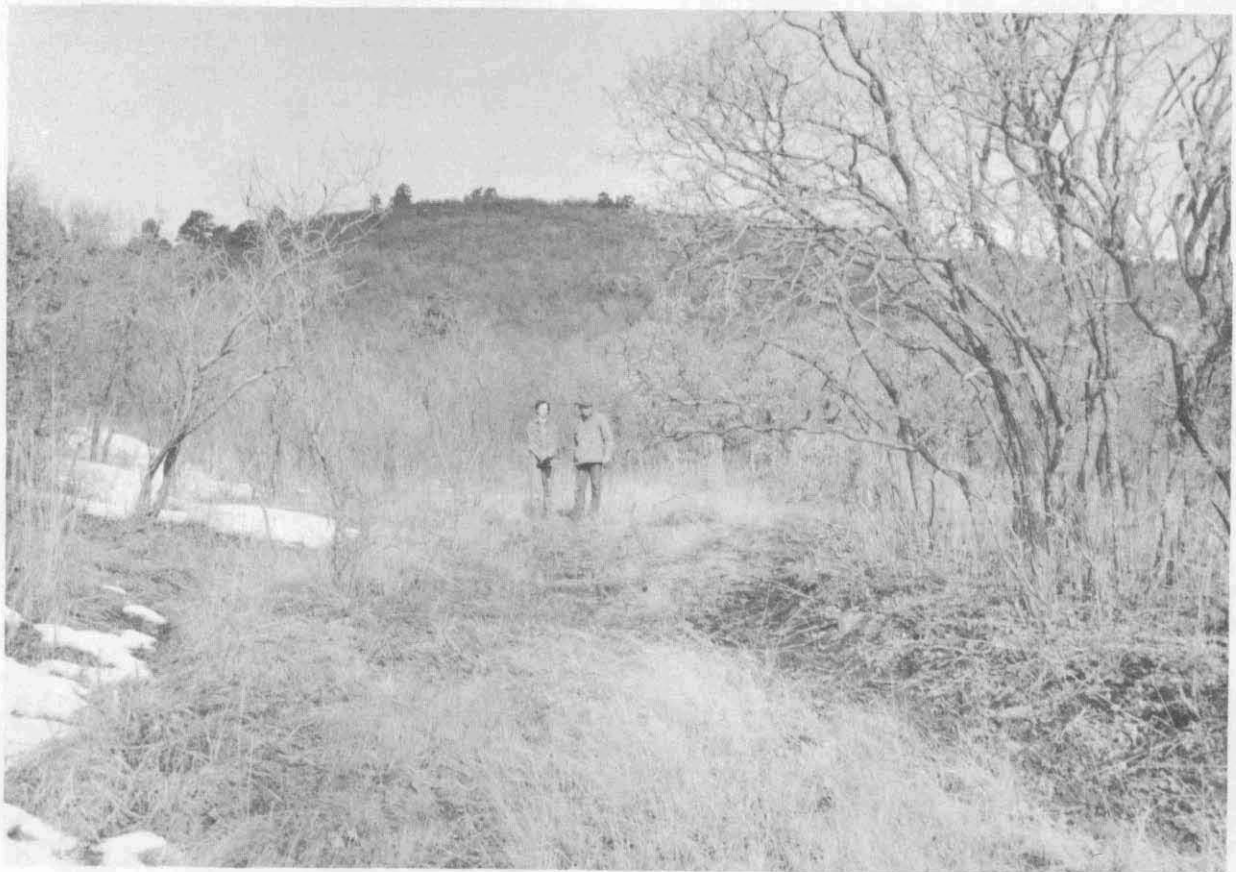
3. In March 1862, when Confederate arms threatened total conquest in New Mexico, and Fort Union alone blocked the way to Colorado's gold fields, the heights of Raton Pass overlooked a scene of destiny. Through here marched the weary but determined 1st Regiment of Colorado Volunteers, soon to save Fort Union from Confederate seizure. This same campaign led to victory at Glorieta Pass and the final collapse of the Confederate campaign in the southwest.

4. During the Trail's last days, when the advancing railroad was the eastern terminus of the wagon trade, the Mountain Branch and the Santa Fe Trail were one. The Cimarron cut-off was dead, bypassed by the railhead in 1868. These were the days of Richens L. "Uncle Dick" Wootton's toll road over Raton Pass. Uncle Dick, a former mountain man, had read the signs as early as 1864. Raton Pass would be the major artery between Colorado and New Mexico. Fortified with a charter from the Colorado Territorial Legislature, he blasted out the worst trail barriers and improved the grades. In 1866, he erected a toll gate at the northern



Fishers Peak, looking northwest across the Santa Fe Trail.

Under the looming cliffs of castellated Fishers Peak lay a winding, rugged trail that claimed many wagons and animals as the price of passage.



end and cashed in on the traffic that flowed heavily upon his road. This lasted until 1879 when the Santa Fe Railroad surmounted the Pass and crowded him out, thus relegating into legend the Santa Fe Trail itself.

Reestablishing the exact course of the Trail through Raton Pass is difficult, for highway and railroad construction has altered the ground considerably. Wootton's toll road was an earlier alteration, but comparative study of historical maps indicates that it followed closely the original Trail. His effort was intended to improve the Trail, not make a new road. Research has reconstructed the route. Original ruts of the Trail have been located near the summit.

Two miles north of the summit is the rebuilt Wootton house, a noon-time stop on the stage line. Destroyed by fire in the early 1900's, the walls are incorporated in the present house. Here, as marked by the Daughters of the American Revolution, Wootton's toll gate swung for 15 years on the old Wootton Ranch.

Raton Pass, when combined with the Santa Fe Trail, the Mexican and Civil Wars, Wootton's toll road, and early railroad construction, is a historic gateway. It illustrates the full sweep of western transportation from a pre-man bison trail to ox-drawn wagons and the modern railway and highway.



## EXISTING DEVELOPMENT AND USE OF LANDS AND RESOURCES

The Raton Mesa area studied in detail and indicated on the accompanying Landownership Map consists of approximately 49,000 acres divided among 24 ownerships. The Colorado Fuel and Iron Corporation owns 17,000 acres (34%); Vandermeulen Mesa Property, 7,500 acres (15%); City of Raton, New Mexico, 7,000 acres (14%); James H. Cummings, 4,300 acres (9%); Carlos Sandoval, 3,800 acres (8%); Union Pacific Coal Co., 2,600 acres (5%); and the remaining smaller 18 ownerships, 6,800 acres (14%). The two largest owners lease their surface rights to two ranchers.

The Raton Natural Gas Company has a right-of-way easement for a pipeline which crosses the middle of Raton Mesa in a north to south direction. The recently constructed, buried line has left a low windrow of material paralleling it, and a narrow clearing on the Mesa slopes. Planting and grading could alleviate these effects if maintenance of the line did not preclude it.

The land has long been used primarily for cattle grazing. For nearly a century the top of Raton Mesa has been leased by a ranch known locally for the superior cattle raised there. Much of the top and some lower land has been improved with fences, ranch roads, and stock ponds. Two thousand head of cattle may be run from about May 1, to mid-October on the Mesa top. Land at the Mesa base, grazed all year, is not as productive. Most of these lands on the northeast and north form another ranch. The steep, rocky, tree and shrub covered land on the Mesa slopes is the least productive. Each of the two previously

mentioned ranches control about one-fourth of this. Most is considered nontaxable waste by the County.

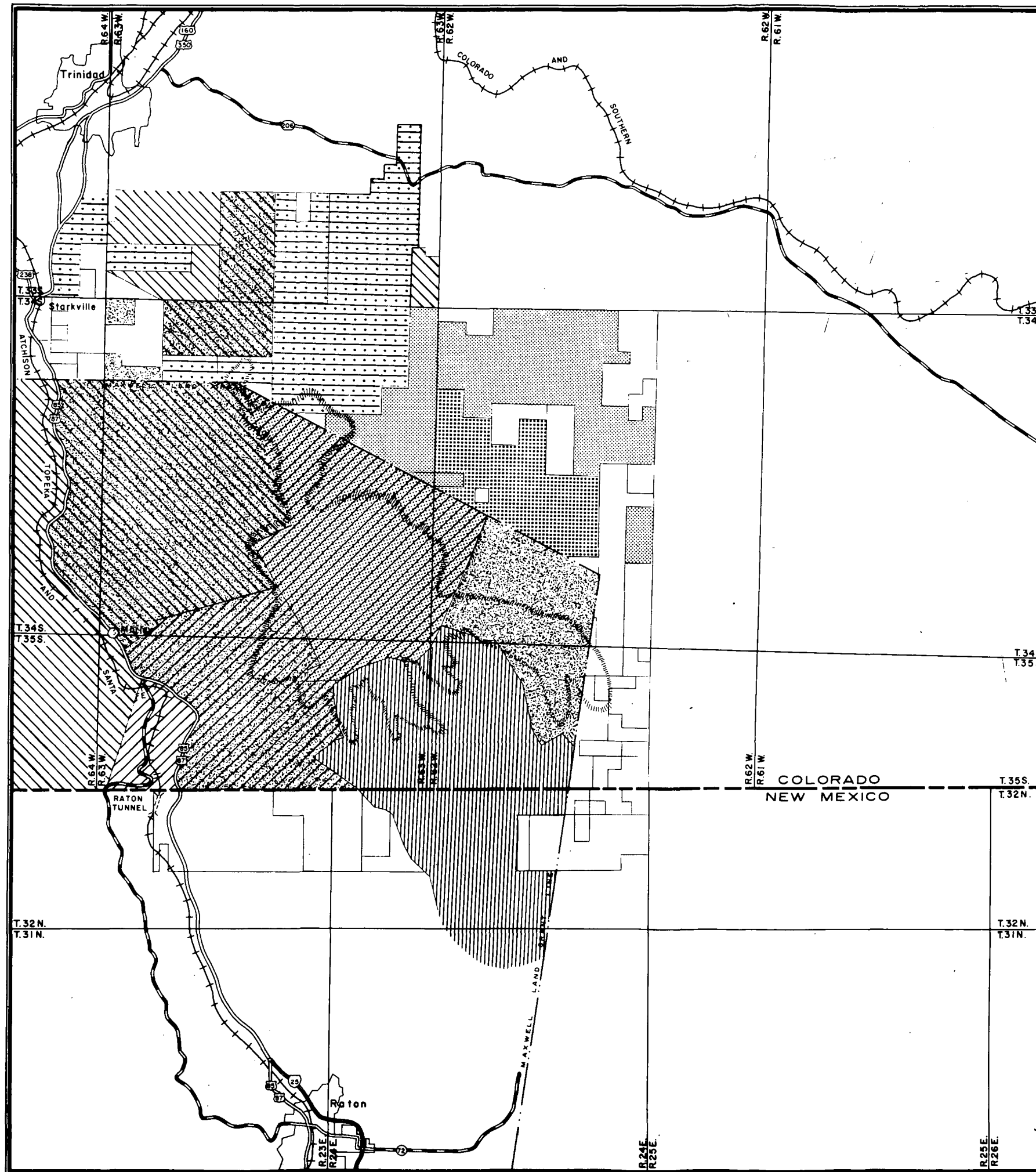
The forests on the Mesa slopes are potentially of some economic value if the right market conditions develop. A few independent loggers have cut on the Mesa slopes and some landowners cut for local consumption.

The slopes are reported to be excellent for hunting, especially for turkey and bear. However, restricted access limits this to a relatively few hunters.










This region along the foot of the Rockies is reported to contain the largest and best deposits of bituminous coal west of the Missouri River. Coal mining and the manufacture of coke was once the primary economic base of the Trinidad area. The mining industry, at its peak in 1910, produced  $5\frac{1}{2}$  million tons of coal and employed 24 percent of Las Animas County's population. Mechanization and changes in steel production at the Pueblo, Colorado, mills, at one time the major market, have had adverse effects. In 1960, less than a million tons were mined by less than 5 percent of the County's population. Unemployment is high; the County is officially a depressed area.

No active coal mines are known in the area studied in detail. Several inactive mines are nearby on the west and north. Many mines were cut horizontally far under Raton Mesa where coal was removed from a large area.

The Trinidad dam and reservoir on the Purgatoire River two miles southwest of Trinidad were authorized, to include minor recreational development. Construction has not begun.



## LEGEND

-  C.F. & I. Corporation
-  Vandermeulen Property
-  City Of Raton
-  J. H. Cummings
-  C. Sandoval
-  Union Pacific Coal Co.
-  Other Private Ownerships
-  Leased by J. H. Cummings  
(Symbol superimposed over ownership symbols)
-  Leased by D.W. Berg  
(Symbol superimposed over ownership symbols)

# LAND OWNERSHIP MAP OF RATON MESA AREA COLORADO AND NEW MEXICO

NATIONAL PARK SERVICE  
UNITED STATES DEPARTMENT OF INTERIOR



0 1 2 3 4 5 Miles  
SCALE

DRAWING NO. RM57203  
DATE 6/64 REVISED 9/3/65 D.E.R.  
PREPARED BY: RICHARD K. WEAVER

## NATIONAL SIGNIFICANCE

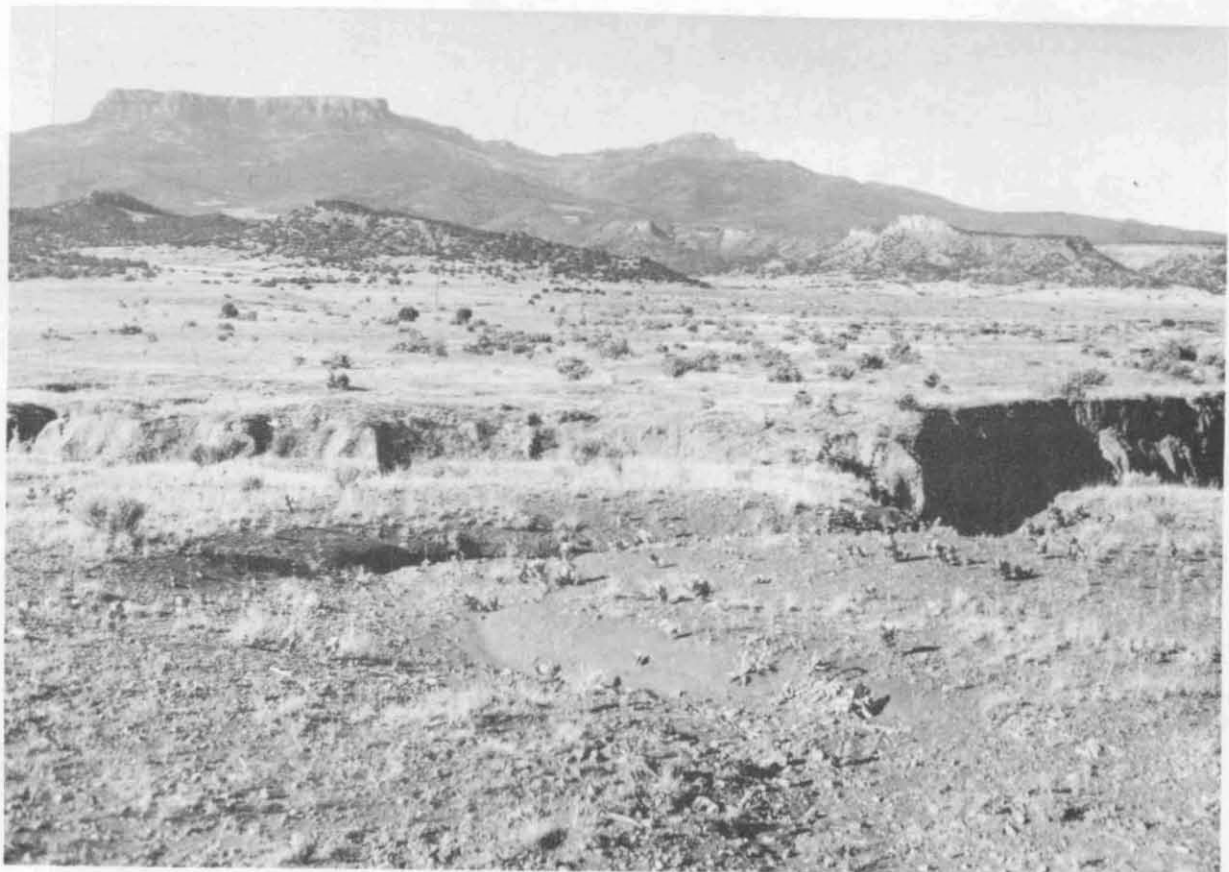
Raton Mesa, representing a former high level from which the present Great Plains have been sculptured, is an impressive geological feature of national interest. It presents conspicuous evidence of the tremendous amount of erosion which has taken place in the Raton section of the Great Plains during recent geologic time. As a representative of this section of the Great Plains physiographic province it is of national importance. It is the most scenic and rugged of all the lava-capped mesas which extend from here toward Oklahoma.

At the summit of Raton Pass are authentic ruts of the Santa Fe Trail. This old highway of commerce is of national significance historically. Raton Pass has recently been designated a Registered National Historic Landmark in recognition of this importance. Fishers Peak, the rest of Raton Mesa, and the Pass, were significant landmarks on the Trail.

This unusual combination of scientific, historic, and scenic qualities makes this area of such national significance as to merit consideration for addition to the National Park System.



As remnants of a former High Plains Terrain, Raton Mesa and Fishers Peak are quite significant, presenting as they do, clear-cut evidence of the tremendous amount of erosion which has taken place in this section of the Great Plains region.



## SUITABILITY

Raton Mesa appears suitable for National Monument purposes. It is well adapted to interpretation. The towering lava cap and underlying exposed strata impose the obvious question of their origin upon the minds of all but the most preoccupied traveler. From the answer to this flows much information on the associated plant and animal life and the relationship to other volcanic activity in the region. Most is easily recognizable to the layman. Seldom are the interrelationships of the surface mantle to the underlying geology so conspicuous. Also, it is well suited to complementing Capulin Mountain National Monument in telling the broader story of the volcanic activity of this lava surfaced physiographic region.

The flora, strikingly beautiful in any season, includes a particularly varied representation not commonly found within such a limited area. Though grazing has altered the vegetation, the effects need not be permanent under proper management. Some effects may be desirable to interpret the flora and to preserve a pleasing scene. As an example, the prolific wildflowers on the Mesa top are probably encouraged and maintained by grazing.

The adjacent route of the Santa Fe Trail and the old Wootton House, spread out in a grand view from the Mesa top, are tangible evidence of the historic past, easily interpreted from this location.

Raton Mesa forms an unusually comprehensive, identifiable unit--one which should be comparatively easy to develop, manage, and maintain.

It includes sufficient territory for continuing representation of its geology, flora, fauna, and history.

Although several now inactive coal mines penetrate well under it, all the mine entrances are outside the probable boundaries of a National Monument. If mining began again and were conducted as before, it need not impair the area nor detract from the visitor's enjoyment. A mine visit could increase appreciation of the geology.

The existing improvements present no significant problems to preservation or development.

The area is strategically located respecting the Denver metropolitan area and the anticipated megalopolis expected to develop along the foot of the Front Range in Colorado. Within a half day drive of this area, a National Monument would receive heavy visitation by the year 2000, and might be routinely visited by nearby classroom groups.

Raton, New Mexico, is 7 miles south, and Trinidad, Colorado, is 14 miles north. Denver is 196 miles and Santa Fe is 172 miles distant. Raton Pass currently is the most heavily traveled Colorado entrance and exit.

## FEASIBILITY

Support for the proposal has been evident since the beginning of the National Park Service study. Local civic leaders cooperated with Service representatives in many ways during its progress, and have indicated their endorsement.

Establishment of a National Monument would result in heavier visitation to this region. Initial property tax lost by transfer of private land to public ownership would be expected to be more than offset ultimately by increased revenue derived from a broader economic base and a larger secondary service economy. The former might be more significant than the latter because of the large multiplier effect of the recreation industry.

The most important values of a National Monument, however, would be the enjoyment and inspiration of visitors--intangibles which are difficult to measure by conventional economics.

The generally low land values suggest that acquisition would require a relatively small investment. Although some opposition might be expected from grazing interests, provisions for continuation of limited grazing should minimize it. This could be handled administratively by the issuance of permits by the Government under a policy recognizing the preferential interest of existing leaseholders.

Existing water rights would be fully protected by the Government. If the City of Raton watershed were included in the Monument, arrangement would be made to protect it from contamination.



## CONCLUSIONS AND RECOMMENDATIONS

Representing as it does the Raton section of the Great Plains, and also a once higher surface of a portion of that great physiographic province, Raton Mesa is of national significance.

It is significant too, because of its historical association with the Santa Fe Trail. In addition, the varied flora and scenic character of the area complement the geology and history in preserving a most interesting combination of the Nation's resources for the enjoyment of the people.

The area meets both suitability and feasibility requirements for a unit of the National Park System. A National Monument would be an asset to the local economy in excess of the present use of the area.

Based on these conclusions, it is recommended that Raton Mesa or a representative portion of it be established as the Raton Mesa National Monument.

## THE PROPOSAL

### Development and Use

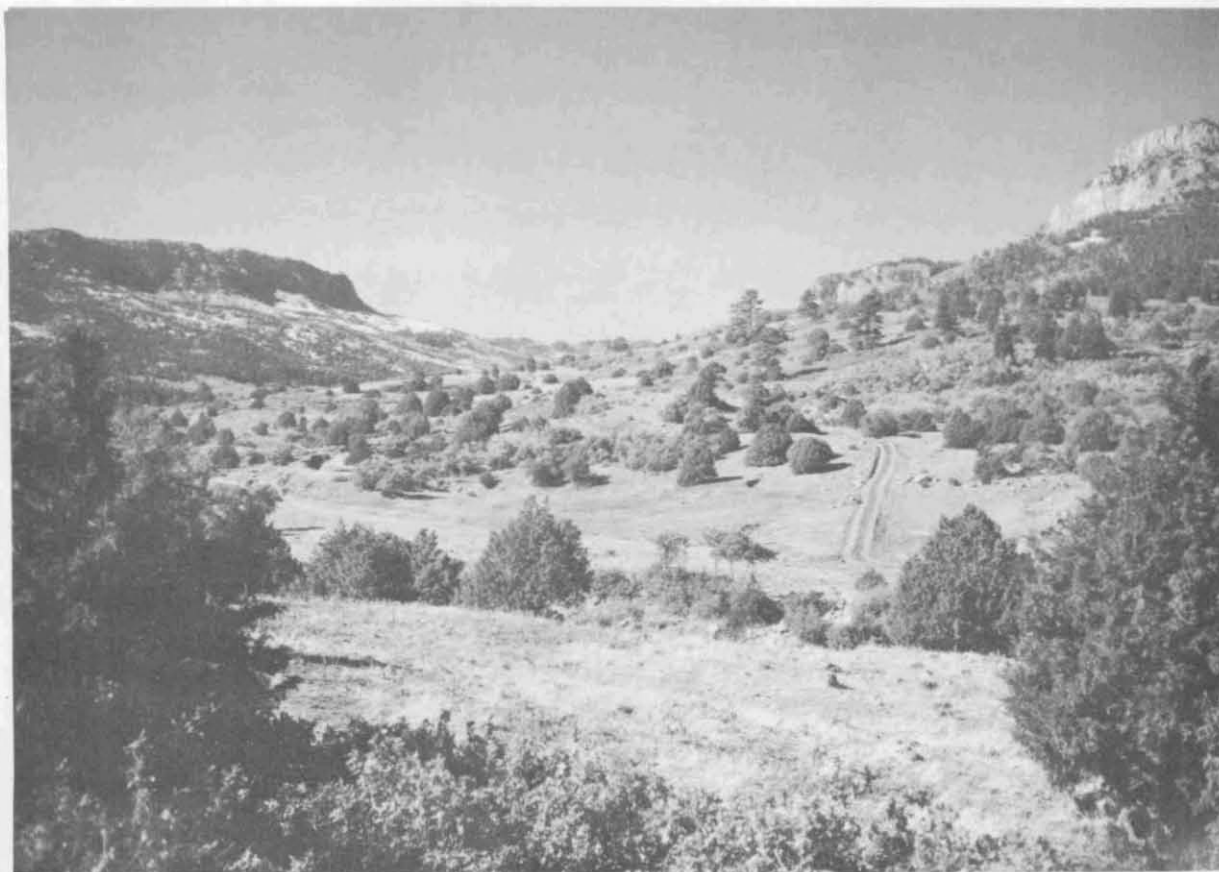
The primary purpose of the development and public use of a Raton Mesa National Monument would be to interpret the area's geology. Effective use of modern techniques and devices easily understood by the layman would be the keynote of this effort. The sum total of National Park Service experience in this field could be brought to bear here--to impart to the visitor an appreciation of the earth processes involved in the formation of Raton Mesa, the Great Plains, and the mountains to the west.

The northeast face of the Mesa presents the boldest profile of its gaunt, blocky mass. From a roadside parking area on State Highway 206 east of Trinidad and detached from the Monument proper, Raton Mesa and the successively lower mesas to the east would be seen against the foreground plains and foothills--the present use of the latter to be perpetuated by scenic easement. Unmanned interpretive devices would present the macroscopic geological story and introduce visitors to the facilities available ahead at the Monument.

A visitor center on the east side pleasantly situated at the mouth of Frijole Canyon near San Miguel, a small, abandoned settlement, would offer a more comprehensive presentation of the geology and other natural features. The various facets would be explained in an appealing manner, particularly those not given to "on-site" interpretation. Visitors would be encouraged to travel to the Mesa top to see those aspects best interpreted in place, and the marvelous view of the surrounding plains and mountains.



San Miguel, at the mouth of Frijole Canyon. An access road to the Mesa top might begin here near a visitor center and campground.



Frijole Canyon above San Miguel.

A road up Frijole Canyon would have roadside parking areas with interpretive signs. On the top it would lead to the rimrock overlooking Raton Pass below. There the story of the Santa Fe Trail and the later development of mass transportation over this passageway would be told. An adjacent small picnic area would allow a short pause.

The road would then terminate near Fishers Peak. From here a nature trail would traverse the narrow ridge to the Peak. Many visitors would find a walk on this the climax of their trip--crisp mountain air, magnificent views, and the geology interpreted in place.

Between the Santa Fe Trail overlook and the Fishers Peak trail, the road would be located to take advantage of other views from the Mesa rim.

The visitor center at the mouth of Frijole Canyon would also serve as the Monument headquarters, with employee quarters and maintenance facilities adjacent. Nearby would be a convenient picnic area in the shade of the taller timber, and initially a small campground.

Mass recreational camping could be provided at the Trinidad Reservoir, where the impoundment and its extensive shoreline would offer more varied recreational activities.

A system of trails would provide a means of exploring by foot or horseback portions of the area otherwise inaccessible.

Park employees would be stationed in the Monument to conduct the program described here, to protect the natural features, to aid the visitors and otherwise manage the area for the enjoyment of the people.

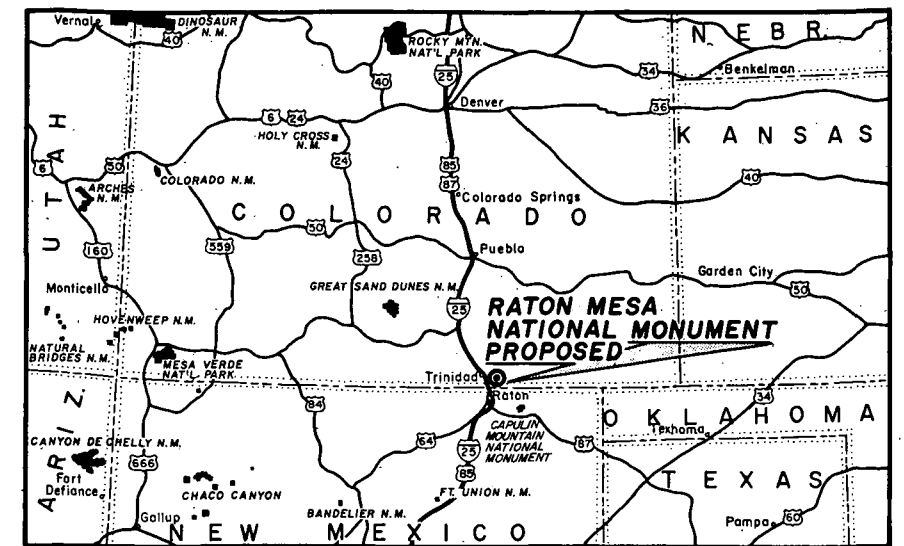


Fishers Peak, elevation 9,627 feet, and connecting ridge - ideal location for a nature trail.



#### LEGEND (EXISTING)

- ..... SANTA FE TRAIL
- ⌵ INACTIVE MINES
- ..... SANTA FE TRAIL RUTS
- STOCK PONDS
- RIM-ROCK
- STREAMS, DRAINS
- ROADS:
- ===== INTERSTATE
- ===== HARD SURFACED
- ===== GRAVELLED
- ===== GRADED
- ===== PRIMITIVE



#### VICINITY MAP

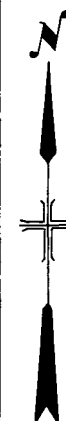
#### LEGEND

- INTENSIVE USE AREAS**
- ROADS**
- BASIC DEVELOPMENT**
- ADDITIONAL DEVELOPMENT**

## SUGGESTED DEVELOPMENT FOR PROPOSED RATON MESA NATIONAL MONUMENT

COLORADO AND NEW MEXICO

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE



0 1 2 3 4 5 Miles  
SCALE  
CONTOUR INTERVAL 200 FEET

DRAWING NO: RMS  
DATE: 6/64 REVISED 9/13/65 D.E.R.  
PREPARED BY: Richard K. Weaver M.R.O.

### Administration of Grazing within the Proposed Monument

Continuation of cattle grazing on the Mesa top if restricted from the main public use areas would not conflict with the preservation of geologic and scenic resources and their interpretation. It may help maintain the prolific wild flower displays, and the grazing story itself has interpretive possibilities. If properly managed to prevent over-grazing and fenced from areas of public use, cattle grazing within the Monument could be permitted.

### Alternative Plans

The following alternative plans illustrate various boundaries and encompassed areas considered by the National Park Service for a Raton Mesa National Monument. They are presented at this time to provide the public with an opportunity to comment on them.

Plans A, B, and C could accommodate the basic facilities previously described under Development and Use. Plans B and C could also accommodate additional facilities. Plan D could be combined with any of the other plans. See accompanying drawing of alternate plans.

#### PLAN A. Northern Portion of Raton Mesa, Fishers Peak, the Uppermost Slopes of Both and Frijole Canyon.

Approximate acreage within boundary, 8,800; within scenic easement, 10,260.

This would preserve and interpret the most scenic, highest, and impressive part of the Raton Mesa country. Frijole Canyon is included to provide a park-like approach to the summit covering the various vegetative zones from the grasslands of the plains to those of the Mesa top.

PLAN B. Addition of the Remainder of the Mesa Top and Its Uppermost Slopes.

Approximate acreage within boundary, 20,460; within scenic easement 10,260.

This would provide a wider choice of interpretive and recreational opportunities, namely, a scenic drive generally following the peripheral rimrock, additional campgrounds, and more trails--all with attendant interpretive facilities and services. The eastward slant of the Mesa surface could be interpreted; its vastness could be appreciated. A larger ecologically integrated segment of Raton Mesa would be preserved. Cattle grazing could be permitted on the south portion.

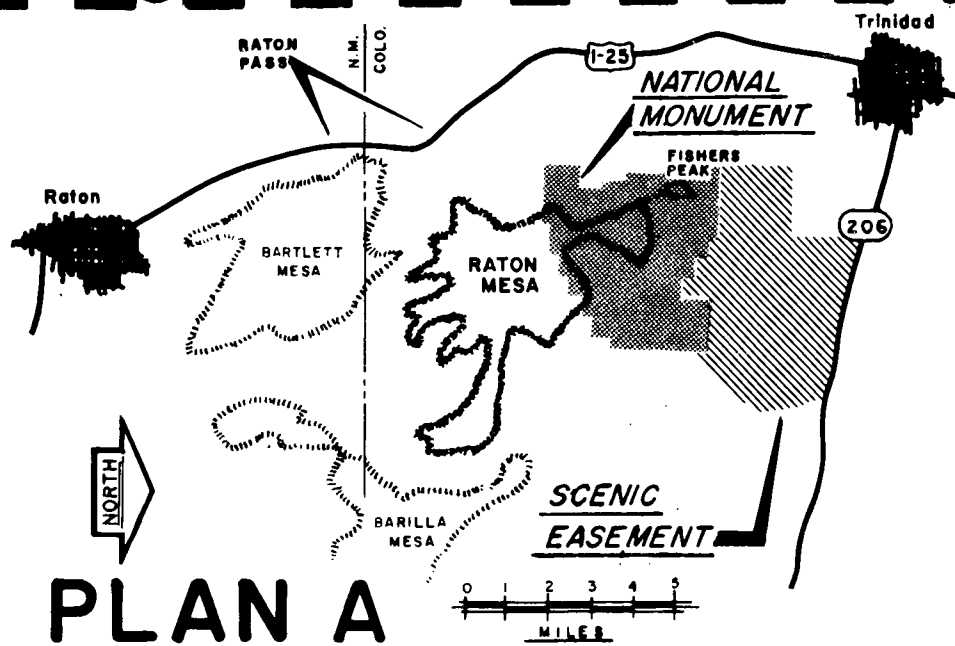
PLAN C. Addition of the Mesa's Lower Slopes and the Summit of Raton Pass.

Approximate acreage within boundary, 31,370; within scenic easement, 4,420.

Ecological unity would be maximized with the preservation of the whole Mesa. The transition from plains to Mesa top on all sides would offer a great variety of interpretive and recreational opportunities in the lateral drainages. Cattle grazing could be allowed on the south half of the Mesa.

Inclusion of the summit of Raton Pass would preserve a representative portion of the Santa Fe Trail where wagon ruts are visible. Interpretation of the Trail in this locality could attract many travelers on adjacent Interstate Highway 25. A direct access road to the Mesa top might be possible via McBride Creek.

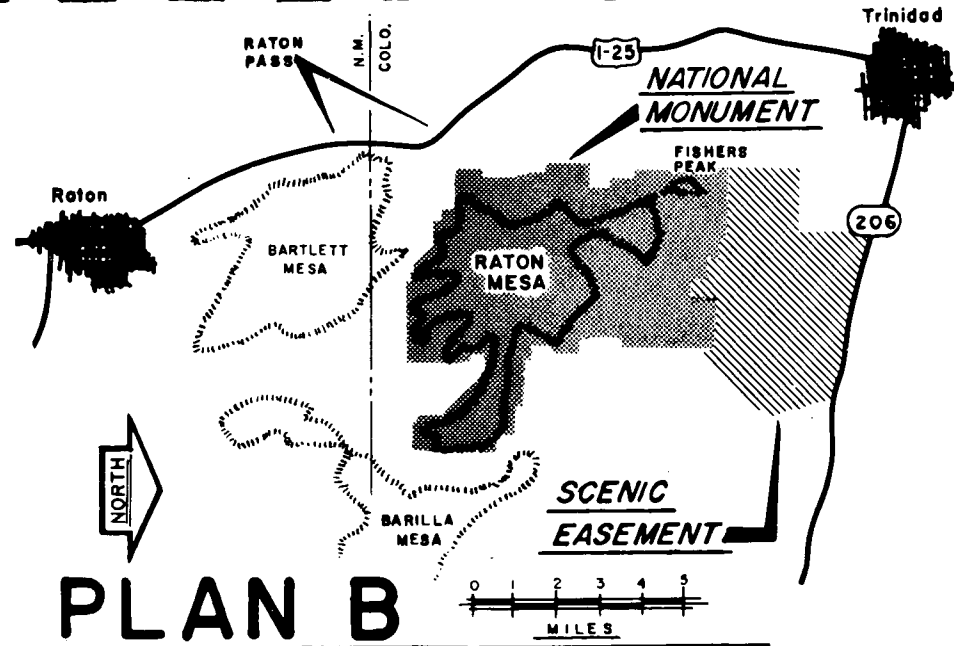




**PLAN A**

NATIONAL MONUMENT  
APPROX. ACREAGE, 8,800

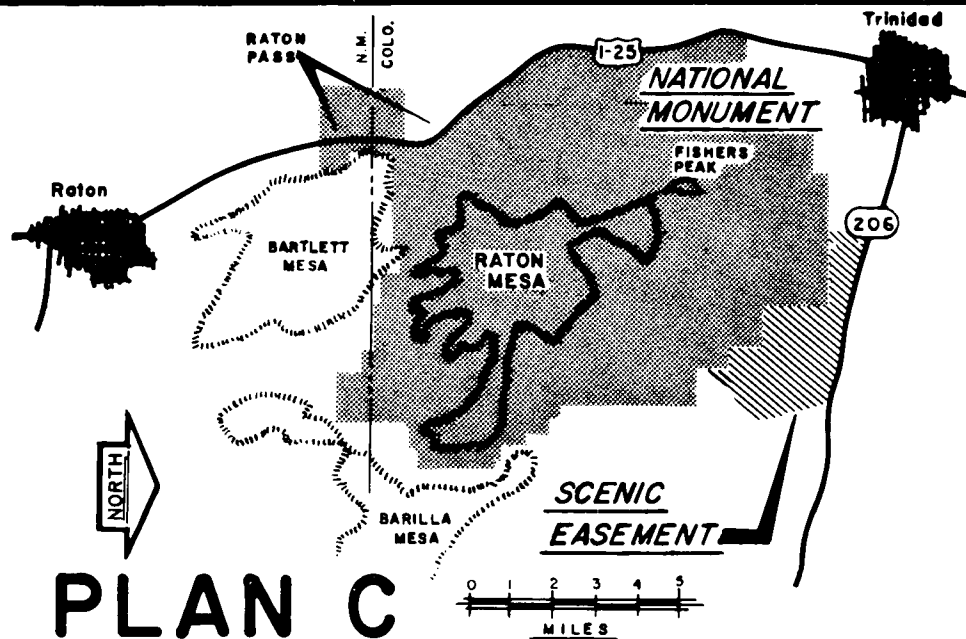
SCENIC EASEMENT  
APPROX. ACREAGE, 10,260



**PLAN B**

NATIONAL MONUMENT  
APPROX. ACREAGE, 20,460

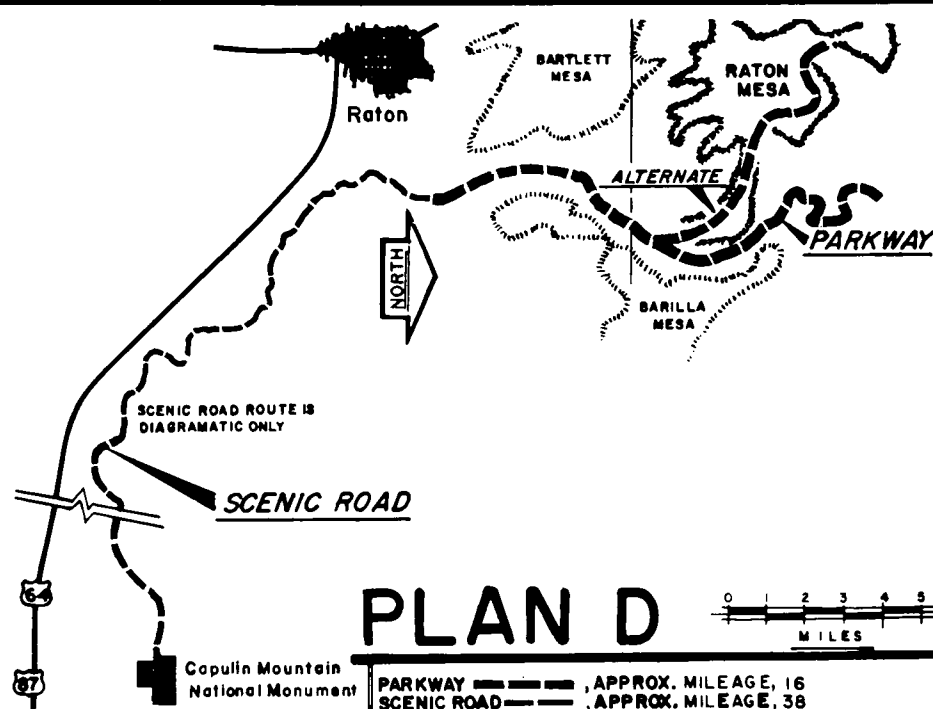
SCENIC EASEMENT  
APPROX. ACREAGE, 10,260



**PLAN C**

NATIONAL MONUMENT  
APPROX. ACREAGE, 31,370

SCENIC EASEMENT  
APPROX. ACREAGE, 4,420

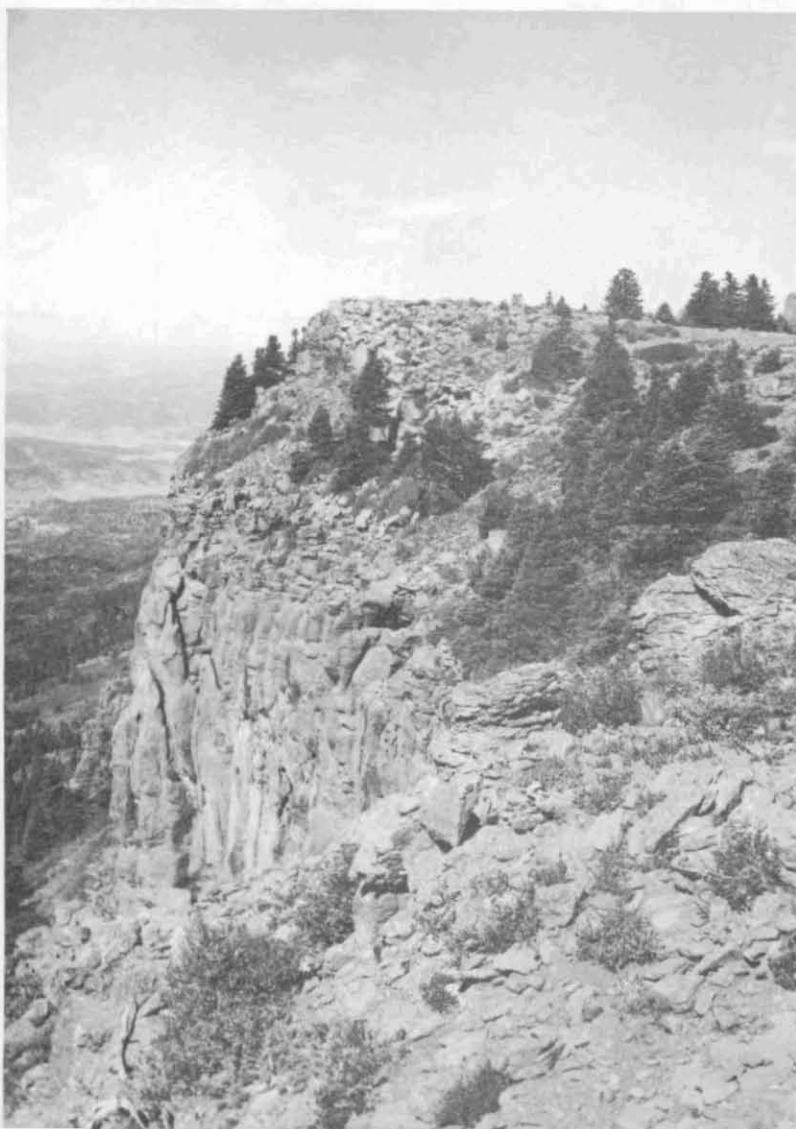


**PLAN D**

PARKWAY ———, APPROX. MILEAGE, 16  
SCENIC ROAD ———, APPROX. MILEAGE, 38



The south fingers - opportunities for many recreational activities



Lava rimrock, white  
fir cling tenaciously  
to the rocky slope

PLAN D. Capulin Mountain-Raton Mesa Scenic Road and Parkway.

Approximate acreage within parkway, 1,600 to 2,000.

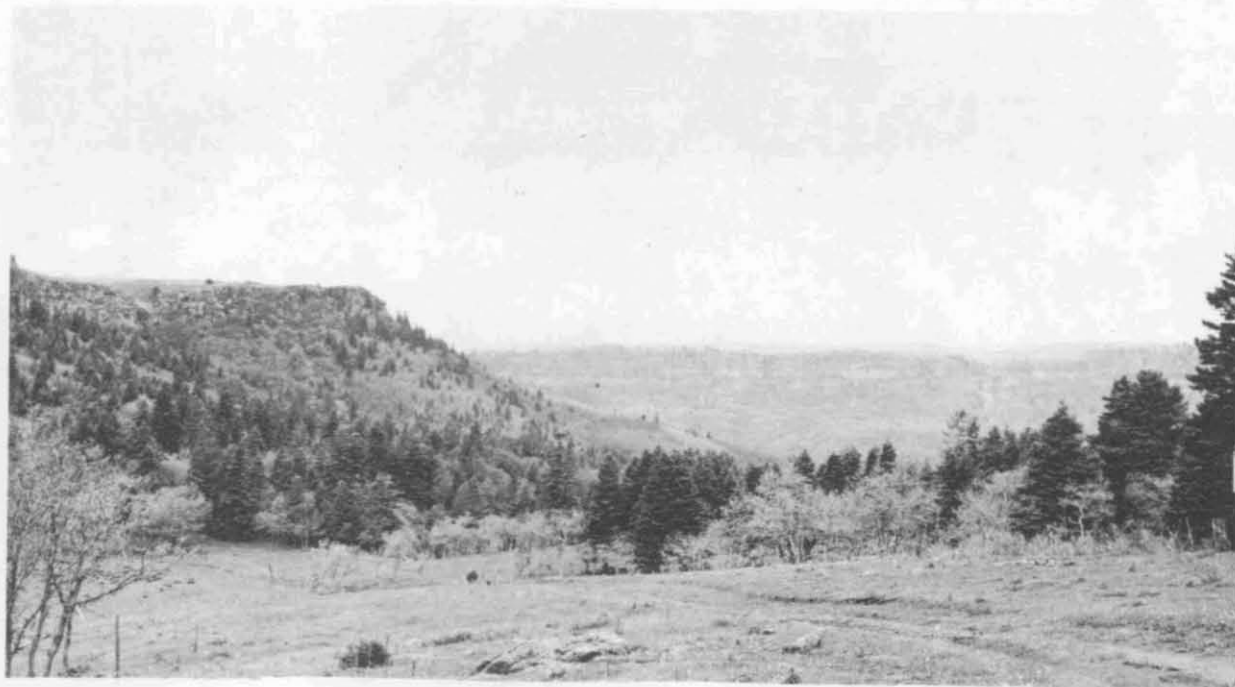
This plan could be combined with either Plan A, B, or C. It would complement the interpretive story at Capulin Mountain National Monument by providing an interpretive tour and scenic drive from Capulin Mountain to Raton Mesa, where a closely related story would be presented. The route offers additional opportunities to interpret the geology of both areas. Visitors would have the opportunity to see an inter-mesa canyon, a part of the total complex of the Raton section of the Great Plains province.

The plan reflects President Johnson's recent proposal to the Congress that more scenic roads be established.

The plan has two aspects:

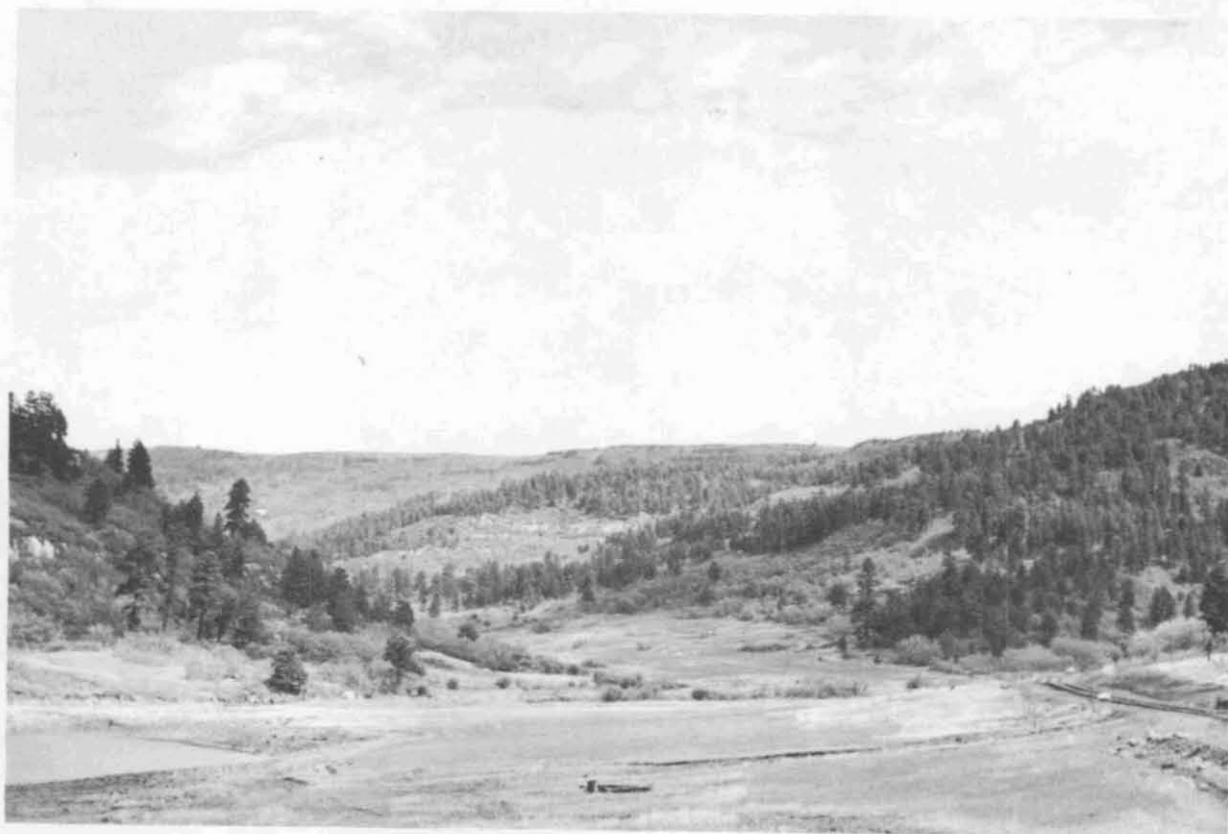
1. A scenic road designation mostly over existing public highways and private ranch roads from Capulin Mountain to the mouth of Chicorica Canyon near Raton, New Mexico. Cooperation of the State, counties and ranchers concerned would be required. Total mileage would depend on the exact route selected, probably about 38 miles.

2. A federally owned parkway from the mouth of Chicorica Canyon to the Monument headquarters at the mouth of Frijole Canyon. The parkway right-of-way would average 800 feet in width or about 100 acres per mile, and extend about 16 miles depending on the exact route selected, and the other alternate plan with which it would be combined. Scenic easements might be used to preserve the scenic character of adjacent slopes outside of the right-of-way. Exact location of these would depend on more detailed study.



San Francisco Pass; Raton Mesa, left, and Barilla Mesa, right.

A scenic road or parkway over this route could connect with Capulin Mountain National Monument.



Chicorica Creek and Lake Malloy, below San Francisco Pass.

#### ACKNOWLEDGMENTS

The National Park Service is grateful for the valuable assistance received from several sources in conducting this study.

Mr. Arch Gibson, editor of the Chronicle News and Mr. Ben Veltri, City Manager, both of Trinidad, Colorado, have long been interested in the proposal and gave willingly of their time in assisting the National Park Service representatives who visited the area.

Mr. Ross B. Johnson, Research Geologist of the Geological Survey, contributed much on the geology of the area. He prepared sketches from which the Geologic Map and other geologic drawings were drafted and reviewed their accuracy.

Messrs. Don Berg and James Cummings were particularly helpful in escorting National Park Service personnel over portions of their ranches included in the study area, and in giving information on grazing activities.

Mr. M. Scott of the Colorado Department of Game, Fish and Parks prepared check lists of the wild flowers, birds and other animals found on Raton Mesa.

Dr. Herbert Dick, formerly of Trinidad State Junior College, supplied information on the geography of the area.

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