

CRATERS OF THE MOON
BLUE DRAGON LAVA FLOW
THE GREAT RIFT
KINGS BOWL
WAPI LAVA FLOWS



INTRODUCTION

Most people who visit Craters of the Moon National Monument only see the northern, developed portion of the Great Rift. This is the area with paved roads, restrooms interpretative signs, and a visitor's center. This makes the visit short and easy and the written signs and displays tell the story of the natural beauty and geology that is found within the boundaries of Craters of the Moon National Monument.

A much larger and just as beautiful area is found to the east and south of the present National Monument. These portions of the Great Rift are seldom visited because of the lack of developed roads, signs to give directions and the lack of facilities. There is no visitor's center to hand out printed material and no interpretative signs to tell the story of the Great Rift and its beauty. The story of the Native Americans within these harsh lava flows is a story in itself.

The visitors who do go into the desert are generally the hardy and adventurous who are seeking something different. Some truly appreciate the unique features found and they enjoy the solitude while exploring the flows. They take pictures, make note of the beauty of the area and look for the unusual.

Others are collectors, seeking Native American artifacts, or collecting lava rock to be used in landscaping and building materials. This kind of vandalism is causing irreparable damage to these unique features and to the landscape. Native American artifacts are finding their way into private collections and into boxes stored in collectors garages. Large gaping and off colored holes are being left in the flows as rock is being taken for building and landscaping.

By including all of the Blue Dragon Flow, the Craters of the Moon Flows, the Wapi Flow and those portions of the Great Rift at King's Bowl and Crystal Ice Cave into Craters of the Moon National Monument would offer the protection and interpretation that the National Park Service is famous for providing. They would protect as well as offer a better

way of educating the visitor about the Great Rift as more visitors venture into these areas.

As you read this paper and look at the pictures please keep in mind that it was written by an amateur in all phases. An amateur explorer, geologist, desert rat and photographer who has spent some time walking across the lava flows.

All I had in mind was to show those areas with the Great Rift System that are not protected by the National Park System and to express a logical reason why these features should be brought under National Park protection.

I am firmly convinced that the National Park Service is the best agency to protect, study and explain the Great Rift.

Bill Babcock

Cover photo, - Buffalo skull found in a pressure ridge in the Wapi Lava Flow near Pillar Butte and Wapi Park. After the photo was taken the skull was carefully returned to the same place where it was found.

PROPOSED BOUNDARY CHANGES

The proposed boundary changes would, for the most part, include those portions of the Great Rift System called the Craters of the Moon Flows and the Blue Dragon Flow along with the Wapi Flow to the South. These are the areas that have been proposed by the Bureau of Land Management for Wilderness.

The map that is included is not exact but in general shows the areas and proposed boundaries. It has been proposed that the boundaries follow the lava flows for the most part. This would leave the remaining part of the desert under the supervision of the BLM and would leave the hunting to be regulated by the Idaho Fish and Game Department and in a position to continue as in the past.

In looking at the pictures provided here its easy to see that the flows are not really suited to either grazing or hunting and because of their unique features they should be a natural part of Craters of the Moon.

Not all proposed areas are just lava rock. Three specific areas of grassland need to be incorporated into the expansion . (1) Saddle Butte because of its archeological importance; (2) The area surrounding King's Bowl and Crystal Ice Cave; and (3) Wapi Park to provide access to Pillar Butte and the Old Juniper Kapuka.

When one walks across these lava flows its very evident that it is "defacto" wilderness already and a designation for wilderness is not needed. Roads and vehicles will not cross or invade these flows they will always have to go around them.

The total area will be approximately 360,000 acres of mostly lava rock and flows. This area is really suited for little other than to become a part of Craters of the Moon National Monument to be protected for the enjoyment of all.

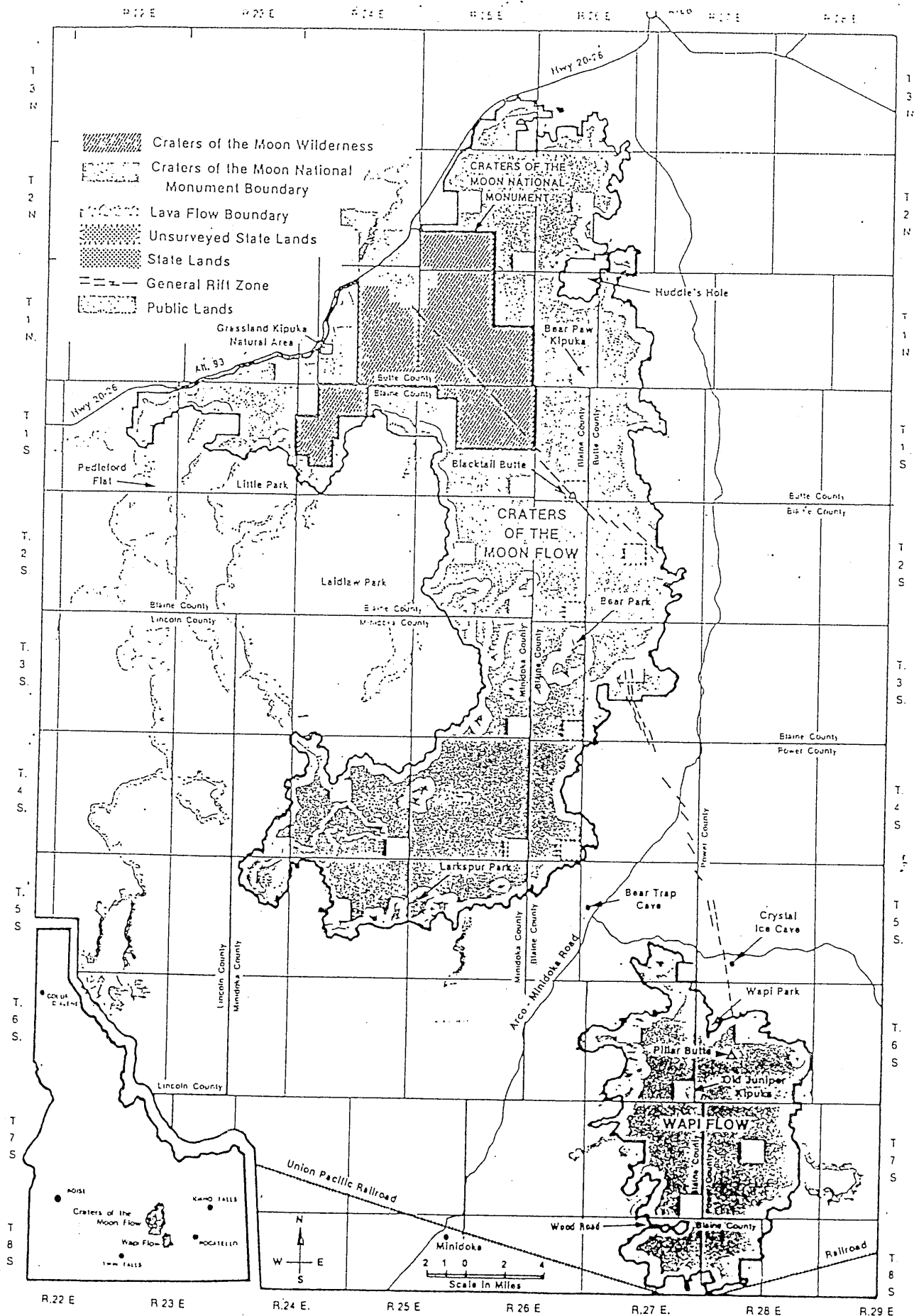


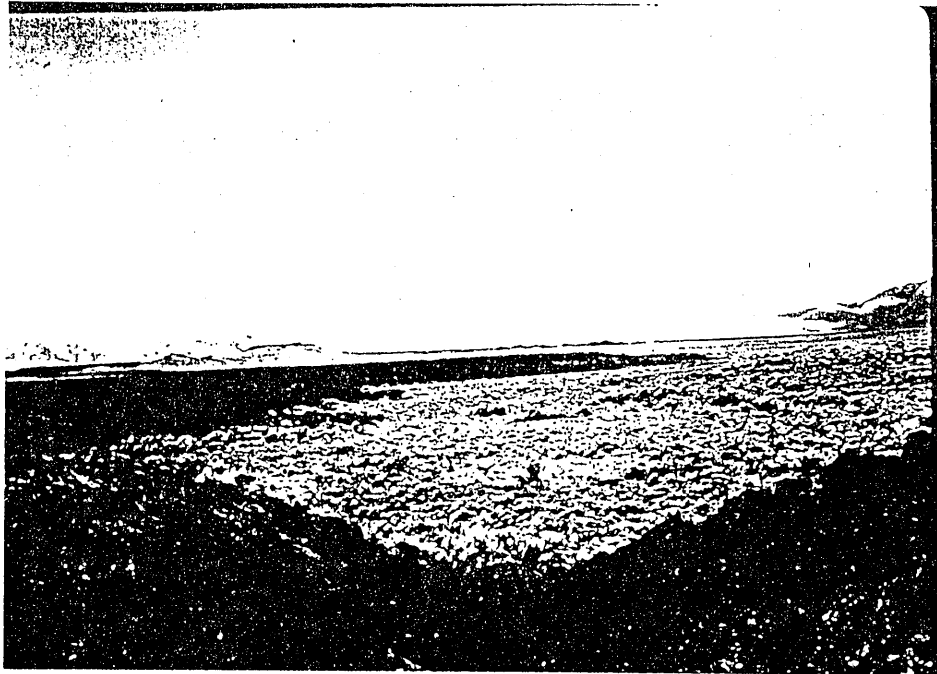
FIGURE 2-1

THE BLUE DRAGON FLOW

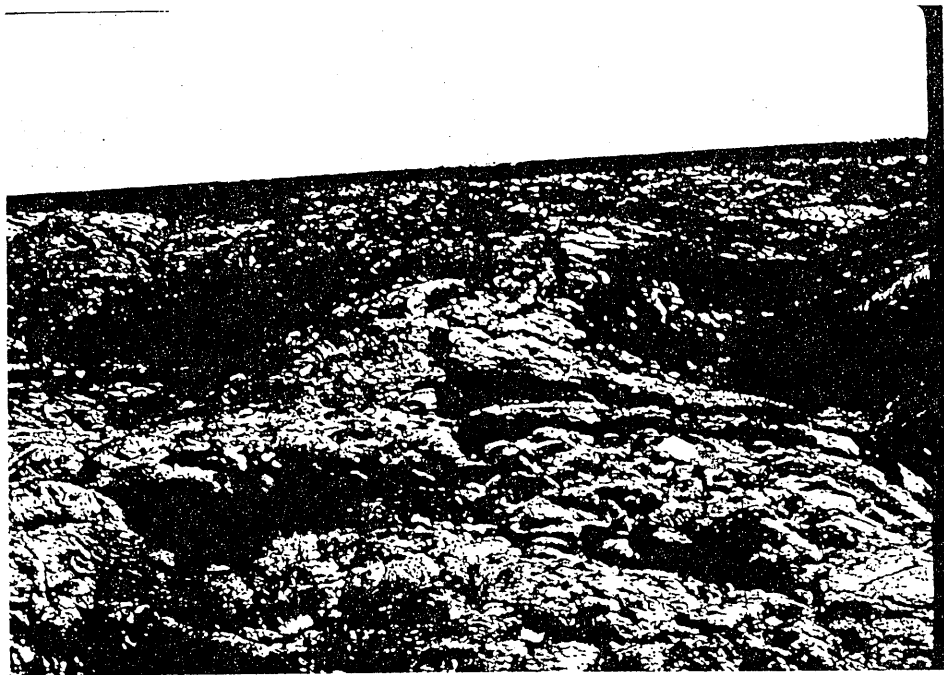
When magma rose from the earth's mantle and created the lava flows, the mineral titanium separated to the surface. Titanium reflects light and appears as an iridescent cobalt blue on the surface of certain flows. Early visitors to the Great Rift claimed this marvel resembled the scales of a dragon's back, hence the name Blue Dragon Flow. The Great Rift System is the only place in the world where the Blue Dragon phenomenon is known to occur. It is a popular place for those looking for "pretty rock" to use in landscaping and as building material.

After going a few hundred yards into the Blue Dragon Flow one has the feeling that no one has ever been here before and the complete silence and solitude is difficult to describe.

The Blue Dragon flow is one of the most extensive within the system, covering approximately 125 miles and it is as much as 50 feet thick. It is smooth in some areas, rough in others mostly unexplored and it could possibly contain undiscovered caves and archeological sites.



#1 The Blue Dragon Flow with Saddle Butte in the background



#2 The Blue Dragon Flow near Saddle Butte

ARCHEOLOGICAL SITES

Early explorers in the Craters of the Moon area reported finding Native American relics. They found trails across lava fields marked with rock piles and sagebrush. Robert Limbert, the first man to really explore the Great Rift made many references to these indications of use by Native Americans.

In 1966, an effort was made to locate and describe all archaeological sites within or near the Monument boundaries. The search was made near water sources and areas supporting climax vegetation. Twenty-eight archaeological sites were located: 17 open sites (13 camping sites and four chipping stations) ranging in size from a few square feet to several thousand square feet. Five cave sites, three quarry sites, and three rock structures sites including two hunting blind sites. These sites were similar to the sites on Birch Creek and it has been suggested that these sites were occupied by Northern Shoshone at some time from about 3,500 years ago to historic times.

One of those camp sites is located in the Blue Dragon Flow, approximately 14 miles southwest of the City of Arco near Saddle Butte. This site has at least 15 camp sites. (picture #3). A small lava tube with ice and water is located at the camp site. (picture #4)

This camp site was found by some hunters approximately five years ago. At the time of its discovery it abounded with artifacts. These artifacts are now all gone into the hands of private collectors. All that is left is chips that have very carefully been stacked in small piles. The circles are large with a double layer of rock used to build each of them. (picture #5) In the past few months more collectors have been at the site and they have removed the inner stack of rocks and piled them in the center of the circle. They have carefully raked in an attempt to find artifact. Picture #5 was taken a year ago and picture #6 was taken this spring. They are of the same circle. In #6 the rock can be seen stacked in the middle of the circle.



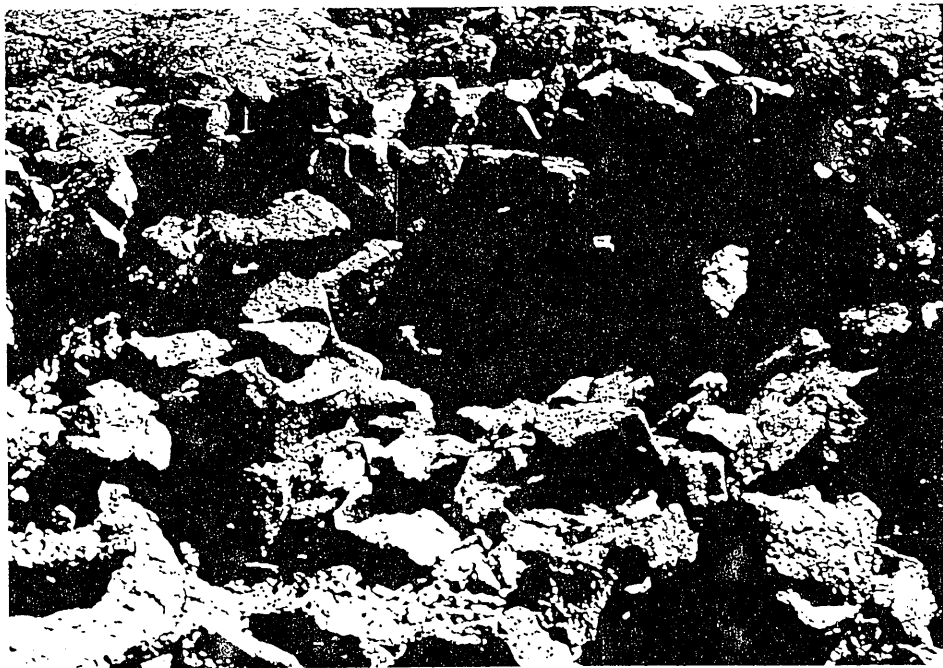
#3 Teepee Circles near Saddle Butte



#4 Lava ice tube near Indian camp



#5 Close-up of teepee circle



#6 Teepee circle showing damage by arrow head hunters

It's hard to say how many of these archeological sites are undiscovered. Many have already been found and the artifacts are gone. Stories have been told of the artifacts that have been found around the edge of both the Great Rift Flow and the Wapi Flow. Leave this territory in its present state for a few more years and there will be no more undisturbed archeological sites. The National Park Service would protect these sites and would open them up only to authorized academic study.

PLANTS, TREES AND FLOWERS

In the spring of the year Craters of the Moon blossoms out into a variety of colors as the wild flowers begin to bloom. The most notable are the dwarf monkey flower, the buckwheat and the syringa or mock orange as Idaho's State flower is often called.

Sage brush, rabbit brush and the tanzy bush is found in abundance at Craters of the Moon along with liberal amounts of bitter brush.

The most numerous tree is the limber pine but Craters of the Moon also has some quaken aspen, some douglas fir and juniper.

In and along the edges of the Blue Dragon Flow one can see lots of the dwarf monkey flower, the buckwheat and the syringa. The tree of the Blue Dragon Flow is the limber pine with some juniper and quaken aspen. Rabbit brush, sage brush and the tanzy bush is found anywhere on the Blue Dragon Flow where enough soil has collected to support these plants.

Towards the south the plant life changes. Here we see fields of balsam root, sun flowers, sage brush and some quaken aspen in Wapi Park.

The major tree of the Wapi is the juniper. Located to the west of Pillar Butte is Old Juniper Kipuka.* Old Juniper Kipuka is a raised kipuka formed by an older 100-foot spatter cone and cinder cone that did not yield to a more recent lava flow. The cone contains a 40-foot crater surrounded by steep walls and loose cinders. A juniper woodland in the area contains the Idaho State record Rocky Mountain Juniper. The tree is 650 to 750 years old and measures 11 feet in circumference. Pieces of worked obsidian found here indicate the presence of Native Americans at one time.

* Kipuka is the Hawaiian name for island indicating that this area is surrounded by newer lava flows.

** Pictures #7 and #8 were taken near the Blue Dragon Flow at Saddle Butte.



#7 Monkey flower



#8 Buckwheat

THE GREAT RIFT

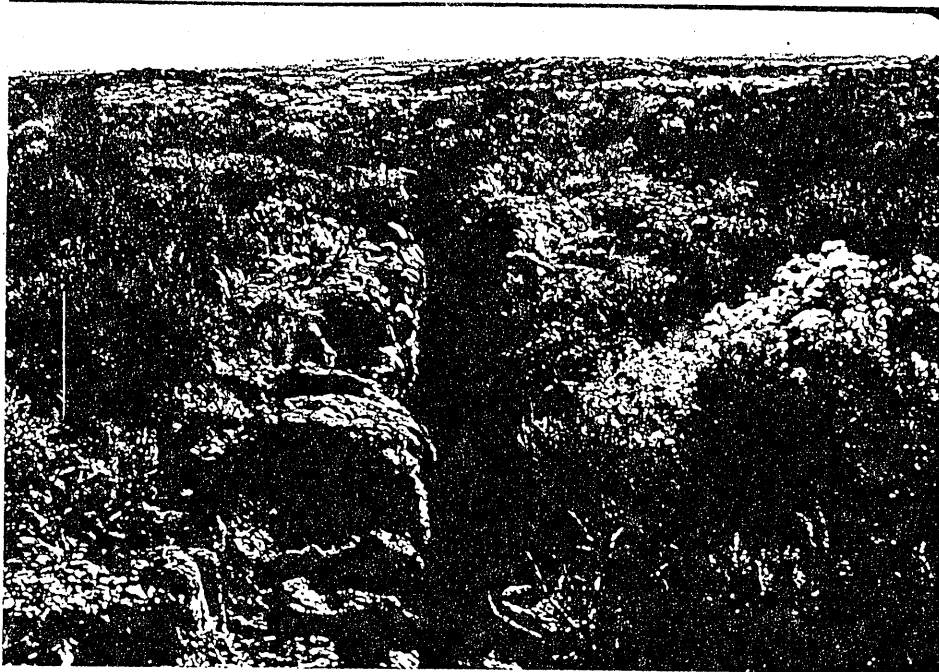
The Idaho Rift System is composed of four separate rift sets that stretch approximately 65 miles from the Pioneer Mountains to the north to the shores of the Snake River to the south.

The longest of these rift sets is the one that runs thru Craters of the Moon National Monument and the Blue Dragon Lava Flow. This area is unique in that it contains the best examples of cinder cones, spatter cones and extremely deep lava flows.

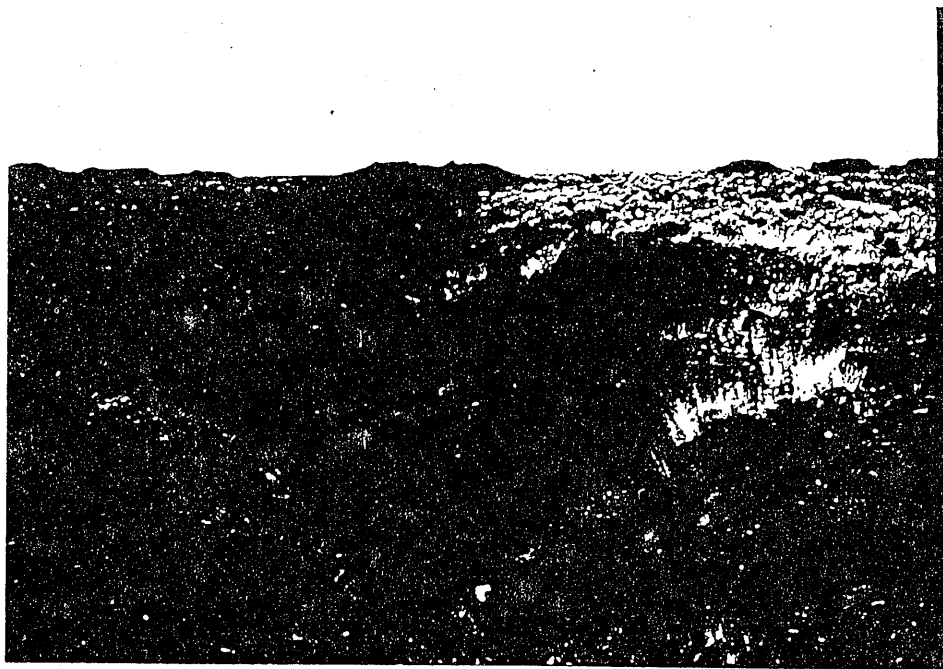
The second rift set runs south from the Blue Dragon Flow crossing the Arco-Minidoka Road and is an open crack rift. (picture #9) These cracks are for the most part deep and narrow. Where the road crosses the cracks a great deal of garbage and junk has been dumped into the cracks.

The third rift set is the most spectacular and runs thru the Kings Bowl and forms Crystal Ice Cave. This set is wide and in most cases deep. (picture #10).

The Great Rift System is one of the longest and deepest rift zones in the earth's crust. Along its edges are found most features common with volcanic eruption whether it be in Italy or Hawaii. cinder cones, spatter cones, shield volcanoes and one of the best examples of a rift ice cave can be found. This is truly a remarkable work of nature.



#9 Crossing the Great Rift on the Arco-Minidoka Road



#10 The Great Rift near Crystal Ice Cave

KINGS'S BOWL AND CRYSTAL ICE CAVE

Crystal Ice Cave, within the King's Bowl, is one of the most spectacular features associated with the Great Rift. Discovered in 1952 when two Idaho cavers decided to see how far they could descend into the King's Bowl. Through an opening in the vent's north end they lowered themselves to an ice floor and when one of them lost his flashlight down a hole. Entering the hole to retrieve the light, he found himself in a passageway that opened into a large cavity containing a spectacular array of massive ice columns, stalactites and stalagmites.

A commercial permit was given to allow tours of Crystal Ice Cave and the concessionaire along with the public were not kind to Crystal Ice Cave. An accessible entrance was built but it has since caved-in making entrance difficult. (picture #11, prior to caving-in)

After several years of operation the concessionaire gave up his permit and the cave was closed. Occasionally cavers and others will go into the cave thru King's Bowl and there was a fatality early this spring when an unexperienced climber went into the cave, left his companions and slipped on the ice and was killed in the fall. Crystal Ice Cave is the most abused part of the Great Rift.

Adjacent to Crystal Ice Cave is the Grotto (picture #12). The Grotto has a very dangerous asphalt trail and loose pipe railing going about half way down this deep depression. Loose boards have been put across the entrance to the trail but they would not stop anyone from going down the trail



#11 Entrance to Crystal Ice Cave

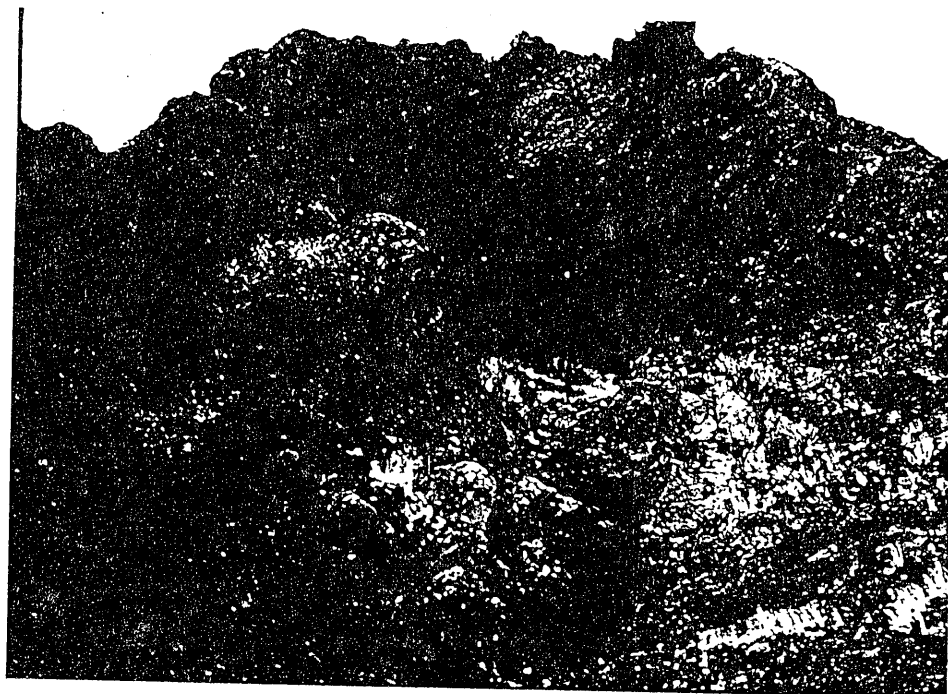


#12 The Grotto in the Great Rift at Crystal Ice Cave

SPATTER CONES

South of Crystal Ice Cave on the tail end of King's Bowl is a system of old spatter cones. These cones have extremely deep vents (picture #13). One of the cones has a natural bridge (picture #14) that is unusual in spatter cones.

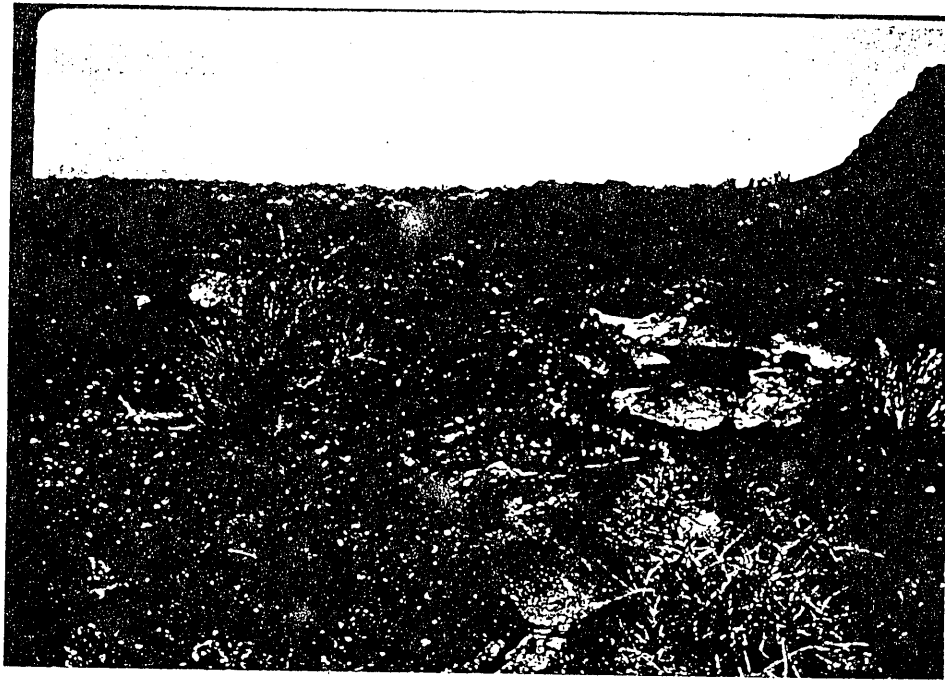
These spatter cones are very fragile and because they are close to a road collectors of lava rock for rock gardens and build have picked up considerable rock slabs and removed them from the area. (picture #15) When this thin layer of lava is removed it leaves a dull orange under substance that detracts from the beauty of the area. There are several locations outside Craters of the Moon where this rock has been taken. BLM regulations require permits from designated areas but its obvious that few get the permit and few follow the regulations.



#13 Old Spatter Cone near Wapi Park



#14 Natural bridge in spatter cone near Wapi Park



#15 Damage to flows near spatter cones

PILLAR BUTTE

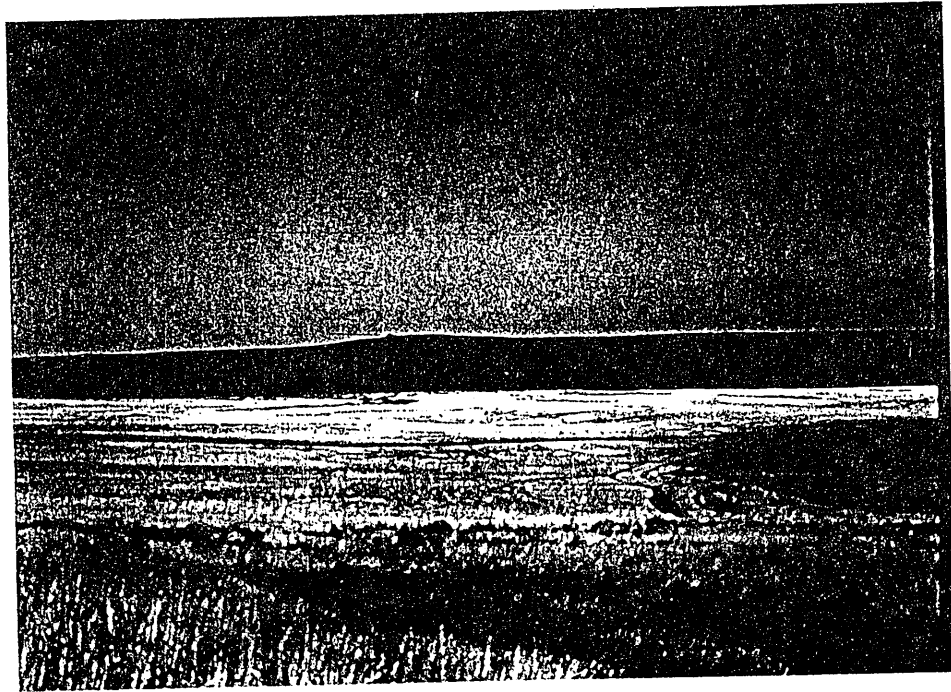
Pillar Butte is a shield volcano and it is the summit for the Wapi Flow. (picture #16). Pillar Butte got its name from the high outcropping that is visible for several miles around the Wapi Flow. (picture #17)

A shield volcano is one of the features found in the Wapi Flow that is not found in Craters of the Moon National Monument.

The Butte's eleven distinctive eruptive centers are identified by pit craters and former lava lakes. (picture #18). These former lava lakes are approximately three inches thick and it is a very fragile area. People should not walk on these former lava lakes because damage is done by every foot step.

Access to Pillar Butte is from Wapi Park. It is an approximate one hour hike over undulating lava. This is another one of those really desolate areas. Not much grows on the approaches to Pillar Butte. Lava rivers, cascades and flows present some really spectacular features. (picture #19)

From the top of Pillar Butte, one can see the entirety of the Wapi Flows, Lake Walcott on the Snake River is seen to the west and the American Reservoir is seen to the east. The view is spectacular and well worth the hike.



#16 Southeastern side of Wapi Flows, Pillar Butte in the background



#17 Pillar Butte



#18 Crater at Pillar Butte



#19 Lava cascade down the side of Pillar Butte