

Burro Flats

is located at the west end
of the 2,850-acre former

Santa Susana Field Laboratory (SSFL)

which forms the core-area
of

Sky Valley



**According to
Juan Menendez
(1917)**

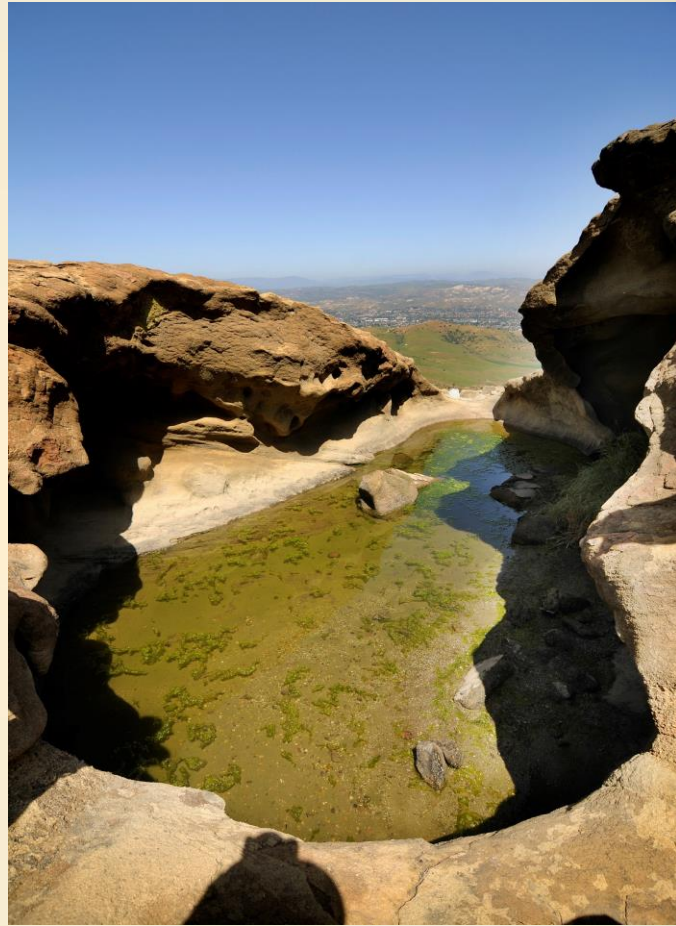
**Burro Flats
*“is a fine
place-
A place of
first-class
importance
and interest”***

As seen in 2012



Fairy Shrimp live in some of the small cavities in the Chatsworth Formation

Burro Flats and the surrounding canyons are the source drainages that flow south into upper Bell Canyon and form the western headwaters of the Los Angeles River



According to Orrin Sage, former owner of Sage Ranch Park, one could fish for

Rainbow Trout

below

Bell Canyon falls

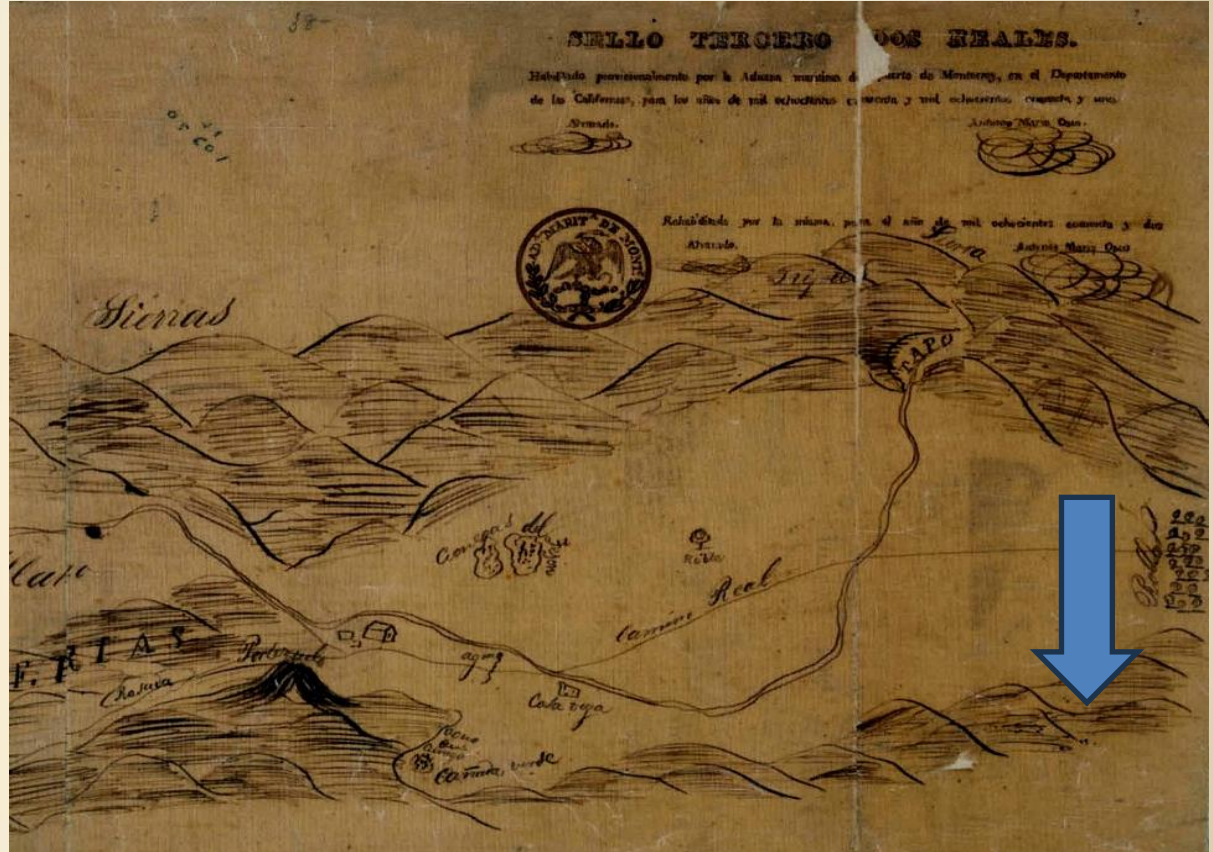
until the Los Angeles River was channelized in the early 1940s



Burro Flats History

In 1795, the 113,000-acre Rancho Simi was granted to Santiago Pico, a former Spanish soldier. By the mid-1860's, the Simi grant belonged to the Philadelphia and California Petroleum Company.

The company never found oil and leased most of their land to cattle ranchers.



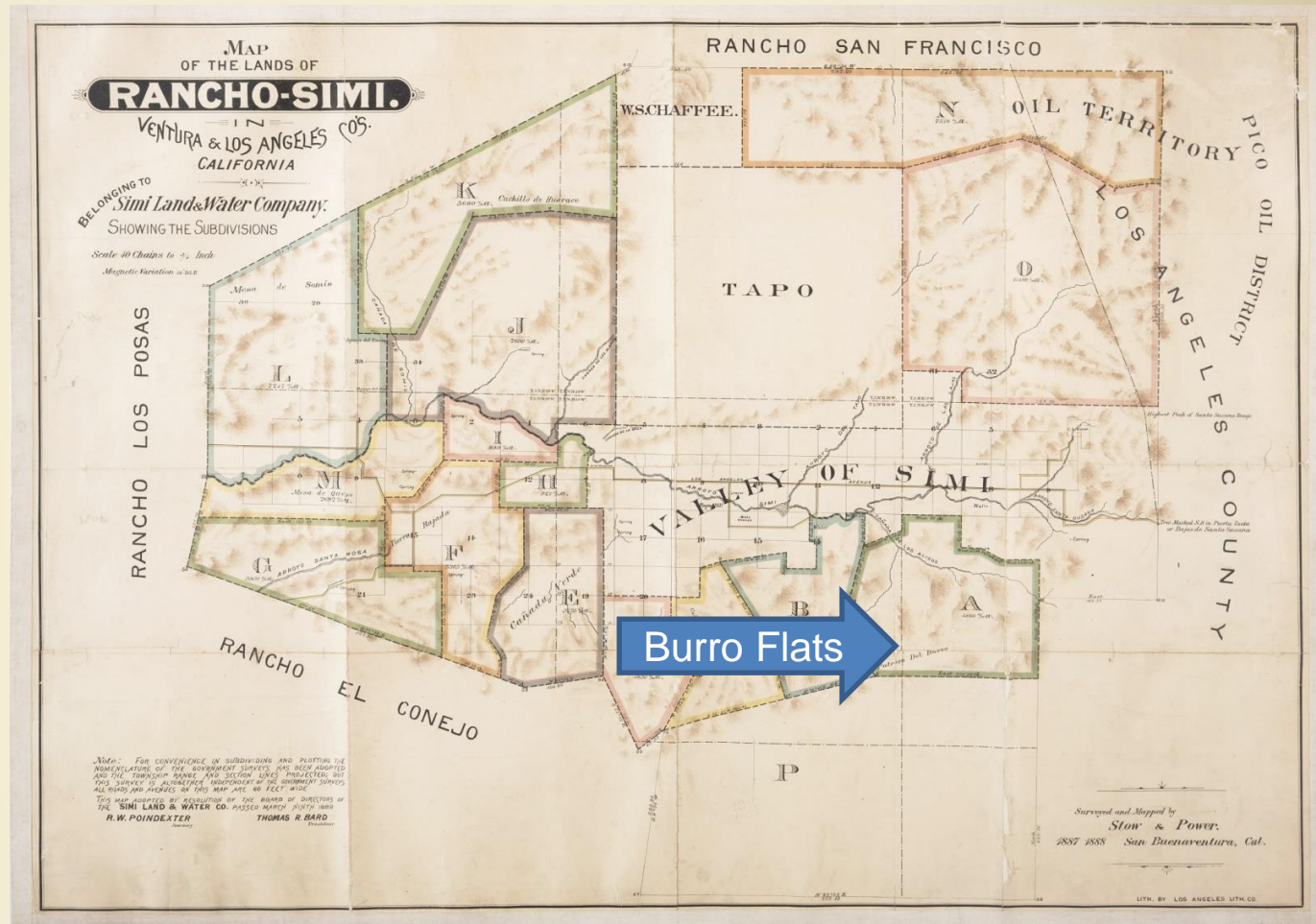
1842 Diseño del Rancho Simi

Burro Flats History

By 1888, the Simi Land and Water Company owned Rancho Simi. They subdivided the ranch.

“Subdivision A” identifies

Potrero del Burro;
the “Pasture of the Burro.”



In 1910, **Eddie Maier**, a well-known millionaire beer brewer purchased much of Tract A and began developing his own ranch.

The Southern Pacific Railroad had a siding just north of the entrance to his ranch. This was perfect for shipping cattle into and out of the area.



In 1939, Dr. Henry W. Silvernale, his son Max, and family friend Bill Hall, purchased 1,060 acres of Tract A from Maier, including the Potrero Del Burro,

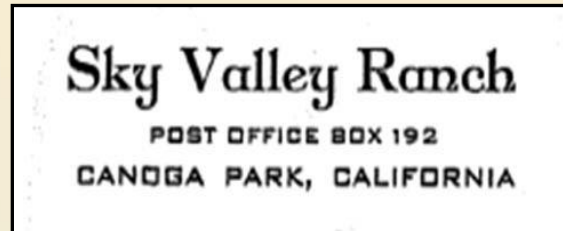
for \$3 an acre

The ranch was variously known as

“Burro Flats Ranch,”

”Silvernale Ranch,” and

“Sky Valley Ranch”



Picture to the left is of letterhead stationery from the Silvernale Family.

Burro Flats Ranch



The Silvernale house was located
IN Burro Flats

Burro Flats Ranch

The Hall family house
was built into a cliff (on
left) in upper
Bell Canyon (to right).

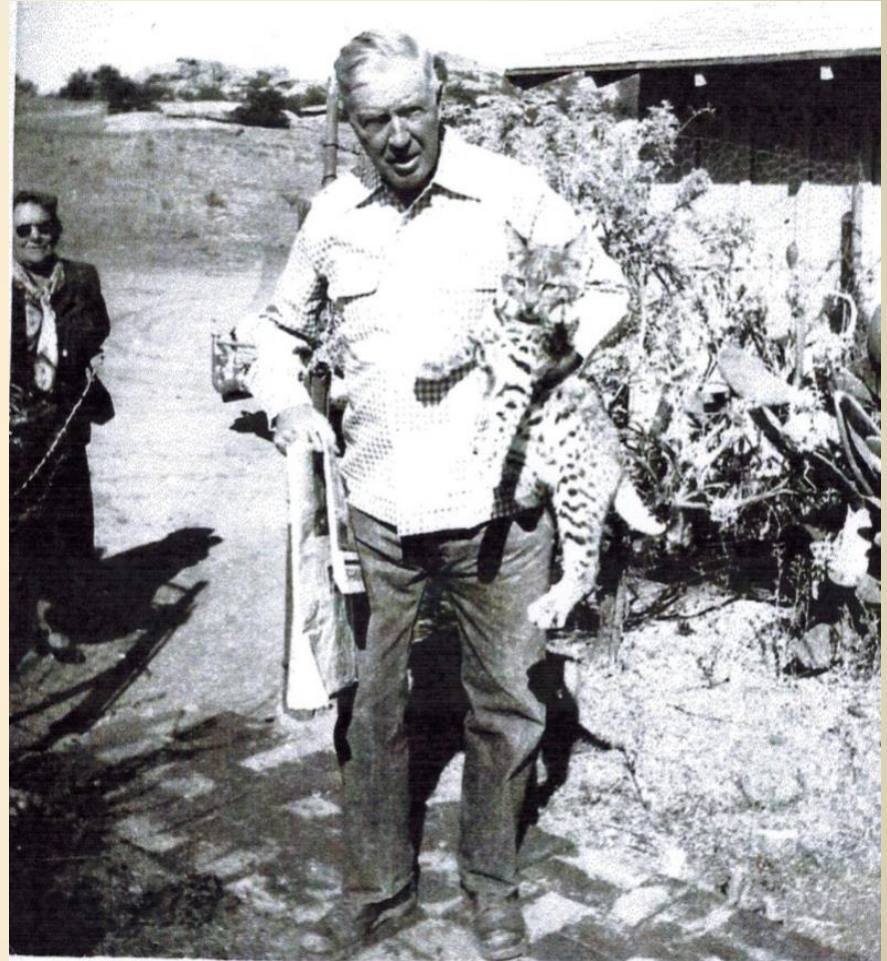


Burro Flats Ranch

One of Henry's grand-daughters, Sally Silvernale Ziegler, shared a story from when she was a young girl -

“Another exciting event in the last few years was the addition of an orphaned female bobcat. We named her ‘Bobbie.’ She was adorable . . . Grandma Mom would set up the dining table and Bobbie would hop up and clean off the table. She was a real character.”

Henry Silvernale with “Bobbie”



**Frank Knapp Sr.,
Ed Hall,
cousin Pam, and
Betty Knapp-Hall
In the late 1940s**

The Knapp family was on
good terms with the old west
San Fernando Valley Native
American community



Burro Flats Ranch

Henry's grand-daughter Marcia Silvernale McGillis told me:

"We had a very large field of oat-hay, and we had several hundred head of Hereford cattle. My grandfather raised pigs and chickens and they had a large vegetable garden. They did a lot of deer hunting up there."

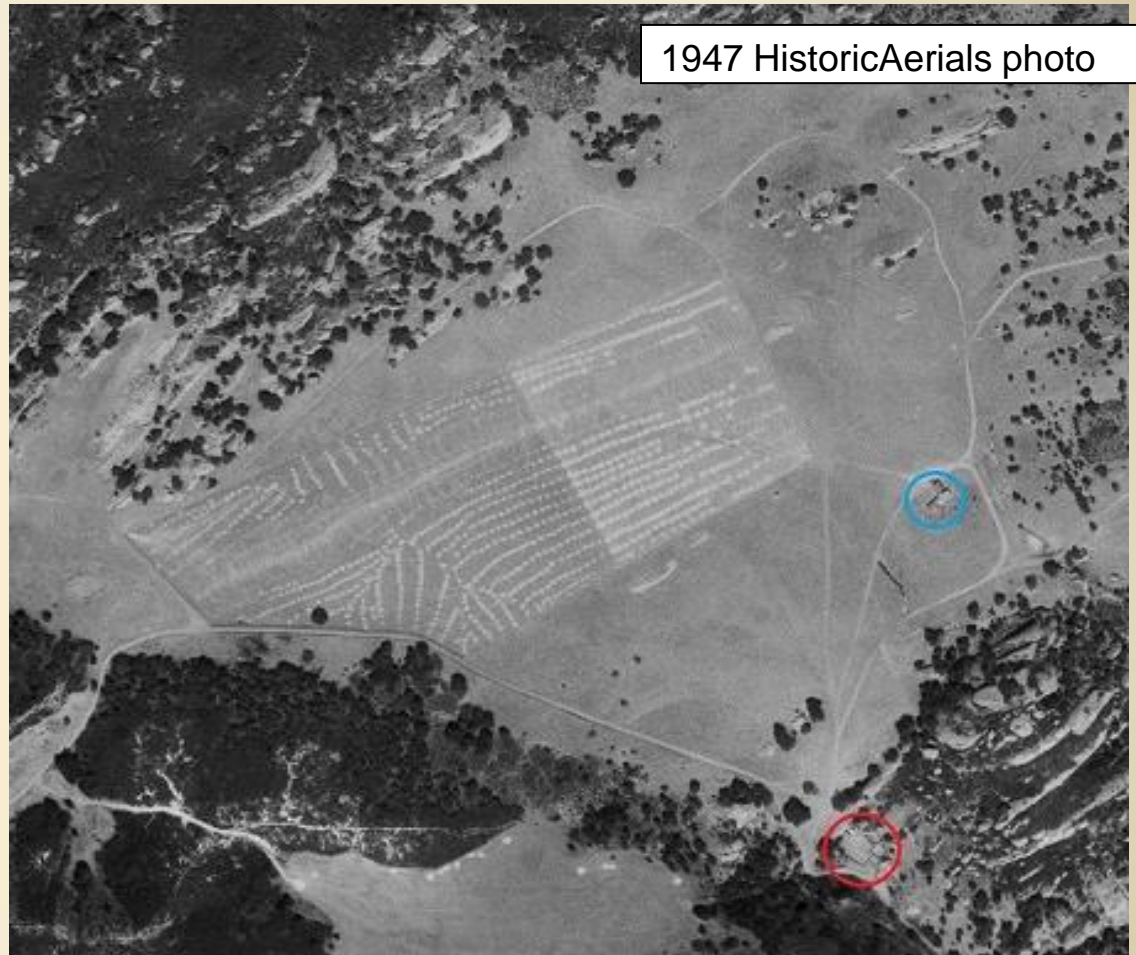


Burro Flats Ranch 1947

This air photo indicates the
Silvernale ranch house with the
blue circle.

The Hall ranch house is indicated
by the red circle.

Crop of hay can be seen in the
center of the photo.



Burro Flats Ranch hay harvest

Left-to-right:

Bill Hall, Betty Knapp Hall,
Henry & Beulah Silvernale,
Edwin Hall in foreground



Burro Flats - view to east, Silvernale ranch house in center of picture

What a GREAT place to film Western Movies!

Hi Ho Silver! Away!



Silvernale House

**This is a scene from
the movie *California***

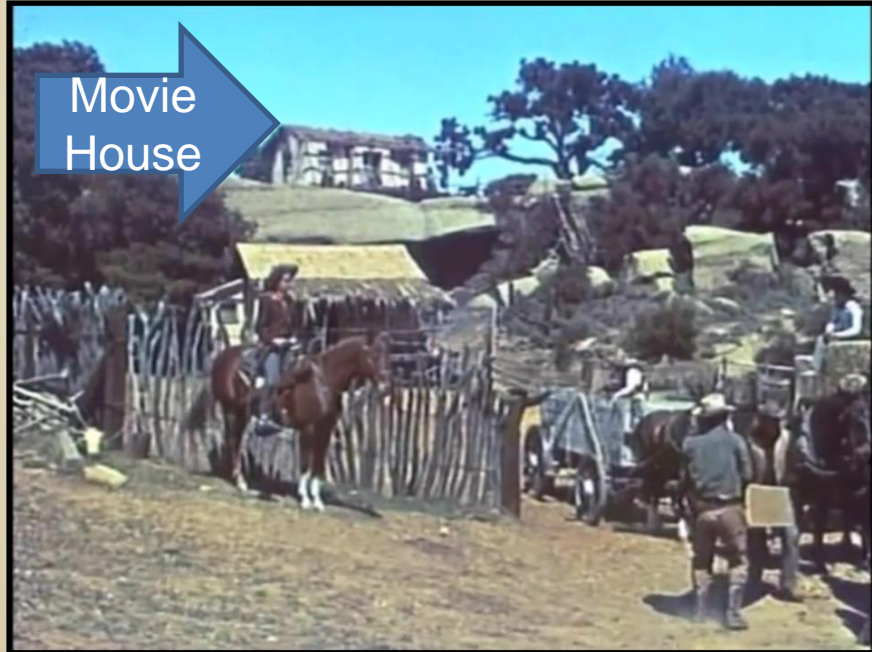
Because of its interesting rock formations, +40 western-themed movies were filmed at Burro Flats.

Several television programs, including some episodes of the **Lone Ranger**, were filmed at Burro Flats

Occasional filming continued until the mid-1990s.



Photos from 1953 Wings of the Hawk



**The Burro Flats
Ranchers –**

**Bill Hall,
Henry Silvernale,
Beulah Silvernale,
Rex Silvernale,
Marcia Silvernale
McGillis
ca. 1945**



**And near-by was
Burro Flats Painted
Cave -
a remarkable example
of Chumash art**

This 1930s photograph
is the oldest known
photograph of BFPC

Courtesy of Ed Hall



The B&W photograph of the time did not show the beautiful multi-colored panel well, so an artist named Charles La Monk attempted to create accurate paintings

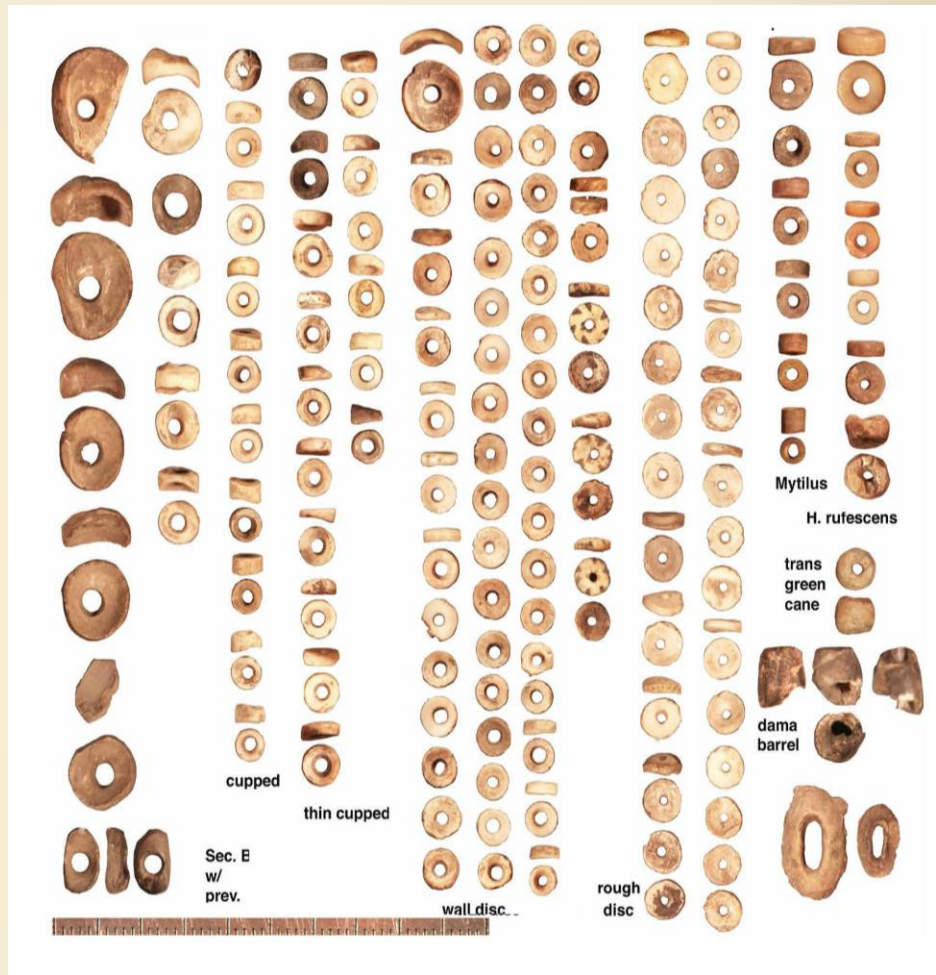
Here we see
La Monk at work
in 1954



Burro Flats

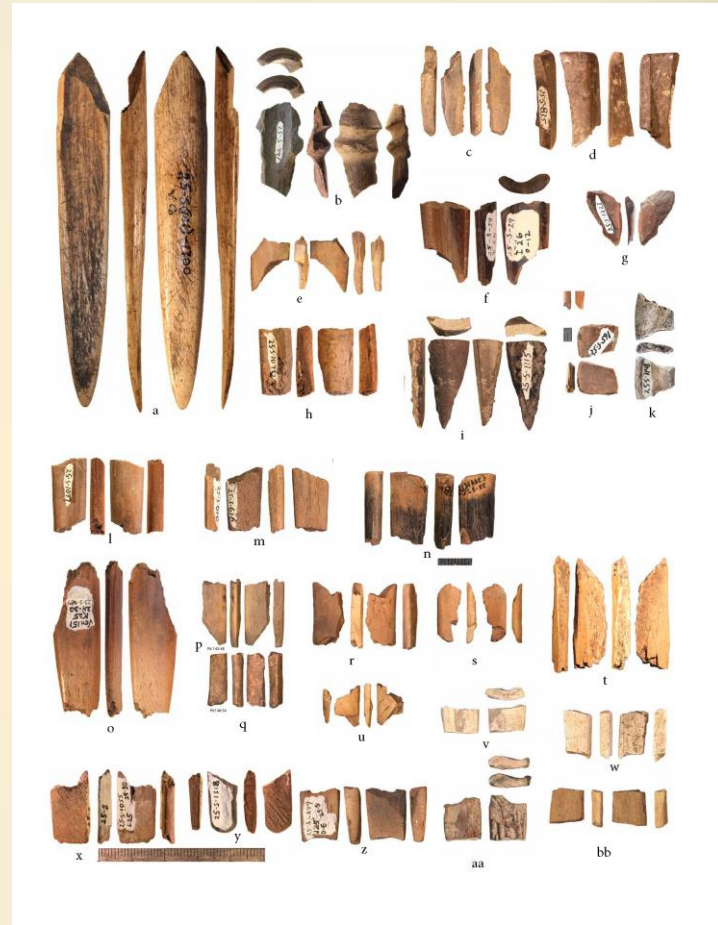
Archaeological excavations were performed by the Archaeological Survey Association in 1953-1954

Here we see examples of shell bead artifacts



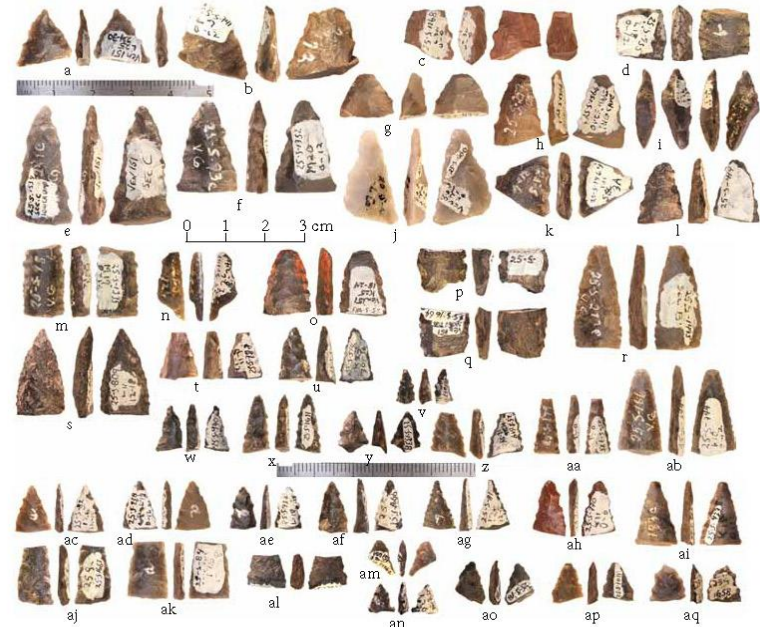
Burro Flats

Here we see mostly bone awls for basket making and other weaving purposes



Burro Flats

These arrowheads and 1000s of other artifacts are curated at the Autry Museum of the American West in Griffith Park



Fused shale point tips and midsections.

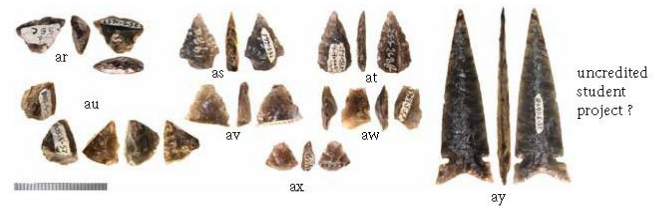


Figure 5. Fused shale point tips and midsections and obsidian artifacts.

The Ranch bites the Dust - Post World War II

During WWII, the North American Aviation company (NAA) built more than 42,000 aircraft (P-51 Mustang at left), the most of any manufacturer in the world.

At the same time the Germans were deploying the first operational jet fighters (ME-262 Swallow at right) and . . .



The first Liquid-Fueled Rockets like this V-2

During World War II Adolf Hitler had a group of rocket engineers working under the direction of Wernher von Braun. Von Braun was a smart man, at the end of the war he surrendered to the first American PFC he came across

In 1949, NAA built the first west-coast facilities to test **rocket engines**. Vertical Test Stand 1 (VTS-1) in Area I duplicated the WW II German test stands

Captured V-2 engines were tested at VTS-1 and in 1950 the engines for the Redstone, the first large American liquid propellant rocket, based on the V-2 design, were also tested at VTS-1

Redstone rockets subsequently put the first American satellites and astronauts into space



Wernher Magnus Maximilian Freiherr von Braun

SS Major von Braun can be seen
at the right side of this
World War II photo
A V-2 can be seen in the
background

The man in the black uniform is
Grand Admiral Karl Donitz, who
was German Head of State from
Hitler's death on April 30th to
May 23, 1945

Germany had surrendered on
May 8th



Wernher von Braun Better Days

Von Braun and Walt Disney
got along well

Disney even asked von Braun
to help with some of the
designs for Tomorrowland at
the new Disneyland in Orange
County!



In 1954 the Silvernale and Hall families were bought out by NAA

NAA had already acquired park
of Sage Ranch (now Area I) in
1948 and what eventually
became the Santa Susana
Field Laboratory began to take
shape

Here we see the construction
of Woolsey Canyon Road



North American Aviation and Rocketdyne

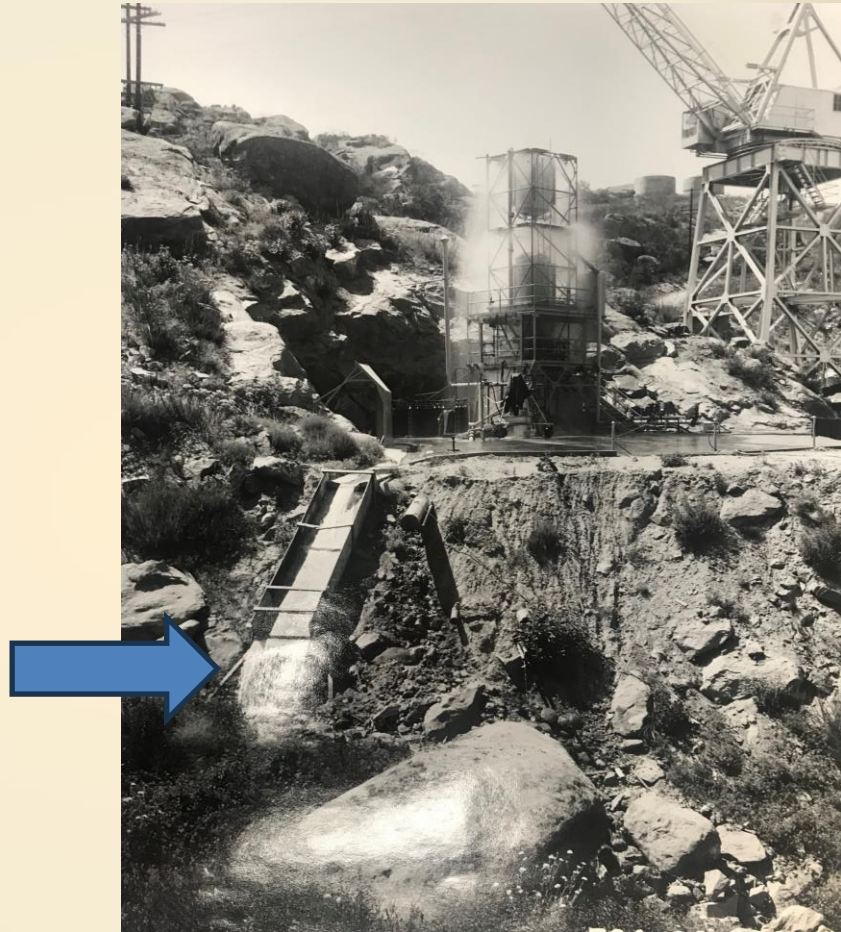
The new facilities were semi-officially called “**The Hill**” or “**Rocketdyne**”

The rocket **engines** were assembled in near-by Canoga Park and transported by truck for mounting and testing



Post engine testing “clean-up”

This photo shows a post-test
“clean-up” – Note that the
chemically contaminated rinse
water is being allowed to pour
directly into the canyon



The Santa Susana Field Laboratory

All of the United States rocket-**engine** systems up to and including the Saturn rockets that took Man to the Moon and the Space Shuttle were tested at the SSFL

This is a **PR photo** of the Space Shuttle
Again, the SSFL was an
engine test facility-
there were NO launches of any kind

And other **strange things were happening too . . .**

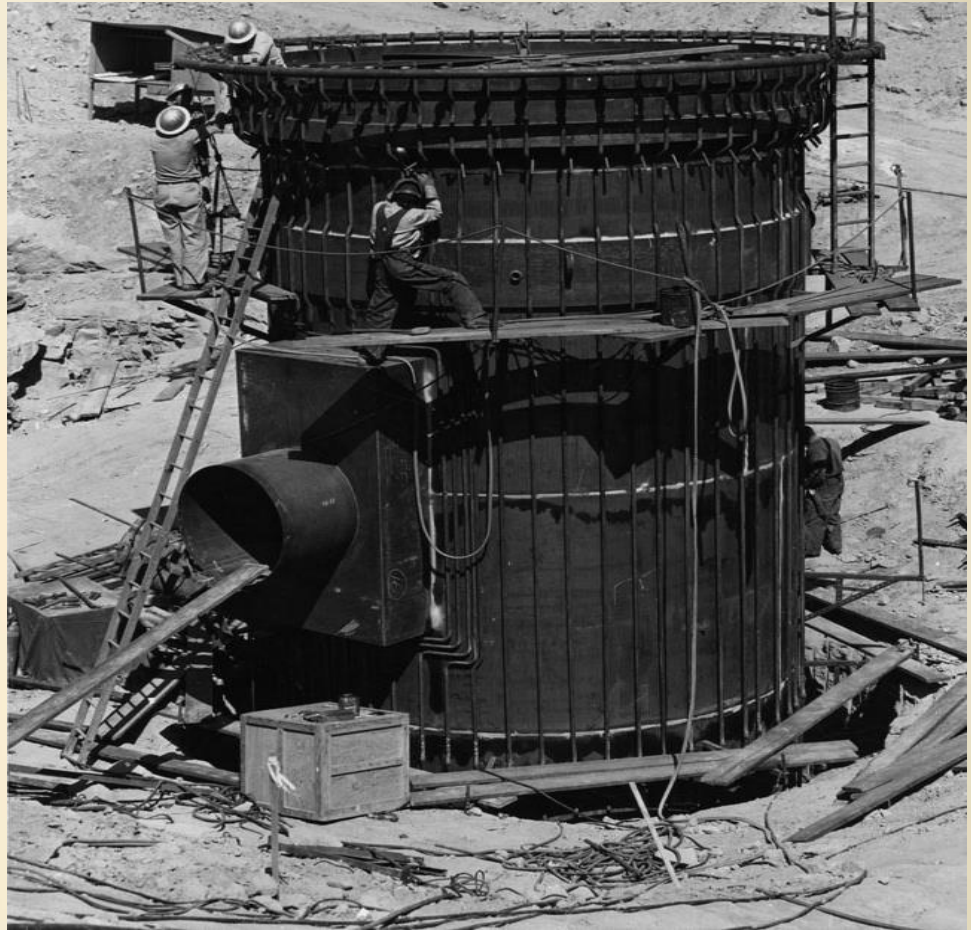


1954 – NAA won a contract from the new United States Atomic Energy Commission to design and build the first nuclear reactor for civilian electric power generation

1955 – NAA created

the Atomics International Division

and in 1966 began construction on a sodium-cooled, graphite-moderated experimental nuclear reactor, in the hills north of Burro Flats



Atomics International Division

1957 - 75-ton shield
being lowered into bedrock for
Sodium Reactor Experiment



The Million Dollar Hole

This photo shows an area that was excavated into bedrock, for a reactor that was never built

The containment domes that cover reactors today had not yet been invented



In 1957, the Sodium Reactor Experiment became the **first civilian nuclear reactor** to produce electrical power for a commercial power grid by powering the nearby city of Moorpark

The reactor reached full power in May 1958 and over 7 years provided a total of 37 GWh to the Southern California Edison Company grid

1959 – the SRE suffered a serious accident, when the cooling system failed and more than a third of its fuel rods partially melted

Following the accident, the SRE was repaired, **and operations continued until 1964**

[Source Boeing and DOE]

Meanwhile –

In 1959-1960

There were new excavations at the Burro Flats site and more people began paying attention to the beautiful paintings

In 1960, Dr. Charles Rozaire was the first person to mention the Burro Flats paintings in print

Caves Tell Story of Ancient Indian Culture

BY GORDON GRANT

CHATSWORTH — The heavily wooded stronghold of the Santa Susana Mountains with its picturesque upthrusts of rock is alive with the roaring activity that goes with the development of rocket engines.

It was a place of much activity hundreds and even thousands of years ago, too, but in a far different manner.

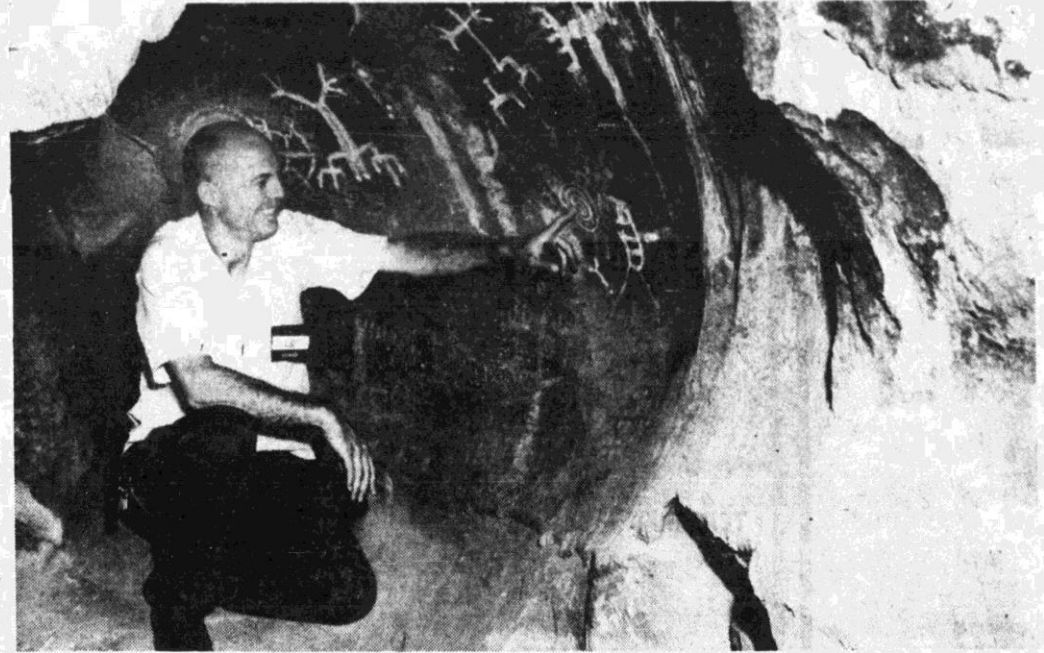
Throughout the silent and lovely wilderness of live oaks, game-filled underbrush and, in season, running streams of clear water, late pre-historic Indians carried on their peaceful existence.

They hunted deer and rabbits, dug roots and picked berries and spent hours and even days grinding and treating acorns to make flour.

They left marks of their primitive culture that are plainly visible today in the form of highly stylized drawings, or pictographs, in cool sandstone caves that dot the area. They left beads, arrowheads and other artifacts.

And they left a haze of mystery that has not been penetrated.

"This particular section is of extreme interest because it seems to have



ANCIENT SYMBOLS—Dr. Charles E. Rozaire, a museum curator, points out pictographs left on

Chatsworth cave wall hundreds of years ago by the Indians who used to seek game, food in the Valley.

Times photo

marked the border between two tribes," said Dr.

Charles E. Rozaire, a curator at the Southwest Museum and professor of an-

thropology at Valley State College.

"The mystery is, we have not been able to determine whether they

came from the Fernandeno tribes of the San Fernando Valley or whether they were Ventureno Indians from the ocean side of the

mountains," he said. "And the mystery is deepened because, while we have been able to dig up their

Please Turn to Pg. 10, Col. 1

Henrick Hanks and Rudy Ortega Sr.

With Rozaire's brief published comments on the paintings, more and more people became aware of the site and its importance to Native Americans

According to Hanks, one of the people he discussed the site with was one of his students (at CSUN) – John Romani

Control Motorcycle Ordered

ETH HANSEN
Staff Writer

Unified motorcycle officers will be July 1 as part of a station of the Law Department, according to John A. McAllister, able to operate as a the Valley, rather and being restricted individual divisions in aid. He believes this more efficient traffic

large as the motor- downtown, also any area of the city f a major disaster, earthquake, or a ci-

Physical Areas

come into being as a organization which city into four geo- and give each one its of.

the maximum auto- according to the de- originated and or- Edward M. Davis.

urn to Page 7, Col. 5



PUZZLING — Richard Hanks, left, and Rudy Ortega study pictographs.

Times photos
by Al Markado

Indians Trying to Safeguard Cave Paintings of Ancestors

Mission Tribe Will Ask Rocketdyne to Enclose Historic Works in Glass for Protection Against Any Vandalism

John Romani and Edwin Krupp of Griffith Observatory

In 1979 Romani (at right) realized
there was a light effect
on the winter solstice

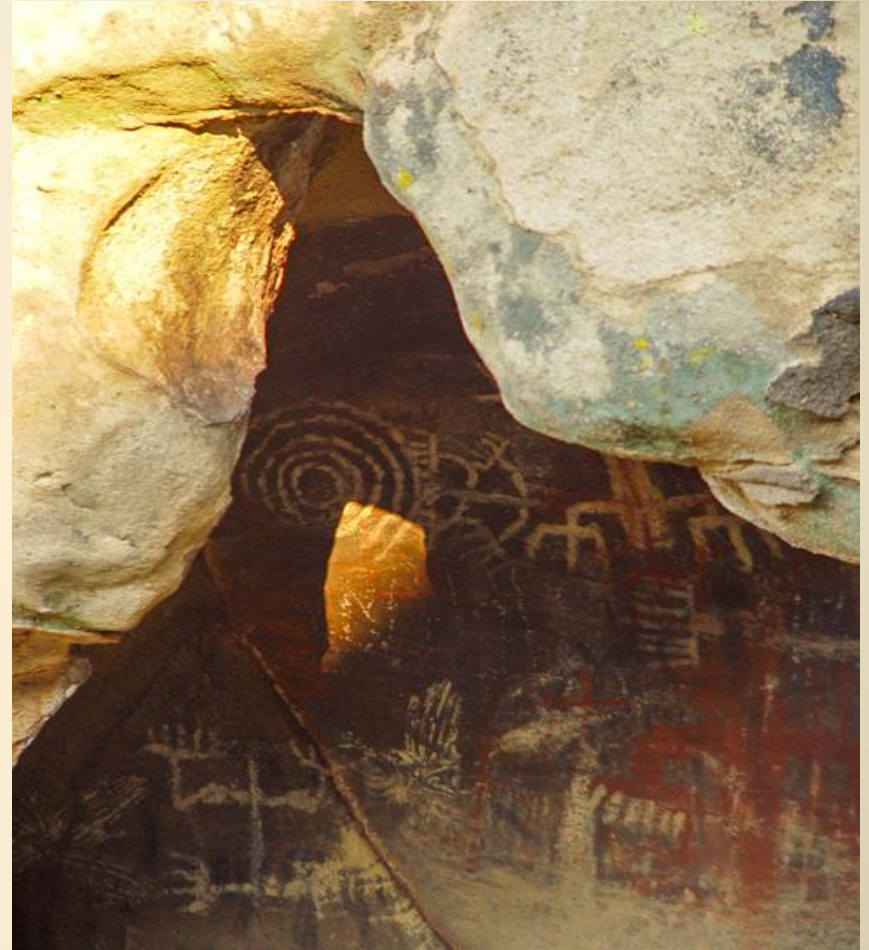
And in 1980 Romani and Krupp (at
left) realized there was a shadow
effect on the summer solstice



Burro Flats Painted Cave

In his 1983 book, "Echoes of the Ancient Skies: the Astronomy of Lost Civilizations," Dr. Edwin Krupp, Director of Griffith Observatory, wrote:

"An astronomical element in the paintings at Burro Flats was first noticed in early 1979 by John Romani . . . He thought a natural cut - a kind of bottomless window - in the overhang above the western end of the panel paintings looked like it might let sunlight pass through and strike a part of the otherwise shaded panel - at about the time of the winter solstice."



**In 1976, Burro Flats
Painted Cave and the
surrounding area
was listed on the
National Register of
Historic Places**

This beautiful painting
was made
by Gwen Romani
in 1981



**Rocketdyne and Atomics
International evolved into the
Santa Susana Field
Laboratory (SSFL)**

In time, NASA and the
Boeing Company became
the owners of the SSFL

At height of operations
there were +600 buildings
and structures and over
5,000 people worked there
on any given day

Looking northeast across
Burro Flats ca. 1990



Boeing and NASA's current positions

- In April 2017, Boeing established a conservation easement, held by the **North American Land Trust**, that permanently preserves as open space habitat the nearly 2,400 acres Boeing owns at Santa Susana.
- The conservation easement **forever prohibits residential or agricultural development on-site**. It permanently binds the property, regardless of who owns the land.
- NO commercial or residential buildings OF ANY KIND (including casinos) can be built at the former Boeing property.
- Boeing retains the PERMANENT obligation to clean-up its part of the former SSFL.
- NASA also retains the obligation to clean up its area.

Today, all of us are interested in protecting the wild-life corridor, the archaeological resources, and making sure what many of us are calling “Sky Valley” is properly cleaned up
Some of the professional organizations involved include:

- The San Fernando Valley Audubon Society (Birds)
- The Southwestern Herpetologist Society (Reptiles)
- Santa Susana Mountains Park Association (Environmental Preservation)
- The Sky Valley Volunteers (Trees)
- The National Park Service (Mountain Lions study, Post Woolsey Fire study)
- The Pollinator Partnership (Bees)

Helping the Oak Woodland recover

Sky Valley Volunteers
planting oak seedlings



Wildlife - Golden Eagles nesting



10/16/2023

Burro Flats, the SSFL, and Sky Valley

46

Wildlife - Black Bear at guzzler in 2016



**Wildlife –
Four healthy
Mountain Lion
kittens born in
2018**



10/16/2023

Burro Flats, the SSFL, and Sky Valley

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Wildlife – We also need to remember that the ground is home to many 1000s of small animals like this handsome Alligator Lizard



Boeing's Earth Day hike 2022

Hopefully, following the final
clean-up, **almost all** the
former SSFL will be available
for public use



“Almost all?”

Al Knight and Paul Costa of Boeing discussing the future management of Sky Valley

Assuming future public access, how will the many sensitive cultural resources be protected and managed, **and by who?**



Researchers
discussing area
ranching history
Coca Test Stands in
background
L-to-R
John Luker
Albert Knight
Ray Vincent
Orrin Sage
Arron Davis (NPS)



**Continuing research sponsored by the Boeing Company
AK and Chumash Elder Alan Salazar discussing some interesting rock art**



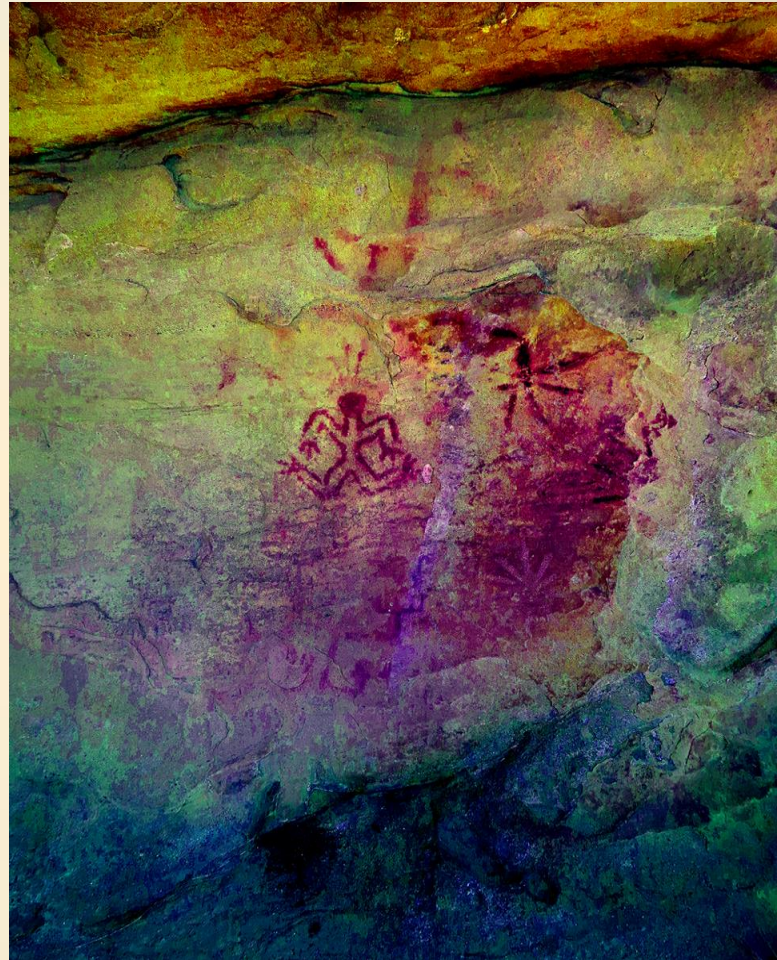
Very interesting HISTORIC rock art - The Burro Flats Burro Pictograph Site



“Jumping Man”

Although not as well known, there are a dozen other caves with rock art in the Sky Valley area

This small somewhat weathered pictograph panel (enhanced here) was identified in the early 1950s



Pictographs

Many small pictographs are “obvious,” if you know where to look



Pictographs

Same as previous photo, but
here with DStretch
enhancement

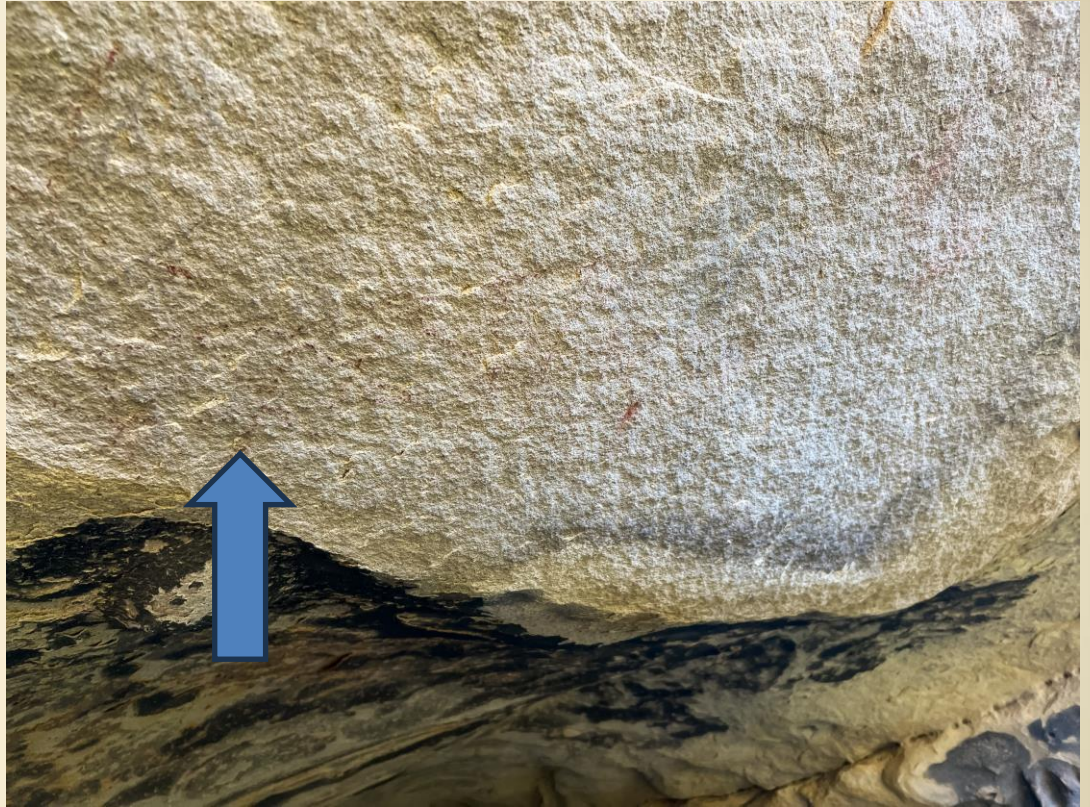


Not all of the rock art is obvious

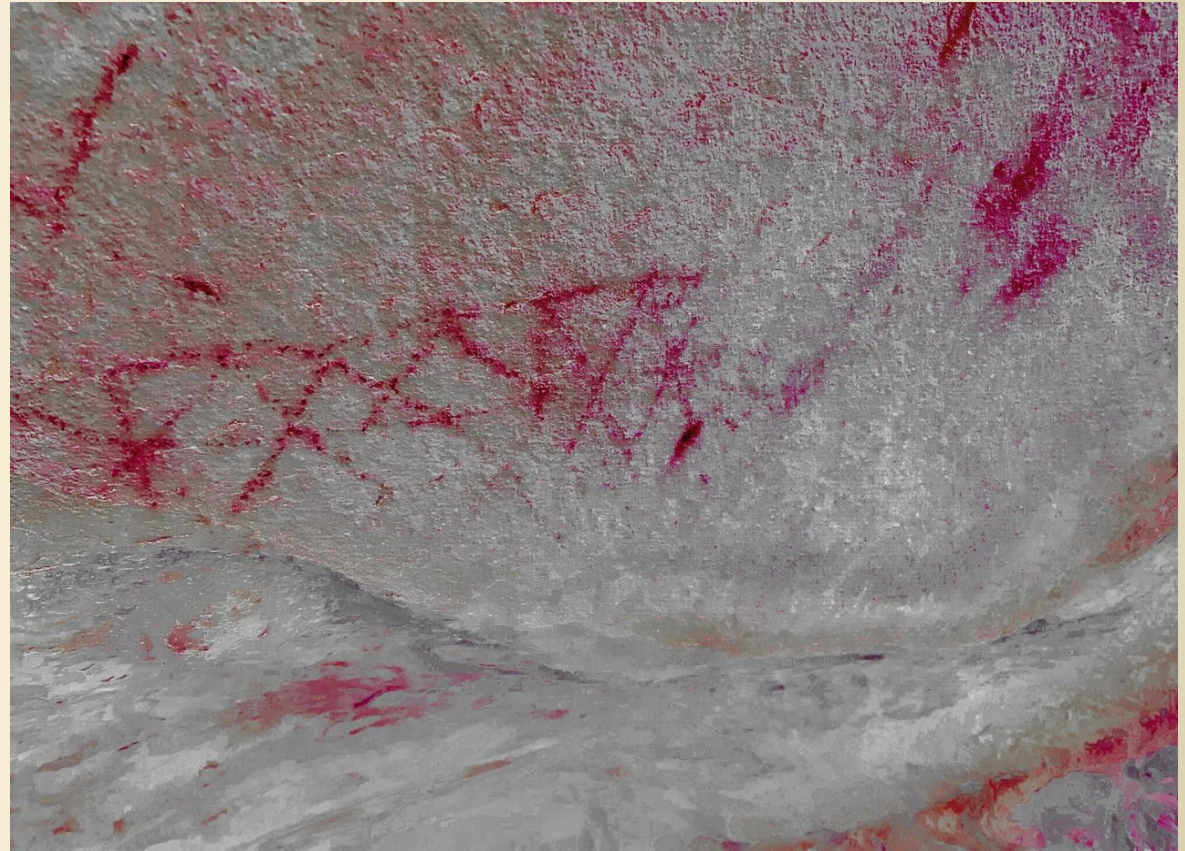
Several “new” rock art sites have been identified over the last few years

This rock face appears to be entirely natural

But if you look carefully the tiniest bits of red can be seen



**Same rock face
enhanced with
DStretch**



**Vandalism –
One example of
what we do not
want to happen**



Cupules

There are several places in Sky Valley where cupules can be found –
this is the most elaborate one, is just north of the SSFL



Cupules

These cupules are very close to
Painted Cave



Cupules

This site is in a
canyon north of the
SSFL



Ranching Period

Very little remains from
the ranching period

This is an old stock
watering trough near a
now dried-up spring



Knapp/Hall family

We saw this photo earlier-

The young Edwin Hall and
Pam Colao in center
Ca. 1950



August 5, 2023

Special guest's courtesy of
Boeing and NASA
After 70 years, Ed Hall and
Pam Colao visit the site of
the Hall Ranch House



Hall Ranch House

Bill Hall, Edwin Hall, and
Betty Knapp Hall in front
of house



August 5, 2023

L-to-R

Pam Colao, Ed Hall, Ann
Vincent, Ray Vincent

The last time Ed and Pam
were at Burro Flats was in
1954

The “SSFL” came and
went during their lifetimes



Acknowledgements

Personal thanks to special contributors to this presentation, including Ed Hall (Burro Flats Ranch), Marcia Silvernale McGillis (Burro Flats Ranch), Sally Silvernale Ziegler (Burro Flats Ranch), and Orrin and Cindy Sage (Sage Ranch)

Thanks also to Peter Zorba and Merilee Fellows of the National Aeronautics and Space Administration (NASA), and to Paul Costa and Kamara Sams of the Boeing Company

Program prepared by Albert Knight with the assistance of Ray Vincent

Presented at the SSMPA monthly meeting Oct 16, 2023

Additional information on the Sky Valley area can be found at the Chatsworth Historical Society Digital Archives, and at the Santa Susana Mountains Park Association website