Institute of Archeo-Astronomy and Rocket Engineering Research Project

= the place of the rocket scientist
= 'ałtsuqlašmu “the place of the astronomer”

Interpretive Planning at Stawašeč 'alałpay, “sky valley”
Simi Hills, Eastern Ventura County

'ałtsuqlaš = a person who observed the night sky and named children

The root verb for 'ałtsuqlaš (astronomer) is šuqlaš. šuqlayeš, a related noun, is the term for a series of songs sung at night by the 'ałtsuqlaš.

Resource Conservation District of the Santa Monica Mountains (RCDSSM),
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Sam Cohen

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Coca 2 Test Stand # 2787 Area 2 NASA SSFL

Photo: Wired Magazine June, 2014

Cupolated rock outcrop with a Bedrock Milling Feature Area 2 SSFL
Photo by: Juergen Nogai
Wernher von Braun at Santa Susana Field Laboratory

Chumash 'ałtšuqlaš “Astronomer”
The interpretive center covers the entire history of the site, while focusing on two primary periods of significance:

PERIOD 1 Chumash, Paleo-astronomical 'ałtuqilas period of Astronomer activity (___? to present)

PERIOD 2 Santa Susana Field Lab period

Contrast of two different cultures, both focused on the heavens in this extraordinary landscape, is the unique interpretive opportunity of the site. Geological, pre-historic, ranching/mission, and environmental remediation and habitat conservation periods will also be interpreted to provide a context for the primary periods of significance.

PROJECT SITE: stawayǝk ‘talalpay “sky valley” - former Santa Susana Field Laboratory (SSFL)

= the place of the rocket scientist

’ałtšuqlašmu = the place of the astronomer

’ałtšuqlaš = a person who observed the night sky and named children

The root verb for ‘ałtšuqlaš (astronomer) is šuqlaš. šuqlayǝš, a related noun, is the term for a series of songs sung at night by the ‘ałtšuqlaš.
Both indigenous and modern cultures have occupied the hill, above Los Angeles, the Chumash village from which our modern Simi Valley derives its name, to develop and practice the rituals, ceremonies and technologies that could connect humanity and the heavens in order to influence their collective lives on earth. The results have been both myth- and Promethean.

The F-1 engine developed in this place brought the crew of Apollo 13 to the moon. The cupuled and painted rocks here at “Burro Flats”, the painted cave at “Burro Flats” framed the solstice and illuminated the Chumash astronomer’s hieroglyphs, or - a “showing of the sacred”. This 2,800 acre plateau, now the Santa Susana Field Lab, and perhaps one day to be open space protected from development, was and is, and where cosmic order is revealed.

The Boeing Company is the current owner of most of the Field Lab, while the western portion of the site is leased to the federal Department of Energy. With the demolition and cleanup process well underway, there is broad interest in preserving the rocket-era history of the site, even as the site exists now, at least for a while, it contains the best remaining examples of Cold War and Space Race architecture alongside a major ceremonial site with some of the best remaining examples of Cold War and Space Race artifacts were created to reach, and curry favor with, the heavens. Harmony of opposites?

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The parallels between the activities of the rocket engineers, the Chumash “high priests” of the Upper World, and the Chumash Astronomers if not somehow directed by the Land itself, if not actually uncanny, are at least entirely unprecedented in their co-location. Nowhere else did two cultures share a space so intensely focused on reaching the heavens in order to learn the secrets and divine the intentions of the sky above, so that the people below might benefit by that knowledge.

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“Old men, powerful doctors, carefully study the horizon and the heavens measuring the movement of the Sky people against the shapes on the eastern horizon and with wooden markers, arguing about the rising times of the stars, sun, and moon.

Anywhere power moves through the Above and Below into the Middle World and speaks to those who have the knowledge-power to understand is kas’ elew.

Doctors paint Their visions on the walls, images that activate the power of what is painted.

In the Simi Hills during the Winter Solstice ceremony at dawn doctors gather to sing and hold rituals in a painted cave.

Focused by a notch in the sandstone cave a small triangle of light, like an arrowhead, pierces a target of five white circles.

The light shifts into the shape of a finger moving, left to right, over the mural’s pecked and polished wall with its red and white figures painted on the blackened rock.

The light renews the life of the images and everything in the world they evoke.”

PALEO-CULTURAL CONTEXT

A scale model of Burro Flats Main Panel (VEN-1072, Locus 160) constructed at Southwest Museum of the American Studies.
The most important archaeological complex at the SSFL is undoubtedly the 25-acre National Register of Historic Places (NRHP) Burro Flats Painted Cave site (#76000539; hereafter BFPC), which has the State of California trinomial CA-VEN-1072, and the primary number 56-001072. The BFPC itself is only the most obvious and elaborate focus of what is a large ceremonial complex, which consists of over a dozen pictograph and/or cupule loci, and which includes 258 associated sites. Note that in 1917 the then-lead of the local Native American community, Don Juan Menendez, explicitly told the anthropologist John P. Harrington that the Portrero de los Burros was a “place of first class importance” —in other words, a sacred place.

The best known and possibly the most important location in the greater SSFL site complex is the “Burro Flats Painted Cave.” It is of special interest that the “main panel” of paintings is still very bright, especially some of the red paintings. Given the freshness of many of the paintings and given the isolation of the area where the Painted Cave is located, it is likely that the “Burro Flats” site may have been one of the last, if not the last, important ceremonial site in the general region. The pictographs at Burro Flats are a remarkable record of prehistoric Native American art. Archaeologists who have visited the site have said that it includes some of the most dramatic and best-preserved pictographs known and is among the finest examples of prehistoric pictographic art in North America.

The site’s 1976 inclusion on the NRHP reflects its significance. While the main gallery is renowned for its aesthetic mastery, vibrant colors, and good state of preservation, the remaining galleries are generally in a poor state of preservation. Their ongoing degradation is a reminder that archaeological sites are often very fragile links to knowledge of the past.
MODERN-HISTORICAL ROCKET ERA CONTEXT

SITE TIMELINE

144 - 65 MILLION YEARS AGO

The Chatsworth Formation is created.

1200 - 1800 AD

Chumash cave dwellers paint pictographs in the caves of the Burro Flats.

1946

The Navaho Program was awarded to North American Aviation by the United States Air Force to study supersonic missiles.

1947

NAA, Rocketdyne’s parent company, selects a site in the Simi Hills known as the Santa Susana Field Laboratory.

1954-1957

NAA builds the Alfa, Bravo, Coca, and Delta test stands under contract with the USAF.

1958

NASA joined the USAF as a sponsor of the Atlas program in 1958. Both the USAF and NASA had SSFL facilities contracts and Atlas development production contracts with Rockwell from the 1960s through the 1980s.

1959

The F-1 Program was established in earnest at SSFL. The F-1 engines were the largest and most powerful produced in the United States.

1964

The 200,000th test is recorded at SSFL, climaxing 13 years of testing components & engines.

1969

Rocketdyne’s hard work culminates with Apollo 11 Mission, landing the 1st Americans on the moon.

1980s

The veil of secrecy is involuntarily lifted by a series of troubling revelations about the environmental issues at DOE nuclear sites.

Image Credit: http://themalibupost.blogspot.com/2015/08/ad-astra.html

Coca Towers Test Stand 2 as seen from Coca Stand 1

Photo credit: Wired Magazine June, 2014

Image Credit: https://www.nps.gov/hdp/exhibits/ssfl/intro/index.html

Image Credit: https://lahistoryarchive.org/resources/SSFL/timeline.html

Source: http://lahistoryarchive.org/resources/SSFL/timeline.html
PROJECT PROGRAM

PROPOSED FEATURES OF THE CENTER TO INCLUDE:

- Central area for meetings with A/V support and lecture space
- Small kitchen area for supporting snacks and refreshments
- Drop-off and pick-up areas
- Administrative Support area (3-6 work stations)
- Lockable areas for equipment storage
- Incorporation of green/sustainable technologies

GALLERIES AND EXHIBITION HALLS (may include):

- Re-deployed Lummis Burro Flats Cave replica as solstice demo
- LIDAR-retail reality videos of Coa Test Stand Fly-Through
- The Stories and Geometry of the Chumash Cosmos
- The Stories and Geometry of Rocket Technology and Space Exploration
- Rotating exhibits (including current cultural and research activities)
- Learning Landscape elements in assisted open spaces

ARCHEOSTRONOMIC
- NIGHT SKY OBSERVATION PLATEAU
- MODERN-HISTORICAL
- COLD WAR INFRASTRUCTURE
- PALEO-HISTORICAL
- POLYCHROME ROCK ART

GEOLGIC
- CHATSWORTH FORMATION

INTERPRETIVE CONTEXT

ECOLOGIC
- MEDITERRANEAN ECOSYSTEM
COMPLEMENTARY PROGRAM

Connect via 9 mile shimiyi trail along spine of Simi Hills
Swordfish pictogram and cupules at the Chumash Center
Painted Cave at Burro Flats

LANG RANCH CHUMASH PROGRAM HIGHLIGHTS
Chumash museum/retail gift shop/picnic site
Outdoor amphitheater
Chumash village and learning outdoor space

LANG RANCH CHUMASH MUSEUM

COMPLEMENTARY INSTITUTE

LANG RANCH CHUMASH MUSEUM
by far the two most important Chumash sacred peaks were 'iwǝhǝnmu and tašololo, for they were located near the very center of the Middle World, the sacred plain called 'antap Plain (Cuddy Valley). When darkness came, it was believed that the spirits lit their fires at this sacred spot and began to dance.
"Cardinal directions bisected the Middle World into ritual quarters, radiating outwards from its center between Mt. Pinos and Frazier Mountain. Chumash astronomers used the phrase choposh 'ulop for East, meaning "heart of the east, where the sun rises."

"Many references point to cardinal directions in prayers as well to make them divert storms and to reference sighting points of certain springs, which were places of supernatural power and were used as curing shrines."

"Prayers and offerings were made to Earth and Sun, as well as to the four cardinal directions. Physical arrangement of ceremonial structures and paths taken by the dancers in those rituals mirrored the sacred compass."
LEYLINES / SOLSTICE ORIENTATION ZONES / INTERPRETIVE ARC

POTENTIAL INTERPRETIVE TRAILS / ACCESS / ORIENTATION / CULTURAL PRESERVE ZONE

SITE ANALYSIS

PROJECT SITE: stawayǝk ‘i’alałpay “sky valley” - former Santa Susana Field Lab
PROJECT SITE (ELV PLATEAU)
SKY VALLEY ACCESS / PROPOSALS CONSIDERED

Alternative A. Vehicles to Boeing NE site (Main Facility) with shuttles to ELV PARC site and Boeing SE cultural zone overlook site (at former CTL 5 site). Guided shuttle to further south than skyline for views of former and preserved rocket testing sites while protecting cultural sites. Pedestrian trails with interpretive kiosk/shelters at overlooks with remote rest room facilities.

Alternative B. Vehicles to ELV as Main Facility with shuttle to Boeing SE cultural zone overlook site (small enclosure here). Guided shuttle no further south than skyline for views of former and preserved rocket testing sites while protecting cultural sites. Pedestrian trails with interpretive kiosk/shelters at overlooks with remote rest room facilities.

Alternative C. Vehicles to Boeing SE cultural zone overlook site (Main facility) plus ELV as Interpretive and “Institute” Facility (campus). Guided shuttle no further south than skyline for views of former and preserved rocket testing sites while protecting cultural sites. Pedestrian trail with interpretive kiosk/shelters at key overlooks with remote rest room facilities.
The historic Rocket Test Bay structure known as the ELV (Expendable Launch Vehicle) Facility sits at the north of the proposed National Monument area, well away from the most sensitive sites and artifacts of this Sacred Landscape, yet offers views and a context similar to that found in the protected areas to the south.

The adjacent northern buffer zone is undeveloped and offers interpretive landscape walk opportunities including potential linkage to longer day hikes within the adjacent public lands and trails, without exposing the critical archeological sites to visitors.

Existing public trails could be linked from Sage Ranch Park along the entire length of the Simi Hills, taking ambitious hikers all the way to the existing Chumash Museum at Lang Ranch, the last stop following the existing Museum’s interpretive trail which also contains evidence of archo-astronomical activity.

The existing elevated plateau provides views of the northern buffer zone landscape, the Simi Valley and the Santa Susana Range Entrance. The elevation of ELV facility plateau also allows for an unblemished view of night sky. The size of this plateau allows for potential supporting facilities, large scale interpretive landscape design and ecological restoration.
The cultural relationship of the ELV story and the proposal include entries which orient themselves to 'iwǝhǝnmu and tašololo, sacred Chumash mountain peaks between which is 'antap, center of Chumash Middle Earth.

The existing concrete wall and the exterior terrain, including Test Bay structures, would be reclaimed; all other structures and surfaces would be removed and remediated.

Orientation of reclaimed elements allows for Winter and Summer solstice events as a design organizing principle. Landform creates circular enclosure, providing Landscape-scale site demonstration of a Chumash ritual and cosmological orientation.

Venturan coastal sage scrub nursery zones and oak woodland restoration habitats are proposed to occupy zones of the ELV plateau post concrete removal and soil remediation.

Coca Test Stand would be partially preserved within interpretive trail. Test stands and associated support facilities become points of interest (either in their current locations, or with elements relocated to interpretive facilities).
Building 206 of the Expendable Launch Vehicle Final Assembly Facility is located in the northern portion of NASA-administered Area B of SSFL. Constructed in 1956, Building 206 began operating in the 1960s and remained active until 2006. It was originally called the Component Test Laboratory II (CTL II), where in four small bays located on the south side of the building, rocket engine components were tested. These components were powered by liquid oxygen (LOX) and petroleum-based fuels and were cleaned using small quantities of trichloroethylene (TCE). From 1978 to 1989, Building 206 housed a machine and welding shop that used compressed gases and lubricating oils. Source: https://ssfl.msfc.nasa.gov/
ELV TEST BAYS

ELV BUILDING TESTING BAYS “(SINCE DEMOLISHED)”
"The Upper World was called 'alapay, mishupashup, or 'alapayashup. It was supported by a giant eagle whose wing movements caused the phases of the moon, and perhaps also solar eclipses. It was occupied by various celestial objects recognized as supernatural beings, Sun, Moon, Morning star, some planets, and significant stars and constellations. These beings were the significant sources of the supernatural power which was acquired, in part, by the Chumash alchuklash."

"'itiyashup was the Middle World, supported by two giant serpents whose body movements caused earthquakes. It was the home of the "First People" supernatural beings, who were ambiguously described as having both human and animal characteristics and behavior; as might be expected, their culture was much like that of Chumash themselves. However, the "First People" were not modern."

"The Lower World was called C'oyinashup and was occupied by nunashish, powerful supernatural beings who were considered generally malevolent and dangerous to man. They were usually depicted in Chumash myths (and rock art?) as deformed and misshapen chumash men, women, and children, for they made their initial appearance in the Middle World prior to the creation of man."
"...Like the neighboring kitanemuk, the Chumash remained indoors during the winter solstice day, in the belief that Sun was especially angry with them at this time of the year. They feared that should they venture out, Sun might take them into his crystal house and eat them."

"The winter solstice was the most critical moment of all because of the possibility that the sun might choose not to return. It also marked the annual finish of nightly ball game played by two teams of sky people, one led by Sun, the other by Sky Coyote (the North Star), with the moon acting as a scorekeeper. The game was an opportunity for the most powerful celestial beings to assert their influence and to upset the balance of nature, the outcome was literally a matter of life and death."

"Human participation in the cosmic struggle reached the climax in the ceremonies of midwinter, which involved the entire community. The public observances lasted for several days, beginning with a gathering of those who had incurred debts over the course of the year."

"The midwinter ceremonies continued for two days and two nights post winter solstice. Among the activities were dances dramatizing the soul’s journey along the Milky Way to reach the land of the dead. The people also erected great feather poles, which were eventually moved to sun shrines located on the local hilltops. The start of the twelve months of the Chumash year was timed according to the solstices and to the rising of important stars on the eastern horizon."

—Early Man and the Cosmos by Evan Hadingham
WINTER SOLSTICE SUNRISE

AT WINTER SOLSTICE SUNSET ELV SHADOW LINE DEGREES SOUTH OF EAST 28.10

ELV BLAST WALL ORIENTATION DEGREES SOUTH OF EAST 30.63

SUMMER SOLSTICE SUNRISE

“Daily rituals and observances were essential for the Chumash priests to interpret the actions of the sky beings. These sky beings seem to have ranked in hierarchy, as was Chumash society itself. First came the sun, believed to be an aged widower living in a quartz crystal house. Who carried a blistering torch on his daily journey across the sky. The moon was a female who controlled human health and the menstrual cycle of women, and also seemed to have been identified with datura, the powerful hallucinogen drank by shamans to perform cures and forecast the future.

The twin appearances of Venus seemed to have been treated separately by the Chumash. The morning star was benevolent, perhaps associated with rain; in contrast, the Evening star was the hated chief of the underworld, probably the giant golden eagle who removed and ate the bones of people from the middle world. Another celestial bird, the California Condor possessed magic clothing that allowed him to locate missing objects or persons.”

- Early Man and the Cosmos by Evan Hadingham

WEEKS PRECEDING WINTER SOLSTICE SUNRISE SOUTH OF EAST ORIENTATION AT HORIZON
East facing ELV Building Wall used as sundial markers for weeks preceding winter solstice sunset events.
Chumash interpretive arc designed as engaging ELV existing walls by way of rustic earthen entry ramp connecting to north building test bays.

This rustic piece follows an interpretive arc path into what is expected to be a heavily excavated zone directly west of ELV, articulated into a sunken interpretive space.

Narrative of landscape restoration and contaminant removal is established here and a space analogous to Chumash Lower World is open to interpretation for site visitor.

Initial schematic design of adaptive reuse of the ELV building.

Interpretive opportunity of contaminant removal process designating portions of existing ELV as an exposed ruin.

Extracted soil will reveal building structure below ground plane creating physical and spiritual zone analogous to Chumash Lower World.
Old Men, powerful doctors, carefully study the horizon and the heavens measuring the movement of the Sky people against the shapes on the eastern horizon and with wooden markers, arguing about the rising times of the stars, sun, and moon.

Anywhere power moves through the Above and Below into the Middle World and speaks to those who have the knowledge-power to understand is Kas’ elew. Doctors paint or carve their visions on the walls. Images that activate the power of what is painted.

From Sacred Sites: The Secret History of Southern California by Susan Suntree
ARCHITECTURAL ORGANIZATION

1. Ground level Piano Rastico serves as a landscape component entry ramp connecting the interpretive center building to its greater landscape. Radius of this ramp is derived from the location of radii of adjacent geologic formation.

2. Interpretive Zone on the south face of the ELV Wall holds the Ravenswalk. This slot marks the journey of the sun on the eve of Winter Solstice sunset and becomes an exterior circulation zone connecting the entry space to exterior excavated bay space.

3. Two ELV West Entry bays which “are expected to have the heaviest clean-up excavation” are designed as exterior exhibit spaces housing relics of Cold War and pale-ohistorical significance.

4. 'antap Gallery, the main volume of the Interpretive Center is designed to engage and climb over ELV walls, with the skin of the facility appearing as a woven surface reminiscent of a Chumash vessel or shelter.
The ‘antap Gallery enclosure is designed to demonstrate and celebrate Chumash culture through its materiality. Native basketry making methods and patterns, obtained from traditional weaving methods combined with ‘ap adobe construction methods lend logic to creation of ‘antap enclosure.

In Chumash native basketry making techniques, horizontal densifying and layering of material is hung onto vertical structure. Utilizing this method, ELV interpretive building uses horizontal bands of native material to anchor vertical pieces of siding. Inherent porosity of the structure derived from incorporation of this system allows for natural light to filter into gallery spaces.

CHUMASH BASKET WEAVING METHODS

The Chumash house or ‘ap was round and shaped like half of a sphere. It was made by setting willow poles in the ground in a circle. The poles were bent at the top, to form a dome. Then smaller saplings or branches were tied on crosswise. To cover the outside, bulrush or cattails were added in layers starting at the bottom, each row overlapping the one below. Like shingles on a roof, this thatched covering kept out the rain.
The ELV WALL is not only the best element of the historic test structures remaining in the north of the site, it is also uniquely oriented:

coincidentally corresponding to a line connecting the sunrise at summer solstice with the sunset of winter solstice. Due to this uncommon alignment, its shadow begins to tell a story about Sun and his daily and seasonal journey through 'alałpay that is analogous to that told by the protected solstice rock art located within the cultural preserve areas of the SSFL (‘SKY VALLEY').

The large openings where the southern ELV blast wall wraps the northern on the east and west ends, symbolically and actually orient toward the two sacred Chumash peaks, 'iw ǝhǝnmu and tašololo (Mount Pinos and Frazier Mountain), addressing them as all ceremonial Chumash structures once did, framing the 'antap plain that is the heart of the Chumash Middle world, the 3-dimensional center of their universe.

Since the proximity of the southern test stand sites to the critical cultural resource areas precludes locating major interpretive facilities there, retaining and re-using the historic and monumental blast walls of the ELV can help tell the Cold War ‘space race' story, while also providing the main structure for large and flexible display galleries.

In the current schematic design proposal commissioned by SYBCI, the main volume of the Interpretive Center is designed to engage and climb over those walls, with the skin of the facility appearing as a woven surface reminiscent of a Chumash vessel or shelter, offering views of the sandstone ridges of the proposed 'alałpay National Monument to the south, with night sky viewing of the North pole star and the Small Bear constellation (another indigenous and western coincidental naming) and daylight viewing of the unblemished buffer landscape to the north.

- Clark Stevens
The western edge of the existing ELV structure bays is anticipated to undergo the heaviest soil removal and contamination clean-up process. Current schematic proposal plans designate these two bays to be used as exterior gallery spaces, with the occupiable ground floor sunken to excavated ground plane. Volume of the two bays will allow for rotating exterior exhibit and the sunken earthen floor plate will serve as a space analogous to Chumash Lower World zone. The tałolo ceremonial entry zone will also occupy this space, with portal to wildlife and nature interpretive space north of the ELV building. Spatially, the excavated bay of the ELV will serve as a circulation corridor connecting exterior gallery space to the Ravenswalk winter solstice marker zone.

The interpretive zone on the south face of the ELV Wall holds the Ravenswalk. This space, articulated between the existing ELV wall and a newly created wall marking the line of Winter Solstice sunset line, becomes a slot through which one can descend along the existing structure to lower levels of the ELV, taking advantage of expected cleanup excavations, descending through a zone of perpetual shadow. Ravenswalk is a part of a greater interpretive zone facing the south side of the ELV building wall, a zone in which weeks preceding to and from winter and summer solstices are marked on the ground and Chumash sacred order and practices are revealed. Interpretive narrative illustrates the story and tradition of the practitioners who worked to ensure that Coyote defeated Raven so that the Sun would return to its home in the north each year and not leave humans in perpetual night.
Monument status of the SSFL site will help protect not only the ecological diversity and viability of the existing habitat but also that of the entire Santa Monica Mountains’ ecosystem, as well as the Simi Hills’ ecosystem it currently anchors.

Preservation of the existing landscape will allow for creation of a reserve of native and endangered plants and animals, and protection of up to 60 acres of existing oak forests so diminished elsewhere throughout Ventura and Los Angeles Counties.

- Clark Stevens
ADDENDUM

SKY VALLEY CRITICAL HABITAT LINEAGE
SKY VALLEY AREA 2 FORMER NASA ZONE REMEDIATION ZONES MAPPING
HISTORICAL SITE MORPHOLOGY AND USE
POST CONTAMINANT REMOVAL HABITAT RESTORATION
INTERPRETIVE LANDSCAPE / TRAILS

‘ala‘apay INTERPRETIVE CENTER PROJECT SITE PLAN
The 2,800 acres of the SSFL, including the NASA-Administered Area 2, are situated within a critical wildlife corridor connecting the Santa Monica Mountains to the Santa Susana Mountains and Los Padres National Forest. The currently unoccupied landscape is just large enough to provide a vital stepping stone habitat, connecting the Santa Monica Mountains with its source of sustainable biodiversity.

The relatively undivided and sparsely developed Simi Hills and Santa Susana Mountains (SHSSM) are of great importance to the people and land managers of the region, as they represent the core areas of a primary habitat linkage that provides the Santa Monica Mountains (SMM) with the source of its sustainable biodiversity.

The SSFL zone is the heart of the habitat linkage that is most critical to maintaining the ecological health of the entire Santa Monica Mountains ecosystem, as well as the Simi Hills ecosystem currently anchors.

CRITICAL HABITAT LINKAGE

The relatively undivided and sparsely developed Simi Hills and Santa Susana Mountains (SHSSM) are of great importance to the people and land managers of the region, as they represent the core areas of a primary habitat linkage that provides the Santa Monica Mountains (SMM) with the source of its sustainable biodiversity. The SSFL zone is the heart of the habitat linkage that is most critical to maintaining the ecological health of the entire Santa Monica Mountains ecosystem, as well as the Simi Hills ecosystem currently anchors.
The ELV site of NASA administered Area 2 contains significant zone of support facilities for test stands due south. Horizontal and vertical alteration of exposed sandstone formation as well as former landscape grazing, followed by significant zone of concrete paving surfaces, have notably altered the ELV plateau. Restoration of the landscape provides an opportunity for native oak woodland and venturan coastal sage nursery zones and augmentation to adjacent northern hardwoods.

Current hardscape, infrastructure, support structures, power facilities and soil treatment systems situated at ELV building zone plateau.
As rare as this convergence of aspirations from widely separated era and cultures is the opportunity to interpret Native American cultural resources within the largely intact ecological systems that supported their activity and informed their cosmology.

The oak woodlands, the horizontal and sectional geometry of the exposed rock formations and the converging valleys all contributed to the inevitability of this site as the Chumash place of vision. Observation of the horizon allows for the support of the cause of Coyote in his yearly contest with Raven to bring the sun back from its journey south and diminishing day-life. 

- Clark Stevens

Oak woodland restoration zones, based on historical images, and venturan sage scrub habitats to occupy portions of restored landscape post concrete removal and soil treatment.

POST-CONTAMINANT REMOVAL HABITAT RESTORATION

1. Historical aerial image of native coastal live oak locations.
2. Current aerial site image of ELV structures, hardscape and ecology.
3. Current oak woodland and venturan sage scrub habitat
INTERPRETIVE LANDSCAPE/TRAILS

ECOLOGICAL VIEWSHED Places and zones that provide interpretation of nearby ecology and habitat, the northern buffer zone and skyline rock formation, as well as the site remediation process.

DAY HIKE TRAILS Starting off points from ELV zone that link to trails connecting the Sag Ranch north trail and the Skyline guided walk interpretive path.

ECOLOGY OF COAST LIVE OAK Landscape restoration is a part of interpretive context of soil remediation, ecology and the watershed management.

ARCHEO-ASTRONOMY Existing artifacts of archeo-astro-nomical significance and zones of native activity will be highlighted as places of reinterpretation.

HISTORICAL RE-USE A portion of the Coca Tower Test Stand will be incorporated as a physical historical artifact of modern historical activity of the area.

GEOLOGY Significant geologic formations will be utilized as a part of learning context of previous site alteration of the landscape and the cosmological relation.

PLANT ECOLOGY Endangered venturan coastal sage and various other plant life ecology will be a part of this site interpretation.
The proposed SSFL National Monument act will protect the ecology as well as the history of the site, providing an educational and recreational resource to the millions of inhabitants who live within minutes of its border. Protection and careful restoration of this multi-layered historical landscape will allow for re-telling of landmark events born in this place.

This storied landscape frames an extraordinary history for two significant periods of our collective indigenous and modern cultures - to which we may add a yet unwritten and important story of cultural and ecological landscape conservation in one of the world’s most populous urban regions.

The connecting link across the centuries between the paleo-astronomical and modern-era exploration of the heavens is an overlay of unprecedented interpretive significance, found only in this place, and so is an educational resource worthy of preservation and celebration, within the context of appropriate remediation and sensitive stewardship.