

# HINTERLAND

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*The notions of centrality give people a security and certainty because it's also a place where most people gather. But they tend to forget the fringes... You really can't get rid of this notion of centrality nor can you get rid of the fringes and they both sort of feed on each other. It's kind of interesting to bring the fringes into centrality and the centrality out to the fringes.*

*-Robert Smithson*



**HINTERLAND**

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The Center for Land Use Interpretation is a  
nonprofit research organization dedicated to  
a better understanding of land use issues.

# HINTERLAND

*A Voyage Into Exurban Southern California*



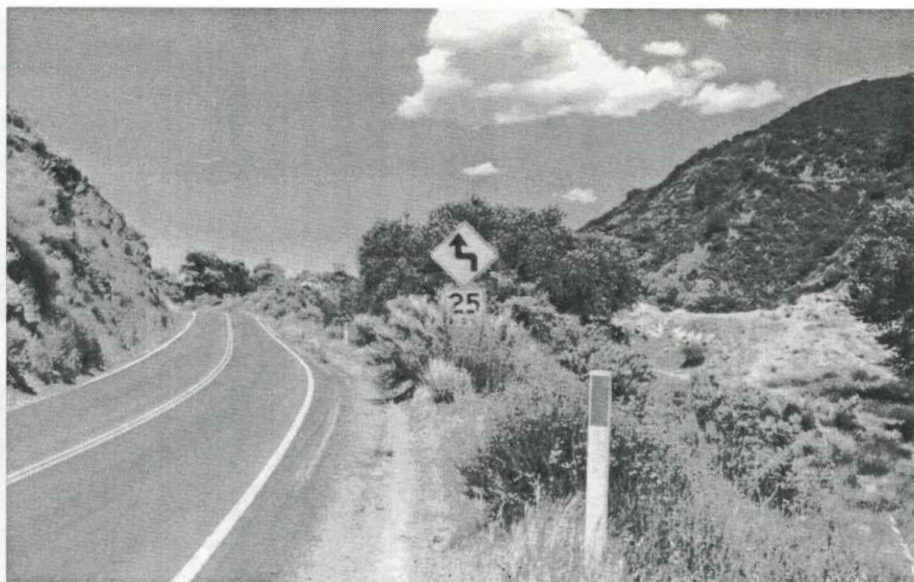
*The great cities of the world comprise only a fraction of the spectacular feats of modern man... Out in the hinterland lie the uncharted monuments and spoils of exponential technological advancement, and it is only by considering these that we may assess the real value of our cities and our modern way of life.*

*-Damon Farragut*

Beyond the mountains that ring the urban areas of Southern California lies the Hinterland. It is a land of many uses, and one that engenders a full spectrum of perceptions. This mostly desert terrain is a place that accommodates extremes: proving grounds, heavy industry, waste sites, and recreational zones. It tolerates a kind of freedom that expands the margins of society, and is refuge for radical visionaries and rebels, who at times create inspirational monuments of individual endeavor.

Geographically speaking, the urban coast of Southern California has almost no context. Twenty million people live on this "island on the land," as it has been called, and the great expanse that surrounds this *desert island* is commonly perceived as an empty space. This is the landscape of the post-apocalyptic B-movie and the dry lake of automobile advertisements. This is that space, but there is more to the hinterland.

The Hinterland exhibit attempts to put a face on this landscape, to describe it not conclusively, but in selective glances that illustrate its variety and complexity. Out here, in the shadow of the city, we find cultural elements which have had the space to expand into new forms and proportions. By examining this landscape, and the human induced modifications to it, we come to a better understanding of ourselves and our possible futures.



1

### **San Francisquito Dam Failure Site**

The failure of a dam at this site in 1928 is considered to be one of the worst disasters in American history. Over 450 people were killed when the entire contents of the reservoir, with an initial wall of water 200 feet high, washed through the Santa Clara River Valley, taking parts of the towns of Piru, Fillmore, and Santa Paula along with it, before washing out to sea at Ventura, 55 miles away. William Mulholland, builder of the L.A. Aqueduct, who as Chief Engineer of the City of Los Angeles was responsible for the dam's design, inspected the dam twelve hours before the disaster, and declared it safe. He retired soon after the accident, and stated that he envied the dead.

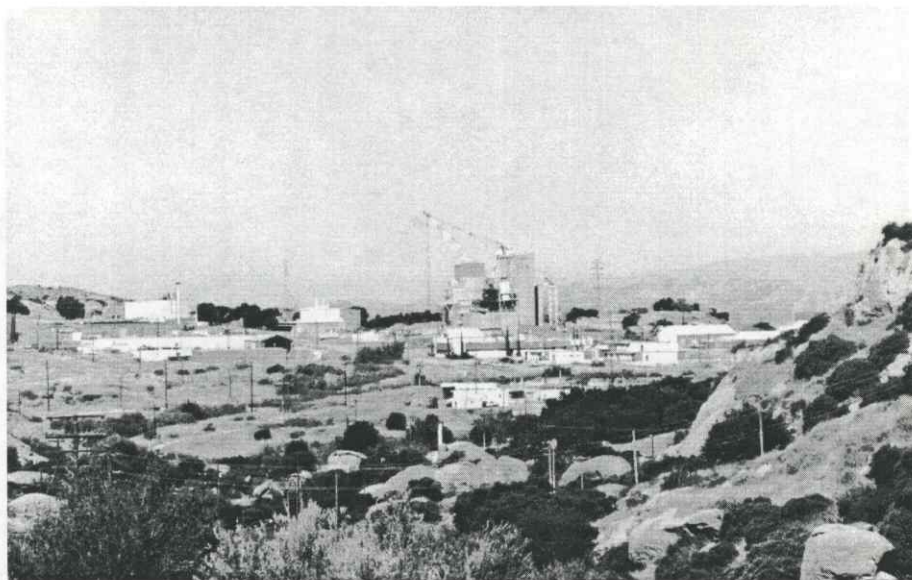




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### **Golden Oak Ranch**

Movies filmed at this 700-acre movie and television production ranch include "Zorro," "Little House on the Prairie," and "Swiss Family Robinson." It has been owned by the Disney company since the 1950's, and is one of several "movie ranches" in the Santa Clarita Valley area.

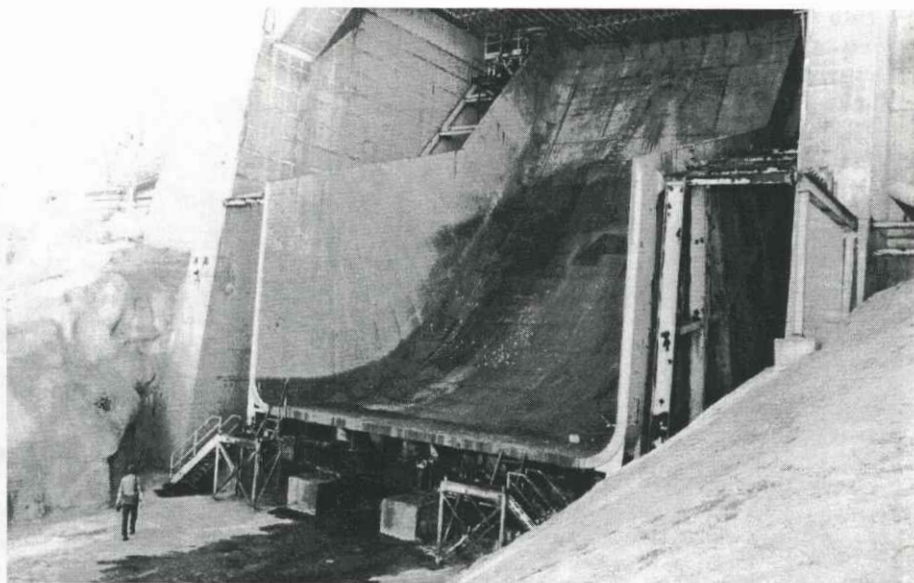


3

### **Energy Technology Engineering Center, Santa Susana Field Lab**

Nuclear technologies related to space flight, defense programs, and liquid metal reactors, in addition to solar energy and remediation technologies, are developed here. The lab is located on 90 acres within Rocketdyne's rocket field test facility. Nearby Moorpark claims to be the first community lit by commercial nuclear power, from a plant at this facility, though Arco Idaho makes a similar claim.





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### **Rocketdyne Field Laboratory**

This major aerospace and propulsion R&D complex contains 13 rocket engine test stands and other field test facilities. Located on 2,700 acres in the Simi Hills, it is the primary field test site for Rocketdyne, one of the leading suppliers of rocket technology to NASA and defense organizations. The Apollo rocket engines were tested here, as were the early V-2 rockets of the German rocket pioneer Wernher Von Braun, who worked at the site.



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## Tejon Ranch

One of the largest privately-owned parcels of land in Southern California, the Tejon Ranch was first amassed by General Edward Beale in the 19th century, and is now owned by a group that includes Los Angeles's historical Chandler family. The 420 square-mile (270,000 acre) property in the Tehachapi Mountains reaches from the Antelope Valley to the San Joaquin Valley.





### A. D. Edmonston Pumping Plant

The largest pumping station in the State Water Project, this plant raises the California Aqueduct's water 2,000 feet over the Tehachapi Mountains, after which it is all downhill to Los Angeles. The California Aqueduct is the primary component of the California State Water Project, a network of dams, reservoirs, pumping stations, and 550 miles of canals and major conduits, that distributes water from Northern California to the agricultural industries of the San Joaquin Valley, and to the metropoli of Southern California.

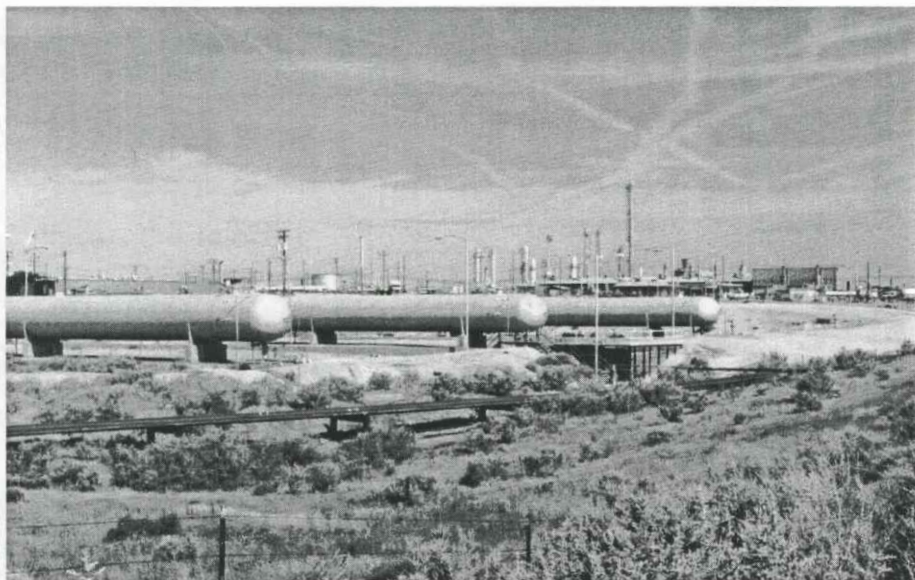


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### **Tehachapi Loop**

Due to the steep grade, railway engineers building the Southern Pacific/Santa Fe rail line in the 1870's made a loop in the Tehachapi area, where the track makes a full circle over itself to gain altitude. This is a tremendously popular attraction for railway enthusiasts, or "railfans": the local Chamber of Commerce estimates that 30,000 people visit the loop each year.





### **Naval Petroleum Reserve #1 and #2**

This federally owned oilfield has produced over 1 billion barrels of oil since 1912, and is the largest producer of natural gas and natural gas liquids in California. The Reserve was set aside by the federal government as a Petroleum Reserve for the Navy in 1912. The Elk Hills Reserve is now operated by the Department of Energy and has been selling its crude oil on the commercial market since 1977.



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### **Frito Lay Kern Plant**

The world's largest Dorito factory, Frito Lay's Kern Plant provides the Los Angeles area with potato chips, pretzels, and Doritos. About 80 million pounds of product is produced here annually, and the plant employs 500 people. It is suitably located in an industrial agriculture and oil producing area.

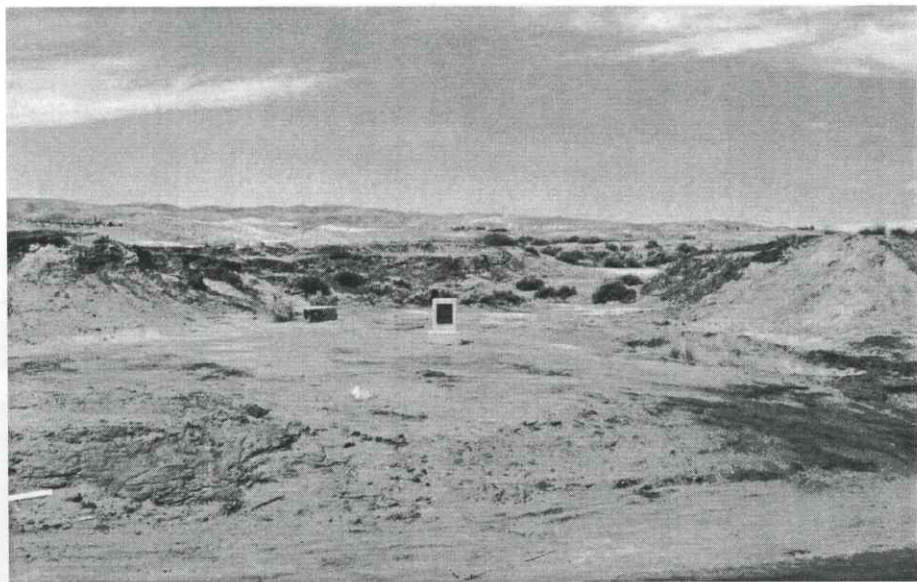


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### **Laidlaw Lokern Hazardous Waste Facility**

A hazardous waste dump operated by Laidlaw Environmental Services. The 320 acre facility accepts wastes from petroleum-related industries, such as soils contaminated by chemicals from extraction and refining operations.





### **Lakeview Gusher**

The most productive single oil well in California, this gusher spewed as much as 90,000 barrels of oil a day, for 18 months, when it was first tapped in 1910. A 60-acre lake of oil formed on the site, on which several people floated about in small skiffs. Eventually 2,000 wooden oil derricks were erected to drill for oil in the area. The site is now marked with a stone monument.



### **Abandoned Photovoltaic Array**

ARCO built the largest photovoltaic array in the world here in 1983, with 100,000 one-foot by four-foot photovoltaic panels that tracked the sun, producing 5.2 megawatts at its peak, in the high and remote Carrizo Plain, one of the sunniest places in the state. Over the following ten years, federal support declined and the panels degraded, finally making the 177-acre solar power plant no longer economically viable. The last owner, the Carrizo Solar Company, recently dismantled the facility, and sold off the panels to buyers all over the world.



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### California Valley

California Valley was an attempt at development of the high and dry Carrizo Plain, a wide, remote valley in the mountains west of the San Joaquin Valley. In the 1950's and 1960's, house lots were sold for small sums, often to buyers who were acquainted with the site only by brochures. Most of the lots were never built on, and the motel and gas station in town are open only occasionally. Much of this valley is now managed by the Nature Conservancy.





### California Men's Colony

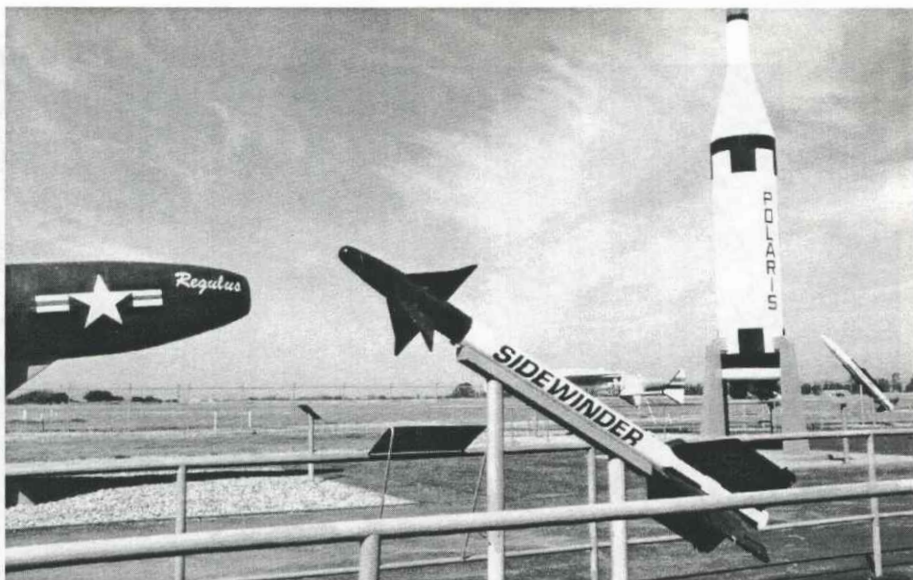
This correctional facility, the California Men's Colony, is located on the grounds of Camp San Luis Obispo, a National Guard training site. The 356-acre complex houses almost 7,000 inmates, most in medium security facilities (security levels II and III). For years this was the largest correctional institution, in number of inmates, in the country, until it was surpassed this year by a prison in Soledad, which is itself about to be surpassed by a new facility under construction at Corcoran, in the Central Valley.



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### **Vandenberg Air Force Base**

A major military and aerospace site, Vandenberg is one of only two space launch facilities in the country (the other is at Cape Canaveral, Florida). This remote Central California base covers 98,400 acres, has 35 miles of coastline, and a population of 13,000 (though several thousand workers live off base). Several hundred satellites have been launched into orbit from facilities at South Base, including numerous classified payloads. All nuclear missile silo operators train here, and ICBM missiles, launched from the north launch complexes, strike impact sites more than 4,000 miles away in the Pacific.



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### **Point Mugu Naval Air Weapons Station**

A static missile display is the only portion of the Naval Air Warfare Weapons Station at Point Mugu which is open to the public. The weapons station is a 4,490 acre, heavily developed site. It is a research and development, test and evaluation center for the Navy, and has been developing missiles, drones and target vehicles since WWII. Point Mugu is a principal component of the Naval Western Range Complex, a network of air and ground space used for missile testing and training which includes 36,000 square miles of air and sea space off the coast of Point Mugu.

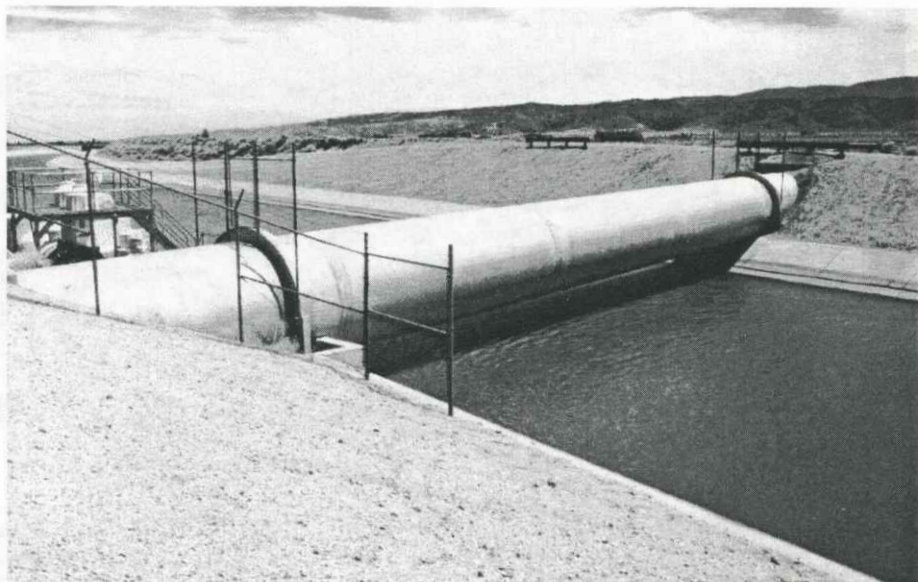




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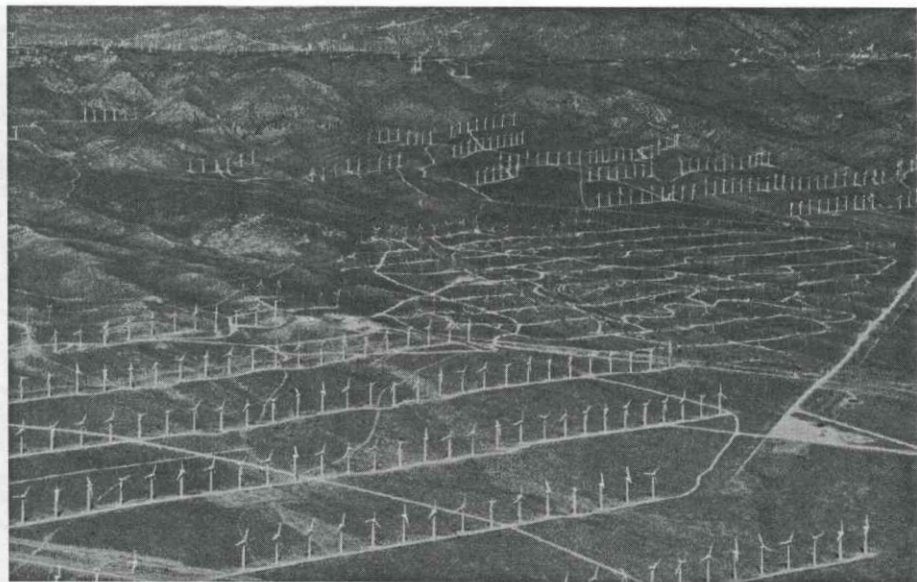
### **Ten Commandments Archeological Site**

Under the sand in the Nipomo dune field is the Egyptian set from Cecil B. DeMille's epic movie "The Ten Commandments", dynamited and buried there by the crew after shooting ended in 1923. 1,600 workers were employed to build the plaster and wood set for the month-long shoot, a set which included an avenue of 21 sphinxes, four 35-foot tall Pharaoh statues, and 110-foot tall gates. Strong winds across the coastal dunes are gradually exposing the remains.



### **Los Angeles/California Aqueduct Intersection**

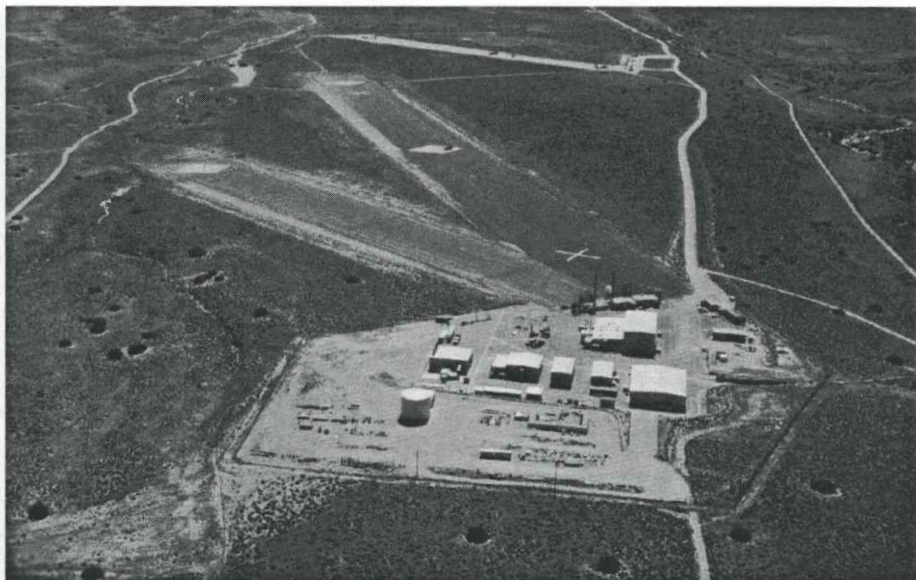
Two of the three aqueducts that supply water to Southern California cross at this point in the Antelope Valley. Water in the Los Angeles Aqueduct which, for much of its course from Owens Valley flows in conduits buried underground, passes over the California Aqueduct's water, which flows from the Sacramento area mostly in open canals.



### **Tehachapi Wind Farm**

The Tehachapi Wind Farm, with 5,000 wind turbines, is the second largest collection of wind generators in the world. The turbines are operated by a dozen private companies, and collectively produce about 800 million kilowatt-hours of electricity, enough to meet the residential needs of 350,000 people every year. With over 15,000 turbines in the state, wind power makes up about 1% of California's electricity, and more than 80% of the world's total wind-generated electricity.





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### **Northrop's Tejon Ranch Radar Cross Section Facility**

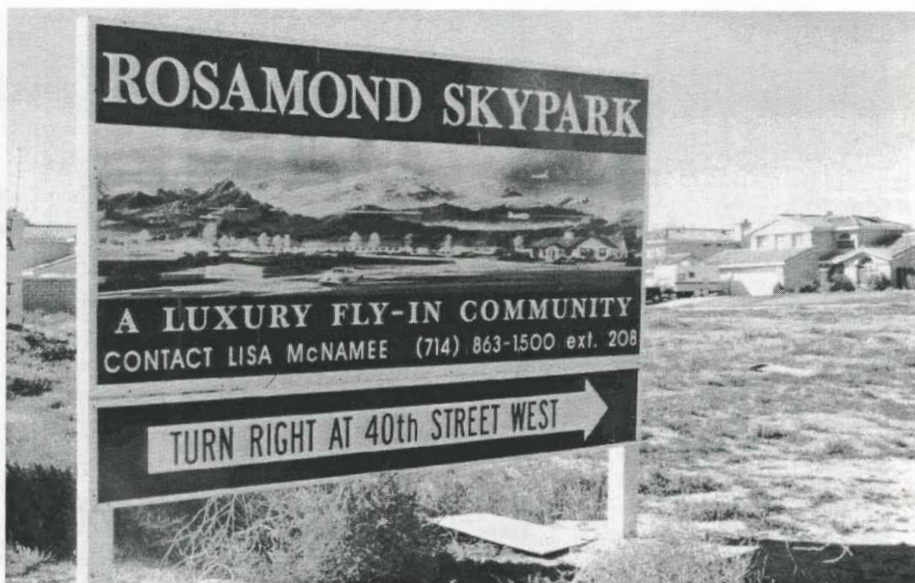
This is one of three outdoor radar test ranges operated by aerospace companies in the Antelope Valley. This secure facility, located on the Tejon Ranch property, is operated by Northrop Grumman, and was built in the mid 1980's to pursue the development of Stealth technologies, such as those employed in Northrop's B-2 Stealth Bomber. At one end of the range is an array of radio and radar dishes used to measure the radar profile of the test object, which is mounted down the range on a triangular pedestal.



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### **Willow Springs Raceway**

The Willow Springs Raceway is one of Toyota's primary proving grounds, and also hosts racing for many types of vehicles. Car companies, racing teams, and individuals test and develop vehicles using the 2.5 mile long, high speed loop, called "the fastest road in the west." People can bring their own street cars here and drive as fast as they like.



### **Rosamond Skypark**

In addition to a two-car garage, each home in this planned community has an airplane hangar, connected to the runway of a small airport. While many of the residents are retirees with recreational pilots licenses, some of the residents do commute to work in their airplanes. This is the only such "fly-in" community in Los Angeles County.





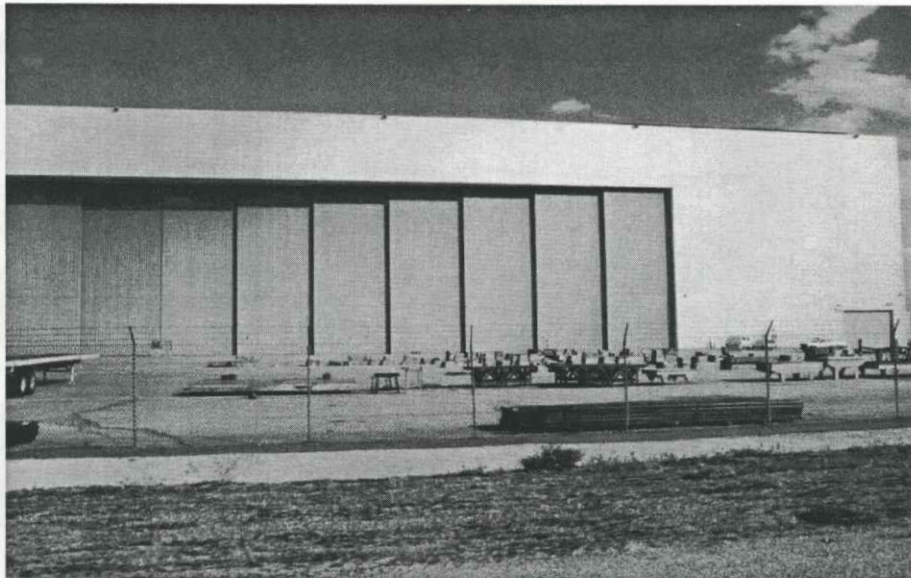
### **Mira Loma Detention Facility**

Approximately 5,000 people are incarcerated within the walls that surround this square-mile block, west of Lancaster. Mira Loma is one of Los Angeles' newest prisons, and is located in this complex of State and County facilities. California's prison population now totals approximately 150,000.



## Air Force Plant 42

Aircraft developed at this R&D and assembly complex include the B1-B bomber, the B-2 stealth bomber, and the space shuttle. Contractors at the site, including Northrop-Grumman, Rockwell/Boeing, and Lockheed-Martin's Skunk Works, work in over eight million square feet of contractor-owned buildings, surrounding a restricted runway. Air traffic to other Air Force test sites, including the nearby Edwards Air Force Base, and Nevada's Area 51, is heavy.



### **Lockheed Skunk Works**

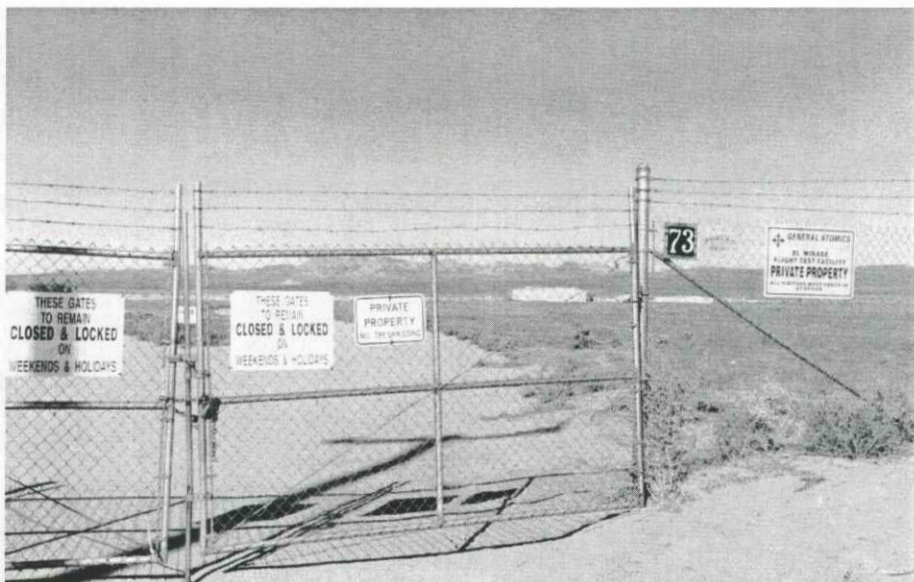
The U2 and SR-71 spy planes, the F-117 Stealth Fighter, and other past and present advanced military aircraft were developed and built at Skunk Works, now located adjacent to Air Force Plant 42 in Palmdale. Lockheed's former locations at Burbank Airport and Ontario were vacated by Lockheed and other aerospace contractors, in favor of this more remote and secure location, which is nearer to flight test facilities at Edwards Air Force Base.





### **Aircraft Scrap Yard**

An aviation parts yard, with an unusual collection of aircraft hulks and fuselages, used primarily by the movie industry. Pieces from this yard have been trucked all over the country and used in over 300 feature films, including "Speed", "Hero", and "Con Air". This 15-acre site is Aviation Parts Warehouse Inc.'s largest yard, though the company owns several other properties.



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## El Mirage Flight Test Facility

Unmanned Aerial Vehicles (UAV's), small, remotely operated aircraft used primarily for intelligence gathering, are flight tested at this aviation R&D location, owned by General Atomics. The facility consists of a single hangar structure, support buildings, and a runway, adjacent to El Mirage Dry Lake.



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### **George Air Force Base**

Most of George Air Force Base is abandoned and in a state of slow decay, but as many of the buildings were constructed during the 1970's and early 1980's, they are still in good condition. The city of Victorville is eager to develop the runway area as the Southern California International Airport, and some local businesses have begun moving in. Before closure in 1988, it was home to a tactical fighter wing, and employed around 5,000 people.





### Edwards Air Force Base

Edwards is primarily known for its history of flight testing and experimental aircraft evaluation (it is where Chuck Yeager broke the sound barrier), and it is where just about every aircraft in the U.S. military inventory has been tested. Flight testing at Edwards takes place in the skies above the base and over the surrounding public land, and at ranges all over the Southwest. Most of the facilities surround Rogers Dry Lake, a naturally flat, 44-square mile landing area, which first drew flight researchers to this location.



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### **Phillips Laboratory**

One of the largest collections of propulsion development facilities and rocket test stands in the country, scattered over 65 square miles on and around Leuhman Ridge, Phillips Laboratory is an Air Force lab concerned with directed energy weapons, space-related defense, and propulsion systems.

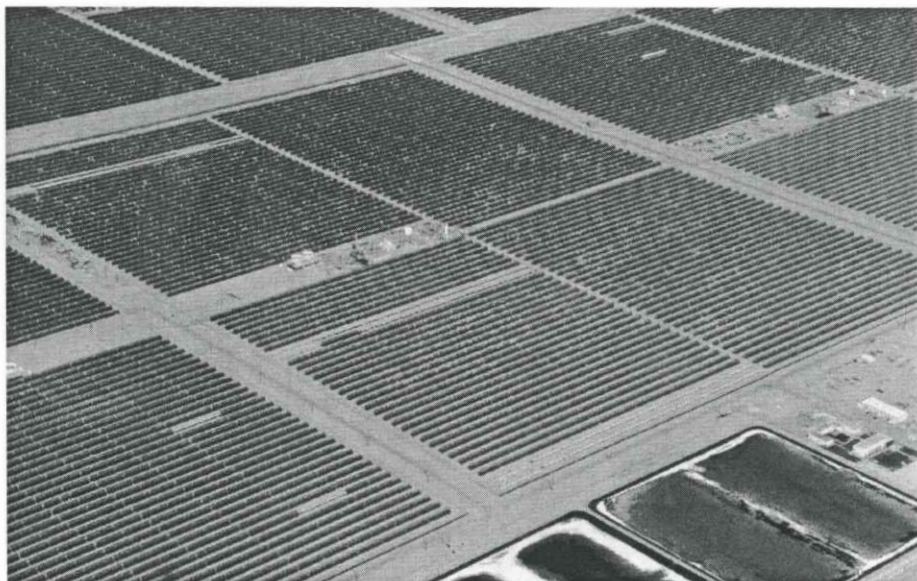


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### **Dryden Flight Research Center**

A NASA flight research and test complex, located within the Edwards Air Force Base perimeter, Dryden is used primarily for flight characteristics research, and is a western port for the space shuttle. Dryden was involved in the pioneering days of jet flight and the "X" series of experimental aircraft, which were the first to break the sound barrier and which flew at speeds up to seven times the speed of sound.





### **Kramer Junction Solar Electric Generating Station**

The largest solar array in the world, the KJC array produces 150 megawatts of electricity, and is one of three separately-owned solar plants within 40 miles of one another, which collectively generate about 90% of the commercial solar power currently produced worldwide. These solar facilities are referred to as "advantageous peak facilities," as they operate at their peak when it is sunniest, and when local power requirements are greatest, due to increased air conditioning demand.



### **U.S. Borax Boron Mine**

This mine is the largest borate mine in the world, supplying more than half of the world's borates, which are used in numerous products, from soaps to jet fuels. The mine and refinery complex was established in the late 1920's; prior to this time, borax was mined out of Death Valley and hauled to the railway at Mojave by the famous "20-mule team." This mine consists of a 500-foot deep pit more than a mile long by one half mile wide.



## Mojave Airport

Many commercial carriers store surplus airliners at Mojave, including several 747s, and there is a major aircraft scrap yard at the east end of the runway. A large civil airport with next to no commercial flights, Mojave Airport is an aircraft development and aviation services site, and home of the National Test Pilot School. Several aerospace companies have facilities here, including GE, and Burt Rutan's Scaled Composites company, where many innovative aircraft designs have been conceived and constructed.

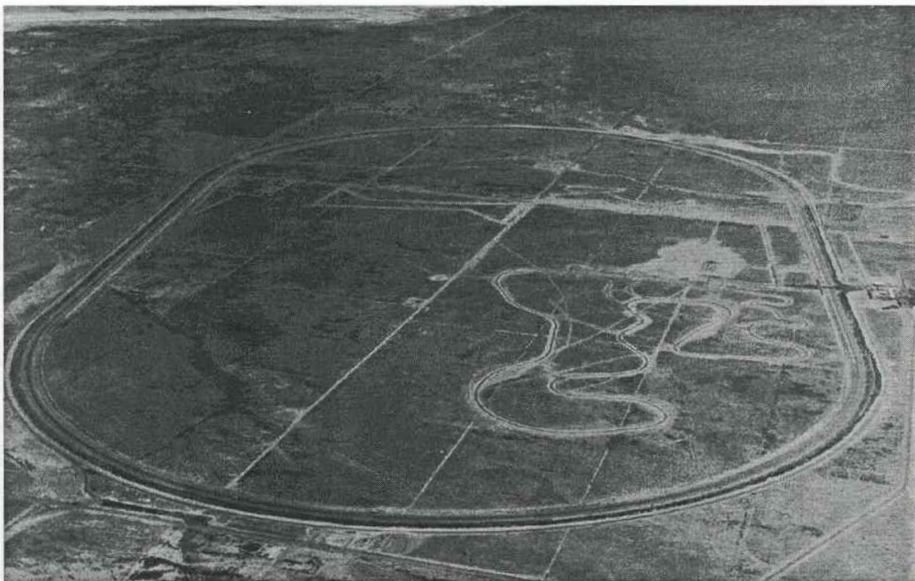


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### **Los Angeles Aqueduct**

The Los Angeles Aqueduct supplies Los Angeles with about 70% of its drinking water. The original aqueduct was gravity-powered: the water flowed down-hill from Owens Valley to Los Angeles. At some locations it is enclosed in 12-foot diameter steel pipe, to create a siphon so that the water flows up the sides of valleys. Today's Los Angeles Aqueduct is a system 350 miles long, and is actually two parallel aqueducts, a few hundred feet apart from one another. The first aqueduct was finished in 1913, and the second built in 1970.





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### **Honda Proving Center**

A field test complex, owned by the research and development division of the Honda Motor Company. Despite its size, the complex strives to keep a low profile and is hard to see from public roads. Facilities include a 7.5-mile automotive track, assembly buildings, and test courses which model the types of roads found in North America.



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### **Burro Schmidt Tunnel**

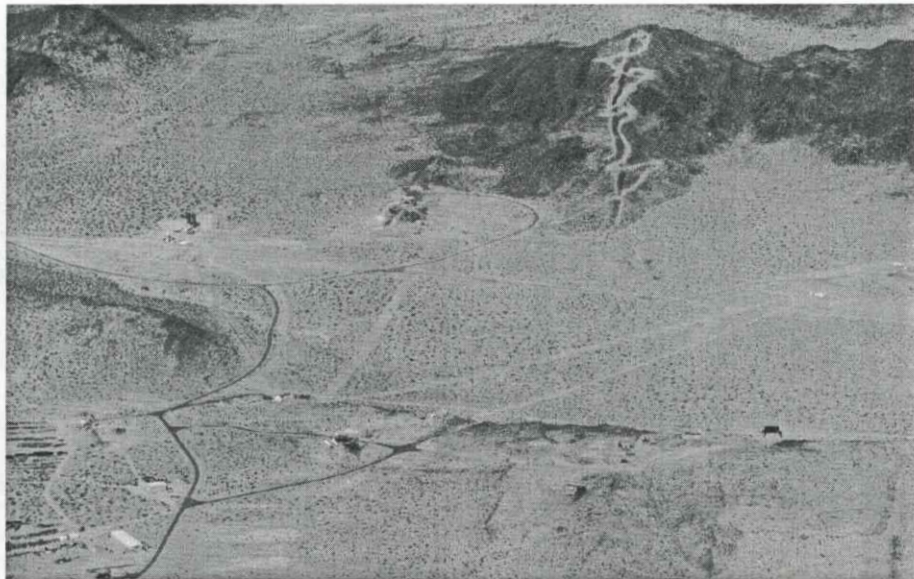
This 2,000 foot-long tunnel, approximately seven feet in diameter, was chiseled through a mountain by William Henry Schmidt with hand tools and explosives. Begun in 1906 as a means of transporting ore from his mine to the processing site, Schmidt devoted the following 32 years of his life to digging the tunnel, until he broke through the mountainside on the other end.



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### **Yellow Aster Mine**

One of the largest gold mines in California, the Yellow Aster has been producing for over 100 years. The three mines in the complex, all around the inhabited "ghost town" of Randsburg, and owned by the Rand Mining Company, produce 80,000 ounces of gold (worth around \$34 million) per year. The historic mining district is littered with hundreds of abandoned mine shafts and debris, on public and private land.

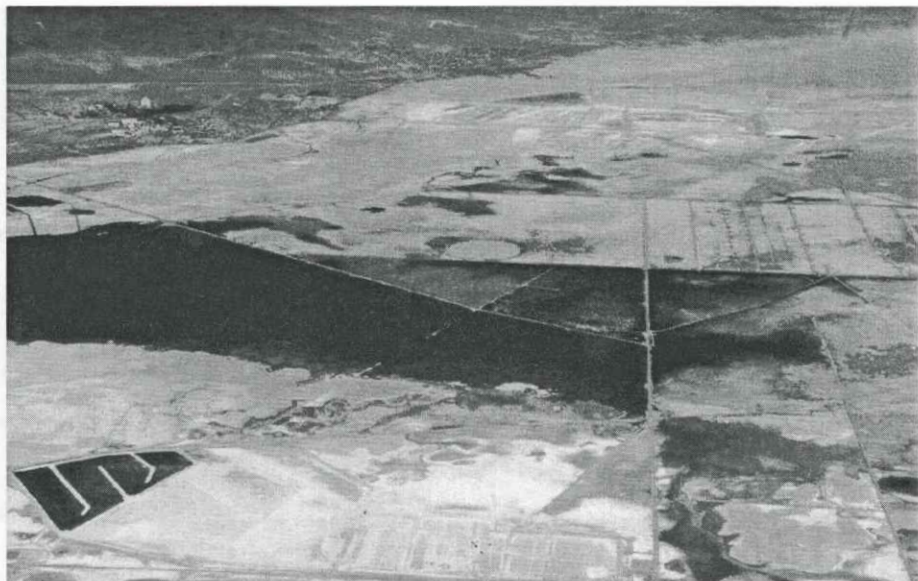


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### **China Lake Naval Weapons Testing Center**

A vast weapons development facility and testing range. Almost every munition in the U.S. arsenal has been tested within this 1,723 square mile (more than a million acre) facility. Numerous laboratories and test ranges, located mostly in the north area of China Lake, support weapons development. In the southern portion of the reservation are electronic ranges that support personnel training and weapons proving.





### **Searles Lake**

The sediment of this dry lake bed, located in the isolated southern end of Panamint Valley, is said to contain traces of all known elements, and has been mined for several decades by local industries. The North American Chemical Company is the current operator of the mining and processing complexes around the lake, extracting primarily soda ash (used in detergents) and borax. The company town of Trona, located next to the main plant, is home to the families of the 750 people that work at the plants.



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## Goldstone Deep Space Tracking Center

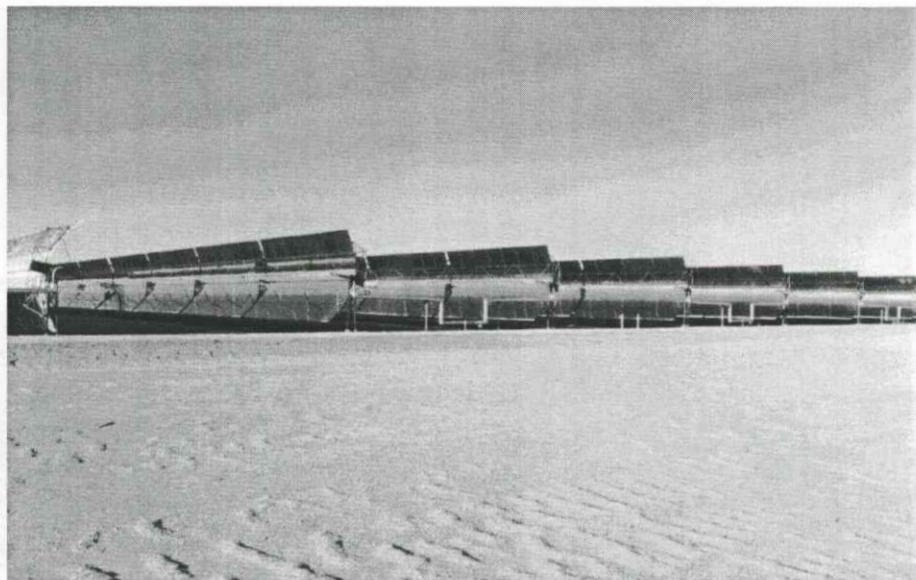
Goldstone is the largest tracking station in the Deep Space Network, which is composed of three installations located at roughly 120-degree intervals around the globe (with one at Madrid, Spain, and another at Canberra, Australia) for a continuous view of space. Part of NASA's Jet Propulsion Lab, it is used primarily to communicate with deep space probes and satellites, and to study asteroids. Facilities at Goldstone are clustered at nine separate complexes, spread out over 33,000 acres. Antennas used include eight 34-meter radio dishes and a 70-meter steerable dish.



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### **Fort Irwin Military Reservation**

One of the Army's largest and busiest training ranges, infantry live and train in real battle-like conditions here. Tanks, personnel carriers, and helicopters are used in full-scale simulated battles, where the home force, known as the Krashnovians, acts as the enemy, replicating elements of a soviet motorised rifle division, against visiting infantry. The thousand square-mile range is wired for electronic battle simulations, using lasers instead of live munitions. Troops visiting Fort Irwin often paint their insignia on stones at the Rockpile.



### **Harper Lake Solar Electric Generating Station**

The Harper Lake solar power plant is one of four major solar arrays in the area around Barstow, the leading center of solar energy production. Harper Lake is similar in output, though smaller in size, to the Kramer Junction solar plant, located twenty miles away. The plant was built amidst the remains of the former ranching community of Lockhart, where feed crops and cattle were once raised in great quantity.





### **Superior Valley Gunnery Range**

This range, located at the southern end of China Lake Naval Weapons Station, is used by the military for target practice. It is instrumented with radar, and electronic targeting systems, and has a tracking control tower and several observation towers. Due to its remoteness, it has a self-contained electrical generating system, which includes one of the largest photovoltaic systems in the world.



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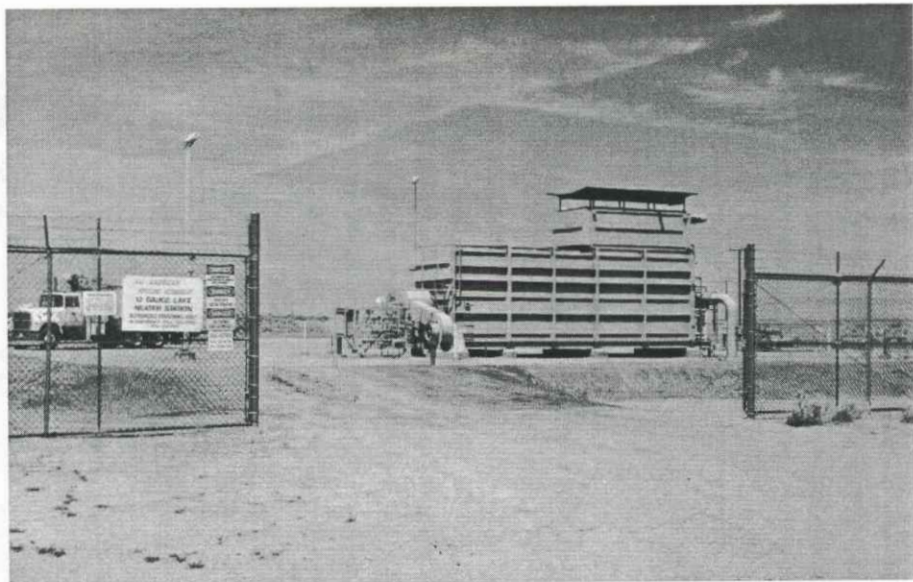
### **Exotic World Burlesque Museum**

A museum of exotic dancers and burlesque dancing, located in the desert north of Helendale. Dixie Evans, a former dancer herself, operates the museum, which is located next to her house, about a mile from route 66.



### **Lockheed's Helendale Radar Cross Section Facility**

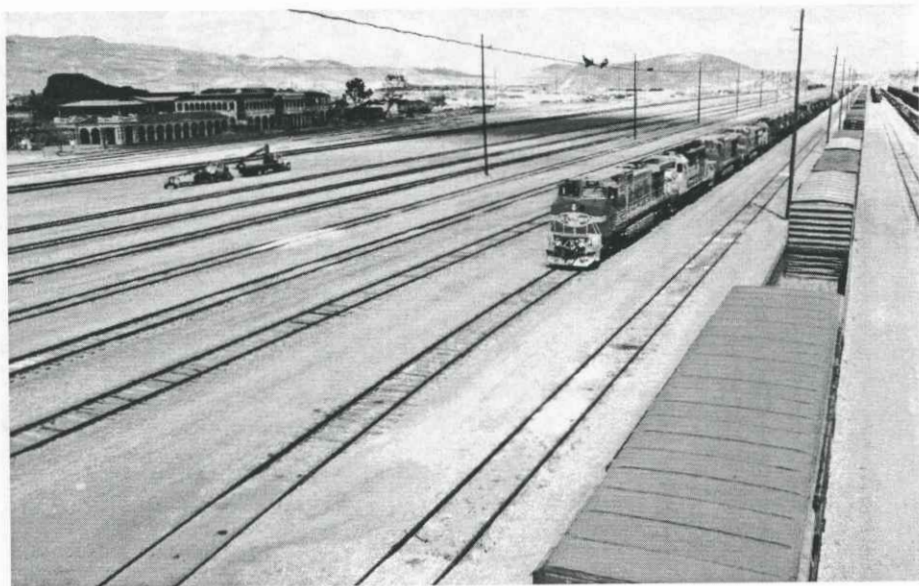
Stealth technologies, like those used in the F-117 fighter, are developed at this aircraft research facility, which is operated by the Lockheed Corporation. Prototypical forms, tested outside on the range, rise out of the ground on hydraulic pylons through doors in the runway surface, to minimize the amount of time they are exposed to possible viewing, from the ground or by satellite. A sign that greets workers as they approach the main building says "What you see here, what you do here, what you hear here, let it stay here, when you leave here."



### Twelve Gauge Lake Heater Station

A heater station on the All American Pipeline, a 1,000-mile long, 30" diameter pipe, called "the longest, heated pipeline in the world," which carries crude oil from the coast of California to refineries in West Texas. The crude is heated at several heating stations like this one, located every 100 miles or so along the pipeline, to maintain the crude at a temperature between 160 to 140 degrees, which decreases its viscosity, so that it flows with less friction through the pipe.





### **Barstow Railroad Yards**

Barstow was founded as a railway town, and continues to be a major logistical center for material entering and leaving Los Angeles. The Atkinson, Topeka and Santa Fe rail company maintains one of its largest railway yards here, with 48 classification tracks, and the company's transcontinental route from Chicago forks at Barstow, with one track heading through the Cajon Pass to Los Angeles, and the other heading north to the San Francisco area.



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## A-1 Wreckers

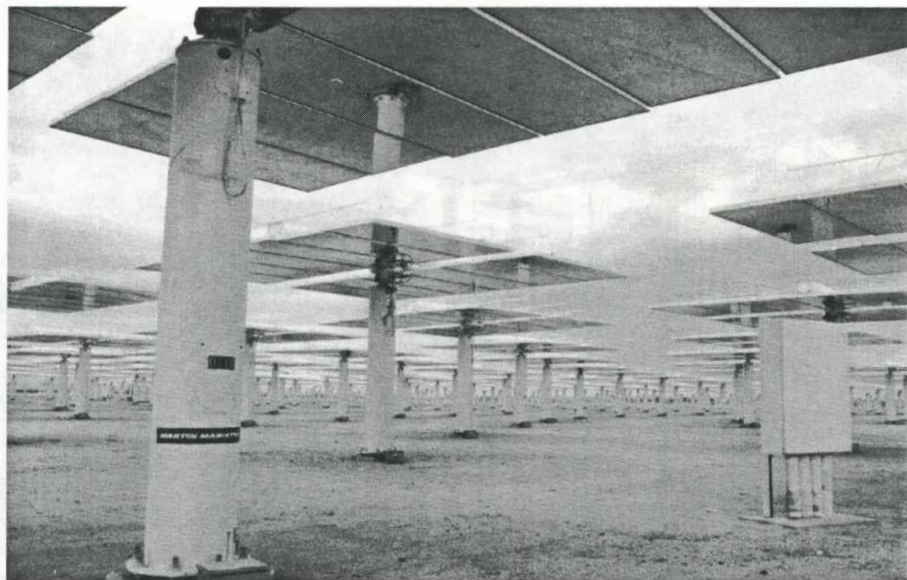
The A-1 Wrecking Yard near Barstow is the location of the Tired Iron Museum, where Ed Parker has on display his collection of terminator vehicles. Ed runs an auto repair and towing shop here, and creates these functional desert art cars mostly out of breakdowns and wrecks he's towed off the interstate. Some have been featured in post-apocalyptic "B-movies," which are frequently filmed in the area.



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### **Barstow Marine Corps Logistics Base**

The Barstow Marine Corps Logistics Base serves as a storage, distribution and maintenance depot for Marine Corps facilities in the Pacific area and western portions of the United States. Equipment, weapons and supplies are warehoused, repaired, remanufactured and redistributed at this active base, which is the primary Marine Corps facility with this function west of the Mississippi.



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### **Solar Two Experimental Solar Facility**

Solar Two is unique in this country as the only major solar power generating plant with a central collecting tower. The central receiver is a 200-foot tall tower onto which nearly 2,000 reflectors focus the sun's energy, heating up a nitrate brine which produces steam and then electricity. Each of the reflectors is positioned automatically with a heliostat to track the moving sun.

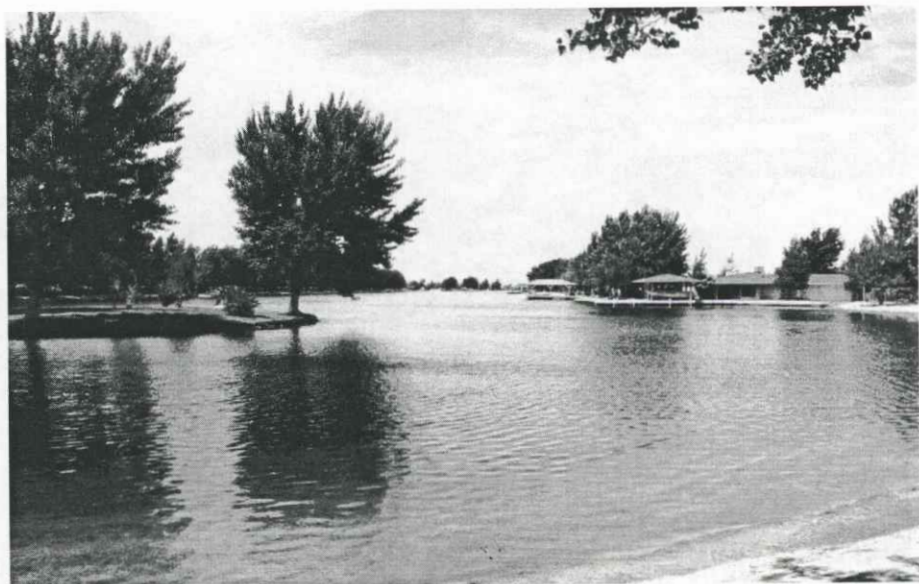




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### Calico Early Man Site

A controversial archeological site, which suggests that humans have been in North America as early as 200,000 years ago. Louis Leakey was the project director at Calico until his death in 1972, and it was the only New World site he worked on. One of the basic controversies centers on the interpretation of features found on small stone artifacts: the site's primary archeologist, Dee Simpson, claims that the rough points on some of the rocks were formed by man, while others maintain that they were naturally formed - not artifacts at all, but *geofacts*.



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### **Cheyenne Lake**

A narrow 15-acre, manmade desert lake, Cheyenne was built especially for water-skiing, with boat turnaround islands on each end. Meant to be an "aquatic track," Cheyenne Lake is one of several waterski and jetski lakes in the Newberry Springs area, all of which are privately owned. The massive amounts of water required to maintain these lakes has led to a loss of groundwater, and lawsuits have been filed by the nearby city of Barstow.



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### **Cabazon**

Cabazon has two "larger than life" dinosaurs, next to a truck stop, which were constructed by a man named Claude Bell, over the course of two decades, starting in 1964. Now a gift shop, the room inside the belly of the brontosaurus was originally intended to be a museum. The tyrannosaurus has an observation deck inside its head, but is closed to the public due to its nonconformance to building and safety codes.



55

### **San Geronio Pass Wind Array**

The 4,000 windmills on these twelve square miles of land produce energy for about 100,000 homes. Though an impressive site, it is actually the smallest of the three major wind arrays in California (another is at Tehachapi Pass, and the largest is at Altamont). 45 minute tours are offered at a cost of \$18 per person.

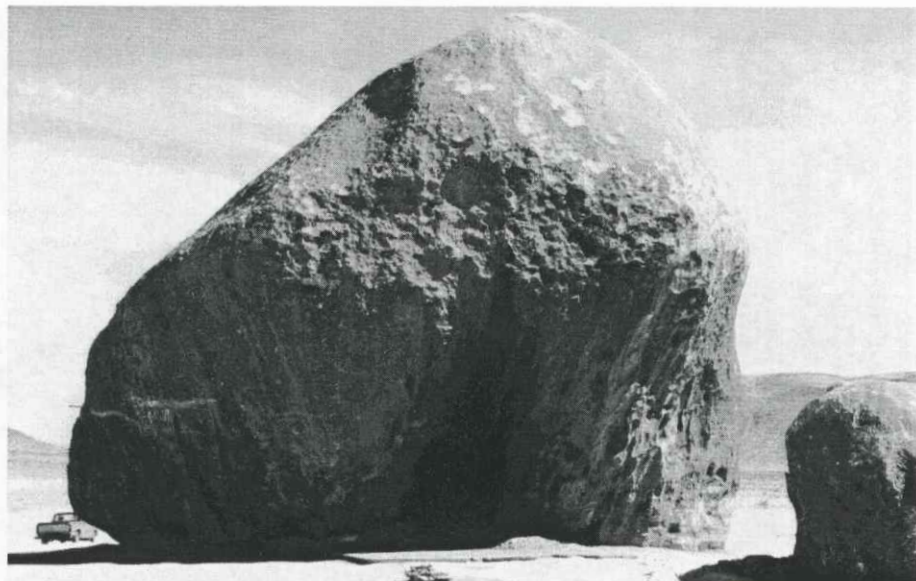




56

### **Moby Dick's**

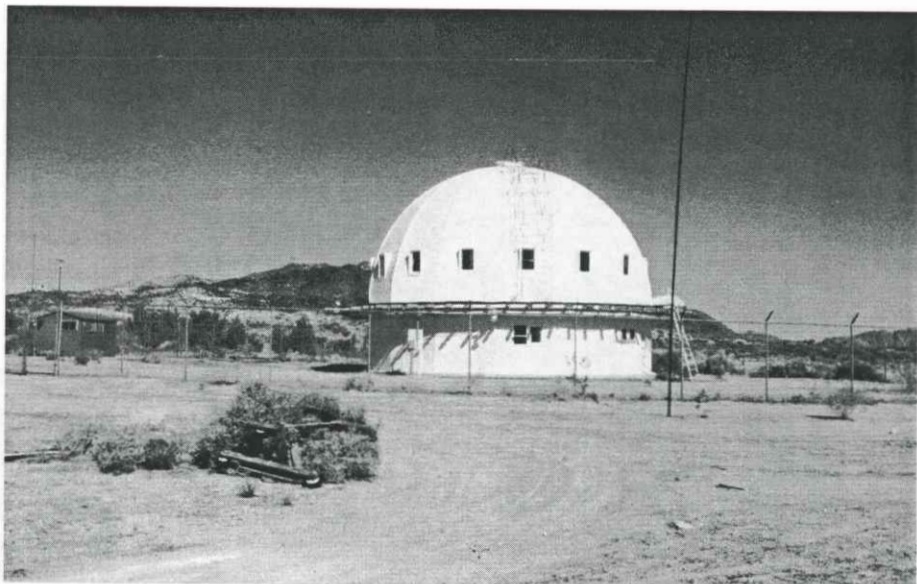
A collection of sculptures and motorcycle parts, created by the owner of the property, who calls himself Moby Dick. He paints and carves the trunks of dead Joshua trees, and fashions assemblages out of old motorcycles.



57

### **Giant Rock**

Several people are known to have lived in a cavity, hollowed out, in and under this giant rock. In 1942, one occupant, an alleged German spy, blew himself up with dynamite as deputies were questioning him (the deputies survived, miraculously). Five years later, a former test pilot and UFO abductee, George Van Tassel, moved his family into the rock, and the location became known as a site of major UFO activity (Van Tassel built the Integratron energy machine three miles south of the Rock). Located north of Landers, it has since become a popular rave location, attracting as many as 3,000 partiers.



### **Integratron Energy Machine**

The Integratron was built as a "rejuvenation machine" with an electromagnetic wave oscillator contained in a 50-foot diameter dome. It was constructed in the 1950's and 1960's by George Van Tassel, a former test pilot for Hughes and Douglas Aircraft, who moved into a hollowed out boulder near the Integratron site in 1947. Van Tassel was interested in UFO contacts and the metaphysics of George Lakhovsky, on whose principles the Integratron is based. The mechanical apparatus that generated the healing energy disappeared after Van Tassel died in 1978.



59

### **Institute of Mentalphysics**

The Institute of Mentalphysics is a spiritual retreat and teaching campus in the desert, founded by Edwin Dingle in 1927. Dingle, the author of *Across China on Foot*, incorporated Eastern spiritual notions to create a "Super Yoga of the Western World" which is taught at the Institute. Buildings include the Preceptory of Light, the Sanctuary of Mystic Christianity, and the Caravansary of Joy, a 600-foot long residence designed by Frank Lloyd Wright.

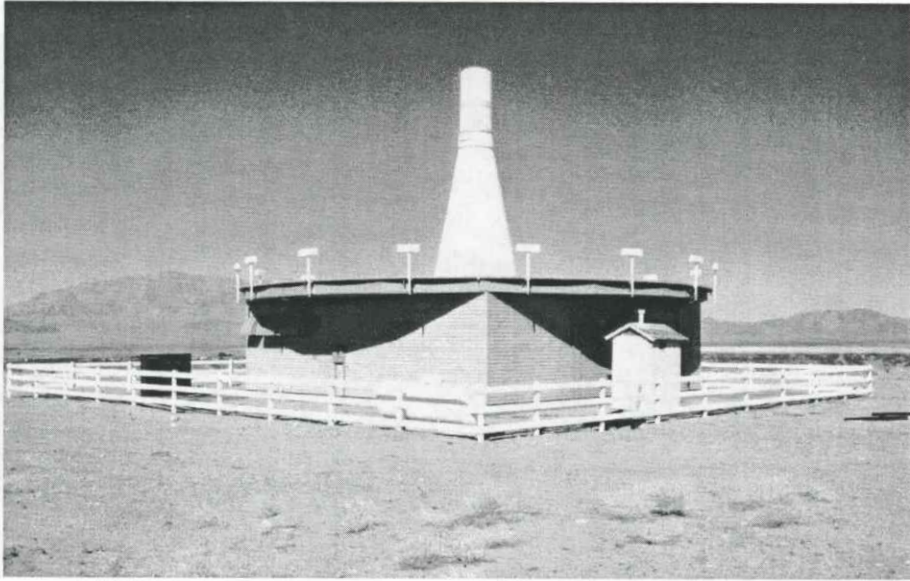




60

### **Twentynine Palms Marine Corps Air-Ground Combat Center**

With 932 square miles, Twentynine Palms is the largest marine corps facility in the nation. 50,000 marines pass through every year for training and weapons testing, in association with other branches of the Armed Forces. The base has over 1,000 buildings, mostly located in the community of Mainside, and employs around 11,000 military and civilian personnel.



61

### Dale VOR Antenna

One of several VORs visible from highways in the Southern California desert, this one is located at the town of Dale, near Twentynine Palms, and is used by civilian and military pilots. VOR antennas are radio beacons used for aircraft navigation, operated by the FAA, and scattered all over the country. VOR stands for "very-high frequency omnidirectional radial", as the antenna emits directional signals that indicate the heading of aircraft moving towards or away from it.



62

### **Bristol Lake**

Salt has been extracted from the dry lake bed since 1909, and continues to be mined today. The surface layer on much of the lake, which is three to seven feet thick, is removed in order to get at the salt, and is dumped in long rows of conical piles along the trenches. The Cargill Salt Company, the second largest salt producer in the country, is one of two companies operating on the lake, producing sodium chloride and calcium chloride for industrial use and food products.



63

### **Mojave Gas Pipeline**

One of the natural gas mainlines in the network of buried pipes that supply gas to residential and commercial customers in Southern California. The Mojave Pipeline is part of an east-west line which originates in Texas, and connects to PG&E's north-south mainline, near Bakersfield (which itself continues north to the gas fields of Alberta). The Mojave Pipeline is owned by the El Paso Energy Corporation, which operates 26,000 miles of gas pipe, from Bakersfield to Boston.





### **Hinds Pumping Plant**

Hinds is the last of five major pumping plants along the Colorado River Aqueduct, which is one of the three major aqueducts that bring water to Los Angeles. The aqueduct was completed in 1941, and carries water 242 miles from Lake Havasu, on the Colorado River, to Lake Matthews in western Riverside County. Each of the remote art-deco style pumping stations has a small village to house the operators of the facility and their families.



65

### **Desert Training Center**

A museum at the site of Camp Young commemorates the Desert Training Center, an 18,000 square-mile Army training ground used during World War II, to prepare soldiers for battle in the deserts of North Africa. Over a million U.S. troops trained here, led by General Patton, at what was the largest military training area ever in the U.S.A. Tank tracks still mark much of the landscape, and remnants from many of the 12 field camps remain, mostly consisting of rock mosaics, altars and road alignments.



### **Desert Center**

Hundreds of tall date palm trees form unusual patterns, at the town of Desert Center. The project was started a few years ago by the owner of the town, Stanley Ragsdale, who trucked the trees from a date farm near Indio, 50 miles away. Many of the 70-foot tall trees, which were originally grown by King Gillette, inventor of the safety razor, are now dying due to irrigation problems.

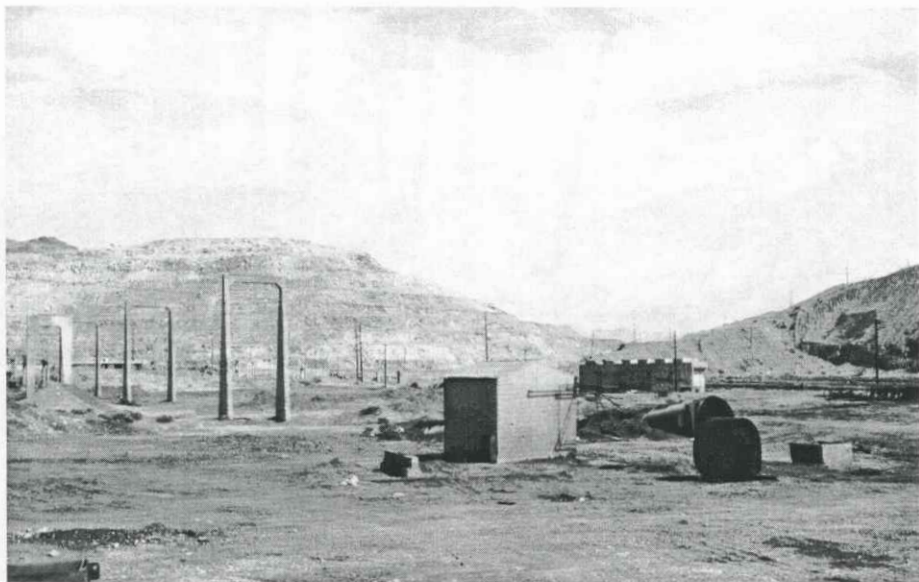


67

### **Desert Center Jojoba Plantations**

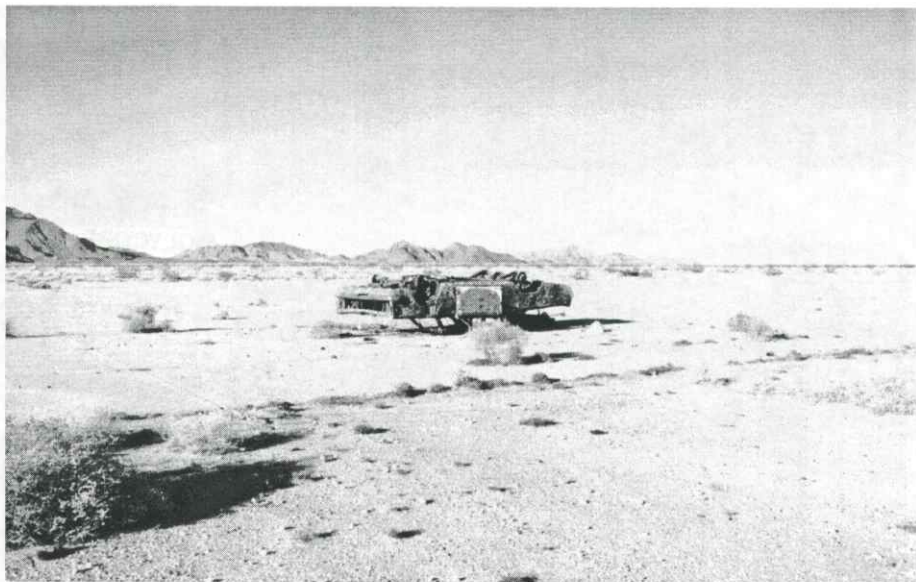
Abandoned Jojoba plantations are scattered throughout the southwest, the result of dried-up federal incentives, dating from the early 1980's, when the oil from the Jojoba bean was being developed as a renewable alternative to fossil oils. This plantation is still partially active, as Jojoba is used commercially in shampoos and other cosmetic products.





### **Eagle Mountain Mine**

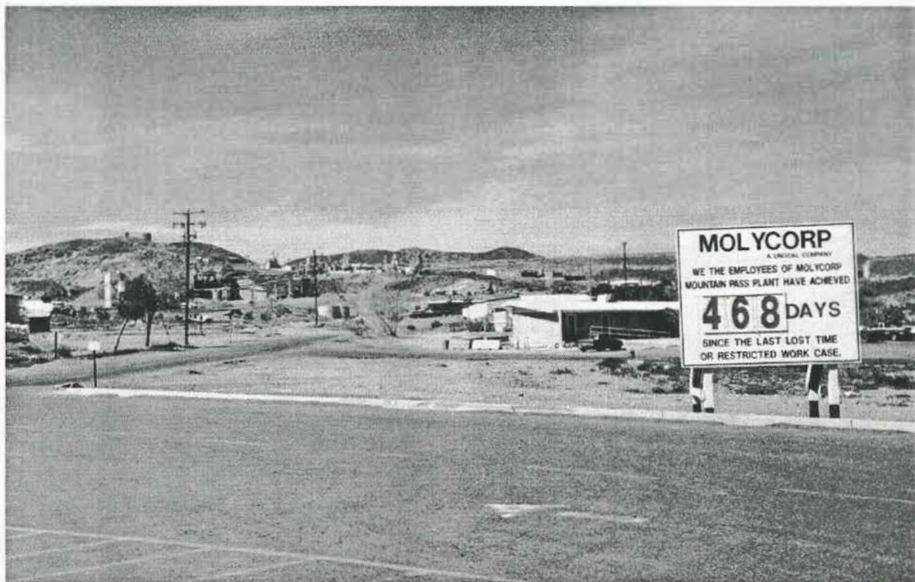
A shut-down Kaiser iron mine, which once provided ore to Kaiser's steel works in Fontana, is now being considered for a "megafill" landfill site for Los Angeles. A suburban-looking development, built to house workers next to the mine, is virtually abandoned, making Eagle Mountain one of the more recently-formed desert ghost towns. There is also a minimum security prison occupying some of the town's structures.



69

### **Rice Army Airfield**

A large concrete pad, littered with shell casings and blasted debris, is nearly all that remains of the World War Two training base at the remote desert town of Rice. The rest of the town has been abandoned, and vandalized into nonexistence by passers-by, mostly weekend warriors on the road between L.A. and the popular recreation areas of Lake Havasu. Rice is also the location of a recent cargo train wreck.



70

### **Mountain Pass Mine**

Though small by Western mining standards, this mine is the only domestic producer of "rare earths," a group of minerals used in a wide variety of industries. The rare earth samarium is used in the magnets in motors and speakers, including headphone electromagnets, and another, cerium oxide, is used in television screens. Other rare earths are used in gasolines, fluorescent lighting, and in medical equipment.

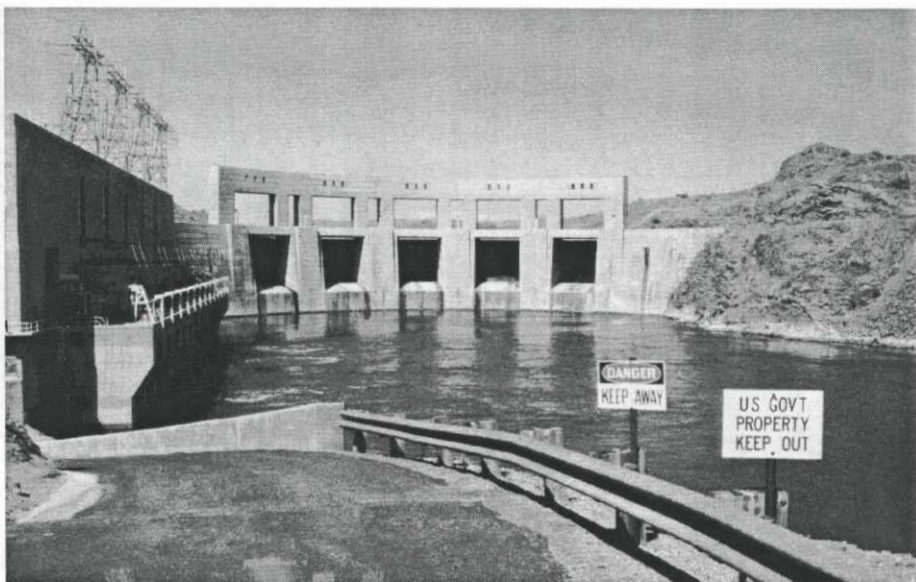


71

### ***Zzyzx***

Located on the edge of a large dry lake, Zzyzx is the site of a former health resort built by an evangelist named Curtis Springer, who advocated physical as well as spiritual fitness, and sold health products using the soda from the lake. The resort was popular until the early 1970's, when Springer was removed bodily from the site by the Bureau of Land Management, which claimed that he had never received official title to the land. The California State University system has taken over the resort as a desert ecology study center.





72

### **Parker Dam**

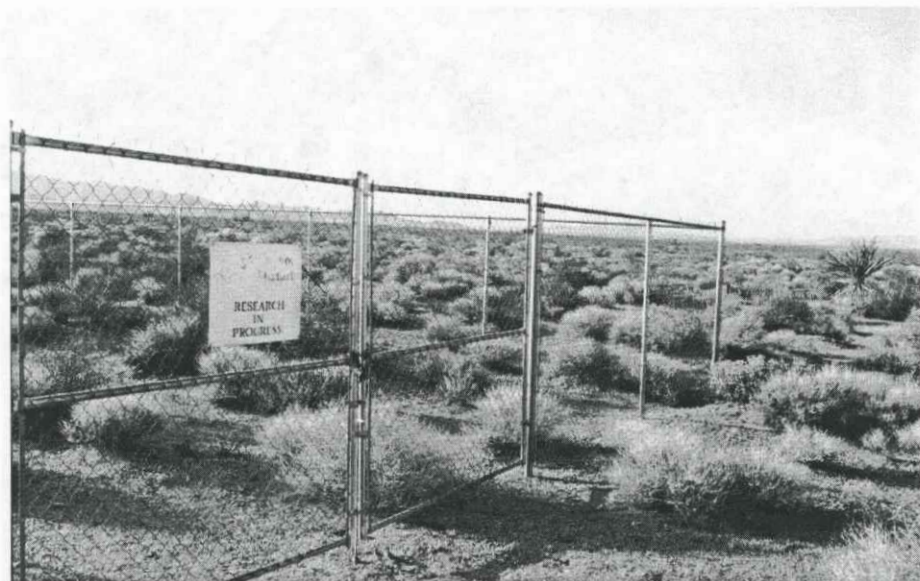
The base of the Parker Dam extends 235 feet below the riverbed, making this the deepest dam in the world. The water held behind this dam on the Colorado River comprises Lake Havasu, the popular recreational site and home to the original London Bridge (crated in England, and shipped to this country by the visionary developer Robert McCullouch). On the lake near the Parker Dam is the Intake Pumping Plant, which is the origin of the Colorado River Aqueduct, one of the primary sources of water for Los Angeles.



73

## Midland

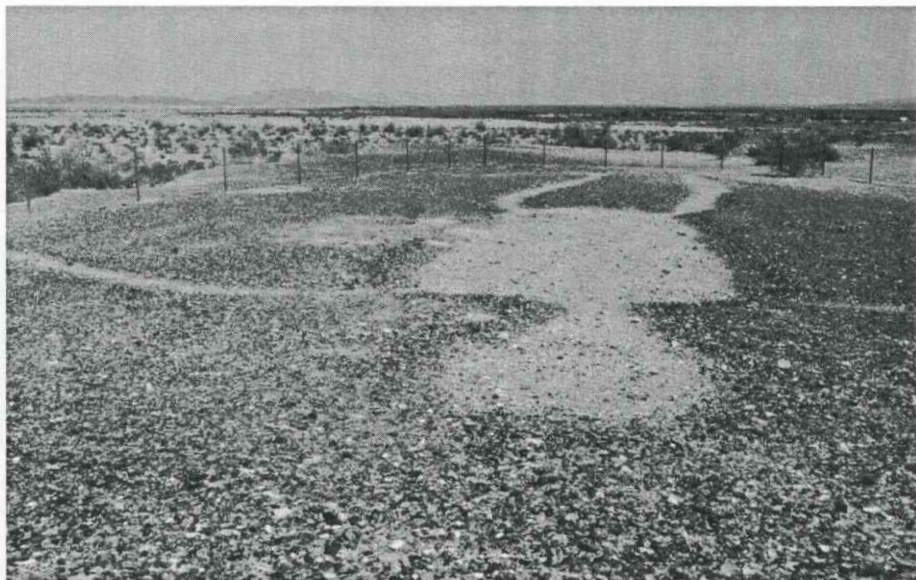
Foundations and scattered debris indicate the site of a major gypsum plant and community of 1,000, once located in this remote region 20 miles from the nearest settlement. The U.S. Gypsum company established the town and plant to process gypsum extracted from nearby mines in 1925, responding to a demand for a new product: drywall. After the mine shut down in 1966, the town was intentionally burned to the ground. U.S. Gypsum still manufactures over half of the nation's plaster products, and operates a major plant in Plaster City, California.



74

### **Ward Valley Proposed Radioactive Waste Site**

Clusters of test and sampling equipment dot the desert in Ward Valley, a site selected more than 10 years ago as a potential radioactive waste dump. Waste destined for the site would include radioactive parts from nuclear power plants, the irradiated carcasses of research animals, and various other medical and biological wastes contaminated by radiation. U. S. Ecology, the company working to develop the dump, has operated similar facilities in Nevada.

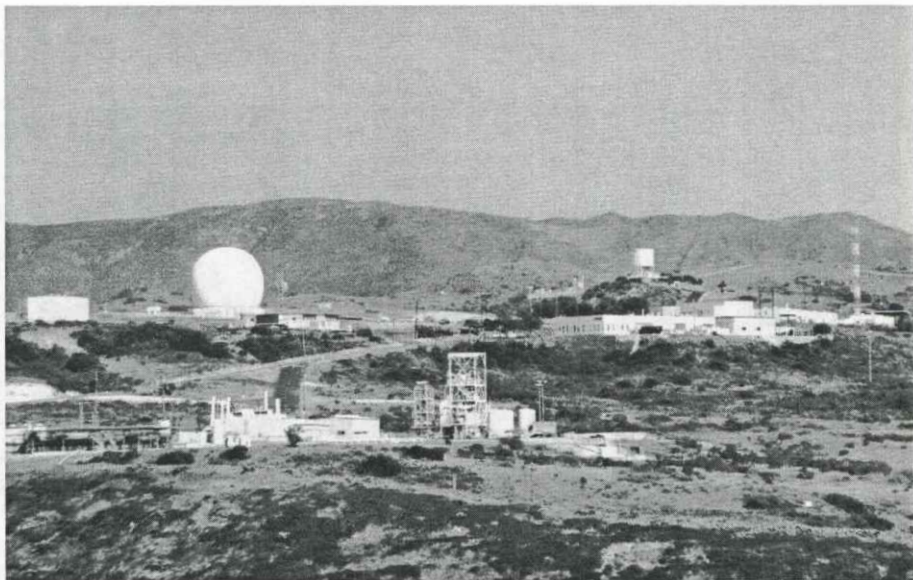


75

### **Blythe Intaglios**

A group of three large human and animal forms made by scraping the top layer of desert pavement away, exposing the lighter layer underneath. The largest is an image of a woman, 171 feet long. There is also a snake, and an image of a four legged animal, which is interpreted differently by archeologists: to some it appears to be a horse, in which case the site would post-date 1540, to others it is a mountain lion, which could date the site to as much as 2,000 years ago. The remoteness of the site, next to the Colorado River, near Blythe, allowed these forms to survive, before protective fencing was installed in the 1960's.

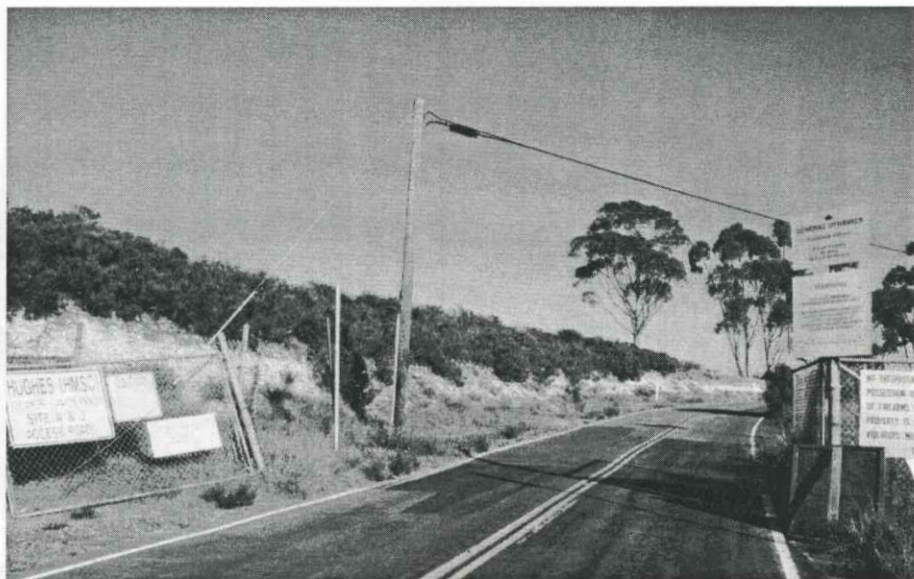




76

### **TRW Capistrano Test Site**

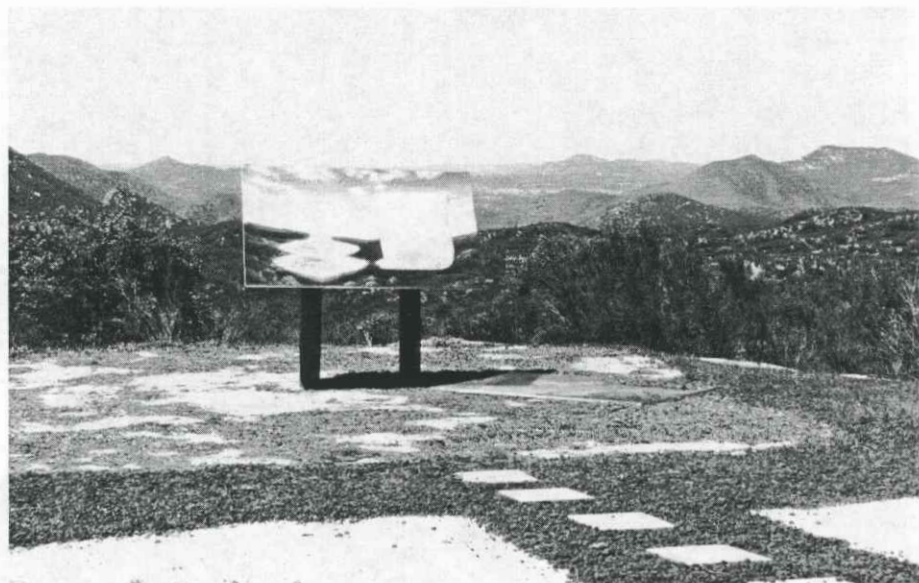
A weapons R&D site in the hills at the edge of Camp Pendleton. Built up dramatically to support space-based "Star Wars" weapons systems in the 1980's, the site is operated by TRW's Defense Space Systems Group. Chemical lasers, radar, and propulsion systems are the primary technologies pursued here.



77

### **Sycamore Canyon Test Facility**

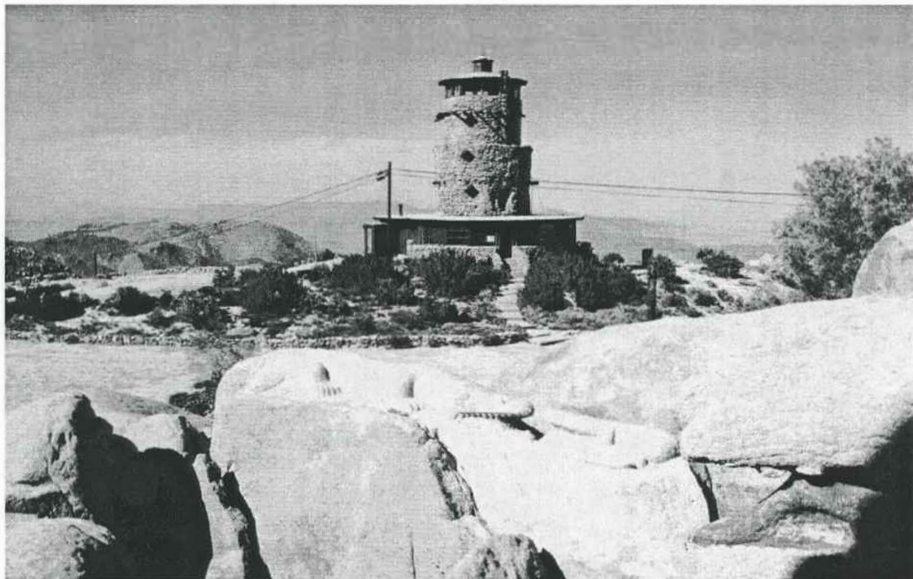
A large military and industrial site, with three principal operational areas, consisting of a Lockheed test range, Hughes' Site 7 where, amongst other things, Tomahawk missiles are assembled, and a General Dynamics field test site. Also known as the Navy's Camp Elliot, the operational areas are mostly in the canyons in the otherwise open and undeveloped hills, east of Miramar Naval Air Station.



78

### **Unarius Landing Site**

This rural 67-acre site is owned by the Unarius Academy of Science, a unique community of scientific spiritualists, based in the nearby town of El Cajon. The site is called "Starcenter One", and is the designated landing pad for the 33 space ships belonging to the Space Brothers of the Interplanetary Confederation who, according to Unarian beliefs, will land in 2001, forming a multi-tiered tower of space ships which will serve the world as a residential, educational and spiritual center. The site has been prepared with ornate stone-lined walkways, vista points and signs welcoming the new arrivals.



79

### **Desert View Tower**

A four-story rock tower that overlooks the Anza Borrego Desert. Hand built in the 1920's by a man named Burt Vaughn, to commemorate pioneers crossing the desert to reach San Diego, it is now a gift shop and museum. Next to the tower is a natural boulder pile where skulls and animals were carved in the granite by W.T. Ratcliffe, a retired engineer, in the 1930's.

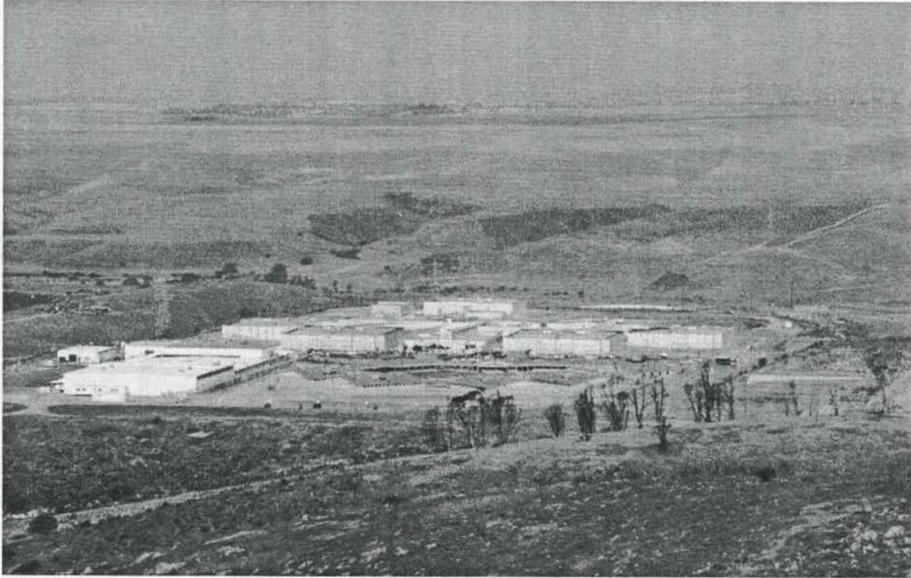




80

### **Navy Survival Training Site**

A Navy training facility, located in a remote part of northern San Diego County, inside National Forest property. Pilots are taught to survive after a crash in enemy territory, and Navy SEALs train here as well. Training is often harsh and very realistic. For example, during the Vietnam war, Asian personnel were apparently used to provide realistic settings for prisoners of war training. It is operated by North Island Naval Air Station in San Diego.



### **Otay Mesa Prison Area**

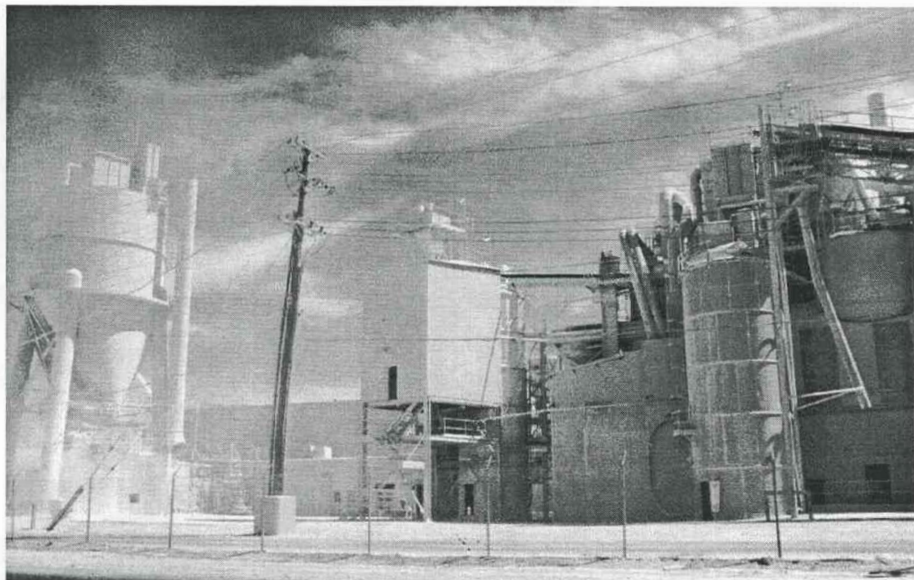
The Richard J. Donovan State Correctional Facility was designed to hold 2,200 inmates, but has a current population of around 5,500. As with many prisons in the state, overcrowding is forcing the use of gymnasiums and recreation areas to house prisoners. Also located here, at the end of the road on Otay Mesa, is the East Mesa Detention complex, operated by the County and City of San Diego, and a new law enforcement training complex built by the FBI, Customs Service, and local police.



82

### **Fish Creek Mine**

One of the largest gypsum mines in the United States. At one point as much as 10% of the nation's gypsum was extracted from this site, which is owned by the U.S. Gypsum company. The mining complex is connected to the Plaster City plant by a 20-mile long narrow gauge rail line.

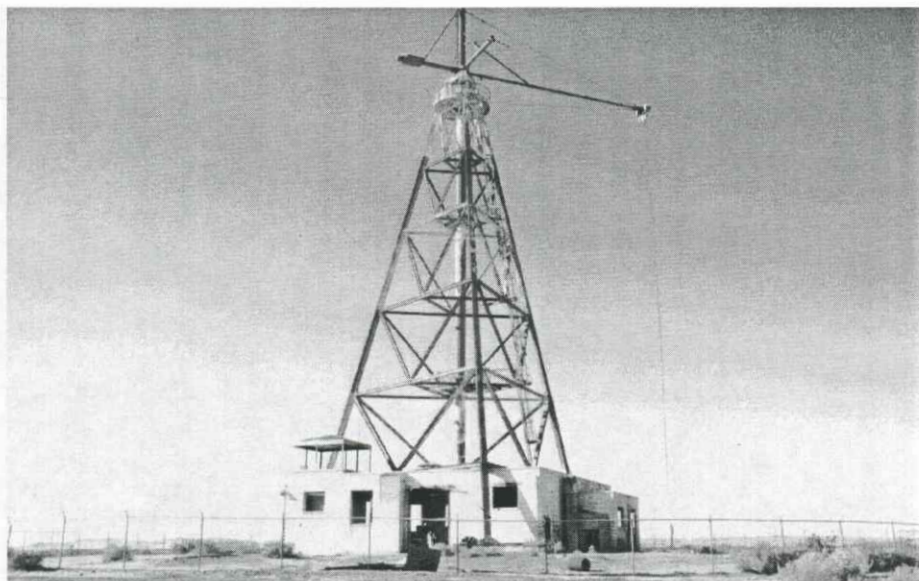


83

### **Plaster City**

This plant at Plaster City is one of the largest gypsum plants in the country, and is owned by U.S. Gypsum, a company that manufactures more than half of the dry-wall in the United States. The source of the gypsum is the Fish Creek mine.

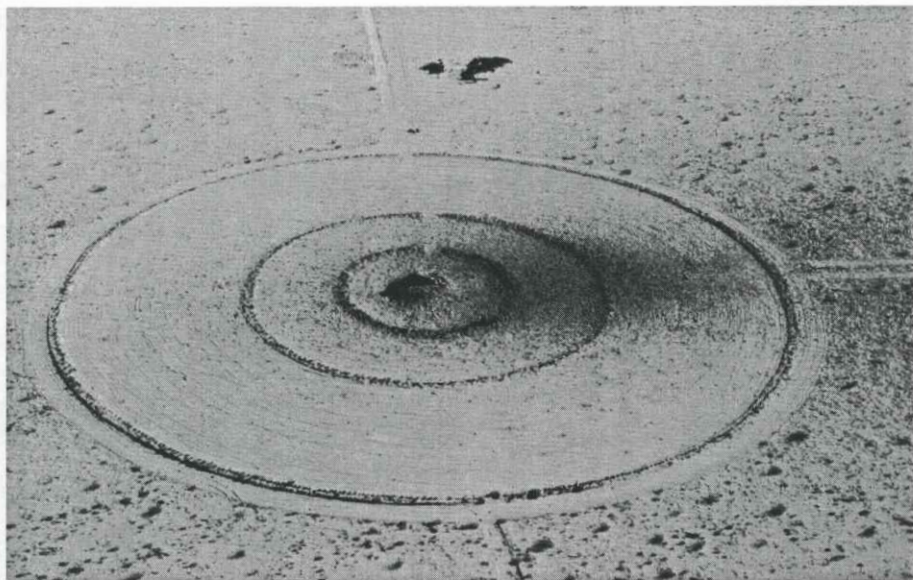




84

### **Parachute Test Area**

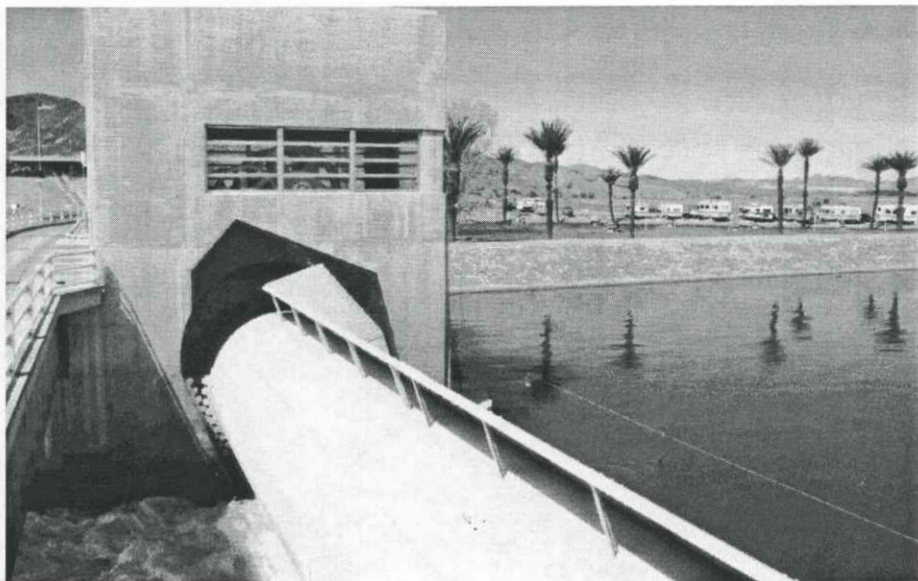
The whirltower located at the site of the National Parachute Test Center was used to test parachutes by spinning them around on the end of the boom that extends horizontally from the top of the tower. The test center moved to China Lake Naval Weapons Station in the 1970's, and the site is now used as a practice drop zone and for various other military maneuvers.



85

### **Navy Target 103 A**

One of five practice targets used by the Navy and Air Force in the Imperial Valley. Each target is approximately 300-feet across, and consists of three concentric circles, made of dirt and old tires, that surround a central "bulls-eye" mound. Some of the center mounds are topped with target objects, such as the hulks of tanks and other military vehicles, or large metal objects, like water tanks. The targets are struck with inert practice bombs and strafed with 20 mm and 50 caliber machine gun fire.



### **Imperial Dam**

The Imperial Dam is the headworks and origin for the All American Canal, which is the main source of water for the Imperial Valley. It is one of a few major structures on the lower Colorado River, such as the Hoover Dam and the Parker Dam, built by the Bureau of Reclamation to control flooding and to supply water for irrigation.



87

### **All American Canal**

This 85-mile long canal brings water from the Colorado River to the citizens and agricultural industry of the Imperial Valley. The canal was completed in 1940, to replace a previous canal, which served the same function, but which traveled partly through Mexico (hence the name of the All American). The canal, one of the largest in the United States, travels through one of the hottest and driest places in the country, and is the primary source of water for the nation's fourth most productive, as well as most arid, agricultural region.

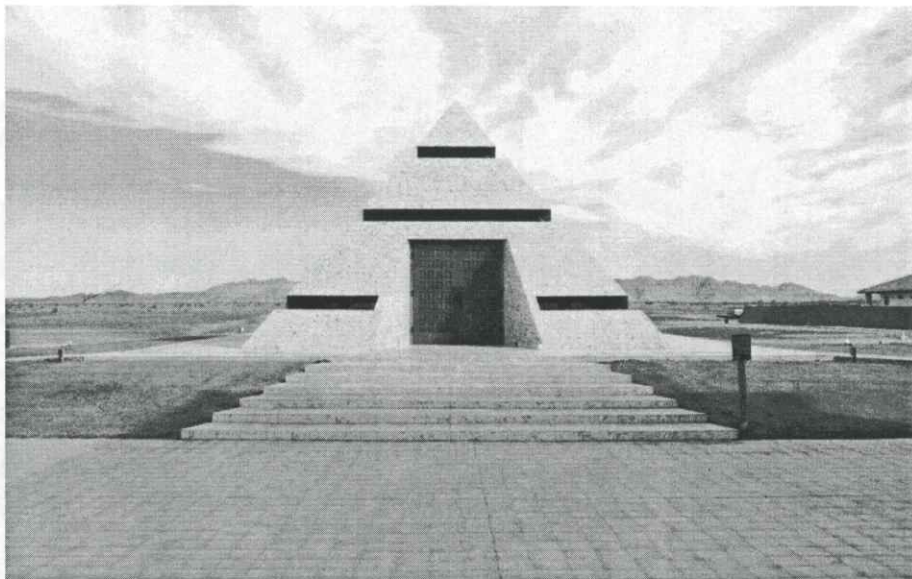




88

### **Imperial Dunes Plank Road**

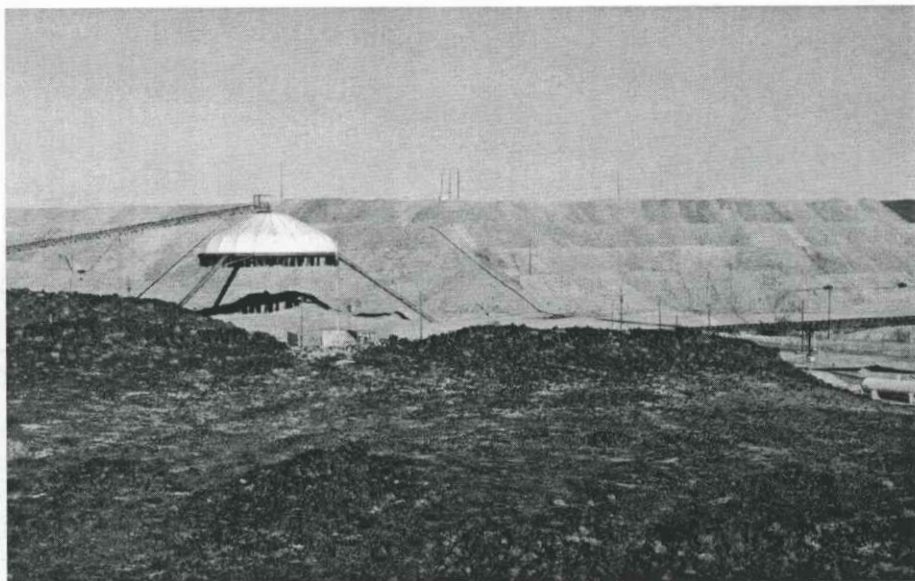
A five-mile long, one-lane wooden roadway which was constructed in 1915 across the Imperial Sand Dunes, west of Yuma, the plank road was the only means of traversing the loose sand of the area for about ten years. Fragments of the old road are still visible in the sand today, and a large section has been reassembled and preserved at its original location for display purposes.



89

### **Felicity, Center of the World**

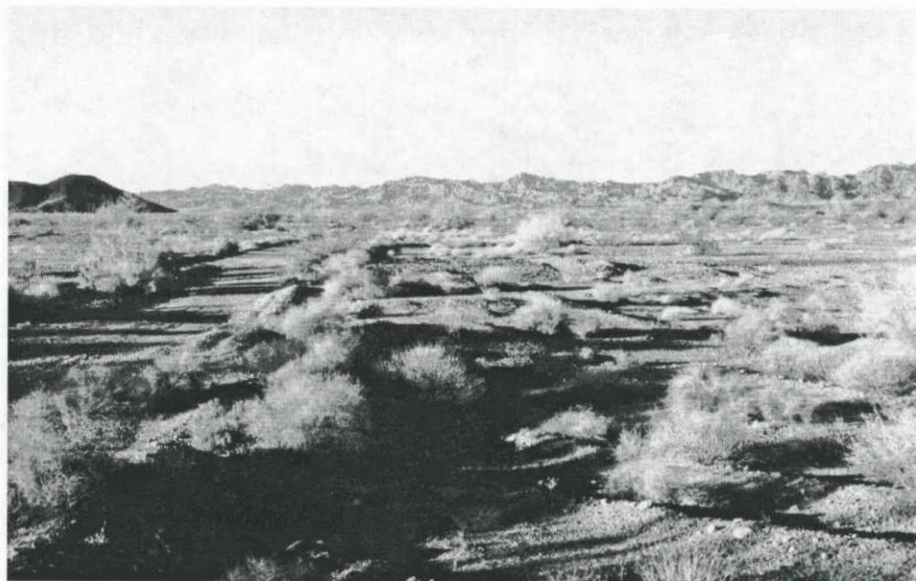
Inside the pyramid in the town of Felicity is a time capsule and a plaque indicating the exact center of the world. Though it could be said that the surface of a spherical planet could have an infinite number of "centers" this is the only Center of the World officially recognized as such by the Imperial County Board of Supervisors. The town, located on the highway west of Yuma, was founded in 1985 by Jacques-Andre Istel, a French financier, who in addition to being an authority on the philosophy of centers, is also known as one of the fathers of recreational parachuting.



90

### **Mesquite Mine**

One of the largest gold mines in California, the Mesquite Mine extracts almost \$100 million in gold annually. The mine operates using the common "heap leaching" process, where ore is piled up and soaked with a cyanide solution to chemically extract the gold. It is owned by the second largest gold producer in the world, Newmont Gold, a Canadian mining company.



### **Proposed Mesquite Regional Landfill Site**

Mesquite is one of three sites being considered for a "megafill" landfill site for Los Angeles (the others are the Eagle Mountain Mine, and Bristol Dry Lake, near Amboy). Under the current plan, trash would come by train to this site for the next 100 years, forming a mountain as high as a 35-story building, and over three miles long. Rock from the nearby Mesquite Gold Mine would be used as overburden for the dump.





92

### Salvation Mountain

Salvation Mountain is the name given to a hillside that has been formed and painted into a monumental sculpture, a terraced escarpment with religious symbols and messages. The three-story high, 100-foot wide construction was created by Leonard Knight over more than a 10 year period, from adobe, cement and paint. Leonard still works on the mountain almost every day, and lives on the site in his decoratively painted truck.



93

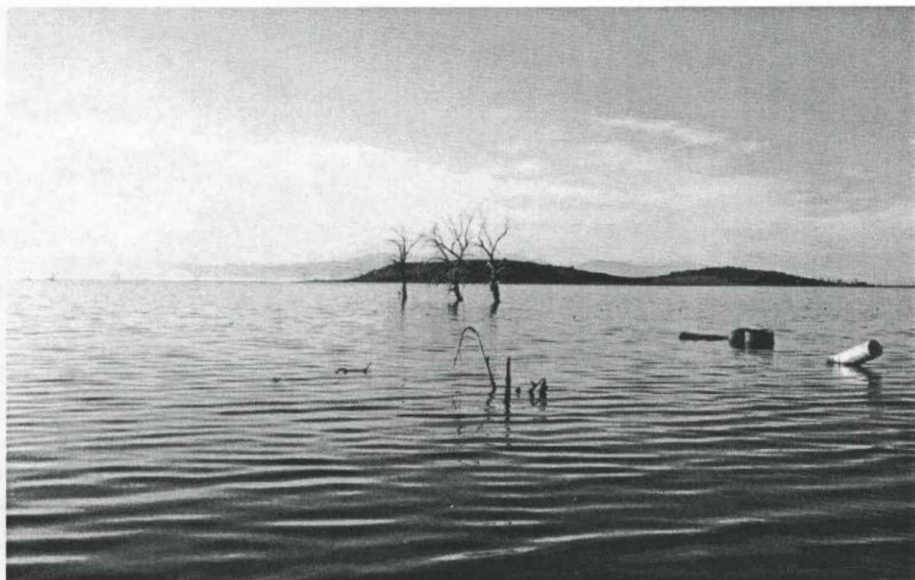
## Slab City

Slab City is a community of mostly seasonal denizens, who live in RVs and shacks on unregulated county property. Located at the site of a former military base, on the edge of the Chocolate Mountains (an active bombing range in the Imperial Valley), Slab City gets its name from the prevalence of concrete aprons - or slabs - at the site. A network of roadways and slabs accommodate a population of as many as a few thousand occupants in the cooler winter months.



### **Calipatria Flagpole**

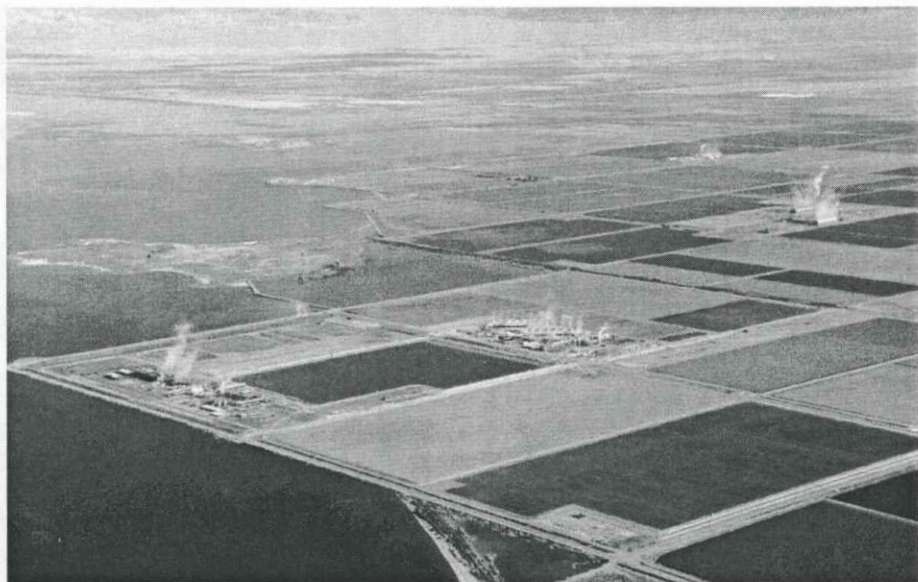
Calipatria has been called "the lowest-down city in the western hemisphere," because the town is 184 feet below sea level. The tip of the municipal flagpole indicates sea level.



## Salton Sea

The Salton Sea is a 40-mile long inland sea formed by accident in 1905, when an irrigation canal that brought Colorado River water to the valley was overwhelmed by high water from rains along the Colorado watershed. For a few years, the entire flow of the Colorado River drained into the Salton Sink, before the breach could be dammed. Now the sea contains salty water washed off the fields of Imperial Valley agri-businesses. As a result, the level of the sea is rising, flooding the surrounding area, and becoming increasingly saline. Fish kills frequently occur when algae blooms, stimulated by the fertilizers coming into the sea, consume all the dissolved oxygen, and the shore becomes lined with layers of desiccating talapia fish. Bacterial infestations in the sea have been known to kill birds by the thousands.





### **Salton Sea Geothermal Plants**

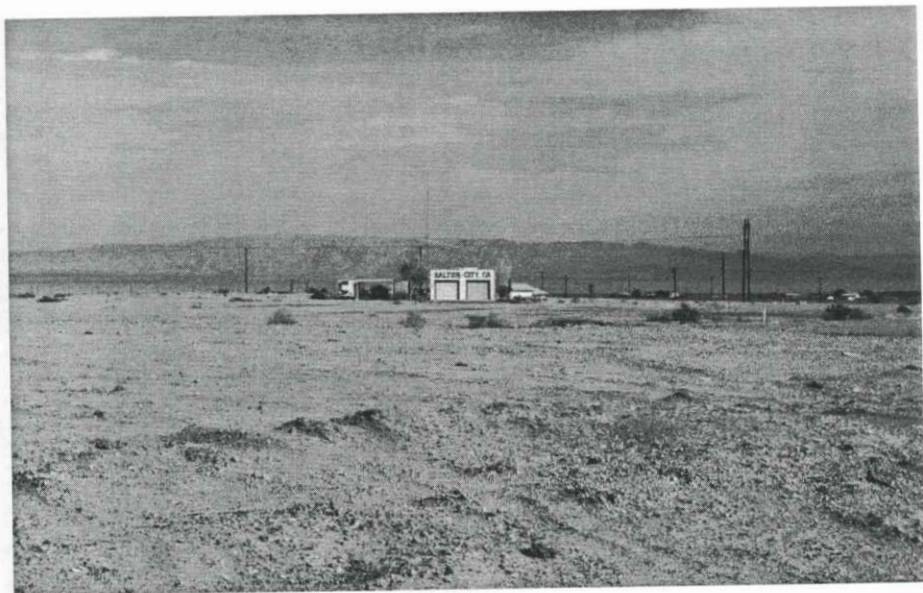
This cluster of seven geothermal plants is the largest of three major geothermal energy production sites in the Imperial Valley. A network of deep wells drilled in the geothermal field allow water, heated by the earth's mantle, to come to the surface and to power electrical generators. Owned by the CalEnergy Company, the electricity is sold to the local power utility and put on the grid. The seven plants in this field produce enough electricity to power over 100,000 homes.



97

### Salton Sea Test Base

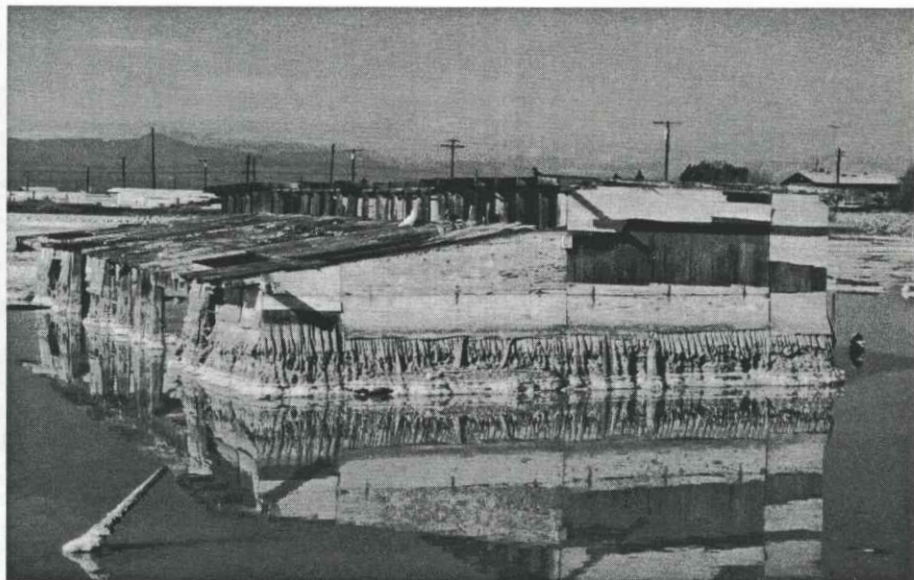
Once a weapons test area on the southwest edge of the Salton Sea, the base is now abandoned, with most of the buildings torn down. In the 1950's the area was used by Sandia National Labs, which conducted over 1,100 missile tests at the shoreline facility. The Navy continued to use it through the 1970's, though there have been reports of military activities at the site as recently as the Gulf War. The site is currently undergoing remediation, including the clean-up of spilled toxic substances, before a planned return of the property to the BLM.



98

### Salton City

Salton City is a planned community, which never fully developed as intended. In the late 1950's, M. Penn Phillips and the Holly Corporation built 250 miles of suburban roads on a 19,000 acre site on the western edge of the Salton Sea. The Salton Bay Yacht Club and other resorts were popular, until flooding, algae blooms, and increasing salinity made the sea a less desirable vacation and retirement location.



99

### **Bombay Beach**

A partially-flooded trailer community with a few hundred homes, on the east shore of the Salton Sea. Once a popular water skiing and fishing location, Bombay Beach has suffered a decline, due to the rising lake levels, the increasing salinity of the Sea, and related pollution and bad publicity.





100

### **New River Terminus**

The New River has been called the most polluted river in the country by a number of environmental organizations. It flows out of Mexicali, Mexico, laden with that city's sewage, then is charged with agricultural chemicals and wastes, as it becomes the primary drainage channel for the intensively industrialized agriculture of the Imperial Valley. The channelized terminus of the river is at the south end of the Salton Sea.

## **Hinterland**

### **The Center for Land Use Interpretation**

Hinterland Production:

Sarah Simons, Matthew Coolidge, Melinda Stone, Igor Vamos, Dave Vamos, Walter Cotten, Shelby Roberts, Amy Russell, Miles Coolidge, Steve Parker, Andre Lear, Rex Ravenelle

Special Thanks to:

Andrea Bowers, Andy Freeman, Bridget DuLong, Alyssa Levy, Arwen Sheppard-Staros, Brian Karl, Mike Davis, The Museum of Jurassic Technology, The Custom Bindery, California Map and Travel Center, Lighthawk Aviation, Colortek, All of LACE, and hundreds of people "out there"

### **Los Angeles Contemporary Exhibitions:**

LACE Staff:

Arwen Sheppard-Staros, George Barker, Bridget DuLong, Jane Leslie, Elissa Levy, Siobhan Tolochko

LACE Interns, Volunteers, Gallery Attendants:

Julie Adler, Santiago Delgado, Teri Gast, Amy Green, Bill Kelley, Jimmy Lizama, Dani Morelle Lyles, Gisi Weibel

LACE Exhibition Committee:

Andrea Bowers, Jessica Bronson, Steve Criqui, Sean Duffy, Jim Shaw, Ruben Ortiz Torres, Jody Zellen

Special thanks to the beloved exhibitions crew:

Phillip Anderson, Ben Cosloy, Sean Duffy, Jimmy Lizardmama, Charlie Overbey, Laura Riboli, Gisi Weibel, and William Vaughn  
for all their hard work installing this exhibition

