LIKE A void in the otherwise open range of Nevada, the Nellis Range, a Connecticut-sized chunk of desert, harbors five thousand square miles of military-controlled land, containing landforms and infrastructures that are only vaguely understood by outsiders.

The CLUI recently featured the exhibit *The Nellis Range Complex: Landscape of Conjecture* at its main office in Los Angeles. The exhibit was open to the public from October 1 to December 1, 1999, and was installed inside a customized mobile exhibition unit at the Venice Boulevard site. The culmination of more than three years of research and photography, the exhibit contained images, text, maps, and supporting documents that describe this mysterious landscape in southern Nevada, the nation's largest restricted area, and a veritable nation unto itself.

There are thousands of dams in the United States, from the massive concrete structures on the Columbia River to the earthen tailings impoundments of mining operations. Most lakes in this country are in fact artificially formed by dams, which back up drainage corridors for reservoirs and flood control purposes. And of course, when these ubiquitous structures fail, it can lead to the catastrophic loss of life and property, sometimes wiping whole towns off the map.

Hundreds of dams have failed in America (including one near the CLUI Los Angeles Office - the Baldwin Hills Dam, which broke in 1963, killing five people), but three incidents stand out for their magnitude and the severity of the disastrous effects of their failure. And at each of these sites, impressive remains of the broken dams remain visible.

**The Teton Dam Failure**

Despite much local opposition, as there was considered to be insufficient reason to build the dam, the Bureau of Reclamation completed the Teton Dam, along the Teton River in southeastern Idaho, in 1975. The primary need cited for the dam, ironically, was for flood control. Over the next several months the reservoir slowly filled to capacity, with a maximum depth of 240 feet. Within days of reaching capacity, with water coursing over the spillway, the dam broke, on June 5, 1976.

Seepage was reported and inspected the day before the failure, and work crews attempted to fill growing breaks in the dam minutes before it gave out, fleeing on foot as the widening gap swallowed their
Two thousand miles of roads and an extensive fiber-optic and microwave communication network connect target areas, maintenance facilities, tracking stations, testing grounds, and a few full scale bases and R&D centers. An interactive and evolving simulated enemy landscape, with command and control bunkers, radar and missile sites, convoys, railways, industrial areas, and hundreds more individual targets, trains pilots for confrontations in Middle Eastern, Asian, Soviet and other potential theaters of war. And on the undisturbed mountains within the Range there is a landscape frozen in 1940, when it was first closed to public access, where bighorn sheep and wild horses roam among petroglyphs of the Paiute and Shoshone Indians, and where miners cabins remain unvandalized, with glass jars still resting on their shelves.

Access to the range is highly limited, and no one without official business is permitted on site, nor are civilian aircraft permitted to fly over it. Information about it is controlled by those whose livelihood is dependent on its existence, therefore facts about the range are unresolved. It is thus an ambiguous, uncertain landscape, engendering speculation, fear, and even confrontation. It is a virtual terrain, inhabited with the projections of whoever chooses to gaze upon it, a modern terra incognita.

Known and speculative aspects of the range were addressed in the CLUI exhibit. The use of the range as an Air Force training ground and a weapons testing area were described in detail. Numerous meetings between CLUI representatives and Air Force personnel led to the release of some new information, including imagery of the interior of the range, taken by range managers and released to the CLUI. Generally supportive for some time, the Air Force ultimately withdrew its support of the project, citing security concerns, though this change in posture coincided with a change in management of the Range.

As a result of this loss of support, the CLUI also focused on the more speculative aspects of the range in the exhibit, the “conjectural” perspectives of the place, using unofficial sources. “We had to use the word ‘allegedly’ a lot,” says CLUI Nellis project manager Matthew Coolidge. “But we got a lot of support from extremely thorough and meticulous independent researchers and published experts on the range including Peter Merlin, Tom Mahood, Mark Farmer, Phil Patton, David Darlington, and of course Glenn Campbell of the Area 51 Research Center. And the public affairs department at Nellis was very courteous and helpful, and grateful that we were able to supply them with the imagery of the range that we obtained from the normally independent and secretive range managers.”

The old adobe at Rancho Camulos remains much as it was in 1882 when Helen Hunt Jackson visited for a few hours, and was inspired to use it as a setting for her influential novel Ramona.

The CLUI has been working on a self-guided audio tour for a remarkable stretch of roadway in Southern California, along Route 126 between Valencia and Ventura, and the organization was able to try out some of its research on a group of students recently. The Center was invited to conduct a tour for nearly 160 students from the California Institute of the Arts, to examine the region around the school, which includes a portion of Route 126.

Four tour buses were hired for the four hour tour. Given space and time constraints at the stops, each bus followed the same route but in a different order, so as not to overwhelm the local hosts. Each bus was led by one of four CLUI guides: Melinda Stone, Erik Knutzen, Lize Mogel, and Matthew Coolidge.

The tour examined the many fictions layered on this landscape. To represent the early fables, the group toured the Rancho Camulos, known as the “Home of Ramona,” after the character in the 19th Century novel Ramona which became a popular tool of the boosters and developers of southern California, and where tourists of the Victorian era made cultural pilgrimages.

Passing through the film-location town of Piru, and past the postal-carrier training route at the US Post Office Sorting Center, the tour buses each made a stop at the Del Valle Training Center, where mock industrial sites and accident props help train emergency response personnel in how to prepare for the disasters of the future that will someday come to Los Angeles and beyond. ♦

CLUI CONDUCTS TOUR AS PART OF ROUTE 126 PROGRAM
4 BUSLOADS OF STUDENTS FORCED INTO CLUI VORTEX FOR HOURS!
Swept into the flood. The debris soon caught fire, and burned for five railcars, spilled oil, and hundreds of people, alive and dead, who were sapped, forming a 60 acre field of debris, which included buildings, road bridge finally stopped a major part of the front as the force dis side of town, and bouncing back to cause more wreckage. A stone rail debris cleared everything in its path, washing up the hill on the other Johnstown, the force and mass was tremendous. The wall of water and tering-ram of debris. Though it took the front nearly an hour to hit Though the affected area was large, the water spread out quickly on the flat floodplain, dissipating the force of the water.

South Fork Dam Failure
The rolling hills and deep valleys in western Pennsylvania worked against the ill-fated town of Johnstown, which experienced the worst dam failure disaster in US history. On May 31, 1889, when the South Fork Dam gave out, 14 miles upstream, the impounded Lake Conemaugh rushed down the steep valley, snowballing into a battering-ram of debris. Though it took the front nearly an hour to hit Johnstown, the force and mass was tremendous. The wall of water and debris cleared everything in its path, washing up the hill on the other side of town, and bouncing back to cause more wreckage. A stone railroad bridge finally stopped a major part of the front as the force dissipated, forming a 60 acre field of debris, which included buildings, railcars, spilled oil, and hundreds of people, alive and dead, who were swept into the flood. The debris soon caught fire, and burned for five days. Total loss of life from the flood was over 2,200.

All earthen dams will collapse if water is allowed to spill over the top the dam, as the erosive force of the water quickly eats away at the loose material. For this reason spillways, which channel water around the dam if the water level gets too high, are especially important. But the night before the Johnstown Flood, as rain filled the reservoir at a rate of a foot per hour, the spillways of the South Fork Dam were completely clogged.

Several years earlier, the dam and the property around the lake had been purchased and turned into an exclusive resort called the South Fork Hunting and Fishing Club. In order to keep the fishing stock of imported black bass in the lake, an iron screen had been placed over the spillway gates. This screen, however, also kept small debris from passing over the spillway so that, by the night of the big rains, the spillways were uselessly blocked, and the water eventually overtopped the dam, causing it to fail.

Andrew Carnegie, whose steel empire settled much of western Pennsylvania, visited the ruins of the old steel town of Johnstown soon after the flood. He had a grand library built on the site where the old library had stood, before it was washed away. In 1976, the building became a museum devoted to telling the Johnstown Flood story. This was especially fitting as Carnegie was a member of the South Fork Fishing and Hunting Club.

St. Francis Dam Failure
Johnstown was one of the worst American civil engineering disasters of the 19th Century, but the St. Francis Dam failure was possibly the worst of the 20th Century. 500 people were killed when the dam broke in 1928, with water rushing for 54 miles down the Santa Clara River Valley to the ocean at Ventura, California. The first community struck was Castaic, said to have been "swept clean as a pool table." A few minutes later, a power company camp in the river valley was washed away, killing 84 people. Then portions of the towns of Piru, Fillmore, Santa Paula and Saticoy were demolished. Bodies later washed up on the beaches of San Diego, and were still turning up as late as the 1970's, when a local journalist exploring the river stumbled on a Model A Ford, emerging from the sandy riverbed, with two skeletons inside.

Though the cause of the failure is still debated by some, William Mulholland, whose water agency built the dam, accepted full responsibility. He had been at the dam 12 hours before it failed, to inspect some reported leaks, and declared it safe. The hero of the Owens Valley Aqueduct, which made the rapid development of Los Angeles possible, retired in disgrace after the St. Francis Dam failure, saying he envied the dead.

Despite continued improvements in engineering and emergency response brought on by these disasters, dams continue to threaten populations. In 1979, a dam failure along the Machu River in India left 5,000 dead, and 268 were killed in 1985 when the Stava Tailings Dam in Italy broke. And in Los Angeles, 80,000 people were evacuated when the Lower San Fernando Dam nearly failed in the 1971 earthquake.

In each case, remnants of the South Fork Dam, the Teton Dam, and the St. Francis Dam remain on site, at the foot of their respective empty reservoir basins, haunting physical evidence of the limitations of artificial terrestrial engineering.
The gate to the Tolicha Peak area is manned 24 hours a day, and the gate is rarely closed. The facilities around Tolicha Peak have a number of functions, some of which are clear and others that are not discussed. In addition to the electronic warfare training infrastructure are other R&D elements reportedly managed by Lockheed Martin. This gate is the main entrance to these facilities, and traffic is fairly heavy during commuting times, with many white jeep Cherokees with government license plates coming and going. (CLUI photo)

Access within the Range is permitted on a dirt road that leads to Stonewall Spring, on the north flank of Stonewall Mountain, on the west side of the Range. A saw-toothed indent into the otherwise north-south running perimeter allows hunters to access a Bighorn Sheep hunting area. The road passes through the range perimeter only briefly.

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75% of the live ordnance expended by the Air Force on continental American soil is dropped on the Nellis Range Complex. At the east side of the Nellis Air Force Base in North Las Vegas is the ‘live load area,’ where all of these munitions are loaded onto aircraft that fly out over the Range. (CLUI photo)

Range 63 A is a series of targets and ground forces training sites with tanks, firing ranges, and small support facilities, accessed by a dirt road from the main highway. It is near the security forces training area called “Terrortown”, and the live fire demonstration areas where bombing can be watched from the public highway, US 95. (CLUI photo)

The access road to the EC South area, south of Tolicha Peak, is rarely used, and is generally locked at a cattleguard located on the perimeter. EC South is a stripped down electronic warfare range, and is used for training and tactics related to electronic countermeasure “anti-radiation” missiles. Access to this range is from other locations inside the Range. (CLUI photo)

The access road to the EC South area, south of Tolicha Peak, is rarely used, and is generally locked at a cattleguard located on the perimeter. EC South is a stripped down electronic warfare range, and is used for training and tactics related to electronic countermeasure “anti-radiation” missiles. Access to this range is from other locations inside the Range. (CLUI photo)

This fence intersection, in the middle of dry Mud Lake, delineates the exact northwest corner of the Nellis Range. (Walt Cotten photo)

This sign is along a public dirt road that skirts the southern edge of the Nellis Range, occasionally touching the range perimeter. Nearly all of the southern ranges of the Nellis Range Complex are also part of the Desert National Wildlife Refuge. The vast refuge (1,588,000 acres) was established by president Roosevelt in 1936 to preserve the habitat and hunting stock of the bighorn sheep. The shared portion of the refuge (844,000 acres) is managed by the Department of Fish and Wildlife and the Air Force. (CLUI photo)

The main entrance to the Tonopah Test Range, an elaborate instrumented weapons testing range operated by the Department of Energy and the Air Force, has a guardbooth set back from the perimeter, and manned 24 hours a day. The actual perimeter line is indicated by a faded white line running diagonally across the pavement. (CLUI photo)

The Groom Lake Road cuts across the Tickaboo Valley from Highway 375 and leads 13 miles to the perimeter, and then over a hill and into Area 51. The perimeter at this point cuts across the road diagonally, and is marked with small metal posts in the brush. The area is not fenced or gated, but one sign in the cluster warns that the use of deadly force is authorized. A manned guard house and gate lie out of public view half a mile farther down the road. (CLUI photo)

Along with cameras, and roving security patrols in white jeep Cherokees, a network of hidden road sensors help keep an eye on visitors in the Tickaboo valley. The self-contained transmitters detect vehicular traffic on public land outside Area 51. (CLUI photo)

Nevada has the most publically accessible land in this country - over 80% of it is managed by the Bureau of Land Management. Travellers can go just about anywhere in Nevada, just close the cattlegate behind you. The big exception is the Nellis Range, the inaccessible void. The perimeter region, where the open landscape meets this landlocked island of the unknown, is an interesting, liminal space, where these opposite worlds are juxtaposed, creating something like an Eisensteinian “collision” dialectic, manifested physically on the landscape.
The Center for Land Use Interpretation exhibit *The Nellis Range Complex: Landscape of Conjecture* included a bus tour of the Nellis Range area as part of the exhibit. The sold-out tour brought over 50 people out to southern Nevada, for a two day loop around the Range. As expected, permission was not received to enter into the Range at any point, making this a sort of virtual tour - a tour of an unvisitble place. The bus was met by local briefers at various points, visited the range perimeter areas wherever possible, and stopped at many unusual sites along the way, setting the context for the Range, and describing it from without.
A new site in the CLUI network is under development in Boron, California. A staging and logistic yard has been leased by the CLUI on the western edge of the town, to support activities in the Antelope Valley and the High Desert at large.

A new building was recently deployed to the site to serve as an office and occasional exhibition facility for the area, a region rich in unusual sites, and often addressed in CLUI programming, including the Route 58 guidebook, as well as regional tours and field trips.

The town of Boron sits between the Lehman Ridge rocket test site, which looms above the town, on the north edge of Edwards Air Force Base, and the largest open pit mine in California, the Borate mine from which Boron gets its name.

Down the road, east on Highway 58, the largest solar array in the world sits next to a Federal prison, across from a bombing range. In the other direction, west of Boron, are many superfund sites, aircraft test sites and storage yards, and more prisons.

“And that’s just for starters,” says CLUI program coordinator Erik Knutzen, “we’re really looking forward to the extrusion of more interpretive layers from this rich and varied terrain.”

Underwater Wonders of the National Parks: A Diving and Snorkeling Guide Compiled by the National Park Service, by Daniel Lenihan, Fodors, 1998

Focuses primarily on the natural wonders, but there are some interesting sites illustrated in this Fodors guidebook. A report on diving into Devil’s Hole in Death Valley, for example; underwater ranch houses at lake Amistad in West Texas; numerous wrecks off the coastal parks; and preserved petroglyphs on the submerged canyon walls at Lake Powell.


A classic in a class by itself. Given that the author is the creator of the Whole Earth Catalog, its no wonder that this book has the look and feel of the great architecture books written in the 1970’s.


In a wonderful earlier book, Living at the End of Time, Mitchell vividly describes his life in the thinning woods between the office parks and highways of the historic/high-tech industrial suburbscape outside Boston - Thoreau’s old Walden Pond neighborhood. This new book is similarly personal, regional, and often tangential. Not that these are bad things, but this is not the definitive book on Trespassing, nor does it try to be. But it would be nice if someone wrote that book.


The only book of its kind that we know of, and therefore indispensable. The country is divided into four sections, Northeast, South, Midwest, West and Southwest, and the parks are described in concise narratives of over a page each. All of the listed parks are open to the public.

Divided Highways: Building the Interstate Highways, Transforming American Life, by Tom Lewis, Viking Press, 1997

A history of the people and politics behind the creation of the Interstate highway system. A PBS documentary of the same name was also produced and cowritten by Lewis. "[Imagine] a wide sidewalk extending from the earth to a point in space five times beyond the distance to the moon; that’s how much concrete was poured for the Interstates…” (from the preface).


Imagine brand new dollar bills on top of one another in a tight stack (200 per inch) reaching as high as the ionosphere. Then imagine the stack continuing to the moon. Now you’re about half way to imagining five and a half trillion dollars, the amount this book estimates has been spent on building, deploying, defending against, and cleaning up after nuclear bombs. Far more than an economic analysis though, this long-awaited inventory exhaustively explores the structures and sites associated with the bomb. A must for any nuclear land use library.

Boring Postcards, by Martin Parr, Phaidon, 1999

This collection of English postcards presents a wonderful record of modernist civic architecture, highways, airports, trailer parks, waiting lounges, and other exciting landscapes, all portrayed in the otherworldly shades and tones of the old postcard printers. Clearly, when it comes to postcards, the more boring the better!


The best tourbook of “Hollywood” sites we’ve come across, by far. Accurate and updated stars homes, death sites, tv locations, industry sites, and more.
The only book available that describes in detail the nation's foremost weapons and R&D field test facility. Praised by both antinuclear activists and Department of Energy officials! 60pp, with fold-out map and over 100 illustrations. $12.50

Hinterland
Illustrated catalog of the 100 sites featured in the 1997 CLUI exhibition: Hinterland: A Voyage into Exurban Southern California. 112pp. Illustrated... $12.50

Route SB: A Cross-Section of California
Illustrated tourbook to this remarkable, 210-mile roadway. A perfect weekend-long trip from Los Angeles. 65pp. Illustrated... $12.50

5th Avenue Peninsula Tour
"An inexhaustive investigation of urban content." Self-guided tour of a portion of Oakland, California's industrial waterfront. 24pp. Illustrated... $5.00

The Chesapeake Bay Hydraulic Model
An illustrated history of this remarkable engineering accomplishment, the largest indoor hydraulic model in the world, now abandoned. 30pp. Illustrated... $5.00

Nuclear Proving Grounds of the World
A report on the primary nuclear test sites across the globe, and the hundreds of other sites where single nuclear blasts took place on, under, and above the earth, in the former USSR, USA, Africa, Australia, Pacific Ocean and elsewhere. 30pp. Illustrated... $7.50

Around Wendover: An Examination of the Anthropic Landscape of the Great Salt Lake Desert Region
A guidebook to "points of interest" in this special American landscape, with maps and directional information. 60pp. Illustrated, maps $12.50

Subterranean Renovations: The Unique Architectural Spaces of Shoe Caves
Examines the phenomena and depicts some of the best tourist cave environments in the United States, with contact and visitation information. From the CLUI exhibit. 30pp. Illustrated... $5.00

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Suggested Photo Spot Post Card and Tour Book $14.95
Full color book with 20 Suggested Photo Spot post cards, depicting the sites with the Photo Spot sign in the foreground. Also contains directional information to the Photo Spots across the United States. 46pp. Color Illustrations, mapbound.

Photo Spot T-Shirt $15.00
Features the Photo Spot sign. Be a walking Photo Spot!

How to Order
Mail to: The Center for Land Use Interpretation, 9331 Venice Boulevard, Culver City, CA 90232
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Please use enclosed order form or reasonable facsimile. Make check or money order payable to The Center for Land Use Interpretation.

Shipping and handling charges: $3.00 for the first item, $.50 for each additional item, and 8.25% tax if ordering in California.
COMING UP:
The perceptual arena of the American landscape
CLUI exhibition at the Witte de With Center for Contemporary Art, Rotterdam, Holland: February 26 to April 15, 2000
This exhibition of over 50 photographs from the CLUI archive examines the roles that interpretation plays with the creation and perception of places.

Due to the impending expansion of the CLUI Los Angeles facility, we will be suspending our planned exhibition schedule until the summer of 2000. Our library, photo archive, and other research resources are available by appointment during this period, and we look forward to better serving the public after renovations are complete this summer.

Earthworks and Entropy exhibition at the CLUI, Los Angeles: rescheduled for July, 2000
A contemporary photographic display about earthworks, art made by the shaping of earthen material. The exhibit explores the interaction of these works with their cultural and physical contexts, and the sculpting forces of erosion, which adds another quality to their morphology. Lectures and presentations will be part of the exhibit, including a presentation by Smithson scholar Hikmet Loe, who has unearthed some interesting new material about the building of the Spiral Jetty.

The Center for Land Use Interpretation is a nonprofit research organization dedicated to improving the collective understanding of the human/land dialectic. If you would like to assist with any of the projects mentioned in this newsletter, or any other project mentioned in CLUI literature, please contact The Center. All gifts are tax-deductible.

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