

Barry Lehrman

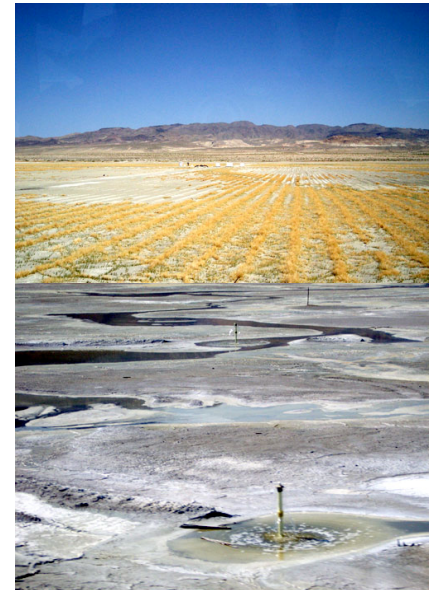
## Independent Studio Proposal

Susan Nigra Snyder - Advisor, Department of Architecture

Anita Berrizbietia - Advisor, Department of Landscape Architecture

### OWENS LAKE SYMBIOSIS - infrastructural ruralism

Since 1913, Los Angeles has diverted water from the Owens River to serve urban land speculation and the resultant population growth; this created a desiccated landscape in the Owens Valley that is prone to severe dust storms. The issue of particulate pollution, dust, was one of the key issues that initiated a shift from the Valley being a voiceless water colony with the 1998 court ordered mitigation plan<sup>1</sup>. My thesis is to challenge the myopic water mitigation policy in the Owens Valley, by utilizing the landscape to continue shifting the dialectic with Los Angeles from parasitic to mutuality. The process will be designing a mitigation plan for the Owens Lakebed that creates a functioning hydrological system that serves as both habitat and cultural resource, and is central to a landscape urbanism strategy that is charged by the tension between the metropolitan and the hinterlands. In creating a cultural landscape, the key issue of habitation will be addressed by developing an infrastructure around the periphery of the renewed lake that serves the local residents and the greater quantity of nomadic tourists who visit the Owens Valley. With the development of an *infrastructural ruralism*<sup>2</sup> with this project, I will explore the potential to encode hybrid functions within a robust system that transcends beyond the typical singular purpose that is the commonly attributed to infrastructure.



### 0.1 Site Description

As the antipode to Los Angeles<sup>3</sup>, the Owens Valley has been a territory of exploitation and colonization for the past 100 years<sup>4</sup>. As a site of massive shifts<sup>5</sup>, the cultural milieu of extraction and restitution is overlaid on a sublime tectonic landscape. With the 1998 Memorandum of Agreement between the City of Los and the Great Basin Unified Air

Metropolis Magazine 6/13/2004

Photos by Krystal Chang

<sup>1</sup> The EPA is administering the process, which is funded by the Los Angeles Department of Water and Power, and implemented by the Inyo Water District/Great Basin Unified Air Pollution Control District

<sup>2</sup> Rural areas are being defined as places that human activities are present sufficiently to be obvious, but with a low population (as the census bureau and others define it), not wilderness where the traces are few and far between. See <http://roadless.fs.fed.us>

<sup>3</sup> Thanks to Matthew Coolidge for suggesting this idea in a conversation on 10/14/04.

<sup>4</sup> Fred Eaton and William Mulholland started surveying and purchasing land in the Owens Valley in 1904 - though officially revealed in 1905; LADWP, Complete Report on Construction of the Los Angeles Aqueduct, 1916.

<sup>5</sup> The geography of the valley is a result of active tectonic movements with scarps of over 16' resulting from a single earthquake; the economy has swung from being driven by mining, agriculture, ranching to tourism

Barry Lehrman

Pollution Control District, a mitigation process was initiated, that for its scope and cost myopically focused on only a few specific results: the reduction of dust being blown off the dry lake and the sustenance of nesting habitat of the Snowy Plover<sup>6</sup>. With the scenic and historic legacy of the 'Deepest Valley', the implementation of a symbiotic process of mitigation will serve a greater constituency, and that is the core issue overlooked by the LADWP. With the restoration of wetland habitat by the scenic addition of water, Owens Valley is poised to become a renewed landscape; the direct California precedent is the Salton Sea that rapidly developed into a resort destination, and agricultural region before it started drying up, though it still is a significant habitat for migratory birds.

The Owens Lakebed is 262 km north of Los Angeles and until 1913 was a large pluvial basin that had a modern water depth of 7-15 meters<sup>7</sup> and briefly was plied by a steamship serving the local mines. The Lakebed is now a 100 square mile playa with scattered seeps, attenuated wetlands at the estuary of the Owens River, sand dunes, alkali flats and a remnant brine pool. To the west are the Inyo-White Mountains (which are almost as tall as the Sierras and home to the xeric Bristle Cone Forest). The completion of the Los Angeles Aqueduct initiated the diversion of the inflowing water from the Owens River - leaving the lake to slowly evaporate in the Mojave Desert heat and wind. Los Angeles expanded its intake after World War Two by drilling wells into the underlying aquifer that was maintained the agriculture life of the Owens Valley. As the Aqueduct journeys south, it passes through a system of canals, siphons, tunnels and reservoirs; as a byproduct it generates significant quantities of electricity through the 3000' drop down to the San Fernando Valley terminus. Inyo County is the size of Connecticut, yet has a residential population of around 18,000; various legislative acts limit growth and development to 'protect'<sup>8</sup> the watershed for Los Angeles (and have had the unintended effect of preserving the open space of the valley). The remoteness and the harsh environment are the two primary challenges of the site - the creation of a habitable place for humans will require ingenuity. The proximity of the aqueduct provides the basics of water and electricity required for most contemporary human occupation of a site.<sup>9</sup>

---

<sup>6</sup> There are three strategies for dust reduction specified, shallow flooding, planting, and gravel cover. It is also specified that all berms have 'snowy plover crossings incorporated every 500 feet'. *Exhibit B, Joint Statement of GBUAPCP and the City of LA*, July 15<sup>th</sup> 1998. The PM10 particle pollution is quite ironic for its reciprocity to the famous smog of LA, yet the dust has a greater national impact- traveling to Texas and beyond in greater quantities with its carcinogenic levels of metals. So far, 300 miles of pipe, 5000 irrigation bubblers, and miles fiber optic control wiring have been deployed to tap into two breaches of the Aqueduct.

<sup>7</sup> <http://geochange.er.usgs.gov/sw/impacts/geology/owens> there is a discussion of the effects of the aqueduct on the lake. Additionally, see [www.ovcweb.org](http://www.ovcweb.org)

<sup>8</sup> Mostly to limit local dissent and demand for water. See Hundley, *The Great Thirst* (2001) pp141-166 for a chronicle of the politics and efforts.

<sup>9</sup> While the water in the aqueduct is of high quality- it is not treated until it reaches Los Angeles, so there is a need for filtration before it is considered potable; the electricity is available from high-tension lines requiring step-down transformers for it to each domestic voltage.

Barry Lehrman

The existing ecology is comprised of alkali meadow and scrub communities with saltgrass and sacaton grass; Nevada saltbrush, rabbitbrush, greasewood, bitterbrush, inkweed, and sagebrush and comprising the shrubs (all are able to reach the water table with their roots). The wetlands and seeps have riparian community that may include cottonwood, black willow, red willow, coyote willow, and beardless wildrye, rushes and sedges depending on the quantity of water and salinity present. The soil is typically alluvial deposits of sands, silts, clay and some loam.<sup>10</sup> Over 320 species of birds occupy or migrate through the Owens Valley, and there are also a wide range of animal antelope, sheep and jackrabbits that range through the Valley. One of the most striking characteristics of the lake is the bright halobacteria blooms that color the brine red.



Photo by W.P. Armstrong  
www.desertusa.com

The final definition of the site parameters will occur after the scheduled site visit preceding the spring semester. Generally I am focused on the area between Route 395 and the historic 19<sup>th</sup> century shoreline to the west between Olacha and Cartago, and around Keeler in the northeast for the development of the *infrastructural ruralism* fabric. These areas have palimpsests of mining, industry, ranching, levees, roads and railroad grades; historically these were lakeshore towns that were sited in relation the background canyons and creeks (just to the side of the alluvial fans to avoid floods) and are all at a similar elevation on the valley floor.<sup>11</sup>

## 0.2 Program

The occupation of the protected watershed of the Los Angeles Aqueduct is an act of subversion and long overdue activation of place. In the extensive mitigation process, there is room for expanding the role of the Owens Lake into a regional destination that can generate new economic and environmental benefits. As a self-conscious artificial oasis (and southern gateway to the Owens Valley), the plan will be an adaptive reuse of the site that will explore the contemporary conditions with a heightened awareness. The stakeholders and audience that will be served are the local residents who benefit from economic development and increased biodiversity that will attract more visitors.

Owens Valley today is the destination for several idiosyncratic nomadic groups that will engage the mitigated lake in distinct ways that will be explored and addressed in the design process. The widest traveled are the foreign tourists (mostly German, Japanese, with some French and Canadian) seeing the sights of America, with Death Valley and Mount Whitney are frequent goals. Fishermen chase after the amply stocked lakes and streams of the region (though there are few native sports species left). Mountaineer, hikers and backpackers seek the

---

<sup>10</sup> Sources for plant communities include the websites for OVC and <http://darwin.bio.uci.edu/~susatain/global.sanssem/baked297.htm> (Prof. Peter Bowler- UC Irvine, paper written by Steven Bekedam 3/1997)

<sup>11</sup> Maps utilized includes: USGS – topography & aerial imagery; LADWP - Aqueduct information; Bureau of Land Management; State of California, NASA, and many others.

Barry Lehrman

challenge of the highest peaks in the contiguous 48 states and the solitude of the backcountry. Naturalists and the curious visit the unique Bristle Cone Pine forest in the Inyo-White Mountains to be humbled by their age. Skiers pass through to Mammoth Mountain in the wintertime in search of snow. Sailplanes and hang-gliders utilize the ample and predictable updrafts and mountain waves. Birdwatchers flock to the migratory feeding grounds of the wetlands along Owens River and in the remnant of Owens Lake, along with watching the soaring raptors on the Valley's updrafts year-round. Of these groups, only the birders are drawn specifically to the lake - the expansion of the Lake's relevance is integral to heightening value being shared with natural ecologies and human economies. There is a common thread between these visitors, that they are seeking a source of inspiration and challenge as a respite, while the residents see the land as an exploitable resource.

Within the multiple agencies that define the bureaucratic limits and zoning of the site<sup>12</sup>, there are few loopholes that allow temporary occupation and recreational uses of the Valley floor. As a significant part of an urban watershed, preserving water quality is one constraint; any device that can improve the quality is worth developing. Sustainability is another constraint to be explored – how can the landscape function without continuous input and provide for the visitors. The temporal limitation mandates the development of a feedback mechanism to limit the length of human residency. The emptiness of the site suggests a strategy of nodes and points (as opposed to homogeneous distribution) to both preserve the greater viewshed and to allow for the accumulation of resources in the sparse terrain. The *infrastructural ruralism* will address these issues and set the parameters to control and enable access to the site.

## Case Studies

### 1.0 Infrastructural Ruralism

*Infrastructural urbanism* as explored by Stan Alan<sup>13</sup>, offers a glimpse into contemporary redefinition of metropolitan and suburban generation. Inverting and expanding this idea into an *infrastructural ruralism* is a test of the efficacy of this concept and a probe of the underlying issues of infrastructure. The augmentation of the rural land in America is typically done with an economic agenda, whether it is mining, farming, industrial or exurban subdivision. It is rare to find an intentional intensification of the qualities that are central the understanding of the rural (see footnote 2), while it is quite common to find urban strategies that that celebrates the metropolitan precept of density, diversity, activity, and culture to start. If human traces are what separates the rural from wilderness, when does the density of activities transform the place into urban? The structures of the rural landscape are identical to those in urban regions, a

---

<sup>12</sup> Federal agencies include: BLM, Bureau of Indian Affairs, Bureau of Reclamation, Forest Service, National Park Service, and Fish and Wildlife; The Great Basin Unified Air Pollution Control District includes Nevada, and Utah; also the California Department of Fish and Game, the CA Lands Commission, the University of California, Inyo County, local towns and the City of Los Angeles all jurisdiction over part of the valley; private lands are few and far between. The Audubon Society, and the Sierra Club also lobbied for the environmental aspects of the Memorandum.

<sup>13</sup> *Points + Lines*, pp 48-57

Barry Lehrman

road is still a road, utilities lines still hang from poles, but there is a diffuse distribution of these remnants that both can reassure the closeness to civilization and frustrate the search for the pristine/authentic place. Authenticity is one of the unstated pursuits of Architectural and Landscape educations, though it is often clothed in the theory *du jour*. Infrastructure - for its simplicity and clear utility has become one expression of purity of concept and has an ingrained authenticity.

We live in an environment saturated by such visible and hidden systems. The infrastructure of everyday life is a benign presence (until it breaks). We rarely challenge the tradeoffs we make for every benefit gained - the environmental, economic, and social repercussions of modern conveniences. Cities could not exist without the prosthetics of highways, electric grids, communication satellites, landfills, oil pipelines, and more. In the countryside, the availability of communication has shifted the economic reach from the local to the global and relieved the cultural isolation of most corners of the world - but what have we lost? As one of the oldest augmentations to our cities and towns, plumbing is one of the simplest to comprehend; yet its origins in the irrigation ditches of the Indus Valley and elsewhere overshadow the modern sophistication and scale of the typical municipal water supply. Water is one of the essential ingredients for terrestrial life; with it, we can grow our food, sail around the planet and synthesis the chemicals that modern industry relies on. The simple desire of turning on a faucet or opening a bottle of spring water, has the moral implications of diverting water from one ecosystem (or depleting a finite fossil source) to serve the human will (at what price?) In the industrial age (and in the parched American West), the ecological value of free flowing was ignored.

Most public infrastructure is created with a single purpose - a highway is rarely combined with new parkland (except when Robert Moses was in charge), sewers with mass transit, or the electrical grid with public housing. The social context and benefits are multiplied beyond the narrowly engineered realm of bureaucracy; where swimming pools are connected to the infrastructure of drinking water, fire prevention, public health, parks and recreation, and the ideals of childhood summertime along with many other parts of culture- illustrating a few of the interconnections. In the shift from the industrial economy, there is an emerging trend for reuse and adaptation of infrastructure and sites as they become obsolete; from entire airports abandoned after the cold war, to individual factory buildings being converted into apartments. This reprogramming needs not be limited to underutilized resources - there have been several attempts at the emergence of a new architecture based on multiplicities of use.

Most Americans experience the hinterlands and spaces between our cities from the infrastructure enabled air-conditioned comfort of driving along the interstate highway. Contact with the local residents are limited to the service staff at interchangeable rest stops and gas stations that have become the diffuse presence of the American corporate ideal- the local is relegated to the quaint past and the presence is regulated by the national franchises. Technocrats and highway engineers clone bridge after bridge across a state - the road emerges as less as an expression of place (and the basis of our mobile lives) then the economic engine that champions the efficiency of reproduction. As the highway enters the metropolitan fringes, the expansive sweep of the countryside and the verdant pleasures of the forest are channeled into the concrete

Barry Lehrman

barricade and sound walls that isolate the inhabitants of the dormitory subdivisions from the voyagers and commuters. Is the road so alienating an experience that it must be hidden from sight (or even buried)?

Rural infrastructuralism[SNS1] is integral to the experience of small towns; the water tower, grain elevator or smoke stack is the visual indicator of habitation from afar. The farmhouse with the aggregation of barns, silos, rusting combines is a concentration of forces of production and extraction- and tied into a global distribution network and commodities market. While on the strip malls of Main Street the vernacular blocks of stores and showrooms, the connections to the commodities markets, the loading dock, is often hidden around back. The omnipresent sign and billboard become a semiotic infrastructure that never seems to coalesce into a recognizable place distinct from the clones of the national brand. The infrastructure of Main Street is often an afterthought of tangled transmission lines, painted stripes on the road, and the continual construction required to accommodate the boom times. So does the presence of Main Street represent the triumph of infrastructure or just the expression of the dream of commerce? Once escaped from the exurban interface, what is the heart of the rural region- is it the open space, the few inhabitants, or the visitor from the city appreciating the openness around them?

## 2.0 The Los Angeles River- the cause and effect

Los Angeles has historically relied on irrigation ditches to provide water for its residents and for agriculture. The *Zanja Madre* (mother ditch) diverted water from the Los Angeles River in the Elysian valley to the Mexican residents of the Alta California city- by the late 19<sup>th</sup> century; the network and local population had expanded to the point of overdrawing the resources of the river and local aquifer. Looking north to the Owens Valley was a technological leap of faith and a cultural milestone for Los Angeles, which allowed the modern metropolis to emerge by providing ten times the water required by the population. Accompanying the construction of the Aqueduct is the noir stench of corruption and greed as the darker legacy of the Aqueduct. Resolving the issue of compensation for past injustices and environmental damage of the Owens Valley has only recently been addressed.



Center for Law in the Public Interest  
-the Cornfields and the Flow of History  
(2004)

The aqueduct is the *über* river of Los Angeles - expanding the watershed and hinterlands 250 miles north to the eastern Sierra Nevada Mountains and Mono Lake. As part of the political maneuvering to finance the original construction, the city of LA expanded its borders by annexing the San Fernando Valley and claiming most of the unincorporated area of the basin. As a result of purchasing the water rights from the Owens Valley ranchers, the Los Angeles Department of Water and Power became the 3<sup>rd</sup> largest landholder in the



The Los Angeles river in 1900

Blake Gumbrecht (2001)

Seavers Center for Western History

Barry Lehrman

California after the State and Federal government.<sup>14</sup> While the efforts to tame the flood prone Los Angeles River have resulted in a concrete lined ditch through densely populated neighborhoods - the Aqueduct runs through minimally settled areas, yet provides two of the required elements for the modern city: electricity and water.

The transplant of water from the Owens Valley to 'The Valley' has spawned a loaded and derogatory cultural presence in the context of urbanization; sprawl, vapid gum-snapping big-haired shop-a-holics, and a lack of identity are the stereotypes of the modern San Fernando Valley. If the water had been left in the Owens Valley, then it probably would have become the eastern sierra equivalent of the sprawling San Fernando/Orange County exurban endless subdivisions for commuters to Las Vegas or Los Angeles.

### 3.0 Water Issues

There is urgency when engaging the flow of water in the American West due to a growing urban population's demand for water and the competition of agriculture. With the evidence of a climatic change providing a lower annual rainfall and the depletion of aquifers that augment the flow of the snow fed Owens River (and other watersheds), the proposed moratorium of development in the Owens Valley is overtly to protect the watershed and while not said is the elimination of competition for water and the dominance of Los Angeles. In the American west, Water is rarely allowed to flow unharnessed through the watershed (serving only the ecosystem) and into the ocean.<sup>15</sup> All of these issues have an architectural implication (beyond that of sustainability) as they connect with the core urbanity of Los Angles and its future prosperity and growth. Change is an issue that is often overlooked in architecture- there is a fleeting moment when a building is considered at its peak- then rust and entropy set in. In contrast, the practice of Landscape Architecture actively seeks out and engages change - the plants grow, the land erodes and the site accumulates meanings and memories. I am looking to intertwine these opposing mores by engaging the ephemeral shape of a liquid - water - as part of the building material<sup>16</sup> and the process to construct my proposal. Culture is the second mode of my topic- in that I am seeking to engage and construct an identity for the aqueduct anchored by my creations at the cascade and intake. The urgency of the water-politics of the American West begs that awareness be raised - reaching outside the medium

---

<sup>14</sup> So, the Owens Valley became a colonized territory to be exploited without representation until recently.

<sup>15</sup> Where this happens, it is viewed as a wasting a precious resource, a point driven home in several books, including the seminal *Cadillac Desert*. It's not isolated to the developed world; China seems to be using dams as more of a political tool then generator of economic or social growth.

<sup>16</sup> At the other extreme, building without any water is quite challenging- most contemporary materials utilize copious quantities of water as part of the manufacturing process- even the most xeric process seems to have a hidden facet of water embedded within. On the jobsite, there are wet and dry trades, though carpenters and welders both require water for some fabrication techniques, and painters can replace water with VOCs...

Barry Lehrman

and craft of architecture to borrow techniques from advertising, publishing and the media can augment the narrow projection of architectural thinking.

#### 4.0 Nomadic Settlements – Instant Cities

Nomadic patterns of settlement are native to arid regions and with the aboriginal Native American tribes of the Owens Valley. Contemporary phenomena of temporary cities have been studied:

Slab City, CA: winter population 3000-5000 boondocker utilizing campsites on an infrastructure of foundation slabs and unregulated land on a former marine base on the Salton Sea and Colorado River Aqueduct. Anarchy and self-organization.



Polar Inertia.com, March 2003

Quartzsite, AZ: permanent population 2,000, 1.5 million working class retirees in RVs visit each year. Infrastructure - interstate exit and 10,000+ RV hook-ups. An event is the nucleus, but the gathering is a larger phenomenon than the mineral show.



Polar Inertia.com, July 2003

Black Rock City, NV: 35,000 drug and sex crazed bohemians annually gathering for the Burning Man Festival (August 30 - September 6). Structured anarchy with admission ticket - radial street grid and pyrotechnic spectacle. But is an event truly a settlement?



undocumented source

#### Traditional Nomads structures

Native Americans with their tepees, and wigwams were often a mobile culture that followed seasonal patterns of hunting and other food. Extensive trade networks traversed the continent and the powwow was the market town for its brief duration. As a prehistoric source, sustainability was integral to many of their customs, though their population was kept close to balance with their resources by the lack of surplus. Bedouins and the deserts of Arabia are the stereotype of nomadic survival in a desert landscape- grazing and migration from oasis to oasis was the only option to maintain sufficient water before modern wells were developed. Mongolian yurts are celebrated for the sophistication of the folding structure and the material effects of felt. Igloos are the most ephemeral structures as they melt away, but in the harshest environment they become the most confining and self sufficient space.



Barry Lehrman

## Final Product and Schedule

The two aspects of the thesis will play off each other: the lake mitigation process will resonate with the architectural occupation of the site. Preparation and collection of scientific criteria, relevant site information and theoretical texts will precede the initiation of the spring semester. Additional case studies and research will be pursued with the advice of the advisors. Please note that drawing sizes are not determined yet and will be based on the scale and scope of information being presented.

An ongoing study of the residents and visitors will frame each week. For each group, their travels will be speculatively mapped and indexed on the site. A catalog of behaviors, needs, desires and habits will be compiled to supplement the development of the program.

There will be a continued exploration of *Infrastructural Ruralism* that will tie the semester together, and a text will be written.

### Fall Semester:

Weekly meetings with Susan Snyder and occasional meetings with Bob Giegengack will help refine this proposal. Selection of landscape advisor will be ongoing.

Architecture 790, taught by David Turnbull is providing a wide range of theoretical models and case studies.

Architecture Thesis Group Meeting: November 30<sup>th</sup> (Oct 5<sup>th</sup> & Nov 2<sup>nd</sup> already happened)

Architecture Thesis Presentation: December 10<sup>th</sup> afternoon

January 3<sup>rd</sup>-8<sup>th</sup>:

### Site Visit

Photographic documentation and sketches; collection of material samples and anecdotes. Flying, driving, walking- tours from LADWP, Inyo County Water Department and Owens Valley Committee. Getting my hands dirty and feet wet.

### Spring Semester:

Week 1 (January 10<sup>th</sup>): Visitor vs. Resident

Varies

Assimilation of the fieldwork and the preparation of base maps: including mapping the watershed and tributaries of Los Angeles, sections through the lake, network diagrams that explore the temporal traces of historic flows and occupations. Defining and cataloging the rural character of the Owens Valley with the assemblage of the panoramic photographs and indexing of images taken during the visit.

Week 2 (January 17<sup>th</sup>): Foreign Tourists

Landscape: Critical analysis of mitigation processes used at Owens Lake. Alternate mitigations strategies and potential application to OL, with analysis of water volumes needed for different scenarios

NTS

Architecture: parameters of infrastructure + anthropomorphic study of mitigation strategies- one or two sketches/montages per strategy

1:50

Infrastructure of dislocation, relocation and understanding

**0.0.10**

11/10/04

Barry Lehrman

Week 3 (January 24th): Birdwatchers

Land: Vignettes of different configurations of mitigation proposals and hybrids,  
9 to 16 total sketches 1:12k

Arch: exploring the parasitic potential of each configuration- where additional program  
can be sited, continued development of parameters 1:360

Infrastructure of observation and magnification

Week 4 (January 31st): Fishermen

**Pin Up** - review of mitigation sketches and site work (1 hour maximum)

Follow-up: rhetorical challenge site selection and refine or relocate

Develop contextual symbiosis - when the lake engages culture vignettes.

Infrastructure of aquatics

Week 5 (February 7th): Hikers

Land: temporal shifts across the lake- hydrology & ecology, study model 1:12k  
development of lake plan with flows and traces 1:5k

Arch: cultural engagement of flows, diagrams and details NTS

Infrastructure – lightweight deployable structures

Week 6 (February 14th): Sailplane/hang-gliders

Land: Grading and sections for mitigation, start of riparian strategies 1:5k

Arch: Anthropomorphic sketches, paths/trails – life support. Sections with inhabitation and  
articulation of edge details and material studies 1:100

Infrastructure of wind and windbreaks

Week 7 (February 21st): Naturalists

Presentation preparation - project development and refinement varies

Infrastructure of Eden

Week 8 (February 28th): Skiers

**Mid-Review** FSD

Spring break - travel to California for post-graduation life research

Week 9 (March 14th): Retirees

Arch: Desert habitation strategies and studies, case studies 1:100

Land: revision of mitigation plan as needed, strategic regional plan started.

Infrastructure of leisure

Week 10 (March 21st): Ranchers

Arch: program development and environmental performance criteria. Sketches, plans,  
sections, axonometric diagrams for 4 typologies 1:100

Land: flora and fauna 1:1000k

Infrastructure of surfaces

**0.0.11**

11/10/04

Barry Lehrman

Week 11 (march 28th): Miners

Arch: development – 3d modeling

Land: physical site model initiated

TBD

Infrastructure of extraction

Week 12 (April 4th):

**Pin-Up**

Week 13/14:

Work & synthesis/final presentation preparation

Week 15:

**Final review- tbd**