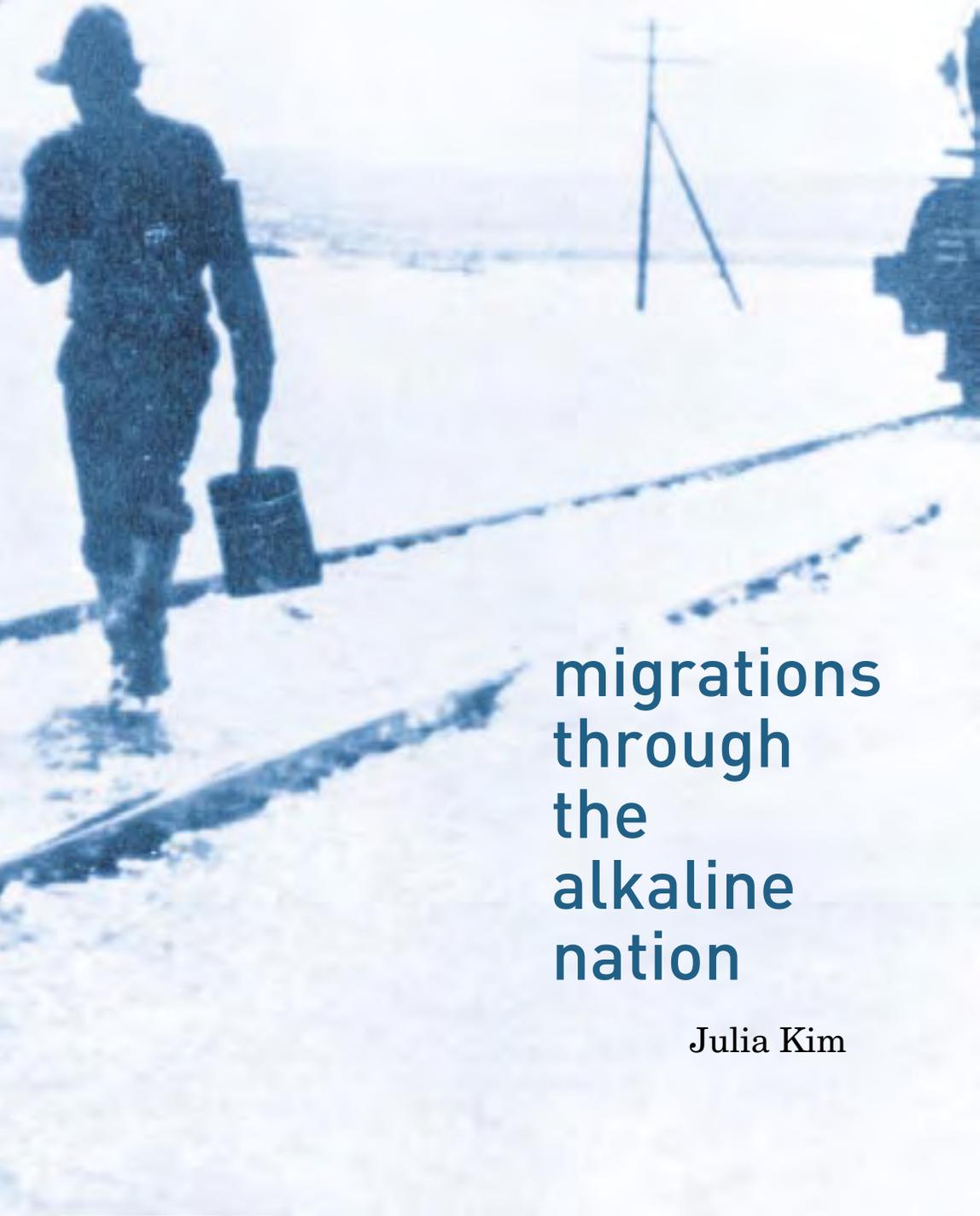


Sight Lines Thesis Projects 2004
Graduate Studies in Visual Criticism, CCA



migrations
through
the
alkaline
nation

Julia Kim

Migrations Through the Alkaline Nation



At the tail end of California, about an hour east of Palm Springs, lies a body of water that emerges

like a mirage in one of the driest and hottest deserts in the world (Figure 1). At 228 feet below sea level and approximately four hundred square miles in area, it is California's largest inland body of water. Up close, it's hard to imagine that the land slopes toward the sea, but when one observes the movement of water and the life that evolves around it, the Salton Sea is like a clogged drain.

Figure 1
Map of the Salton Sea,
from the 1974 issue of *Inland Empire*.





Figure 2 Mouth of the New River.

4

Here is a story where a misplaced river flooded into a basin to create a landlocked sea. Where a sea became a drainage basin for agricultural and industrial runoff. Where a drainage basin is the crown jewel of biodiversity, with abundant fish and plant life, largely introduced by humans, and over four hundred different species of migratory birds. Where borders are porous. Where undocumented immigrants make the perilous journey across the United States-Mexico border to find work on the farms or pass on through to urban areas. Where a transient community of snowbirds, or veterans and retired drifters in their RVs, squat on an abandoned military base called “Slab City.” Where death is as natural to the landscape as is the artificiality of its life. Where water flows across international boundaries,

collecting wastewater from fields and factories, transporting both the dead and the living.

Bill Debuys writes in his book *Salt Dreams*,

Gravity decrees that in low places consequences collect, and here is the lowest of the low: Salton Sea, growing saltier by the day and stewing with the waste of the upstream world.¹

At the Salton Sea, the dark underbelly of dreams lies exposed in a landscape of misplaced nature speckled with deserted homes, renegade compounds, and migrant communities riddled with found parts and garbage. It is a stark contrast to the nearby wealthy enclave of Palm Springs, where lush golf courses, outdoor misters, and gated communities with swimming pools abound (*Figure 2*).

PHOTO COURTESY OF KIM STRINGGELLOW



Gravity decrees that in low places consequences collect, and here is the lowest of the low: Salton Sea, growing saltier by the day and stewing with the waste of the upstream world.



Figure 3

Collage from *Inland Empire* magazine, 1974.

This image accompanied an article on the innovations of agricultural industry.

Nature Unbound

The Salton Sea is a complex landscape full of paradoxes, with the potential to be an environmental disaster or an opportunity for a greater understanding of hybrid places, where things are not simply divided up into the natural and the artificial but overlap and fuse into more complex relationships.

As William Cronon, an environmental historian argues, the natural world cannot exist apart from culture. He writes in his introduction to *Uncommon Ground: Rethinking the Human Place in Nature*:

Ideas of nature never exist outside a cultural context, and the meanings we assign to nature cannot help reflecting that context. The main reason this gets us into trouble is that nature as essence, nature as naive reality, wants us to see nature as if it had no cultural context, as if it were everywhere and always the same. And so the very word we use to label this phenomenon encourages us to ignore the context that defines it.²

When we use the words nature or natural, the meaning of the word is

different depending on the context in which it is being used. The idea of a “pure nature” as something lost and reclaimed, or in opposition to the artificial or human invention, is a cultural construct, imagined and arbitrarily imposed like a barrier upon the landscape. The meaning of nature is like a mirror reflecting the ideals of the viewer. Which leads to the question, How do people imagine and have an impact on nature? (*Figure 3*).

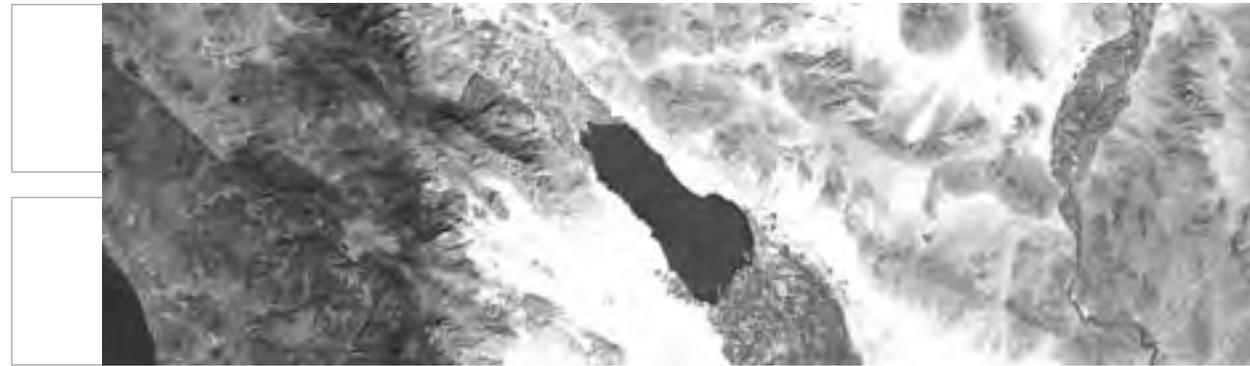
Landscape is not merely the world we see, it is a construction, a composition of the world. . . the consequence of a collective human transformation of nature . . . Landscape is a way of seeing the world.³

The first recorded use of the word landscape in the English language reveals that nature in the genre of landscape painting was first imagined before it was actually experienced in real life. The word landscape derived from the Dutch word *landschap*, which meant “region or tract of land.” First recorded in 1598, it was

borrowed by the English as a painters' term when Dutch artists were on the verge of becoming masters of the landscape genre. The word evolved to mean "a picture depicting scenery on land." Interestingly enough, thirty-four years passed before the use of the word as a view of natural scenery, which suggests that people were first introduced to landscapes in paintings before they actually saw the landscapes in real life.⁴

8 Imagining nature became a way of shaping and influencing the way people experienced it. With this understanding, the imagination can be a way to create a dialogue between desire and reality, or the "artificial" and "the natural." Nature however, cannot solely be seen as a construct of the imagination. Humans are not in complete control of their environment the way the artist is to a painting. There are dynamic autonomous biological processes and unavoidable interactions that spawn change that are an intrinsic part of understanding the complexities of ambiguously defined places where things are always in transition, moving through, across, and out of the landscape.

The Salton Sea was created within a hundred years from a rupture in an irrigation canal, and its history flourished into a map of transformation that can be used to understand hybrid and ambiguous realities. The ecological evolution of the Salton Sea is representative of a nature that is fluid, impure, and connected to the human imagination. My exploration of the Salton Sea begins at this juncture: between an imagined static nature and a place full of movement and instability, a kind of postmodern ecology that considers the place of accidents and dispersals, paradoxes, and histories. With human intervention, the Salton Sea can remain a vital tool to explore the possibilities of new hybrid worlds. To situate the Salton Sea in a larger context, I am focusing on the influences or ruptures and migrations that originate from outside its region. I will look at the relationship between various migratory forces at the Salton Sea: water, birds, snowbirds, and undocumented immigrants. Through these migratory groups, I hope to question the notion of boundaries and borders, to question ways of affecting and reconnecting with the environment, and to reveal how the Salton Sea exemplifies and illuminates the hybridity of our world.



SATELLITE IMAGE COURTESY OF THE REDJANS INSTITUTE

From a distance, the Salton Sea is the heart of a larger depression, the Salton Basin (also known as the Salton Sink), surrounded by mountains and higher land on all sides. The main body of the Salton Sea is in the Imperial County, and the northern half extends into Riverside County. The San Diego county line is to the west, the United States-Mexico border in the south, and the La Paz county line in Arizona is to the east. Many of the historical and cultural influences that shaped the present-day Salton Basin emerge out of the migrations through this area (*Figure 4*).

At the southernmost tip of the Salton Sea, the water level recedes into a lagoon, part of the Salton Sea Wildlife Refuge, where flocks of birds glide along the glassy surface, foraging with their long narrow beaks for food. This is also where the arid desert makes the transition into uniform agricultural fields. From the air, the southern half of the Salton Sea is pressed up against the checkerboard landscape of the

Imperial Valley. The blocked gradations of greens and golds are tucked into the fertile, dried-up bottom of prehistoric lakes. Water flows abundantly through these lands and yet the water does not originate from here.

A network of dams and canals distributes a quarter of the Colorado River's flow to over 572,386 acres. Drainage water full of salt and nutrients from the fields and industrial areas in Mexico flows north toward the Salton Sea via the New and Alamo rivers. Nutrients consist of "nitrogen and phosphorus compounds derived from sewage, fertilizers, and detergents."⁵ In 1901, the first irrigation water from the Colorado River reached the Imperial Valley. In this new state, the flow of water became highly controlled and water became the most important regulated commodity in the West. The farmers in California don't welcome unpredictable and unmanageable variables like rain in their carefully controlled fields (*Figure 5*).

Figure 4 Satellite image of the Salton Sea.



PHOTO COURTESY OF KIM STRINGFELLOW

Figure 5

Foam on the New River which originates in Mexico (this river eventually flows into the Salton Sea).



The Creation of the Salton Sea

Millions of years ago, what some call the Sea of Cortez or the Gulf of California went beyond what is now Indio, a town north of the Salton Sea. The silt carried from Colorado's upper basin mountains and the northern plateaus of Utah and Arizona eventually created a natural dam in what is now the Imperial Valley and Mexicali. The rich deposits of soil made these areas ideal for farming, but the Colorado had a tendency to meander from a set path. To fully comprehend the erosive powers of this river, consider the Grand Canyon: the river, which was named "Rio Colorado" because of its reddish-tinged muddy water, over hundreds of years carved a valley 217 miles long and two thousand to six thousand feet deep. In his book *The Wonders of the Colorado Desert*, George James describes the river as "the excavator, the steam shovel, the power dredger, the carrier, the depositor of it all. Unaided it has

accomplished what all the men of all time with all the machines ever invented could not have done."6 It glided across hot, barren landscapes with nothing but sand and sagebrush for miles, and as it approached California, its silt-laden tail gave the appearance it had whipped around like a loose hose.

Sometimes the main channel of the river flowed north toward the Salton trough, a natural depression that lies 238 feet below sea level. Before the Salton Sea existed, it was not uncommon for prehistoric lakes to appear, evaporate, and vanish in this area. These prehistoric lakes were collectively called Lake Cahuilla. The first Lake Cahuilla appeared in 694 AD and was approximately six times the volume of the current Salton Sea. When the channel silted over to create a barrier, the river changed its course and flowed south across the Mexican

A pivotal point in the course of American expansion was the rupture in one of the irrigation canals, when the Colorado flowed uncontrollably into the Salton Sink for two years. Although the Colorado River provided water to an emerging agriculture industry, that water was incredibly thick with silt. At times, it transported 160 million tons of solid matter past Yuma, Arizona, every year.¹⁴ This river sculpted mountains and valleys with its alluvial deposits. Accumulating in canals, clogging arteries, and causing water levels to rise, silt was increasingly becoming problematic in the irrigation system. During the summer floods of 1904, a twenty-foot earthen levee blocked the flow of water in an irrigation heading on the main stem of the Colorado, a dozen or so miles below Yuma. The California Development Company (CDC), under the direction of Charles Rockwood, who was the chief engineer at the time, and Anthony Heber, president of the CDC, dredged a temporary fifty-foot-wide channel that became known as “the infamous Mexican cut,” infamous because it was both a reaction and a solution to the escalating tensions between the CDC, federal officials, and farmers who grew hostile as their crops shriveled

Within six years from when the Imperial Valley was first irrigated, a bare desert was radically transformed into urban and agricultural oasis. The California Development Company had constructed over seven hundred miles of canals and ditches and brought fifteen thousand settlers into Imperial Valley. “Thousands of acres of alfalfa, herds of cattle, droves of fat swine and flocks of turkeys” filled the valley.¹² New railroad lines sprouted towns like Brawley, El Centro, and Calexico. Over the years, the tumultuous Colorado River became the most contentious and labored river in the entire world. If it were not for the irrigation from the Colorado River, the West as we know it today would not exist. Debuys writes,

The old vision of the irrigated West had offered a fantasy mosaic of clustered small farms tilled by virtuous families. The new vision had loftier aspirations. It was Promethean in range and breadth. It served not social ends but economic ones: growth was the grail that it pursued. Even more, the new vision revered mastery for its own sake. It strove for completeness in its control of nature and in the utilization of resources. Such mastery promised not just wealth but greatness.¹³

The word “reclamation” itself refers to a human imposition on nature. The use of the word suggests that there was once an ideal state to which the land must be restored. Prior to irrigation a survey was conducted. Debuys explains,

A survey does several things. It converts wild land into property susceptible of ownership and available to markets. More than the removal of native people or the eradication of predators, a survey confirms the taming and domestication of space. . . . It provides a blueprint for a closely controlled physical world.⁹

During the settlement of the West, cities and farming called for large-scale water projects. In 1891, the California Development Company set out to tame the arid desert. Engineers cut a channel off the Colorado River to try to irrigate prospective farmland and to regulate the flow of water with a wooden headgate.¹⁰ In 1901, the California Development Company, with the help of George Chaffey, an irrigation engineer from Canada, brought water to the southern half of the Colorado basin to create the beginnings of the hydraulic empire in the industrious West. The land promoters renamed the “Valley of the Dead” as the “Imperial valley,” to encourage the interest of settlers in imperial expansion. People who wanted to get water to irrigate their land had to buy stock in water companies owned by the Imperial Land Company, a front for California’s Development Company.¹¹

delta, depositing the immigrant sediments as it flowed towards the Sea of Cortez.⁷ The lake eventually evaporated, leaving behind a ghostly white stain of shells and calcium carbonate along the mountain ranges.

The native tribes such as the Chemehuevis, Mohaves, Cahuillan, Yumans, Cocopahs, and Serranos that inhabited this region for thousands of years farmed in accordance to the migration of water. Travel songs describing landmarks and bird migrations were used to guide individuals through the desert and functioned as oral history, map, and spiritual journey. At least one Cahuillan lineage preserved the formation of Lake Cahuilla in an oral history, describing how people had to migrate from the lower basin with the rise of water levels and how they would return and follow the shrinking shoreline for fish and waterfowl.⁸ Eventually word got out through explorers and travelers that this seemingly inhospitable desert region could be irrigated and reclaimed as a productive agricultural oasis. The economic exploitation of the region dramatically changed the ecology of the place and everything connected to it.



Figure 6 Flood Scene, 1906.



Figure 7 Men Walking on Flooded Southern Pacific Railroad Tracks.

from thirst. Representatives of the United States government did not support the private interests of the CDC developers and refused to give them the right to tap into the river's water supply. Heber, however, found a way to deliver water to the Imperial Valley through Mexico to avoid the regulations set before him by the U.S. government. A channel was cut four miles south of the Mexican border with no controlling device put in place. The plan was to put in a controlling headgate later when the company had sufficient funds. If the funds were not available, they would use a brush-dam to close the cut before the summer floods.¹⁵

No one was prepared for an unusually wet year. El Niño affected the glacial drainage and increased the amount of rainfall. In December, an early flood came rushing down the Gila River into the Colorado, and more floods of increasing volume followed, growing the discharge of the Colorado from 12,000 to 115,000 cubic feet per second.¹⁶ The river breached the "infamous" channel and headed toward the Salton trough. Several measures were taken to shift the river back to its proper channel, but the gravel and brush-dams were swept away by the river's force. In April the river raged out of control, four billion cubic feet of water rushed

PHOTOS COURTESY OF COACHELLA VALLEY HISTORICAL SOCIETY

through the intake every twenty-four hours, and the breach widened to eight hundred feet (*Figure 6*).

Meanwhile, the river flowed precariously close to the Southern Pacific railroad tracks, and several times the tracks had to be rebuilt and moved to higher ground. Unless the river was stopped, the railroad company would be at great financial risk. Edward Harriman, president of the Southern Pacific Railroad Company, felt compelled to take matters into his own hands. The day after the 1906 earthquake in San Francisco, the now-bankrupt California Development Company

stepped down and the Southern Pacific took over. Attempts to build a proper control gate were swiftly eradicated by the torrential current. In one year the channel that formed from the breach widened to four thousand feet. Thirty thousand acres of rich land were washed away into the sea, over fifty miles of new track had to be rebuilt, four-fifths of Mexicali was destroyed, and the New Liverpool Salt Company, a lucrative salt mine, lay at the bottom of a new lake. The river was unstoppable and continued to surge through the breach, swallowing up land and eroding the faith of settlers (*Figure 7*).¹⁷

Between March 1905 and February 1907, the river poured its entire flow into the Salton basin to create the Salton Sea. An engineer named Henry Thomas Cory took over Rockwood's position. Cory assembled a large force of "2000 laborers, an army of mules and horses, and eight locomotives" to create a massive rock and gravel dam.¹⁸ After the rupture was successfully closed, a new break occurred further south.

Night and day, rock and gravel transported in from the surrounding states were thrown into the rushing torrent at a rate of one carload every five minutes until the breach was finally closed on November 4, 1907. What remained was a vast lake with waves that rippled like an ocean. Ducks, geese, seagulls, and pelicans appeared by the thousands. George James described a newly created island inhabited by a flock of pelicans.

Eggs by the thousands were to be seen, from one to five in a nest . . . In a number of nests the young were already hatched and a more hideous-looking set of bald-bodied creatures I never saw, their large heads and heavy bills adding to their awkward appearance. In the distance the flocks of older birds had settled, making the sea white and dazzling with their clean and well-kept plumage.¹⁹



Reconnecting

The "Great Diversion," as it was called, was a juncture, a pivotal interaction. In the midst of a great struggle to save the livelihood and dreams of settlers a new improvisation with the fluid and mobile emerged. A state of constant flux was interrupted with settlement that resulted in a rupture. And that rupture produced dramatic changes of state that reverberated through all that was connected to it. With the creation of the Salton Sea and the wildlife that migrated towards it, an ambiguous fragile nature came into being, one that awed George James and gave him a glimpse of what would've been considered an impure nature. A nature that is no longer separated from civilization but rather redefined as being connected to and in need of human interaction for the maintenance of life. The history of the Salton Sea makes visible the human involvement in the transformation of



PHOTO COURTESY OF AMI STRANGFELLOW

a landscape where the origin of this new nature is in fact a place of change.

During the past few years, more runoff from the Imperial Valley was diverted to San Diego, putting the sea at risk once again. As much as the Imperial Valley needs the Salton Sea as a drainage basin for agricultural wastewater, the Salton Sea is also in need of the runoff to sustain the microorganisms that live off the nutrients. Some people argue that the Salton Sea should take its "natural" course, to eventually dry up into a salt bed. Others argue that because something is "artificial" it should not receive any less attention.

The Salton Sea itself is a fragile place between the artificial and the natural, the pure and impure, the fixed and the fluctuant. It is a place where external forces mix and meet,

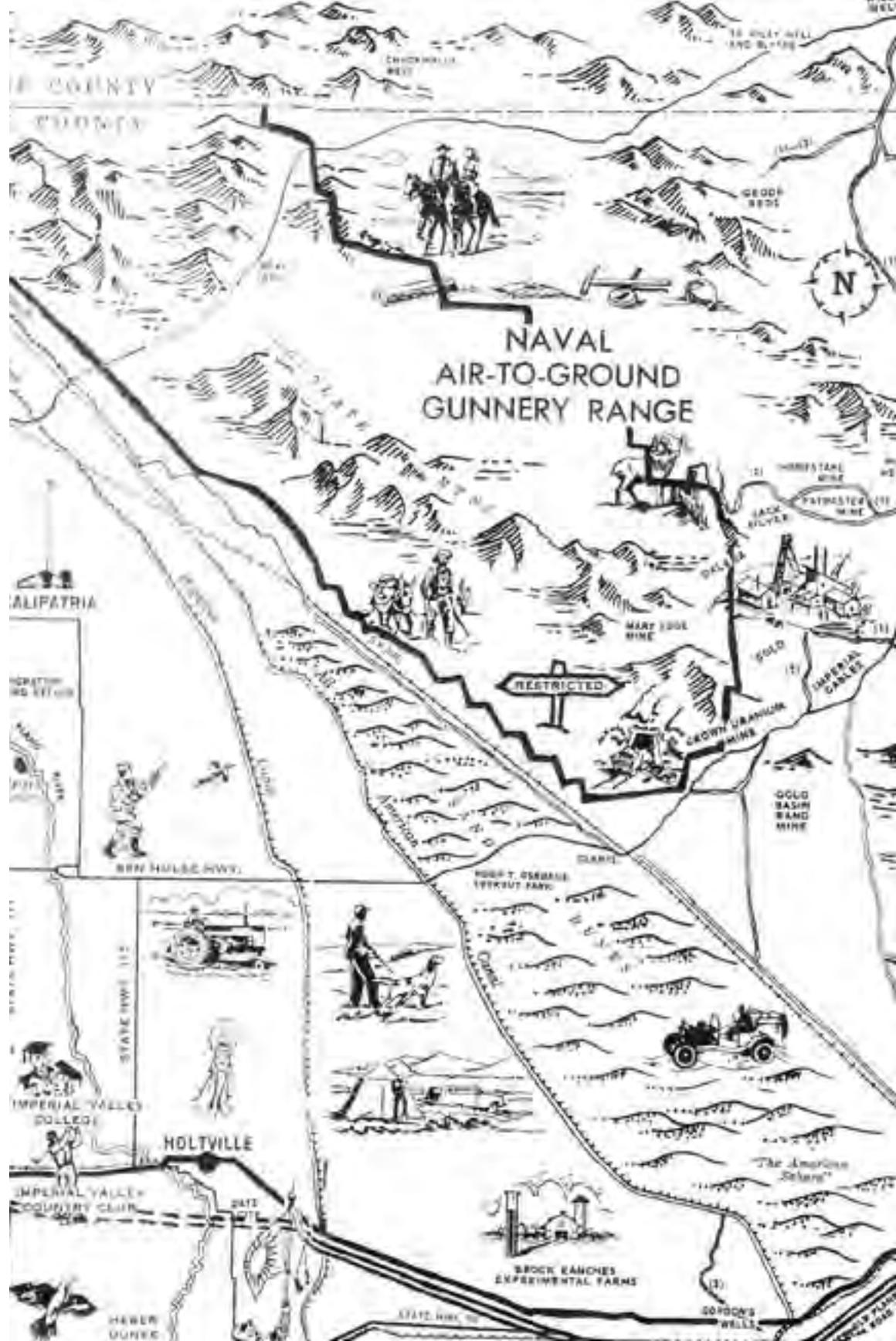
a place of despair and of promise, a place of crisis that cannot be ignored but can provide an opportunity for a cooperative change in the way we perceive and understand the power of the human imagination in shaping a better world. So how can a place of crisis be opportunistic?

In the Chinese language, the word crisis (危机) is composed of two words, danger and opportunity. Another way of putting it is emergency and emergence. Foucault writes that emergence is "the moment of arising, produced through a particular stage of forces, the entry of forces; it is their eruption."²⁰ It is this idea of emergence that is opportunistic in a place of crisis. The Salton Sea region is an ideal place for the interaction necessary to break down some of these barriers of purity and fixed ideas of what is "natural" or "artificial," precisely because it is a place of movement and instability.

Endnotes

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- 1 William Debuys, *Salt Dreams: Land and Water in Low-Down California* (Albuquerque: University of Mexico Press, 1999), p. 8.
- 2 William Cronon, *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W.W. Norton, 1996), p. 35.
- 3 Denis Cosgrove, "The Idea of Landscape," in *Social Formation and Symbolic Landscape* (Madison, Wisc.: University of Wisconsin Press, 1998), pp. 13, 14.
- 4 *The American Heritage Dictionary*.
- 5 William Debuys, p. 236.
- 6 George James, *The Wonders of the Colorado Desert*, (Boston: Little, Brown, 1911), p. 55.
- 7 "Geologically the Mexican delta and the Salton Sea are linked, culturally the native tribes used both areas, birds use both areas as migratory rest stops, and both areas are threatened by urban sprawl. Both areas depend on discarded water. Management of these critical areas is complicated by national borders, different languages and competing needs for water." Salton Sea Authority, "Sea Notes: A Newsletter of the Salton Sea Restoration Project," August 2001.
- 8 Jerry Schaefer and Ken Moslak, *An Inventory and Evaluation of Lake Cahuilla Cultural Resources Along Imperial Irrigation District's SA-Line. San Diego and Imperial Counties, California*, December 2000 report.
- 9 William Debuys, p. 72.
- 10 Headgate: a gate for controlling the water flowing into a channel (as an irrigation ditch)
- 11 William Debuys, p. 81.
- 12 John Hamilton Gilmore, *San Francisco Call*, November 16, 1906.
- 13 William Debuys, p. 163.
- 14 George Kennan, *The Salton Sea: An Account of Harriman's Fight with the Colorado River* (New York: Macmillan, 1917), p. 7.
- 15 Brush-dam: a barrier constructed out of piles of brush and sandbags.
- 16 George Kennan, p. 38.
- 17 *Scientific American*, December 22, 1906, pp. 467-468.
- 18 *Scientific American*, December 22, 1906, p. 468.
- 19 George James, p. 518.
- 20 Michel Foucault, "Nietzsche, Genealogy, History," in *The Foucault Reader*, ed. Paul Rabinow (New York: Pantheon Books, 1984), pp. 83-85.



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California College of the Arts | 1111 Eighth Street | San Francisco, California 94107

migrations through the alkaline nation

About the Thesis Project

I stumbled upon the Salton Sea a few winters ago when I was on my way to Baja California in the northern part of Mexico. The sky was heavy with a rain that would not yield, and I was concerned that the roads might be too muddy, so I headed east until the rain stopped and found myself driving through a bizarre landscape of forlorn towns, defunct motels, and abandoned cars partially submerged under water. The Salton Sea stood still like a mirror reflecting everything around it. The shoreline, encrusted with salt, cracked under my feet. Electric poles, fences, and trees dried to a chalky white stuck mysteriously out of the water. In the West, men and women were praised for taming nature, but here at the Salton Sea, it looked like nature was reclaiming itself amidst the forgotten relics of a dream.

The following essay is part of a larger series of vignettes that explore the migrations of water, birds, snowbirds (veterans and retired drifters), and undocumented immigrants in the Salton Sea area. Through these migratory groups, I hope to question boundaries and borders, to question ways of affecting and reconnecting with nature, and to reveal how the Salton Sea exemplifies and illuminates the hybridity of our world.

The first vignette explores the migrations of the Colorado River and the rupture that created the Salton Sea. Human intervention created an artificial sea teeming with paradoxes, and now human intervention is necessary for the maintenance of life and well-being in this new hybrid state.



About the Author

Julia Kim is a San Francisco-based writer who graduated in 1999 with a BFA in textiles at the Rhode Island School of Design. In 2001, in an effort to create a hub for artists in the Japantown community where she grew up, she cofounded and directed the nonprofit arts organization Locus Community Arts, a performing arts venue, which has recently

found its new home at the Galeria de la Raza in San Francisco. In 2003 she was awarded a writer-in-residence position at the Atlantic Center for the Arts, where she worked with art critic Dave Hickey. Her research and writing has centered on California's Salton Sea, where mobile populations of birds, elderly "snowbirds," and migrant agricultural workers cross paths within the extreme stasis of this toxic yet alluring environment.