

Instinct Extinct

The Great Pacific Flyway

A collaborative exhibition by
Valerie Constantino, Glenda Drew, Ann Savageau

Artist's Inquiry
by Valerie Constantino



Annual Bird Migration, Chico, California
screen shot: Glenda Drew

Bird migration is the one truly unifying natural phenomenon in the world, stitching the continents together in a way that even the great weather systems, which roar out from the poles but fizzle at the equator, fail to do. It is an enormously complex subject, perhaps the most compelling drama in all of natural history.¹

– Scott Weidensaul

The collaborative exhibition *Instinct Extinct* evolved in response to our mutual appreciation for migratory birds, concerns for their survival and determination to preserve open space.

With an emphasis on the birds of the Great Pacific Flyway, we explored a number of sanctuaries throughout California: Grey Lodge, Humboldt Bay, Los Banos, Point Reyes, the Salton Sea, San Francisco Bay and Yolo Bypass. Reciprocal

observations and research coalesced with our individual ways of working, generating cross-disciplinary strategies and overarching themes including avian anatomy, avian flight and navigation biomechanics, biodiversity, political ecology. This writing, beginning with a general overview of these subjects, tracks the creative and speculative processes of the exhibition's individual works.

The trans-global migration of birds and other species by way of perceived aerial pathways has captivated imaginations and sparked scientific investigation for centuries. It was ornithologist Frederick Lincoln who, while analyzing data from an avian banding program in the 1930's, first applied the term *flyway* to each of the four principle North American routes.

The sights and sounds of great flocks of birds with seven-foot wingspans and even the notion of a single songbird traveling thousands of miles according to seasonal rhythms are as thrilling as they are reminiscent of our own migratory nature. But we are also aware that nature's poetic panoply is directly linked to a global, political landscape. Everywhere, human occupants establish subjective boundaries and enact economically motivated strategies in relation to the land and its resources. Often, these actions have deleterious effects upon the availability and suitability of these life-sustaining resources.

Dependent upon a synchronized network of vital conditions, migratory birds are particularly susceptible to ecological alterations such as ocean acidification, sea level rise and vegetation shortages brought about by human activities. With increasing frequency ornithologists and bird-watchers too, are noticing that when flocks arrive at their resting sites, there is less to go around. Elizabeth Kolbert, author of **The Sixth Extinction: An Unnatural History**, stated: *Pretty much everything now is on the move or should be on the move.*² In his advanced study **Bird Migration and Global Change**, George Cox notes that 8 percent of migratory and fresh water birds and nearly 44 percent of migratory sea birds are at risk.³ The innate search for refuge and nourishment contributes to the potential failure of displaced species, as conditions met in unfamiliar terrain are increasingly less hospitable if not completely overtaken by human development.

Nationally, and despite ongoing attempts to dilute and overturn this critical legislation, The *Endangered Species Act of 1973* continues to protect those most vulnerable. Signed into law by President Nixon, it was designed to protect *critically imperiled species from extinction as a consequence of economic growth and development untempered by adequate concern and conservation.* Its goals are to *prevent the extinction of imperiled plant and animal life, and secondly, to recover and maintain those populations by removing or lessening threats to their survival.*⁴

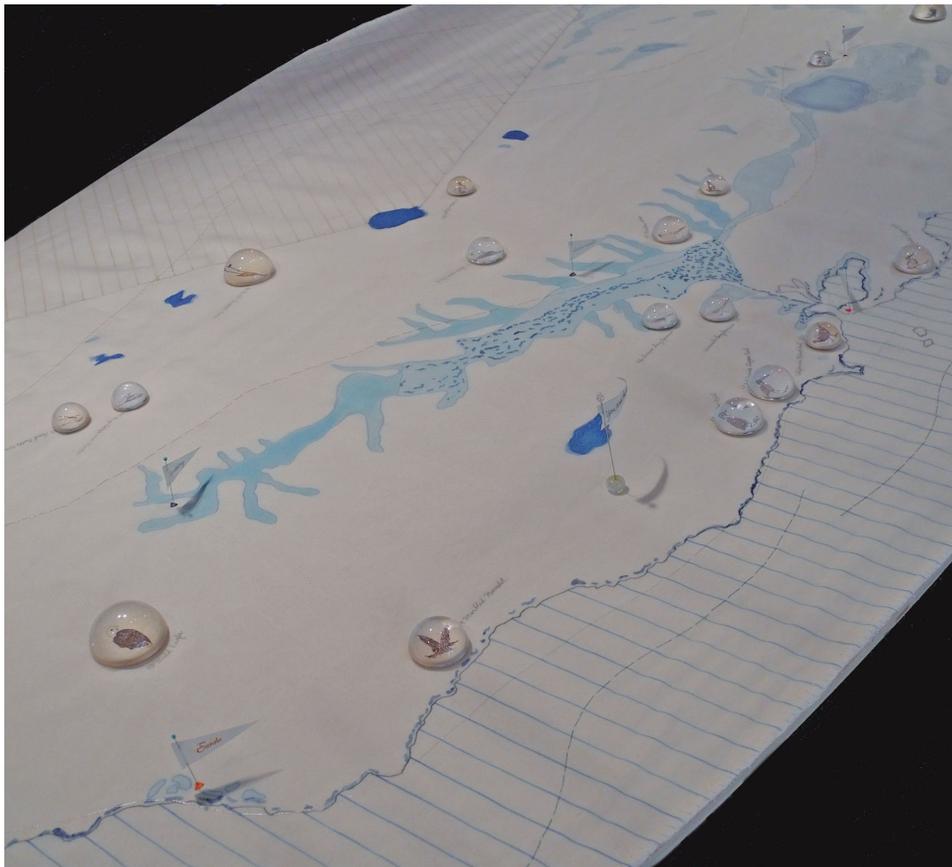


Flooded Rice Fields, Olivehurst, California
photo: Valerie Constantino

At the state level various government agencies including the *Bureau of Biological Survey*, now the *United States Fish and Wildlife Service* for which Lincoln collated his findings, maintain fragments of natural habitat within re-engineered landscapes known as *National Wildlife Refuges*. Though moderately successful, it must be noted that by the 1930's most of California's abundant wetland habitats, fluvial systems, inland salt marshes and other aqueous sanctuaries had been drained into fields and pastures with little consideration for wildlife. Our initial collaborative undertaking then, was the creation of a map to mark flight patterns, represent migratory species and illustrate this environmental narrative.

*We cannot navigate and place ourselves only with maps that make the landscape dream-proof, impervious to the imagination. ... once wonder has been chased from our thinking about the land, then we are lost.*⁵

– Robert MacFarlane



Collaborative quilted and embroidered map of California with aqueous ecosystems, dominant bird group flight routes, flagged major cities and framed drawings of at-risk birds

The ubiquitous road map, those redolent *Rand-McNally* predecessors to our current day satellite-dependent *Global Positioning Systems*, evolved with the science of cartography, a reductive portrait of the earth via the grid. Technological honing over time offers ever-more accurate representations of relative scale, expanding our ability to navigate land, ocean, sky, space and time. Less systematized visualizations of place sometimes called *story maps* were used well before grid maps became commonplace. Though not always specific to distance or boundary, story maps describe contextual, mythological aspects of land, expressing intimate relationships between traveler and place.

Offering a bird's-eye-view of California's terrain our map is a marriage of geometry and narrative. Its representation of the state's borders is to scale including accurate markers for major cities and one more to indicate: *You are Here*.

Installation of collaborative map
with silk suspension
The Grace Hudson Museum
Ukiah, California



Story maps are nuanced and substantive, and the materials and methods of choice are part of the story our map tells. Layered textiles are used to recount the history of place and time. A first layer of cotton muslin illustrates California's primordial waterscape with a range of turquoise blues. An overlay of sheer silk depicts the meager remains of these wetlands in darker blue, while it reveals and therefore contrasts the extent of these areas on the layer below.

Cloth is fluid and textural, like the surface of the earth and its bodies of water. It is pliable and porous, and readily accepts various drawn, painted or stitched markings. Drawing deciphers what the eye perceives through nuanced gestures of the hand. As pigmented media leaves its mark upon a receptive surface, our relationship to that which is observed, deepens. The measured act of sewing lifts us out of everyday relationships with time, connecting us to the physicality of birds and their movements. Embroidered meanders in four colors suggest the flyway routes of sea, shore, land birds and waterfowl, the four dominant groups.

Acrylic cabochons frame hand-drawn portraits of vulnerable species, which are placed in proximity to their migratory range along the embroidered routes. At the time of this writing thirty-three species of birds were designated *Endangered* or *Threatened* by the *United States Fish and Wildlife Service* in the California / Nevada territory.⁶ Through a process of cross-referencing additional species were selected based upon their *Climate Change Vulnerability (CCV)* ranking⁷ bringing our number of drawings to

thirty-nine. These designations are subject to change each year according to local and national ecological studies. The inclusion of these particular birds, many of them familiar, represents the universality of uncertain and perilous.

This Map Key, presented with the installation, lists each bird by common and Latin name, its position on the map by number, its dominant group (land, sea, shore, or waterfowl), its environmental status and its CCV rating. It also color codes the embroidered flyway routes of the four dominant groups and the historical and present-day aqueous ecosystems.



MAP KEY

SPECIES LIST

	Common Name	Scientific Name	Status	CCV*	Dominant Group
1	Sonora Yellow Warbler	<i>Dendroica petechia sonora</i>	CA** Special concern	3	land
2	Gila Woodpecker	<i>Melanerpes uropygialis</i>	State Endangered	3	land
3	Elf Owl	<i>Micrathene whitneyi</i>	State Endangered	1	land
4	Wood Stork	<i>Mycteria Americana</i>	Federally Threatened	3	shore
5	Oriole, Scott's	<i>Icterus parisorum</i>	Moderately Threatened	1	land
6	Yuma Clapper Rail	<i>Rallus longirostris yumanensis</i>	State Threatened, Federally Endangered	1	shore
7	Short-tailed Albatross	<i>Phoebastria albatrus</i>	Federally Endangered		sea
8	San Clemente Loggerhead Shrike	<i>Lanius ludovicianus mearnsi</i>	Federally Endangered, CA Special concern		land
9	San Clemente Sage Sparrow	<i>Amphispiza belli clementeae</i>	Federally Threatened, CA Special concern		land
10	Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	State Endangered, Federally Endangered	3	land
11	Coastal California Gnatcatcher	<i>Poliopitila californica californica</i>	Federally Threatened	3	land
12	California Condor	<i>Gymnogyps californianus</i>	State Endangered, Federally Endangered		land
13	Ashy Storm-Petrel	<i>Oceanodroma homochroa</i>	Special concern		sea
14	Xantu's Murrelet	<i>Synthliboramphus hypoleucus</i>	State Threatened	2	water fowl
15	Western Snowy Plover	<i>Charadrius alexandrinus nivosus</i>	Federally Threatened	2	shore
16	Western Yellow-billed Cuckoo	<i>Coccyzus americanus occidentalis</i>	State Endangered	2	land
17	Belding's Savannah Sparrow	<i>Passerculus sandwichensis beldingi</i>	State Endangered	3	land
18	Alameda Song Sparrow	<i>Melospiza melodia pusillula</i>	CA Special concern	1	land
19	California Least Tern	<i>Sterna antillarum browni</i>	State Endangered, Federally Endangered	1	sea
20	Long-billed Curlew	<i>Numenius americanus</i>	Special concern		shore
21	Bank Swallow	<i>Riparia riparia</i>	State Threatened	3	land
22	Mountain Plover	<i>Charadrius montanus</i>	CA Special concern		shore
23	Light-footed Clapper Rail	<i>Rallus longirostris levipes</i>	State Endangered, Federally Endangered	2	shore
24	California Black Rail	<i>Laterallus jamaicensis coturniculus</i>	State Threatened	1	shore
25	Samuel's Song Sparrow	<i>Melospiza melodia samuelis</i>	CA Special concern	1	land
26	Suisun Song Sparrow	<i>Melospiza melodia maxillaris</i>	CA Special concern	1	land
27	California clapper Rail	<i>Rallus longirostris obsoletus</i>	State Endangered, Federally Endangered	1	shore
28	Yellow Rail	<i>Strix nebulosa</i>	CA Special concern	1	shore
29	Marbled Murrelet	<i>Brachyramphus marmoratus</i>	State Endangered, Federally Threatened	1	water fowl
30	Bald Eagle	Bald Eagle	State Endangered, Federally Recovered		land
31	Northern Spotted Owl (Short distance)	<i>Strix occidentalis caurina</i>	State near Threatened, Federally Threatened		land
32	Great Grey Owl	<i>Strix nebulosa</i>	State Endangered, CA Special concern	2	land
33	Least Bell's Vireo	<i>Vireo bellii pusillus</i>	State Endangered, Federally Endangered	2	land
34	Inyo California Towhee	<i>Pipilo crissalis eremophilus</i>	State Endangered, Federally Threatened	2	land
35	Greater Sandhill Crane	<i>Grus canadensis tabida</i>	State Threatened		shore
36	Swainson's Hawk	<i>Buteo swainsoni</i>	State Threatened	2	land
37	Willow Flycatcher	<i>Empidonax traillii</i>	State Endangered, Federally Endangered		land
38	Arizona Bell's Vireo	<i>Vireo bellii arizonae</i>	State Endangered	2	land
39	Gilded Northern Flicker	<i>Colaptes auratus chrysoides</i>	State Endangered	3	land

*CCV = Climate Change Vulnerability rating of 1 - 3, with 1 representing the most vulnerable

**CA = California

HISTORICAL WATERSCAPE: LOWER, COTTON MUSLIN LAYER

-  Coastal brackish and saltwater marshes
-  Freshwater marshes and lakes
-  Riparian forests
-  Saline

PRESENT DAY WATERSCAPE: UPPER, SILK ORGANZA LAYER

-  Present day waterscape (excluding rivers and canals)

INTERPRETIVE EMBROIDERED FLYWAY ROUTES OF DOMINANT GROUPS

-  Copper thread - tracks generalized routes of migratory land birds
-  Silver thread - tracks generalized routes of migratory sea birds
-  Gold thread - tracks generalized routes of migratory waterfowl
-  Variegated blue green metallic thread - tracks generalized routes of migratory sea birds

Map Key, Design
Gale Okumura

As a final emblematic cue, an expanse of diaphanous silk floats above the mapped terrain. With threads of varying qualities and hues, soaring birds as shiny needles, fixed through the textile into flight formations, stitch the sky, sea and earth, and all of life together into a vast global network.

One of the finest things in the world is feathers. Sometimes they is so pretty you can't believe they just grew that way out of a bird... But you got to be careful with feathers. Each one got its own special ways and its own kind of power. Each one belongs to that bird it came from and you can't forget that.⁸

– As told to Warren L. d'Azevedo



Participatory wall installation of feather prints on rice paper

Indigenous cultures across time and place incorporate found materials and objects from life as it is lived: the hide of an animal hunted for sustenance is used for protective covering, its bones, fashioned into tools. These elements, the skins, skeletal remains, teeth, talons and feathers of various animals and birds, are respected for their energetic properties too. More like saints' relics than talismans, feathers are portals to another realm, guardians of the bearer of origin's potency. To be in possession of an eagle feather is to join with the characteristics of that noble and powerful bird.

In the context of modern, urban society, laws are in effect to regulate our interaction with the land, its resources, and wildlife. *The Migratory Bird Treaty Act* of 1918 was the first international effort in response to what had become the real potential for the extinction of migratory species due largely to market-hunting and other forms of opportunistic harvesting. Originally agreed upon by the U.S., Great Britain and Canada, and later with Mexico, Japan and Russia, it establishes prohibitions to:

...pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention . . . or any part, nest, or egg of any such bird. (16 U.S.C. 703)⁹

There are a few exemptions in deference to tribal customs and ceremonies. Otherwise, clearly defined hunting restrictions apply: only specified game birds may be killed and only their parts collected. Even casual hikers must refrain from gathering the biological castoffs of protected migratory birds.

In addition to instances of actual allowable feathers throughout, the exhibition includes a wall installation of feather prints on Japanese rice paper. The tradition of fine art printmaking implies the cloning of an original while suggesting the implausibility of precise reproduction. In creating a direct print from a found object from nature, a feather, a leaf or a fish skin for example, the suggestion to replicate is superseded by the more ghostly than literal results. Produced with community participants, the collective presentation of these prints reinforces our collaboration with the natural world while distinguishing the unique properties of each wondrous agent of flight.

*I hope you love birds, too. It is economical. It saves going to heaven.*¹⁰

– Emily Dickinson

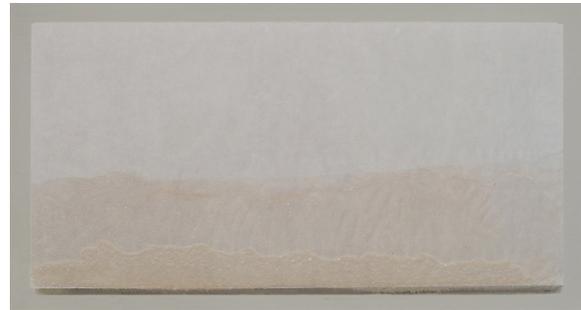
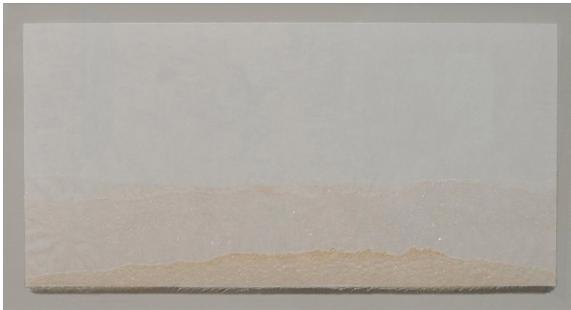


Navigation Box and Hunter Box
Ann Savageau
photos: Barbara Molloy

Beyond our human quest for information, we are moved, to examine nature's remnants, perhaps in consideration of a primordial, corporeal tie to that which we encounter. With regard to the recovered parts of once live birds, we wonder: of what phase in our evolutionary course might these avian fragments tell?

Exploratory research included visits to natural history museums and wildlife refuges to study anatomical cast-offs: rare feathers, entire wings and skeletons, individual bones, talons and skulls with distinctive beaks and various eggs and nests. These inspections inspired an arrangement of artifact and box assemblages.

Each small-scale work is composed of recovered or reproduced biological finds, other self-made elements including photographs, audio tracks, drawings, paintings and other found fragments. Each composition is a world, a personal, miniaturized consideration of migration, conservation or navigation, an anatomical study, an ode to a distinct species. The *Navigation Box* for example, bases its compositional elements upon recent studies on the biomechanics of bird navigation and imagines how birds see the earth's magnetic fields. As with all of these assemblages, our perspective shifts from the overall scale of the exhibition space to the intimacy of the box, effecting a more private reflection upon the phenomena of bird migration.



Salt Drawing 1 (Pacific Ocean)
Salt Drawing 2 (Salton Sea)
Valerie Constantino

Additional small works appear throughout the exhibition including the paired *Salt Drawings*. These compositions visualize the relative salinity of the freshwater *Salton Sea* and the salt water *Pacific Ocean*. The horizontal patterns of salt crystals are generated by the seepage and subsequent evaporation of salted water on rice paper. Salt-to-water ratios were calculated based upon recent saline data for each body of water.¹¹

The comparative resulting designs underscore our concern for the *Salton Sea*, with a current twenty percent higher saline ratio than that of the *Pacific Ocean*. Historically, this inland lake, located in the southern central portion of California, has provided sustenance for hundreds of species of migratory and resident birds. The combination of rising salinity, low oxygen concentrations, infestation by parasites, hydrogen sulfide-generated fish kills, and a declining prey base will ultimately render it unsustainable for all forms of life.¹²

*When we try to pick out anything by itself,
we find it hitched to everything else in the Universe.*¹³

– John Muir

As disparate as humankind may be, myriad customs and characteristics provide a foundational warp and weft to separate and shifting differences. The variously allied people of the *Pacific Flyway* suggest a kind of précis for this cultural and individual diversity. They are represented here in a series of video portraits, highlighting those aspects of bird migration that link and distinguish them. This writing assumes a kind of linearity, yet the actual video installation offers a more random viewing system, as the cycles of migration suggest.

Long before the arrival of European settlers, Native Peoples lived in accord with the cycles of nature, including the recurring passages of migratory birds. All aspects of their lives, periodic hunts, ceremonial practices and nomadic habitable routes were woven together according to season. Though their populations have been decimated, many tribal descendants live today in and around the ancient territories, honoring ancestral ways in observance of earthly cycles.

Obviously, the social map along with the topography has been radically altered since the colonizer's westward exodus across the North American continent. Hunters of those early days took advantage of seasonal swells in bird populations, while farmers exploited growing seasons. As conservationists continue to press for the protection of the endangered and threatened, advancements in scientific research on trans-global migration and altering food and water supplies, confirm the necessity for cooperation despite conflicting requisites. Developing partnerships between these groups along with policy makers encourage more efficient and agreeable approaches towards wildlife and habitat preservation.

Citizen scientists, bird enthusiasts, poets, artists, and all of us who are unaffiliated professionally yet feel connected to all things avian, are an essential part of this growing cooperative network. Contributions of images, stories, sightings and photographs, along with participation in community activities such as festivals, bird counts and banding, help to maintain focus on the future of migratory birds.



John Sokolowski,
Waterfowler
screen shot: Glenda Drew



Candace Sigmund, Education Coordinator
Grassland Environmental Education Center, Los Banos, California
screen shot: Glenda Drew

Towards this future, dedicated teachers, often operating on absurdly limited budgets, are pivotal in relation to the plight of migratory birds and the overall wellbeing of open space. In tune with our ties to land, sky and water, environmental educators call attention to the great birds of flight, the first chirps from the nest, and the inter-dependencies between all forms of life. They lead our children out of doors, fostering delight in the marvels of this substantive world.

*I would that we were, my beloved, white birds on the foam of the sea!*¹⁴

-- William Butler Yeats

Early in the twentieth century wildlife photographers William T. Finley and Herman T. Bohlman traveled throughout the wetlands of northern California. Their images of nature's abundance and beauty heralded the popularity of wildlife photography. Photographs of birds in their natural environs published by *National Geographic* and *Audubon*, among other similarly inclined circulations, became an effecting force in the conservation movement, generating concern for migratory birds, and moderating the influence of market and recreational hunters.

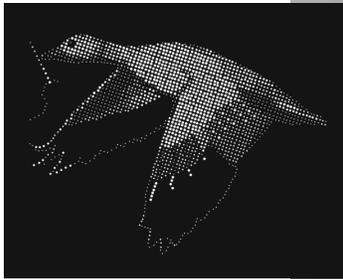
Ongoing conflicts across the globe, pitting threats of extinction against the desire for market driven 'commodities' such as ivory, exotic hides, and shark fins, in addition to rare feathers and caged birds, underscore the challenge to de-commodify animals and their parts in the face of increasing economic disparity worldwide.

Concurrently, nearly all ecologically minded organizations maintain interactive image-rich websites with this aim in mind: If the citizenry cannot get to the countryside, bring the countryside to the citizenry. With similar intent, still and animated imagery throughout the exhibition offers a conduit between space, time and human and avian individuals.



Inspired by a shared desire for lift off, the exhibition's *stroboscope* contains serialized photographs of individuals in handmade wings acting out their dreams of flight. As visitors trigger a motion sensor, an internal disc rotates and the strobe light flashes. The resulting animation of the sequential images conveys the illusion of motion.

Penelope in handmade wings for stroboscope
Glenda Drew and Ann Savageau



Goboscope
Glenda Drew



The *goboscope*, a second rotational device, also activated by visitors, projects a progression of shadowy, halftone birds in flight into the upper regions of the surrounding architectural space. Like a prayer wheel or a drop spindle, the cyclical form of this specialized system in tandem with its repeating imagery, echoes the seasonal migratory continuum, and highlights once more the flyway as unifying global tapestry.

*On soft spring midnights, the air is alive with the flight notes of
unseen warblers and vireos, thrushes and orioles, sparrows and tanagers,
filtering down through the moonlight like the voices of stars.*¹⁵

– Scott Weidensaul

There is the material of our being, the stuff of which we ourselves are made, and there are unseen elements too, those nano-particulars that most of us do not see unaided by technological apparatus. Sound and light for example, which modern physics describes in terms of points, waves, strings, and other poetically charged traces are palpable things, all buzzing within and around us.

Our intuitive responses to sound, to music, tones of voice, and the chorus of birds, insects and other non-human creatures, corroborate our elemental affiliation with the world beyond human-made environments. Although usually over-powered by the mostly jarring sounds of urban life, it is this drone of nature that connects us to the subtle pulse of the universe.

The exhibition includes compositions of sounds gathered on location along the *Pacific Flyway* and from specialized ornithological audio collections. There may be moments when a visitor to the exhibition is alone within the architectural setting and may listen more intently, perhaps noting a particular birdcall, the ubiquitous honking of Snow Geese, the trill of an endangered song sparrow. There may be moments of human activity, chatter and the scuffle of footsteps that blends or competes with the intermittent sounds of nature offered here. However the exhibition's audio fragments are experienced, their inclusion reminds us that like birds, we transmit and interpret sound. We are of this audible world.

As it turns out, the *flyway* concept is a somewhat limited description of how birds actually traverse the globe. Based upon advanced computerized tracking methods, we now know that many species do not travel with such precision. Certain species and individual birds may travel a north-to-south pathway in one direction and then veer towards an east-to-west or diagonal pathway on their return flight.¹⁶ More than we imagined, bird migration is a thoroughly integrated, shifting global network. For migratory species, the earth is one habitat.

Combined with this contracted ecosystem, we hear with mounting frequency of no-return carbon levels and real-case extinction scenarios. If *hope is the thing with feathers...*,¹⁷ as Emily Dickenson's elegy imagines, then escalating signals such as these emphasize the precariousness of our prospects. Yet, we live each day capable still of appreciating wild things and strengthening our pursuits for alternative outcomes.

In **Seeking Refuge: Birds and Landscapes of the Pacific Flyway**, Robert Wilson writes: *The Pacific Flyway – tattered and frayed as it is – can still endure, but it will require more generosity than we have offered in the past. Having claimed the habitat of migratory birds to build our farms and cities, it is time to give some of that space back.*¹⁸ Continuing studies on bird migration and the effects of climate change along with increased protections of sanctuaries and nutrient-rich networks globally are more critical than ever. Many of these practices are in effect in California, along flyway ranges nationally and throughout the world. Local and intercontinental communities must reinforce these efforts backed with targeted legislative actions.



Montage / Collage Series
Valerie Constantino, Ann Savageau, Glenda Drew

*Move on, bird, move on, teach me
To move on.*¹⁹

– Fernando Pessoa

Weeks before moving to California, I dreamed of visiting my friend Amy in San Francisco. In my dream, she showed me around her apartment and then into a sunlit bedroom. There in a canopied bed, draped with red and yellow flower printed chintz, a Great Blue Heron slept. I was tired from my journey and so I joined the majestic bird under the blankets for a nap. When I woke from my dream, I was happy. Welcome to California.

This sense of wellbeing was due I am certain, to the intimate connection with the heron. There was nothing unfamiliar about him, no reason to consider why a bird was in a bed or a room in an apartment. The absence of boundary in my dreamscape lies at the core of empathy. Birds, the creatures of the earth, need what we need: warmth, sustenance, companionship; they feel what we feel: pain, deprivation, loss.

Like poetry and art, like land, sea and sky, potentialities are fluid, relational events. Like birds and their feathers, the virtue of hope cannot be bartered or appraised. Hope is a survival instinct in common with migration, as we navigate doubt and despair and the actual, tangible obstacles to our needs and desires. Together with progressive adaptations to local and global environmental policies, our hope for the future of migratory birds, for all of us really, depends upon magnanimous, participatory flights, and a willingness to let slip the veil of distinction between self and other.

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- ⁴ *The Endangered Species Act of 1973*, <http://www.fws.gov/laws/lawsdigest/esact.html>
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- ⁹ *Migratory Bird Treaty Act of 1918*, <http://www.fws.gov/laws/lawsdigest/migtrea.html>
- ¹⁰ Mabel Loomis Todd, ed., *Letters of Emily Dickinson: 1885-94*, (North Clarendon, VT, 2011), 365
- ¹¹ *The World's Most Saline Bodies of Water*, <http://www.worldatlas.com/articles/the-world-s-most-saline-bodies-of-water.html>
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- ¹⁴ William Butler Yeats, *The White Birds*, The Collected Poems of William Butler Yeats, ed., Richard Finneran, (New York, 2008), 41
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- ¹⁶ Jonathan Elphick, ed., *Atlas of Bird Migration: Tracing the Great Journeys of the World's Birds*, (London, 2007), 52
- ¹⁷ Emily Dickinson in Thomas H. Johnson, ed., *The Complete Poems of Emily Dickinson*, (London, 1960), 116
- ¹⁸ Robert M. Wilson, *Seeking Refuge: Birds and Landscapes of the Pacific Flyway*, (Seattle, 2010), 172
- ¹⁹ Fernando Pessoa, *The Keeper of the Flocks* from Jeffrey Yang, ed., *Birds, Beasts, and Seas: Nature Poems from New Directions*, (New York, 2010), 60

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Audubon / Pacific Flyway, <http://conservation.audubon.org/pacific-flyway>

Birdlife International, <http://www.birdlife.org/>

A global conservation organization, partnered with *Audubon* in the United States. Initiated a program in countries without protective legislation, to change the culture of bird hunting to one of bird watching.

The Endangered Species Act of 1973

<http://www.fws.gov/laws/lawsdigest/esact.html>

This federal act is administered by two agencies, the United States Fish and Wildlife Service (FWS) and the National Oceanic and Atmospheric Administration (NOAA).

Migratory Bird Conservation Partnership, <http://www.camigratorybirds.org/>

A conservation partnership between *Audubon*, *The Nature Conservancy* and *PRBO Conservation Science*.

Migratory Bird Treaty Act of 1918

<http://www.fws.gov/laws/lawsdigest/migtrea.html>

The Nature Conservancy, www.nature.org

Partners in Flight, <http://www.partnersinflight.org/>

Focuses on land birds; includes continually updated conservation plans and species watch list for the Western Hemisphere.

PRBO Conservation Science, <http://www.pointblue.org/>

Focused on conservation of birds, other wildlife and ecosystems through science, partnerships and outreach. Part of the Migratory Bird Conservation Partnership with Audubon and The Nature Conservancy

Sea and Sage Audubon

<http://www.seaandsageaudubon.org/Conservation/SaltonSeaCampaign.htm>

Addresses the issues concerning the Salton Sea and vicinity.

U.S. Fish and Wildlife Service / Pacific Southwest Region

<http://www.fws.gov/cno/conservation/migratorybirds.html>

Includes the Video: *The Great Migration*

Waterbird Conservation for the Americas, <http://www.waterbirdconservation.org/>

Focuses on issues concerning migratory and all waterbirds throughout the Americas.

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Exhibition Calendar (to date):

The Grace Hudson Museum, Ukiah, CA: August 20 - November 27, 2016

Stanislaus State University, Art Space on Main, Turlock, CA: March 12 - April 30, 2017

UC Davis, Design Museum, Davis, CA: September 18 - November 12, 2017

Los Altos History Museum, Los Altos, CA, January 7 - Sunday, April 1, 2018

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