

Wall Labels

for Species in Peril Along the Rio Grande

Michael P. Berman
Silver City, New Mexico

Binary Codex - The Habitat
2019
Carbon Pigment on Kozo Washi

Michael P. Berman traveled upstream along the Rio Grande from South Padre Island, Texas, to Colorado. Along the way, he photographed the river and its surrounding geography. According to Berman, there is no segment of the river that is untouched by humans. He documented infrastructure like bridges, dams, roads, and border fences, all of which impact the survival of species in one of the most biodiverse regions of the country. Human activities like farming, ranching, and recreation also impact the river. Photographs of discarded clothing, old tires, and other abandoned objects speak to the traces of human presence all along the river and raise awareness of the dire impacts of official attempts to restrict movement along the border.

Kaitlyn Bryson & Hollis Moore
Albuquerque, New Mexico

Its Vitality Comes Through Fluctuation
2019
Handmade cottonwood paper, native seeds, naturally dyed fibers, natural ink, grow lights, and pine

Kaitlyn Bryson and Hollis Moore's work involves traditional hand papermaking. Through a centuries-old craft, they bring attention to an important contemporary issue—the future loss of cottonwood trees in the Rio Grande Bosque. By taking the time to consider cottonwood seeds and fibers as well as the papermaking process, the artists invite viewers to contemplate the integral role cottonwoods play in the Rio Grande region. The artists reflect on the special conditions necessary for this species of tree to reseed in the Bosque and reveal that the flooding necessary for germination has become increasingly rare due to human actions. According to Bryson and Moore, “each embroidered stitch is a step, creating a labyrinth of native animal tracks; their literal impacts pressed into the soil. As the cottonwood paper decays and grows, the marks of these animals will be left on the soil and consumed by future flora. This work will change throughout the duration of the exhibition, imagining what might become of this loss.”

laura c carlson
Albuquerque, New Mexico

1.) Lotic Possibilities I-V
(Popenaias Popeii, Fusconaia mitchelli, Truncilla cognata, Quadrula couchiana, Potamilus metnecktayi)

2019
Glass

2.) *Popenaias popeii Stratigraphy: looking forward to see back*
Concrete, travertine, water from the Black River
2019

3.) *Passages: Notes on the Pecos River*
in collaboration with nicholas b jacobsen
2019
zine

laura c carlson's sustained interaction with the ongoing decimation of freshwater mussels in the Rio Grande region reflects how many artists are employing research-based methodologies. During carlson's travels along the Pecos and Rio Grande Rivers, the artist charted and researched the once abundant species. Water pollution, dams, and oil extraction are contributing factors leading to major declines of freshwater mussels in the region. Through a variety of materials, carlson's installation creates a narrative through which to consider these often unseen mussels anew. carlson creates shells out of concrete to remember the species lost and to build a sense of hope that our rivers could be restored to support these precious life-forms. Dremel-etched drawings depict several species and contextualize them within the setting of both a specific river and the surrounding landscape.

The accompanying zine tells the story of jacobsen and carlson's travels along the Pecos River. carlson explains, "The story is the story of a mother mussel, pregnant with glochidia (mussel babies), waiting for her host fish (mussels reproduce via specific fish species) that cannot reach her due to a dam. She dreams of her glochidia being carried upstream in healthy, unimpeded waters." carlson's in-depth research of these species is linked to an understanding that the health of the river is connected through all the living forms in the region and especially through its most vulnerable inhabitants.

Agnes Chavez
Taos, New Mexico

BIOTA
2019
Projection, copolyester, fiber optics, galvanized metal, microalgae

Utilizing a variety of technologies, Agnes Chavez collaborated with a team of artists, scientists, coders, and professors to create an interactive installation that explores biodiversity loss along the Rio Grande. Satellite remote sensing data, DNA sequencing, and citizen science are employed to investigate data and imagery through new methods of scientific exploration. The DNA strands of a water sample collected from the Rio Fernando at the Taos Land Trust revealed the thousands of species that form the microbiome of the river. According to Chavez, "this bio-data was used to simulate a 'life-form' growing in real time and in response to changing environmental factors. The result is a visual representation of the delicate symbiotic relationship of this species in peril. BIOTA instills empathy for the invisible world of microbial species while raising awareness of the fascinating new science and technology that allow us to finally 'see' them and understand the important role they play."

Collaborators:
Cristina Vesbach, Museum of Southwestern Biology, DNA sequencing

Mr. DNA, DNA Sequencing

Luke Spangenburg, Santa Fe Community College Trade and Technology Center, algae samples

Shannon Romeling/Amigos Bravos, advisor

Rich Schrader/River Source, advisor

Katie Bryant, Upward Bound Math & Science, advisor

Taos Land Trust staff, advisors

Screen Solutions International, Sponsor/advisor

Cisneros Sheet Metal, Sponsor/advisor

Viola Arduini, Advisor

CERN Data Center, copolyester fiber optic form development, Fluidic Data

Suzi Davidoff

El Paso, Texas

Simplified World/Aplomado Falcon and Grasses

2017

Charcoal, gesso, and map

The Simplified World map is a “clear presentation of a limited number of concepts and a unified view of the world” (Smith). The main image, the northern aplomado falcon, is endangered in Texas and northern Mexico. Severe overgrazing by domestic livestock and the resultant brush encroachment has been most frequently implicated as the principal cause for the species’ decline, according to the Texas Parks and Wildlife Department. The shadow images are native Texas grasses, which provided habitat for the falcons and other birds and mammals.

New Mexico Geology/Sacramento Mountains Thistle

2018

Chine collé etching on archival inkjet map
edition of 24

The Sacramento Mountains thistle (*Cirsium vinaceum*) is found only in wet habitats in six large canyon drainages in the southern Sacramento Mountains in Otero County, New Mexico. This thistle, which can grow up to six feet in height, is endangered due to rarity, severe grazing pressure, and decreased water availability.

New Mexico Geology/Shootingstar Geranium

2018

Chine collé etching on archival inkjet map
edition of 24

The shootingstar geranium (*Geranium dodecatheoides*) is the only geranium in North America with reflexed petals. It is found in the Lincoln National Forest in southern New Mexico. It is listed as a “species of concern” in New Mexico.

Catalina Delgado-Trunk

Albuquerque, New Mexico

Fauna Mesoamericana

2017

Cutout on archival Japanese Leathac grain paper with collage

Axis Mundi

2014

Cut-out on archival Japanese Leathac grain paper

Drawing upon the traditional Mexican art form of papel picado, Catalina Delgado-Trunk's intricate cut-paper works depict the endangered jaguar and place it within the cultural context of Mexico by capturing the mythical, spiritual, and ecological roles the animal plays. Her intricate designs speak to both the power and vulnerability of the species. Drawn to the jaguar's size, strength, and brilliant coat, kings, hunters, and warriors from the Olmec to the Aztec revered the animal and also hunted it for its pelt. The jaguar often represented a fierce connection to war and combat. Aztec jaguar and eagle warriors, for example, were elite fighters linked to the important deities Tezcatlipoca, whose sacred spirit animal is the jaguar (ocelotl), and his brother and archrival Quetzalcoatl, whose sacred spirit animal is the eagle (cuauhtli). Today, the jaguar continues to be revered in the Americas, yet it has become endangered, partially due to habitat loss along the Mexico–U.S. border.

Marisa Demarco, Dylan McLaughlin & Jessica Zeglin

Albuquerque, New Mexico

There Must Be Other Names for the River

2019

Performance featuring singers Jessica Chao, Monica Demarco, Ryan Dennison, Ken Cornell, Antonia Montoya, and Mauro Woody

This collaboration considers the flow of water in the Rio Grande, which directly impacts the habitats along the river as well as species like the silvery minnow. The artists analyzed streamflow data from the river and created musical scores to represent the movement of the water. Channeling the river, each singer represents a point where flows were observed and recorded. In the visual component of the installation, different colors represent each singer's score, sung simultaneously. The colors were drawn from the hues of the rocks and plants near the river in those regions. In addition to reflecting on the past, the singers also project possible futures through their performance. Interacting with the river through sound, performance, and color, the artists reimagine what human interaction with the river could be.

Nina Elder

Albuquerque, New Mexico

Interrupted Ecosystem: Rocky Mountain Piñon

2019

Charcoal, graphite, ash, and dirt on paper

Interrupted Ecosystem: Beavers and Rivers

2019

Charcoal, graphite, ash, and dirt on paper

Environmental philosopher Glenn Albrecht coined the term solastalgia in 2005. It refers to the sensation of cherishing the places we live as we know them now, and at the same time feeling anxiety about what is

happening to those places and what is to come. Nina Elder's drawings bring together themes of place, time, and human emotion. She reflects on the two-needle piñon (also called the Rocky Mountain piñon) and the beaver in her exploration of ecosystem collapse along the Rio Grande. The voids in her drawings reference ghosts and memories that will replace life-forms that were once present in the region. According to Elder, "by translating information about ecosystem disruption into visual voids and inversions, these drawings ask, What is being erased? And what will remain?" Due to human impacts, the beaver almost went extinct, and New Mexico's state tree, the two-needle piñon, experienced a catastrophic loss in the early years of this century, impacting huge numbers of birds and other animal species in the region.

Jaque Fragua

Albuquerque, New Mexico

WOLF XING

2019

Oil enamel and vinyl on aluminum

JAGUAR XING

2019

Oil enamel and vinyl on aluminum

OCELOT XING

2019

Oil enamel and vinyl on aluminum

Jaque Fragua is an artist from Jemez Pueblo whose work draws from Indigenous iconography found on ceramics, blankets, tattoo designs, and more. Fragua often repurposes these forms with the aim of subverting the overconsumption and misappropriation of Indigenous design and identity. According to Fragua, "as artists, we have a responsibility to express our vision. We also speak for the voiceless. Personally, my role as a human being is to be a steward of Mother Earth." Fragua's work is based on the knowledge that humans share this home with plants and animals and it is imperative that we pay attention. Fragua's official-looking aluminum signs bring attention to the Mexican gray wolf, the ocelot, and the jaguar, which used to be prevalent along the Mexico–U.S. border and are now endangered. Official signs communicate important rules to be followed, such as traffic regulations. They also serve to warn people about upcoming hazards. By using the format of a sign, Fragua implores the viewer to stop and pay attention, to be aware, and to heed the warnings presented by species loss.

Jessica Gross

Albuquerque, New Mexico

In clusters; they among fresh dews and flowers

2019

Serigraphy on paper

The Creation

2017

Intaglio and serigraphy on paper

Jessica Gross is a visual artist and anthropologist. Her scientific and visual work explores human attitudes and behaviors toward their surroundings. She creates prints that depict imagined scenes highlighting human perceptions of one another and the natural world. Gross connects humans and rats as the most destructive and invasive species to inhabit the Rio Grande Valley. The species are similar in that they share an ability to adapt to and thrive in varying environments and they have competed with indigenous species for resources. The rats in these prints are both a representation of their species and a stand-in for humans—two species that have colonized and led to the endangerment and extinction of native flora and fauna.

Cannupa Hanska Luger

Glorieta, New Mexico

(Be)Longing

2019

Ceramic, fiber, ribbon, steel, video

Cannupa Hanska Luger's *(Be)longing* is a figurative ceramic and steel sculpture in the form of a full-sized buffalo skeleton, along with a series of videos focused on the sculpture. Shot by drone, the videos survey a river and encounter the buffalo skeleton submerged in the shallow headwaters, where it ostensibly taints the water source.

Luger writes, "I live because my ancestors survived a war of attrition. Carried out by settlers in order to subjugate Plains Tribes, this war of attrition decimated the North American buffalo population. By the year 1895, buffalo herds had declined from tens of millions to less than 1,000. Historic images of this era documented massive pyramids of buffalo skulls as monuments of conquest scattered throughout my ancestral lands of the Great Plains. This loss of species not only affected my ancestors but also the land. Running down the center of North America, the Great Plains are one of the most endangered environments; many indigenous grasses are dependent on the buffalo to thrive and have therefore also degenerated. In fact, there can be no true restoration without roaming herds of buffalo."

According to Luger, "*(Be)longing* explores the cascading effects of a decimated species on our precious and interconnected environment and expresses how losing one species a hundred years ago has lasting effects in the 21st century. Through installation, sculpture, and performative video, the piece implores audiences not to wait another hundred years to protect the next species in peril."

c marquez

Taos, New Mexico

521

2019

Installation and seedpods and stems of *Sisymbrium altissimum*

c marquez's 521 is created from the seedpods and stems of the tall tumbled mustard plant, which is abundant in the Rio Grande region. The 521 orb-like forms represent the day nests of the New Mexico meadow jumping mouse. Built in the same way as the natural mouse nests, the installation's nests are attached only through tension and gravity. The nests are arranged in 29 circles of approximately 17 nests each. The 29 circles represent the 29 surviving populations of the New Mexico meadow jumping mouse. In June 2014, it was forecast that this species would reach extinction in 10 years (521 weeks). marquez's installation em-

bodies this extinction timeline, as over half of the nests will release during the runtime of the exhibition, reflecting an experience of steady loss. Perhaps these fragile, ephemeral structures will also inspire a sense of stewardship and preservation.

Ruben Olguin

Albuquerque, New Mexico

Evaporation

2019

Hand-foraged clay and soil on wall

In *Evaporation*, Ruben Olguin takes on the task of graphically depicting all of the endangered and threatened species along the Rio Grande in a single mural. Using earth pigments collected in the Rio Grande Valley, Olguin maps out the expanse of the river and highlights the silhouettes of over 150 endangered species, including crustaceans, mollusks, fish, amphibians, reptiles, birds, mammals, and plants. By using harvested clay, the mural echoes the dry, cracking earth that the wet river cuts through, further emphasizing the fragility of the habitats and inhabitants of the Rio Grande region, as well as water shortages, climate change, and pollution.

Zeke Peña

El Paso, Texas

The River

2017

10-color serigraph, printed at Self Help Graphics & Art

All Against the Wall

2018

Digital illustration, created for Southwest Environmental Center (Las Cruces, New Mexico) to call attention to the harm that the border wall cause wildlife and our communities. For more information: www.wildmesquite.org

Zeke Peña is a cartoonist and illustrator from El Paso, Texas. *The River* is a narrative illustration and a historical timeline of the Rio Grande, called the Río Bravo in Mexico. Peña illustrates the changes the river has gone through due to colonization and the development of the border between Mexico and the United States. The river becomes both a marker of the passage of time and a chronicle of the people and ecosystems surviving in and along the river for thousands of years, from pre-Columbian tribes to present-day Mestizos.

Peña also features several of the species that are affected by the continued development of border infrastructure, illustrating how intertwined the El Paso del Norte communities and the river were and continue to be. The tortoise is just one of the many species impacted by habitat loss due to physical barriers along the border and international water management. This illustration is one panel in a series of short comics about the river that are based on oral and written histories and provide a glimpse into what the El Paso del Norte river community once was.

Daisy Quezada

Santa Fe, New Mexico

Brotante

2019

Porcelain ceramic seeds

Daisy Quezada explores concepts of land and community as a way to connect with the natural world. In collaboration with Tewa Women United, Cochiti Pueblo, and Museo Regional del Valle de Juárez, Quezada engaged community members in conversations about flora and fauna in the Rio Grande region. As a part of the interview process, community participants each shared an article of clothing that represented their regional understanding and engagement with the natural world. Using an alternative firing process, Quezada transformed the articles into sculptural seeds, shaping the material into almond forms. According to Quezada, this process is a way to share awareness of the interwoven aspects of seeds, land, history, physiology, and people. The transcribed conversations, as well as images of the seed sculptures, are included in a small printed publication that will be distributed back to the communities along with the sculptures.

Nicasio Romero

El Ancon, New Mexico

Bolas y Nido

2019

Willow, straw, wire, and clay

Nicasio Romero builds large structures based on the form of birds' nests, raising awareness of the endangered bird species in and around Ribera and El Ancon, a small village in the Villanueva Valley on the Pecos River, where he has lived for over 45 years. The installation is a metaphor of a nest—a "nido," or sanctuary, for both migrating and resident birds. The nests represent the strength and resilience of birds but also point to recent die-offs that signal an urgent need to pay attention to species loss. According to Romero, "there are many ways to raise people's awareness: art, writing, performance art, and dialogue are but a few. Each of us can participate any way we choose. Doing nothing is not an option. I see art as a living organism."

Marcia I. Santos

Ciudad Juárez, Chihuahua, Mexico

Affective Cartography

2019

Ink on wall

Marcia I. Santos's *Affective Cartography* is an illustrated map of the borderlands surrounding Ciudad Juárez and El Paso. It represents a collective schematic developed during a collaborative project titled *Desert.Art. Archivo* at Universidad Autónoma de Ciudad Juárez. *Affective Cartography* represents the intersections of social, historical, and aesthetic constructs on the landscape near the border of Mexico and the United States. These concepts are placed in contact with the surrounding plains, hills, flora, and fauna of the region, bringing attention to the impacts of resource management and environmental policies, and the limits of both countries.

Project coordinators: Gracia Chavez-Ortiz; León De la Rosa-Carrillo, PhD; and Ma. Eugenia Hernández-Sánchez, PhD, Visual Art Program, Art Department, Universidad Autónoma de Ciudad Juárez. Participants: Cassandra Adame, Alejandra Aragón, Alba Naiky Arreola-Cepeda, Alejandra Carrillo-Estrada, Octavio Castrejón, Enrique Casaña-Díaz, Paloma Galavíz, Pilar García, René López, Martín Luna, Andréa Magallanes, Laura Meneses, Paola Nayely Mendoza, Abril Meléndez, América Pérez, César Ponce, Ángel Rangel, Juancarlos Reyes, Alexandra Rodríguez, Marcia I. Santos, and Julian West. Guest Lecturers: Janette Terrazas Islas, Independent Artist; Pablo Levin, PhD, Biochemistry Sciences, Universidad Autónoma de Ciudad Juárez; and Cynthia Bejarano, PhD, New Mexico State University.

Janette Terrazas

Ciudad Juárez, Chihuahua, Mexico

Leopardus Pardalis

2019

Electronic textile, flowers, and Larrea tridentata over cotton

Interactive mapping of species' distribution and conservation status along the border between Mexico and the United States.

Endangered Vegetal Species in the Chihuahuan Desert

2019

Electronic textile and piñon over mixed fabrics

Interactive mapping of species' distribution and conservation status along the border between Mexico and the United States.

Chaute

2019

Electronic textile, Larrea tridentata, and flowers over mixed fabrics

Interactive mapping of species' distribution and conservation status along the border between Mexico and the United States.

The interaction of culture, labor, technology, and gender inequity are extremely pronounced along the Mexico–U.S. border, with 669 factories housed in the area. Responses to this economic reality permeate everyday life and identity along the border. Janette Terrazas reveals the connections and juxtapositions between this industrial reality and the natural world by incorporating used electronic components, circuits, and interactive maps to depict the ocelot, cacti, and birds of the region. Terrazas also explores botanical colors: "In this practice, I have found more than one hundred color ranges, so I realize that the colors of the plants are a gift of our mother's sacred technology; those techniques were used by pre-Hispanic cultures, by our ancestors."

Mary Tsiongas & Jennifer Owen-White

Albuquerque, New Mexico

Silvery Minnows, past

2019

Acrylic mounted digital print

Silvery Minnows, now

2019

Acrylic mounted digital print

Rio Grande Silvery Minnows

2019

HD video looped, framed LED monitor

Mary Tsiongas and Valle de Oro National Wildlife Refuge Manager Jennifer Owen-White collaborated to tell the story of the Rio Grande silvery minnow in a poetic and informative way. Working with local experts to research and analyze the ecological and historical context of the plight of the silvery minnow, they gathered up-to-date information. Through video and digital still imagery, these works convey the challenging path to survival that the minnow has faced over the last few decades.