

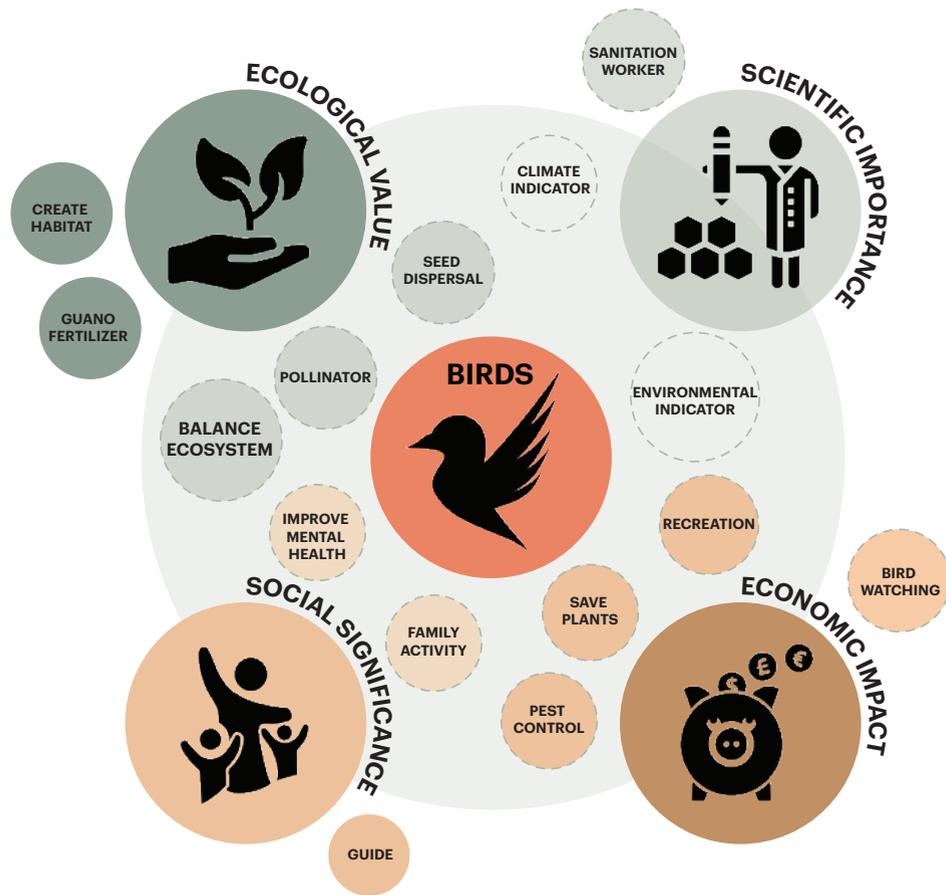
Wings Over Ruins

The Grove, TX

A Texas Ghost Town gets a Second Life

The unique location of Texas, situated at the intersection of two major flyways, makes it an ideal destination for bird watchers. According to the National Audubon Society, 2.2 million bird watchers here generate around \$1.8 billion dollars economic impact every year. However, the loss of bird populations in North America, particularly in the Texas

Blackland Prairie eco-region, has been a significant concern in the past 50 years. The primary cause of this decline is the loss of grassland habitat due to urbanization and agricultural growth. How can we enhance our own experience while reinvigorating the robust ecosystem by design with our non-human friends in mind?



... but they are Vanishing from North America

It is shocking to learn that the number of birds in the United States and Canada has fallen by 29 percent since 1970. The study authors say their work doesn't just show a massive loss of birdlife, but a pervasive loss that reaches into every biome in the U.S. and Canada.

Grassland bird populations collectively have declined by more than 50%, or more than 700 million birds. Habitat loss is likely to be a driving factor in these declines, say the authors, particularly agricultural intensification and development.

"I think this analysis shows that we're eating away at the foundations of all of our major ecosystems on the continent," said Arvind Panjabi, study coauthor and avian conservation scientist at the Colorado based Bird Conservancy of the Rockies. "These numbers show that the world has changed a lot since 1970."

Powell, Hugh. "Nearly 3 Billion Birds Gone." Birds, Cornell Lab of Ornithology, <https://www.birds.cornell.edu/home/bring-birds-back/#>

3.0 billion birds gone since 1970



Birds Matter ...

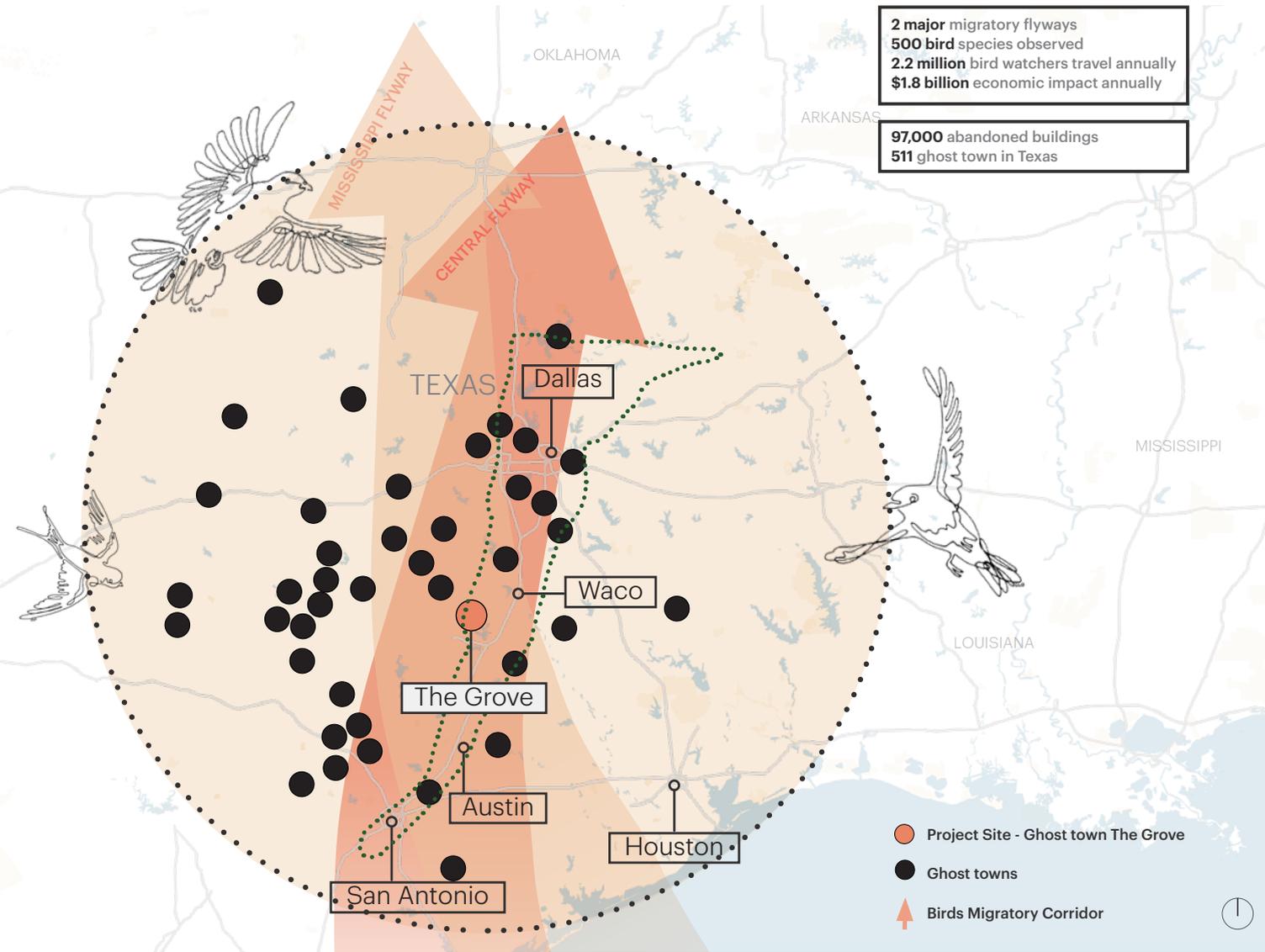
Birds are an essential part of the ecosystem. They are critical as pollinators and for seed dispersal of many plants, especially native plants. Bird studies help us advance scientifically. They teach us about climate and the environment. Birds are also key to indicating environmental changes. Birders spend money on gear, gas, food, and lodging. While birding is among the most inexpensive hobbies one can participate in, birders choose to spend millions of dollars per year in travel and equipment costs. Birding improves people's lives. Not only is birding a great family activity that appeals to all ages – it also provides individuals with physical and mental fitness, a sense of community, and a personal connection with nature.

To summarize, birds have significant ecological value, scientific value, economic value and social value. They represent a link to both our natural environment and to the possibility of freedom to soar without boundaries.



Opportunity

Overlay of Major Migratory Paths and Ghost Towns in the Region



Along the path of the Central and Mississippi flyways, there are 500+ ghost towns in Texas, more than any state in the country. The ghost towns are sitting vacant and decaying, making no economical or ecological contributions. Since the primary cause of birds population decline is the loss of grassland habitat due to urbanization and agricultural growth, our proposal aims to leverage the existing ghost town, and transform these underutilized places into safe habitats for migratory birds, ecotourism destinations for bird watchers.

Stakeholder - Species Profile

Scissor-Tailed Flycatcher

SCISSOR-TAILED FLYCATCHER

Tyrannus forficatus
 ORDER: Passeriformes
 FAMILY: Tyrannidae

BASIC DESCRIPTION

An elegant gray and salmon-pink flycatcher festooned with an absurdly long tail, the Scissor-tailed Flycatcher is the bird to look for on fence wires in the south-central United States. They typically perch in the open, where their long, forked tails make an unmistakable silhouette. The tail proves useful as they expertly catch insects on the wing with sharp midair twists and turns. In late summer and early fall, scissor-tails gather in large, bickering flocks to migrate to Mexico and Central America.

MIGRATION PATH

NON-BREEDING
 MIGRATING
 BREEDING

NEST

open cup

EGG

3-6 eggs

Length: 0.8-0.9 inch
 Width: 0.6-0.8 inch

FUN FACT

- The Scissor-tailed Flycatcher forms large premigratory roosts in late summer, with up to 1,000 birds in one flock. They often roost near towns, perhaps taking advantage of the large trees as roosting sites.
- The Scissor-tailed Flycatcher uses many human products in its nest, such as string, cloth, paper, carpet fuzz, and cigarette filters. One study of nests in an urban area in Texas found that artificial materials accounted for 30% of the weight of nests.
- A member of the kingbird genus Tyrannus, Scissor-tailed Flycatchers resemble other kingbirds in behavior, voice, and morphology. Only one other Tyrannus species—the Fork-tailed Flycatcher—has a dramatically long tail.
- Scissor-tailed Flycatchers tend to wander widely on their way to and from the wintering grounds, a habit they share with Fork-tailed Flycatchers and Tropical Kingbirds. During spring and fall they may show up almost anywhere in North America, as far north as British Columbia and Nova Scotia.

MATERIAL

- outer shell: plant stems and flowers, oak catkins, cudweed, wool, Spanish moss, peppergrass, tissue, paper, string, thread, and cotton
- inner shell: closely knit cudweed flowers, string, cloth, and cotton

FOOD

- insects, particularly grasshoppers, crickets and beetles
- supplement their insect diet by visiting berry bushes such as mulberry or hackberry

HABITAT

scattered trees utility pole farm field dense shrub bridge girder

The Scissor-Tailed Flycatcher was carefully chosen because they spend their entire breeding season in Texas and Oklahoma during the summer. When they migrate, they form large roosts, with up to 1000 birds in one flock. They often roost near towns, taking advantage of the large trees as roosting sites. They specifically love man-made structures. One study of nests in an urban area in Texas found that artificial material accounts for 30% of the weight of nests.



History of the Place - The Grove, TX

1859

The Grove was established and named for the grove of live oak trees in which it is situated. At one time the settlement was called Morrison Grove.

1860s

The community had two general stores, a mill, a gin, it also had Baptist, Methodist, Disciples, and Presbyterian churches.

1870

A group of Wendish settlers from Weigersdorf, Germany arrived and established St. Paul Lutheran Church.

1874

The post office was established in the city and J. B. Coleman was the first postmaster.

1880s

The town's first well was dug with a pick and crowbar by Jim Whitmore in 1880s to feed a population of 150.



1900s

By 1900 The Grove was one of the most prosperous towns in the county. It had a two-teacher school with sixty students in 1904, and a Lutheran school opened there in 1908.

1940s

The grove starts to decline when it was bypassed by Highway 36. Local farmers were forced to relocate when Fort Hood was established.

1953

Local farmers lost land when the Belton Dam was built. Consolidation of agriculture also contribute to the community's decline.

1950s

The population of The Grove, reported as 150 in the 1940s, fell to 140 in the 1950s and 1960s, and by 1970 to sixty-five, where it remained through 2000.

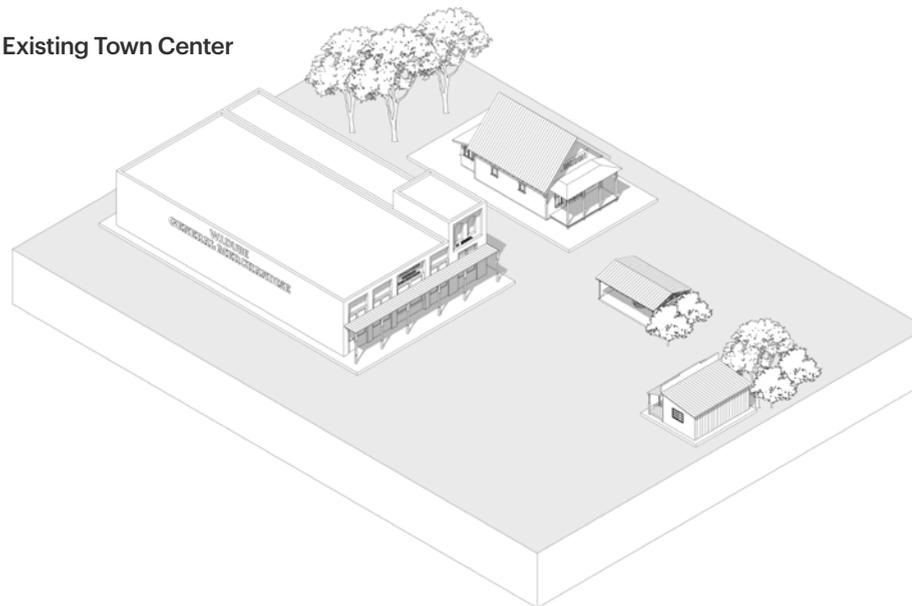
1972

Moody Anderson purchased the property and converted it to a museum, live music venue, wedding venue and a all around neat spot.

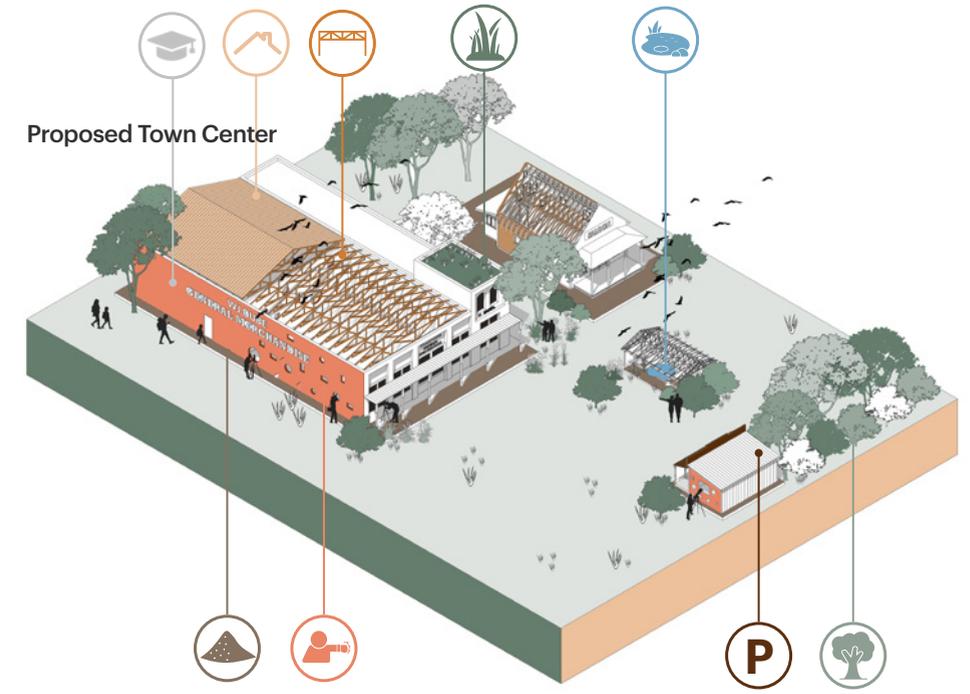
We have chosen The Grove, TX as the site to showcase the transformative potential of ghost town revival. The Grove is an old West ghost town that was founded in 1859. It experienced growth through farming and the arrival of Wendish settlers in the 1870s. By the 1900s, The Grove was prosperous with a population of 700. However, in the 1940s, the town began to decline due to various factors such as highway construction and the establishment of Fort Hood. In the 1970s, Moody Anderson turned The Grove into a living history museum, but it is currently inactive. The Grove is known for its famous well and its connection to Wendish settlers, offering a glimpse into Texas' old West history.

Ghost Town Transformation Kit-of-Parts

Existing Town Center



Proposed Town Center



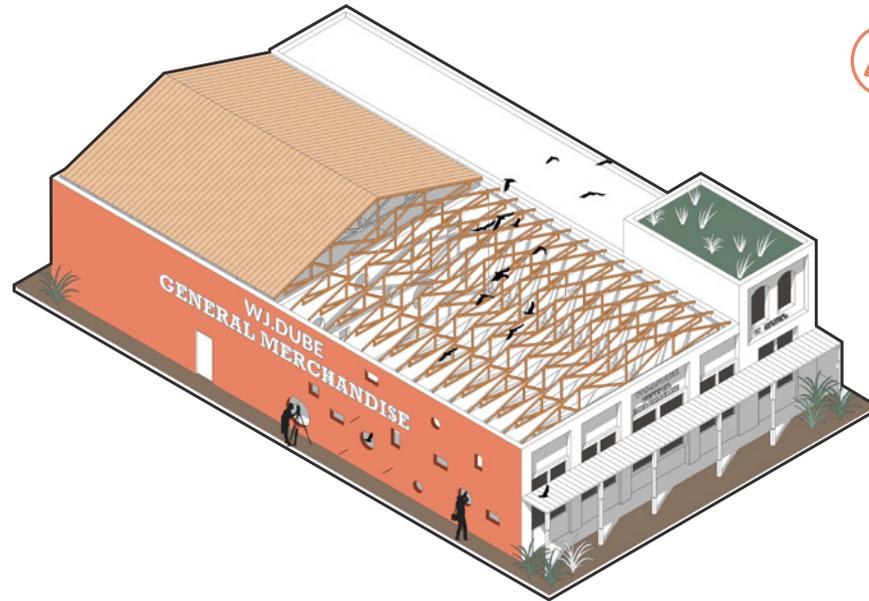
The ghost town's structure has been repurposed to accommodate bird trails, observation points, and educational centers, creating an immersive experience for birdwatchers and fostering an understanding of the importance of habitat conservation. A kit-of-parts, along with a series of strategic interventions, can be adapted to a wide range of structures.

Kit-of-Parts includes:

- partial demolition of deteriorated roofs
- installing new structures with greenery
- turning the water source into wetland
- planting native species symbiotic with the birds

- adding sand for bathing and playing
- adding platform for birds to perch on
- creating holes on the structures for birdwatching
- providing apparatus for playing and nest building

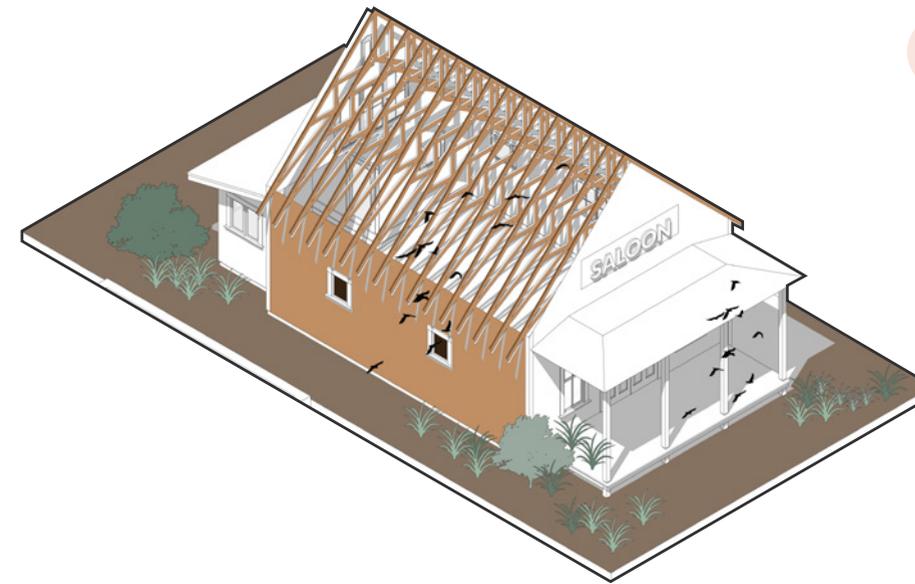
Ghost Town Transformation Kit-of-Parts



PLANTS:
black eyed susan
meadow sage
crabgrass
foxtail

APPARATUS:
play wall
structure for shell
dead wood with cavity
brick crack

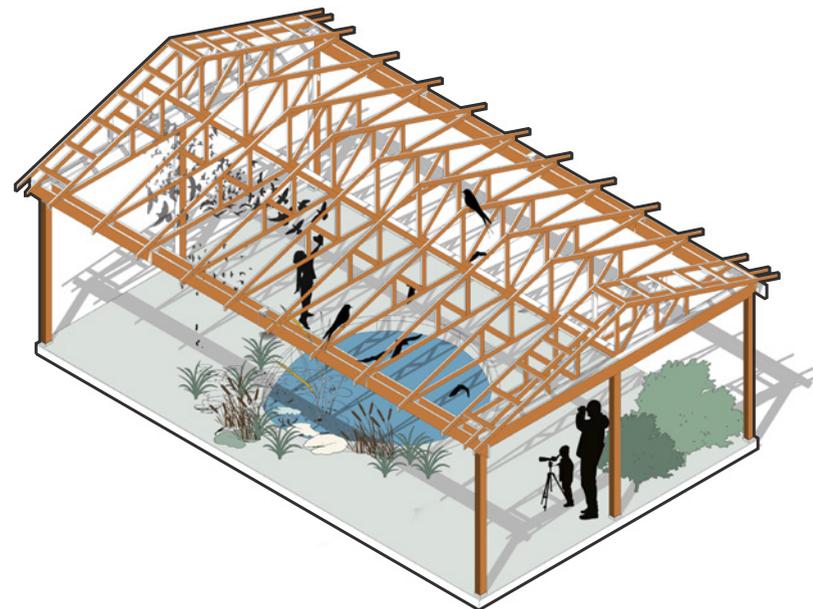
POST OFFICE



PLANTS:
cudweed
peppergrass
spanish moss
virginia creeper
greenbriar

APPARATUS:
twigs
string
cloth
cotton

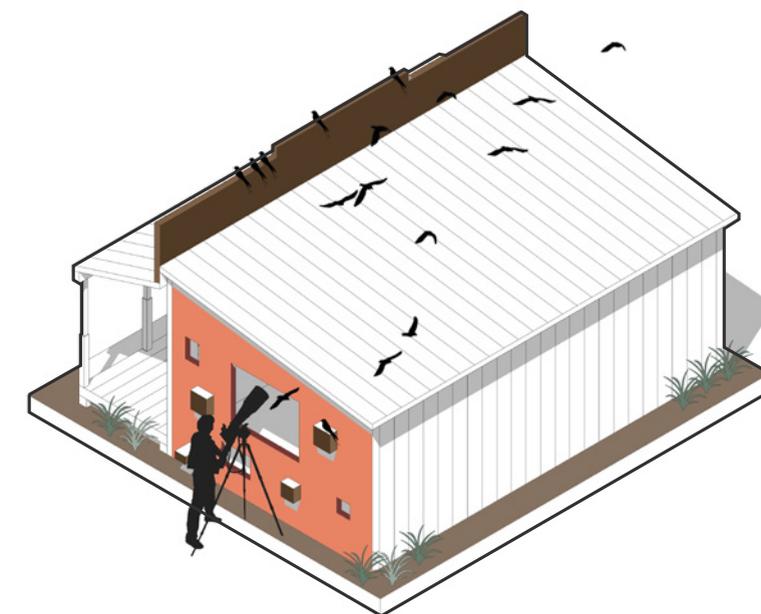
SALOON



PLANTS:
duckweed
water lily
pickerel weed
cattails
wooly sedge

APPARATUS:
pebble

THE WELL



PLANTS:
black eyed susan
meadow sage
crabgrass
foxtail

APPARATUS:
plant to camouflage
trash for attract prey
cable for perch
ladder

GENERAL STORE

The restoration efforts of the Grove prioritize the reintroduction of native grasses and vegetation, recreating a suitable habitat and summer breeding ground for the scissor-tailed flycatcher. Through this transformation, The Grove has been given a second lease on life as an eco-tourism destination. The town's revival not only contributes to the restoration of vital bird habitats but also resurrects its historical significance.



***"Where once stood silence,
now echoes the symphony of wings and life."***

Transformation of the General Store



Exterior view of the Saloon



Interior view of the Post Office