



Pecos National Historical Park

Environmental History

PROJECT SUMMARY



PHOTO BY CORI KNUDTEN

Introduction

Pecos National Historical Park preserves and interprets a diverse history. Prehistoric ruins, a Spanish mission, ruts from the Santa Fe Trail, a Civil War battlefield, a twentieth-century cattle ranch—all are part of the Pecos story. Beginning in 2008, researchers from the Public Lands History Center at Colorado State University (<http://publiclands.colostate.edu/>) began working on an environmental history of Pecos. *Crossroads of Change: An Environmental History of Pecos National Historical Park* (Knudten and Bzdek 2011) explores Pecos history from the perspective of environmental change.

The landscape at Pecos is a dynamic one that has transformed over time in response to a variety of factors, including the presence of humans. Pecos's geographical location between the southwestern plains and the Rio Grande valley positioned it in the path of trade and travel, ensuring that many different cultures came into contact there. This cultural interaction provided one of the major drivers for environmental change over time. Whether Franciscan priests introducing livestock, Hispanic settlers planting crops and building homes, or tourists clambering over ancient ruins, people altered the Pecos environment, creating landscapes that reflected their cultures and beliefs.

Discussion

People first settled in the Upper Pecos valley because it possessed crucial resources. Piñon trees offered firewood and piñon nuts, an important source of protein. Mule deer, elk, and bighorn sheep roamed the valley, and trout swam in the Pecos River. The Pecos River also provided areas of fertile, irrigable soil for crops. The Pecos Indians grew maize along the banks of the Pecos River and built numerous pueblos in the valley, finally consolidating into the Pecos Pueblo, situated on a small mesa (*mesilla*). The Pecos Indians transformed their environment by introducing maize and planting crops, building habitation sites, and hunting mule deer and elk. They traded extensively with Apaches from the plains and also with pueblos in the Rio Grande Valley.

This sign on the entrance road to the Forked Lightning Ranch testifies to the long history of grazing at Pecos.

The arrival of the Spanish introduced a new wave of change into the Pecos environment. Although in 1540 the members of Coronado's expedition were the first Spaniards to encounter the Pecos, it was not until Don Juan de Oñate led settlers north from Mexico in 1598 that the Spanish became a permanent presence in the region. Franciscan friars established a mission at Pecos, and the pueblo's inhabitants labored to raise wheat, cattle, and sheep for the priests. The Pecos Indians also constructed a massive church next to their pueblo on the mesilla under the orders of the friars. The new species that the Spanish introduced once again altered the Pecos environment. Grazing livestock caused erosion and denuded vegetation; wheat and melons now grew alongside maize.

By the beginning of the nineteenth century, the Pecos landscape had become a hybrid environment, reflecting a mix of both Puebloan and Hispanic cultures. A century of famines, disease, and Comanche raiding had diminished the population of Pecos Pueblo to a handful of families, but in the early 1800s, Hispanic settlers began claiming land grants in the vicinity of the pueblo. These land grants were a mix of individual and communal property. Some wealthy landowners grazed thousands of head of sheep and cattle in the Upper Pecos valley. The village of Pecos slowly expanded, and ranches and homes were soon scattered around the valley. As Hispanic settlers claimed the best land, the remaining Pecos





PHOTO BY CORI KNUDSEN

The disturbed soil around the ruins of Pecos Pueblo was a perfect host for exotic species.

Indians were forced from their pueblo, emigrating to the pueblo of Jemez. In 1821 the Santa Fe Trail opened and soon cumbersome wagon trains lumbered through the valley. Fur trappers arrived, too, and trapped out beaver from the headwaters of the Pecos River.

In the wake of the Mexican American War, settlement and land-use intensified at Pecos, now part of the United States. When the Atchison, Topeka, & Santa Fe railroad extended its tracks through the Upper Pecos valley in 1881, resource exploitation reached critical levels. The railroad industry demanded timber, and extensive logging operations sprang up in the Pecos forests, stripping trees and leaving eroded, fragile soil in their wake. The numbers of sheep and cattle grazing in the valley kept growing. The livestock denuded vegetation, opening the way for exotic species and weeds to proliferate. Elk, bighorn sheep, and wolves went locally extinct as hunting intensified. Arroyo formation, severe floods, and alterations in the fire regime all followed the environmental shifts experienced by Pecos in this period.

The twentieth century witnessed a continuation of resource exploitation at Pecos, but also a transformation in attitudes towards land-use. As tourism became a profitable industry in New Mexico, concerned citizens advocated for the preservation of the ruins of Pecos Pueblo, which became a state monument in 1935 and a national monument in 1965. A boom in outdoor recreation and the dissemination of ethics of wilderness and preservation among the general populace meant that more people wanted to protect and restore the forests and rivers of the Upper Pecos. Federal agencies such as the USDA Forest Service and National Park Service often took the commanding role in this effort, although actions such as spraying pesticides or suppressing fires had unintended environmental effects. Older types of land-use also continued

at Pecos. E. E. Fogelson and Greer Garson Fogelson, owners of the Forked Lightning Ranch from 1941 through the 1980s, epitomized the blending of old and new forms of land use. The Fogelsons raised cattle on the ranch, which was located near the ruins of Pecos Pueblo, but also turned the ranch into a romantic Western retreat, approaching the environment from an idealized perspective that fostered nostalgia for a vanishing West in a landscape that continued to change. The dynamism inherent in the Pecos environment continued after the creation of Pecos National Historical Park as the Park Service restored riparian vegetation, attempted to control exotic species, and created a landscape that balanced preservation with tourism.

Management Application

Beyond synthesizing the history of Pecos National Historical Park, the environmental history also serves as a management tool. As park officials make decisions about future land management, the environmental history will serve as a reference for determining how the landscape looked in the past and the many different factors that have influenced and continue to influence the environment—factors which managers need to be aware of to make informed decisions. While conducting their research, the environmental history team coordinated closely with researchers working on a Natural Resource Condition Assessment for Pecos. The two teams shared information, and the environmental history tried to focus on questions which were of greatest concern for land managers in an effort to make the history a useable document.

The environmental history also has informed the development of a Resource Stewardship Strategy (RSS) for Pecos National Historical Park. The RSS is taking a holistic approach, recognizing that natural and cultural resources are in fact deeply entwined and should be treated as such by managers. Every resource exists in relation to the other resources of the park. The environmental history provided the context for a holistic approach by demonstrating how natural and cultural resources have always been intertwined at Pecos.

References

- Knudsen, Cori and Maren Bzdek. 2011. *Crossroads of Change: An Environmental History of Pecos National Historical Park*. National Park Service. Intermountain Cultural Resource Management Professional Reports Series, No. 78.