

FROM THE GROUND UP:
ON REUNITING COMMUNITIES AND LANDSCAPES
IN THE US-MEXICO BORDER REGION

Gabriel Díaz Montemayor



Figure 01. Imagining an urban border region
storm water inlet. Photomontage credit:
Gabriel Díaz Montemayor

The United States - Mexico border region is one of the most highly contested landscapes in the world today, and this is a condition that has only been exacerbated by the recent change in US federal administration. The United States - Mexico relationship is now going through one of the lows, or busts, in a seemingly perpetually multifaceted cycle.

This is a region broadly defined by the political boundaries of its border states, in Mexico they are: Baja California, Sonora, Chihuahua, Coahuila, Nuevo León, and Tamaulipas. In the United States they are: California, Arizona, New Mexico and Texas. All of these American states are former Mexican and previously Spanish colonial territories and are still clearly visible, revealing the footprint of the pre-1848 border between the United States (US) and Mexico. This is clearly illustrated by US Census mapping of the percentage of population per county with Mexican origin ethnicity.¹

In contrast with the current national discourse, where US federal authorities

criticise Mexican policy and the Mexican government responds in its defence, local communities along the border, particularly those right on the border, face a very different daily reality. These communities experience an everyday existence of intense and fruitful economic, social and ecological cooperation between families and communities existing on both sides of the border. These are communities that benefit directly from economic success at a continental scale and on the threatened North American Free Trade Agreement (NAFTA). These communities share a stake in environmental issues which include water and air pollution, and also the qualities of riparian corridors, lush deserts, or migratory flyways for birds.

Set against a political struggle between federations, states, local communities and governments, the impassiveness of the grand landscapes of semi-arid and arid North America await a revival as a catalyst for bringing people back together. These grand landscapes are ones which have forged specific cultural

1. The Economist 2014, 'Old Mexico Lives On', viewed 14 May 2018, <https://www.economist.com/news/united-states/21595434-old-mexico-lives>

2. Gable, E 2010, 75 Years on, Effort to Create U.S.-Mexico Park Hampered by Security Concerns, The New York Times, viewed 10 August, 2017, <https://archive.nytimes.com/www.nytimes.com/gwire/2010/06/24/24greenwire-75-years-on-effort-to-create-us-mexico-park-ha-13949>

3. Office of the Press Secretary 2010, Joint Statement from President Barack Obama and President Felipe Calderón, viewed 14 May 2018, <https://obamawhitehouse.archives.gov/the-press-office/2010/05/14/joint-statement-president-barack-obama-and-president-felipe-calderon>

identities in the region, shaping societies which have become accustomed to dealing with water scarcity and spatial isolation in stark contrast to the main centers of political and economic power. They are a frontier. The people of this border region, in their efforts to move towards a better understanding of their shared common ground, continue to struggle to counter-balance larger, more visible divisive conversations. That said, the initiatives embraced by the region's institutions, local governments and universities may have the ability to demonstrate the resilience that characterises the region.

Currently, at the larger scale of binational ecological planning, and hiding in plain sight, is the example of the binational cluster of natural parks known as the Big Bend. This area consists of the Big Bend National Park and the Big Bend Ranch State Park on the American side of the border. On the Mexican side, adjacent to these, are the Maderas del Carmen national protected area, the flora and fauna protection area of Ocampo, and the Canon de Santa Elena National Park. These vast natural parks and protected areas offer direct precedent to binational agreements between the two countries. In 1944 then US President Franklin Roosevelt expressed to his Mexican counterpart, President Miguel Ávila Camacho: 'I do not believe that this undertaking in the Big Bend [establishment of Big Bend National Park] will be complete until the entire park area in this region on both sides of the Rio Grande forms one great international park.'²

In 2010 presidents Barack Obama of the US and Felipe Calderón from Mexico agreed³ on the establishment of a national area of binational interest - known as Big Bend/Rio Bravo - an achievement that underscored the need to protect the fragile desert ecosystem of this region and to preserve its unique biological diversity. The project was also viewed as a national security solution, as restricting development in the natural area was proposed to result in the mitigation of binational security concerns.

The small communities found within these natural parks rely on farming, ranching, and ecological tourism. Border security infrastructures between these parks is minimal to non-existent. In Big Bend's Boquillas port of entry, for example, there is no bridge over the river but a boat and a waiting burro (donkey) to take environmentally conscious tourists to nearby Boquillas del Carmen in Mexico, a gateway town to the Maderas del Carmen protected area. There is no border infrastructure whatsoever on the Mexican side, there is also no border wall in this stretch of the Rio Grande River in Texas.

The example of this vast natural area of binational interest demonstrates the ability of the peoples of both countries to agree and come together when it comes to their shared natural wealth. There are other latent opportunities on this vector, probably the most obvious is the Lower Rio Grande Valley stretch of the river and border found at the intersection of south Texas and the Mexican state of Tamaulipas.

On the American side exists a series of fragmented natural protected areas that comprise the Lower Rio Grande Valley National Wildlife Refuge. This stretch of the river intersects a north-south continental corridor employed by numerous migratory bird species. It is one of the best bird watching areas in the United States as birds congregate, feed and rest here on their way to the south to spend winters, and on their return to the north to spend the summers. Unfortunately, on the Mexican side there is no protected area reciprocity, with most of the riparian corridor being used for agriculture, ranching, and human settlements. Mexico could in this case actually pay for the environmental recovery of the border through the creation and management of strategically located natural protected areas and investments in urban green infrastructure networks. This has already been explored by the state government of Tamaulipas, Mexico, via commissioned urban planning and design studies⁴ that leverage a forthcoming intensive exploitation of shale oil and gas resources (something that has already happened in Texas). In these, the future boom in economic development is embraced as an opportunity for environmental impact mitigation and the creation of natural protected areas on the Mexican side, operating in tandem with the American side.

A similar opportunity exists to the west, on the land border between the towns of Nogales, Sonora, and Nogales, Arizona. Also known as *Ambos Nogales*, Spanish for 'both Nogales'.

The river at this point flows north and the Mexican Nogales drains storm water and sewage of 250,000 people to the San Cruz River in Arizona via the Nogales creek. The Mexican Nogales pays its northern neighbours for sanitation treatment of this volume. Downtown Ambos Nogales sits at the low point of the intersection between the international border and the drainage path. Floods in the binational, but divided, downtown are a common historical occurrence. A flood that occurred in 2008 is a good example of the schism between local and federal authorities, or between national governments and local communities. During a storm, the underground and channelised Nogales creek suddenly burst in downtown Mexican Nogales from water pressure created by debris accumulated within it, aggravated by a barrier built in the channel to keep illegal migrants and merchandise from entering the United States. The local Ambos

Nogales governments were unaware of the underground fence built by the US Federal Government but had to work together with them in dealing with substantial flood damage in the main commercial area of the region.

In 2010, the local municipal planning institute of Nogales, Sonora, with the support of the 'Border 2012' program of the binational Border Environment Cooperation Commission (BECC), decided to address the study of sustainable flood mitigation measures with the objective of producing high quality public space in the low-income peripheries of Nogales. This effort attempted to leverage the ongoing EPA funded construction of retention dams in the upper section of the watershed on the Mexican side and was designed to mitigate runoff volumes downstream.

The resulting project² proposed a public space system paired with green

4. Shearer, A. Almy, D. & Diaz Montemayor, G 2016, Integral Cities for the Tamaulipas Border Region. Report and design studio produced by the Center of Sustainable Development and the School of Architecture at The University of Texas at Austin for the State Government of Tamaulipas.

5. Lara Valencia, F. Diaz Montemayor, G 2010, City of Green Creeks: Sustainable Flood Management Alternatives for Nogales, Sonora, Arizona State University with the support of the Border 2012 Program of the Border Environment Cooperation Commission and the Municipal Planning and Research Institute of Nogales, Sonora.

Figure 03. The border region, the binational watershed of the Rio Grande/Rio Bravo, natural parks and protected areas, existing and proposed natural areas of binational interest. Map credit: Gabriel Diaz Montemayor with information from USGS and INEGI

infrastructure measures. Parks aligned to creeks and drainage-ways. The proposal established a green infrastructure system distributing centrifugally from the centerline of Nogales creek towards the higher ground of the basin. It includes adaptations on the American funded water management infrastructures to reshape these as attractive public spaces in areas of high need.

Binational natural protected areas, ecologically oriented (green) infrastructure networks and the public spaces of various scales existing within all these examples exhibit a series of nested scales pertaining to different levels of governance and political responsibility. From local municipal retrofitted streets and basin-based flood management, to large scale protection of fragile ecosystems, the peoples and landscapes of the US and Mexico have a repertoire at hand

to make use of and promote and if necessary recover once the current bust in the binational relationship dissipates. Unfortunately, these initiatives lie buried under a growing pile of news directed toward larger national identities and global audiences who live far away from binational rivers and the Sonoran and the Chihuahuan deserts bisected by the US Mexico border.

The projects briefly described in this essay are partnerships between American border region universities and Mexican local municipal and city governments, funded by various binational and state agencies. This mode of operation, in its specific context, tasked itself to contribute to the remediation of a vital binational relationship by serving the public good found in the environmentally and culturally rich society of the US-Mexico border region, demonstrating it is one, not two.

Figure 02. The proposed City of Green Creeks project. Map credit: Gabriel Diaz Montemayor and Francisco Lara Valencia



Urban structure of Ambos Nogales 2010

Green Creeks proposed Network and reshaped urban structure

Green Creeks proposed network and topographic condition



