RICE UNIVERSITY

¡SUPER NAFTA LAND!

by

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ABSTRACT

The Mexico / US border is a line of division between two nations, but paradoxically a moment of connection between local border communities. These competing interests of the border region at the federal and local scales have created a dynamic, hybridized, and rapidly growing regional zone known as the 'third space'. The emerging potential of this 'third space' as an economic engine has been jeopardized by US immigration policies which insist on understanding the border as a line, rather than its spatial reality as a blurred zone of transition.

Free trade agreements such as NAFTA open up borders for goods and capital, but restrict the flow of the people. ¡SUPER NAFTA LAND! is a critique of the militarized, linear border. It presents an alternative model of using mega infrastructures to establish border regions as independent, bi-national zones of freedom, productivity, trade, and culture, open to the people of both countries.
ACKNOWLEDGEMENTS

Mom + Dad: the coolest parents of all time and remote render farmers. Bro: composer of the official ¡SUPER NAFTA LAND! sound track and infamous purveyor of genius.


Houston: chopped and screwed epicenter.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE DAILY INTERNATIONAL COMMUTE</td>
<td>02</td>
</tr>
<tr>
<td>OPERATION NAFTA GATE</td>
<td>08</td>
</tr>
<tr>
<td>THE SECURE FENCE ACT OF 2006</td>
<td>18</td>
</tr>
<tr>
<td>THE FLUVIAL BORDER</td>
<td>22</td>
</tr>
<tr>
<td>LEARNING FROM THE SISTER CITIES</td>
<td>30</td>
</tr>
<tr>
<td>MAPPING THE THIRD SPACE</td>
<td>40</td>
</tr>
<tr>
<td>¡SUPER NAFTA LAND!</td>
<td>50</td>
</tr>
<tr>
<td>NOTES/BIBLIOGRAPHY</td>
<td>85</td>
</tr>
<tr>
<td>ILLUSTRATION INFO/PHOTO CREDITS</td>
<td>93</td>
</tr>
</tbody>
</table>
¡SUPER NAFTA LAND!
Top: Jumping the Fence / Bottom: Commuting to San Diego
In the early 90s two pivotal political acts clearly defined the United States federal policy on how movement across the border would be controlled, NAFTA and Operation Gatekeeper.

The North American Free Trade Agreement, or NAFTA, is a trilateral free trade bloc in North America created by the governments of the United States, Canada, and Mexico. The agreements were signed in December 1992 by the leaders of the three countries — Brian Mulroney of Canada, Carlos Salinas de Gortari of Mexico, and Bill Clinton of the United States but did not come into effect until January 1, 1994. It is the trade bloc is the largest in the world and second largest by nominal GDP comparison. After the ratification of NAFTA, trade between the US and Mexico expanded rapidly, tripling in only 10 years. Mexico in particular has become increasingly reliant on the US to drive its economy, with 88% of exports and 56% of imports shipped to or from its northern neighbor. The United States’ economy is much larger and more diversified, but Mexico still ranks as its third largest trading partner. Economically the two countries are increasingly intertwined.

Operation Gatekeeper was a Clinton-era security operation on the United States-Mexico border near San Diego, California. According to the Immigration and Naturalization Service, the goal of Gatekeeper was “to restore integrity and safety to the nation’s busiest border.” Operation Gatekeeper was announced in Los Angeles on September 17, 1994 by U.S. Attorney General Janet Reno, and was launched two weeks later on October 1. Congressman Duncan Hunter obtained surplus military landing mats to use as a border fence between San Diego and Tijuana. Stadium lighting, ground sensors and infra-red cameras were also placed in the area. That militarization of the border had begun. Apprehensions decreased dramatically in that area as the aliens crossed in different regions. Despite the wishes of
the federal government to control immigration via increased security on the border, illegal immigration numbers most closely follow the comparative economic conditions between the two nations. In 1995 the peso was devalued and the US was in the midst of an economic boom, causing immigration to increase dramatically. In 2000 and 2001 after the dot com bubble crashed and 9-11 the US economy slowed down and immigration followed suit. The militarization of the border has had little effect on the nation wide immigration numbers, but instead has caused a steady increase in migrant deaths since programs such as Operation Gatekeeper were put into place.

Capital and goods have subsequently been able to freely traverse the Mexico / US border while people and their labour have been strongly restricted. This dichotomy in approaches has been the primary cause of the tremendous tension that shapes the border today.
GROWTH RATES BY STATE (1970 - 1985)
GROWTH RATES BY STATE
(1985 - 2001)

-7.3 - -0.4
-0.4 - 0.7
0.7 - 1.6
1.2 - 1.8
1.8 - 3.4

ECONOMIC GROWTH SHIFTS NORTH

Source: "Evidence from Mexico," Federal Reserve Bank of Dallas conference, 2005 / Marina Nizzoliar
THE SECURE FENCE ACT OF 2006

"The US-Mexican border es una herida abierta where the Third World grates against the first and bleeds. And before a scab forms it hemorrhages again, the lifeblood of two worlds merging to form a third country - a border culture."

-Gloria Anzaldúa, Borderlands

One of the original intentions of NAFTA was to decrease illegal immigration to the US by advancing Mexico’s economic development. This has been largely unsuccessful, but NAFTA has had the pronounced effect of shifting and concentrating Mexico’s economic growth to the border region. It is estimated that in less then 25 years as much as 40% of the entire Mexican population may be living on the border. This close proximity has made it even more likely for Mexicans to jump the fence in search of work. Today undocumented workers, primarily from Mexico, make up an increasingly large percentage of the US labor force, especially in the fields of construction and agriculture.

A response to the constant flow of illegal immigration, the Secure Fence Act of 2006 requires the Department of Homeland Security to construct over 700 miles of double-reinforced fence along the US / Mexico border. It authorizes the installation of more lighting, vehicle barriers, and border checkpoints, while putting in place more advanced equipment like sensors, cameras, satellites and unmanned aerial vehicles in an attempt to watch and control illegal immigration into the United States. This is policy based on the understanding of the border as a secure line of division between people and cities, an urbanism born of surveillance and exclusion.
THE FLUVIAL BORDER

The border itself is a migrant. "We didn't cross the border, the border crossed us." goes the Latino immigrant saying. The idea of the border as a permanently fixed line in space is a mythology perpetuated by politicians and anti-immigration activists. In reality the shape of the border and the spatial boundaries it defines change everyday.

The longest section of the border between the US and Mexico is defined by the Rio Grande, or as it is more ominously known in Mexico, the Río Bravo del Norte. Meandering rivers, however, do not make the most reliable of boundaries, and this one has a habit of throwing out oxbows that have put some bewildered farmers and their land in a new country. In the case of the formerly Texan town of Rio Rico, the river changed course, and for the last 15 years, the town and the land have belonged to Mexico, even though most of the nearly 1,000 residents who were born there claim US citizenship.

The United States - Mexico International Boundary and Water Commission was established in 1889 with the purpose of solving such disputes and has to date ruled on over 230 boundary shifts involving about 30,000 acres of land. Most rulings have been quickly resolved, but the Chamizal Dispute, created when a 1895 flood effectively ceded about 600 acres to El Paso at the expense of its Mexican neighbor, Ciudad Juarez, was not resolved until 1967. To make sure similar problems did not rise again, the commission decided to straighten 4.4 miles of the recalcitrant river and the line the bed with concrete, so the Rio Grande, and the border, would no longer move. To date the Mexican and American Governments have spent millions on course corrections and flood-control programs, including the construction of canals, dams, and levees. To prevent further disputes, the commission has designated the official border as the deepest part of the river during the years of a survey taken in the 1960's, all subsequent shifts in the rivers course are no longer recognized. This means that the phantom river of 40 years ago is now the international border. Even though heated words
from Washington and Mexico City often make it appear that the two neighbors want to build a good, sturdy 2,000 mile fence between them, most of the line exists only on paper. Rivers are naturally territorial and not strictly linear, making it difficult and expensive to force a river into a neatly secured linear border. The Department of Homeland Security has subsequently found it difficult to meet its mandate of building 700 miles of fencing along the border, particularly in the Rio Grande Valley. Due to a 1971 border treaty between the United States and Mexico, no construction is permitted within the 100 year flood plain of the river, meaning any future fencing would have to be built up to a mile inland, leaving tens of thousands of Texans on the 'Mexican side' of the fence. This would create a swath of land in a kind of sovereignty limbo, with US citizens required to pass through border checkpoints to get to the grocery store and the doctor and ambulances to pass through Border Patrol checkpoints to get to them. In order to get around some of these issues, the Department of Homeland Security has designed a kind of movable fence, that will sit on top of levees, but be moved away from the river before it floods to avoid violating any international treaties. Even in the desert the DHS has needed to develop a new kind of fence, that floats on top of and self-adjusts along with the ever shifting sand dunes, always maintaining its 15 foot height and constantly altering the international boundary. Over time borders are always fluctuating and now security technology has advanced enough to accommodate this need.

Taken over its entire history the Mexico / US border has shifted across the entire continent, where huge swaths of nebulous territorial claims were gradually focused down to well defined linear boundaries that wars could be fought over. The boundaries between the US and Spain and subsequently Mexico have been defined and redefined by a mixture of treaties, wars, and revolutions. Our current boundaries have more to do with 19th century legal agreements than the actual real life situation existing in and around the border region of the two nations today. The reality of the border is not as a sharply defined static line in the sand, but instead a dynamic and ever-fluctuating extra-territorial zone.
LEARNING FROM THE SISTER CITIES

"The only way the cities in this region can make it, is to forget that a line and a river exist here."
- former Ciudad Juarez mayor Gustavo Elizondo

Over 90% of the 12 million residents of the border region live in the 14 sister cities that line the Mexico/US border. These sister cities are the highly successful job creating dynamos that make the NAFTA economic machine run, but they are faced with urban and societal problems entirely distinct from the typical border concerns held by the physically distant national capitals of Washington D.C. and Mexico City. In order to solve these problems the sister cities have developed a strong degree of local interdependence, effectively bypassing the international boundary that divides them. As described by former Ciudad Juarez mayor Gustavo Elizondo: "Our [federal] governments treat us like a third country, so we might as well act like one." The degree to which the sister cities do act as single independent municipalities is astonishing. The cities of Calexico, California, and Mexicali, Baja California, share police and fire protection across the border. In Laredo, Texas, shoppers from Nuevo Laredo, located just across the Rio Grande, have made its Wal-Mart the highest grossing per square foot in the US. In McAllen, Texas, 40% of all retail goods are sold to residents of its sister city, Reynosa, or other Mexicans. El Paso, Texas, and its sister city Ciudad Juarez, Chihuahua, make up the largest border community in the world with over 2 million inhabitants and expanding at more than 5% annually. El Paso and Juarez, which are projected to run out of water by 2025, recently teamed up, behind the backs of their federal governments, to increase the amount of wastewater that Juarez can channel to agriculture. In order to combat shared municipal concerns such as crime, disease, water shortage, and pollution, El Paso and Juarez have signed more treaties than their national governments can keep track of let alone
ratify. It is a partnership forged out of necessity and survival and the sister cities are proud of their ability to take care of their problems at a local level, faster and cheaper than any far away federal bureaucrat.

The positive economic growth and political cooperation of the sister cities is now jeopardized by the increasing militarization of the border. When in the past people could freely walk from the Mexican side of Nogales to Nogales, Arizona, they now have to go through tedious Border Patrol security checks, even to buy groceries or visit family right down the street. It takes several hours for commuters to drive across the World Trade Bridge in Laredo, Texas, just to get to work. Opposition to the Secure Fence Act of 2006 is unanimous amongst political leaders of the border cities. As put by Mike Allen, an executive president with the Economic Development Corporation of McAllen, Texas: “Every single mayor from Brownsville to El Paso is against the border wall. This will be a tremendous waste of money, and it will not stop illegal immigration. People will just go around it.” and the mayor of Brownsville, Texas, Pat Ahumada: “To appease people in middle America, they are going to kill our communities along the border. The rest of America has no idea how we live our lives here. We are linked by the Rio Grande, not divided by it.”

By the year 2020 the border population is expected to double to 24 million people. The problems in the border cities such as water scarcity, drugs, crime, and pollution already operate on a national scale, and will only continue to get worse. Cooperation at the municipal level has allowed the sister cities to develop up to this point, but local officials know they are tinkering at the edge of the crisis. They are urging Washington and Mexico City to form autonomous regional authorities, funded and staffed by both nations as a new supra-national method to handle the binational border region’s existing problems and future growth.
34 Learning From the Sister Cities

Douglas AZ
Agua Prieta SON
Eagle Pass TX
Piedras Negras COA

Calexico CA
Mexicali BCA
Naco AZ
Naco SON
Sister City Diagrams

Nogales AZ

Nogales SON

Presidio TX

Ojinaga CHH

Brownsville TX

Matamoros TMP
Learning From the Sister Cities

San Diego CA

Tijuana BCA
MAPPING THE THIRD SPACE

“The border is not where the US stops and Mexico begins. It is where the US blends into Mexico.”
- former Laredo mayor Betty Flores

It is often said that border is its own country, ‘Amexica,’ neither Mexican nor American, but a ‘third space’ in between, the line of the border expanded out into a new nation. But if the border is no longer a line, what shape does it take? Whether mapping political boundaries, transportation networks, cultural influence, or hydrology the shape of the border changes. No matter which meta data is mapping the ‘third space’, it appears as a kind of shifting animal like territory in the larger context. Suddenly, the act of building a border wall on the border line, seems more like the violent act of a guillotine slicing a nation in half rather than a division between two very distinct places.

After first revealing the border as a country unto itself, further mappings reveal that there is a greater difference along the length the border than on either side. In the far West solar radiation values are among the highest in the world, but wind power potential is poor, while in the East the opposite is true. The Western half of the border is primarily federal land, while the East is almost entirely privately owned. In practice this has allowed the Department of Homeland Security to build fences with impunity in Arizona and California, but unable to build at all having to deal with the multitude of angry property owners along the border in Texas. The maps can be misleading in their apparent continuity, however the urban density map reveals the ‘third space’ as a series of disconnected islands. For ‘Amexica’ to continue to develop, a new infrastructural system must be built that not only connects all the sister cities, but is flexible enough to adapt to the various border conditions and productive enough to provide the all important border resources of food, energy and water for the entire region.
SUBAREAS OF THE HYDROREGIONAL BORDER ZONE

1. PACIFIC BASIN / SALTON THROUGH
2. COLORADO RIVER / SEA OF CORTEZ
3. MEXICAN HIGHLANDS
4. MIMBRRES / ANIMAS BASINS
5. RIO GRANDE -- ELEPHANT BUTTE RESERVOIR AND ABOVE RIO CONCHOS
6. RIO GRANDE -- RIO CONCHOS TO AMISTAD RESERVOIR
7. RIO GRANDE -- BELOW AMISTAD RESERVOIR TO FALCON RESERVOIR
8. LOWER RIO GRANDE VALLEY -- BELOW FALCON RESERVOIR TO THE GULF OF MEXICO
PERCENTAGE OF POPULATION HISPANIC IN U.S. COUNTIES

SOURCE: U.S. CENSUS 2000

PERCENTAGE OF POPULATION HISPANIC IN BORDER CITIES

<table>
<thead>
<tr>
<th>CITY/STATE</th>
<th>HISPANIC %</th>
</tr>
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<tbody>
<tr>
<td>Brownsville, TX</td>
<td>91%</td>
</tr>
<tr>
<td>McAllen, TX</td>
<td>88%</td>
</tr>
<tr>
<td>Laredo, TX</td>
<td>88%</td>
</tr>
<tr>
<td>El Paso, TX</td>
<td>84%</td>
</tr>
<tr>
<td>Del Rio, TX</td>
<td>80%</td>
</tr>
<tr>
<td>Presidio, TX</td>
<td>79%</td>
</tr>
<tr>
<td>El Paso, NM</td>
<td>77%</td>
</tr>
<tr>
<td>Columbus, NM</td>
<td>83%</td>
</tr>
<tr>
<td>Douglas, AZ</td>
<td>87%</td>
</tr>
<tr>
<td>Nogales, AZ</td>
<td>60%</td>
</tr>
<tr>
<td>Nogales, AZ</td>
<td>60%</td>
</tr>
<tr>
<td>Yuma, AZ</td>
<td>45%</td>
</tr>
<tr>
<td>Calexico, CA</td>
<td>56%</td>
</tr>
<tr>
<td>San Diego, CA</td>
<td>55%</td>
</tr>
</tbody>
</table>

25% - 40.9% HISPANIC
50% - 60.9% HISPANIC
70% - 84.9% HISPANIC
95% - 100% HISPANIC
Mapping the Third Space
¡SUPER NAFTA LAND!

¡SUPER NAFTA LAND! begins with the idea of border region sovereignty. The ‘third space’ become manifest as a political entity, a neutral territory of mediation between the US and Mexico, a place permeable for both Americans and Mexicans. Secondly the connective corridor, no longer the security fence tracing Border Patrol road, but a high speed train and resource and communication pipeline, connecting the islands of border urbanism into a new cohesive whole.¹ Out of this new nation and web of connective fabric, a mega infrastructure of resource production begins to in fill. This production infrastructure provides all the food, water, and energy requirements for the entire border population and is expanded accordingly. The border now develops as an increasingly thickening zone of productivity and trade.

By the end of the 21rst century ¡SUPER NAFTA LAND! has developed into a 2000 mile long artificial landscape of production that adapts to differences in the various border regions and interfaces with the existing sister cities. ¡SUPER NAFTA LAND! is divided into 4 states each with a unique structural system and method of resource production related to the specific characteristics of its host region. Estado de la Tierra extends from Mexicali to El Paso and is the bread basket of the nation, featuring aeroponic farming pods, using 1/10th the water of traditional farming methods, and solar panels to best take advantage of the high levels of solar radiation.² ³ Estado del Aire, extends from El Paso to Matamoros, and generates power for the entire border population with a huge floating wind farm array. The hydrogen filled structural balloons are tethered to the ground at the sister cities, which have expanded up into the structure. Estado del Agua, is the shipping, fish farming, and desalination center for ¡SUPER NAFTA LAND! Finally, Estado de Ciudad is a permeable wall condition of the project occurring only in Laredo/Nuevo Laredo, El Paso / Juarez, and San Diego / Tijuana, strategically concentrating greater trade and connections at the 3 busiest ports of the border, encouraging trans-border as well as cross-border trade.
PRODUCTION MODULES
SUPER NAFTA LAND!

NUCLEAR (HELIUM COOLED): 20,000,000 MW

SOLAR: 600,000 MW

WIND: 28,000,000 MW

WAVE: 100,000 MW

48,700,000 MW ELECTRICITY

2,500,000 ACRE FEET TO POWER GENERATION ANNNUALLY

WATER COLLECTION / DESALINATION
15,500,000 ACRE FEET ANNUALLY

20,700,000 MW

28,000,000 MW
RESOURCE FLOWS

10,000,000 ACRE FEET
TO RESIDENTIAL / INDUSTRIAL / COMMERCIAL ANNUALLY

3,000,000 ACRE FEET
TO AGRICULTURE ANNUALLY

20,000,000 ACRES
OF AEROPONIC / OCEAN BASED FARMING

80,000,000 PEOPLE
ACREAGE DISTRIBUTION

ESTADO DE LA TIERRA (25,000,000 ACRES)

ESTADO DEL AIRE (30,000,000 ACRES)

ESTADO DEL AGUA (2,000,000 ACRES)

AEROPONIC FARMING

WIND POWER

WAVE POWER

SHIPPING / MANUFACTURING / HOUSING

FISH FARMING
ESTADO DE LA TIERRA
¡SUPER NAFTA LAND!
Aeroponic Farming on the Surface of Estado de la Tierra 59
¡SUPER NAFTA LAND!
SCAPE SUIT
PROTECTION AND MOBILITY COMPONENTS

- Oxygen Production / Filtration System
- Anti Ultra Violet / Carcinogen Protective Shield
- Gas Mask
- Protective Vautex® Skin
- Protective Vautex® Gloves
- Jetpack (Optional)
- Magboots
★ ESTADO DEL AIRE
¡SUPER NAFTA LAND!
ESTADO DEL AGUA
THE DAILY INTERNATIONAL COMMUTE


5. Ibid.


OPERATION NAFTA GATE


4. Fernando Romero, Hyper Border.


THE SECURE FENCE ACT OF 2006


3. Fernando Romero, Hyper Border.


THE FLUVIAL BORDER


2. Ibid.

3. Larry Rohter, “A Liquid Border Pays No Heed to

4. Ibid.


6. Ibid.

7. Larry Rohter, “A Liquid Border.”


11. Ibid.


**LEARNING FROM THE SISTER CITIES**

1. Nancy Gibbs, “A Whole New World.”


6. Jesus Cañas and Roberto Coronado, “Cyclical Differences
Emerge in Border City Economies,"

7. Padgett and Booth Thomas, "Two Countries, One City."

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11. Weitzel, "Can Obama Bridge America's Wall of Ignominy."


13. Corchado and Eaton, "Is Mexico Turning into Colombia?"

14. Padgett and Booth Thomas, "Two Countries, One City."

15. Ibid.

**MAPPING THE THIRD SPACE**

1. Nancy Gibbs, "A Whole New World."

2. Ibid.


**¡SUPER NAFTA LAND!**


ILLUSTRATION INFO / PHOTO CREDITS


05. All Images: ¡SUPER NAFTA LAND! Introductory Movie

06 - 07. All: Taken by Author

09. Top: http://www.eumed.net/cursecon/17/NAFTA.jpg

09. Bottom: ‘Wal-Mart Wall’ collage by the author. ‘Young Shopper” sculpture by Duane Hanson.


13. All Images: ¡SUPER NAFTA LAND! Introductory Movie

13. Top Right: Department of Homeland Security/CBP,


23. Department of Homeland Security


25 Bottom Right: http://strangemaps.wordpress.com/2008/03/06/


1437comp.jpg


44. US Census 2000

45. Columbia university center for international earth science information network / NASA / US Census2000

46. National Renewable Energy Laboratory

47. TTE Digital Mapping / NCDC Cooperative Stations

48. National Renewable Energy Laboratory

49. Flag of the Republic of the Rio Grande


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http://www.utilipoint.com/issuealert/print.asp?id=1728
http://www.mpsutility.com/TurbineStats.htm
http://www.indianacleanpower.org/renewableresources.html