
Valentina Collu

énoncé théorique
EPFL-ENAC-SAR
2015-2016

Under direction of:
Harry Gugger
professor énoncé théorique
and directeur pédagogique

Kersten Geers
professor adjoint

Charlotte Truwant
maître EPFL

TABLE OF CONTENT

# PREFACE	3
# BORDERS	5
Line Defining Boundaries	7
World Fences	9
# MX-USA	13
<i>Historical frames</i>	15
<i>Continuity or maps without wall</i>	21
<i>Defining Regions</i>	25
<i>Duality or Natural and Artificial fence</i>	27
<i>Defining the fence</i>	29
<i>Discontinuity or the forced separation</i>	33
<i>When the wall melts in water</i>	35
# THE PARADOX OF COLORADO RIVER	37
# CONTINUITY	39
<i>The Oasis</i>	40
<i>Course</i>	41
<i>Watershed</i>	43
<i>Environmental catastrophe</i>	44
<i>The empty delta</i>	45
<i>Polluted water</i>	47
# DISCONTINUITY	49
<i>Difficult Double</i>	50
<i>The source of Production</i>	53
<i>Urban constellations</i>	57
<i>Paradoxical overlapping</i>	61
<i>The ingredients of the field</i>	63
# VISION	66
<i>Forgotten Space</i>	67
<i>Inbetween</i>	71
<i>The cotton Plants</i>	73
# BIBLIOGRAPHY	79
# ICONOGRAPHY	81

PREFACE

The US-MEXICO borderlands are among the most misunderstood places on earth. The communities living along the limits are far distant from the political power of the respective nation's centers, we can say that they survive through hybrid loyalties; they are independent and composed of many cultures.

Before the division, the eastern counties were among the poorest regions in both nations, nowadays the states on the border are, at the contrary, the fastest growing regions, the most vibrant political and cultural change, places where contradictions and extremes of poverty and wealth are the ingredients of their status.

The common condition of the borderland urbanities can be understood as interdependence. Over history a series of binational "twin cities" merged along the international line, with identities so strong to be considered "third nation".

The "third nation" does not divide US and Mexico, but instead, identifies the spots of connection and exchange.

But this Third Nation is an exceptional "in\$between" space, transcending the geopolitical boundary that divides the constitutive nation. Before the separation, communities of natives Indigenes, such as the ancient Chicimecans and Apace, shared the same territory, with strong sense of mutuality, and attachment to the land, their vestiges stand as palimpsest of the borderland today.

Somehow a territorial, infrastructural and hydrological continuity of the North American territory is still possible, but struggling, and suffocating between the forces of this controversial narrow strip of land between the two nations.

The presence of the constructed wall, and all the infrastructures linked to the controlled functioning of the several passages and barriers, literally cuts the continuity: infrastructures of connection must be diverged, resources detoured, biological scenario put in serious danger.





This Enoncé Theorique, gives a regard through the line dividing the US and Mexico, as the result of a political artifact, a device which impact in the territory, seems to hide the natural continuity of the landscape, of maybe, it defines it even more.

“Borders can be imagined as lines of difference and protection as well as representations of the crossing, the de-fencing, the merging, the additional, the expectation”
(van Houtum and van der Velde).

The exceptional conditions resulting by this forced separation represent one of the most controversial and paradoxical places on earth.

Crucial to an understanding of those particular border, is not only the material morphology, but the various forms of interpretation and representation that they embody.

For those reasons, the analysis proposed, will touch two different condition of the fence, the artificial and the natural border. In the very moment when they should became a singular unity, when they actually create an exceptional context, where the fence begin to be seen as something more, tiring to define the complexities and specificities, the continuity and discontinuity states of the even covered field.

BORDERS

Border is a space of variable thickness, the imaginary line to a particular space, separating or joining two territories, especially two sovereign states.

The functions of a border vary according to regions and periods. Between the countries of the Schengen area, it is only a political and legal limit not forming physical obstacles to circulation of people and goods.

“The border is a fundamental political institution that is necessary to establish any rule-based political, social, or economic life in a progressive society. This fundamental nature of borders is embedded in international law in Article 11 of the Vienna Convention on Succession of States in Respect of Treaties of 1978,” which stipulates that a succession of states does not affect a boundary established by an agreement; nor does it affect treaty-established rights and obligations relating to a boundary regime.” Thus, boundary agreements will remain in force despite a succession of states. In other words, borders are considered to exist prior to a state being restructured and, therefore, are acknowledged as essential to this restructuring”.

“At the outset, one must recognize that the functioning of borders throughout the world typically reflects well-developed notions of sovereignty and is largely the outgrowth of nationalistic feelings. ‘Yet, the character of both formal and informal relations across borders, as well as those that transpire internally, are crucial factors in stabilizing the relationship between the involved parties. Borders are, after all, the political tissue that information, wealth, people, and goods must penetrate for the state to consider them as either unacceptable or acceptable. Borders define legally part of an individual’s identity, since borders fix the limits of a person’s ability to exercise citizenship rights and nationality claims”.

(Barry A. Feinstein Mohammed S. Dajani-Daoudi)

Producing a safe interior, borders create a membrane or buffer zone separating an inside from an outside, while linking both in a particular way, projecting the imagination of a larger, encompassing reality on the ground.

(Paasi)

In countries where smuggling, migration, and infiltration issues are dangerous, many nations construct physical limits with barriers and fences, and constitute formal border control and protection. Some borders are simply identified with monuments, or symbols, others could be totally unmarked and completely open to passage.

Several border may have been agreed by the countries on both sides, or imposed by the country on one side, or even imposed by third parties, but also never formally defined. In addition, a border may be a military ceasefire line.

Relationships between societies and between states demonstrate the crucial nature of borders.

Borders are geographic boundaries of political devices or legal jurisdictions, such as governments, sovereign states, federated states, and other subnational entities.



LINE DEFINING BOUNDARIES

Geographers have expanded their traditional ideas of political boundaries as frozen lines and have begun to map the roles and functions of boundaries as institutions, symbols and discourses that are 'spread' everywhere in society, so that they are not confined to the border areas themselves (Paasi). These practices are always part of broader social action and have typically been based on the processes of 'Othering', i.e. the construction of symbolic/cultural boundaries between 'us' and 'the Other'. Spatializations of identity, nation and danger, for instance, are examples of boundary-drawing practices which are always contested and reflect power relations (Campbell, Tickner). These practices, in which national (spatial) socialization and education play a crucial role, manifest themselves in such areas as foreign policy, media discourses and popular culture (Paasi).

Political boundaries are part of the historically contingent processes of territory building. Political geographers remind us that boundaries are key elements in the maintenance of territoriality, the principle through which people and resources are controlled and governed by the establishment of specific territories. (Sack, Paasi)

Territories and their boundaries are in a perpetual state of transformation, and the attention currently being paid to boundaries is only the latest example of a long interest in the social production of space and territoriality.

The links between boundaries, power and the state are of particular significance in this process.

Boundaries are both symbolic and institutional expressions (and media) of territoriality, which is an important but often implicit element in most social institutions. Nationalism, for its part, is the specific territorial ideology that aims to create and maintain territoriality and state borders. Ideologies are of course closely associated with other territorial boundaries as well, as is illustrated by regionalism (Paasi)

Boundaries are means and media for organizing social space where the questions of power, knowledge, agency and social structures become crucial. Much of the boundary language in geography, for instance, reflects traditional modernist views on boundaries and provides fixed essentialist categories for research (Paasi).

One major task is, therefore, to reflect perpetually the links between boundaries and other 'geographical' categories, such as region, place and territory, since boundary-making is one part of the institutionalization of these units in social practice and discourse.

“The earth is in effect one world, in which empty, uninhabited spaces virtually do not exist. Just as none of us is outside or beyond geography, none of us is completely free from the struggle over geography. That struggle is complex and interesting because it is not only about soldiers and cannons but also about ideas, about forms, about images and imagining”

Edward Said

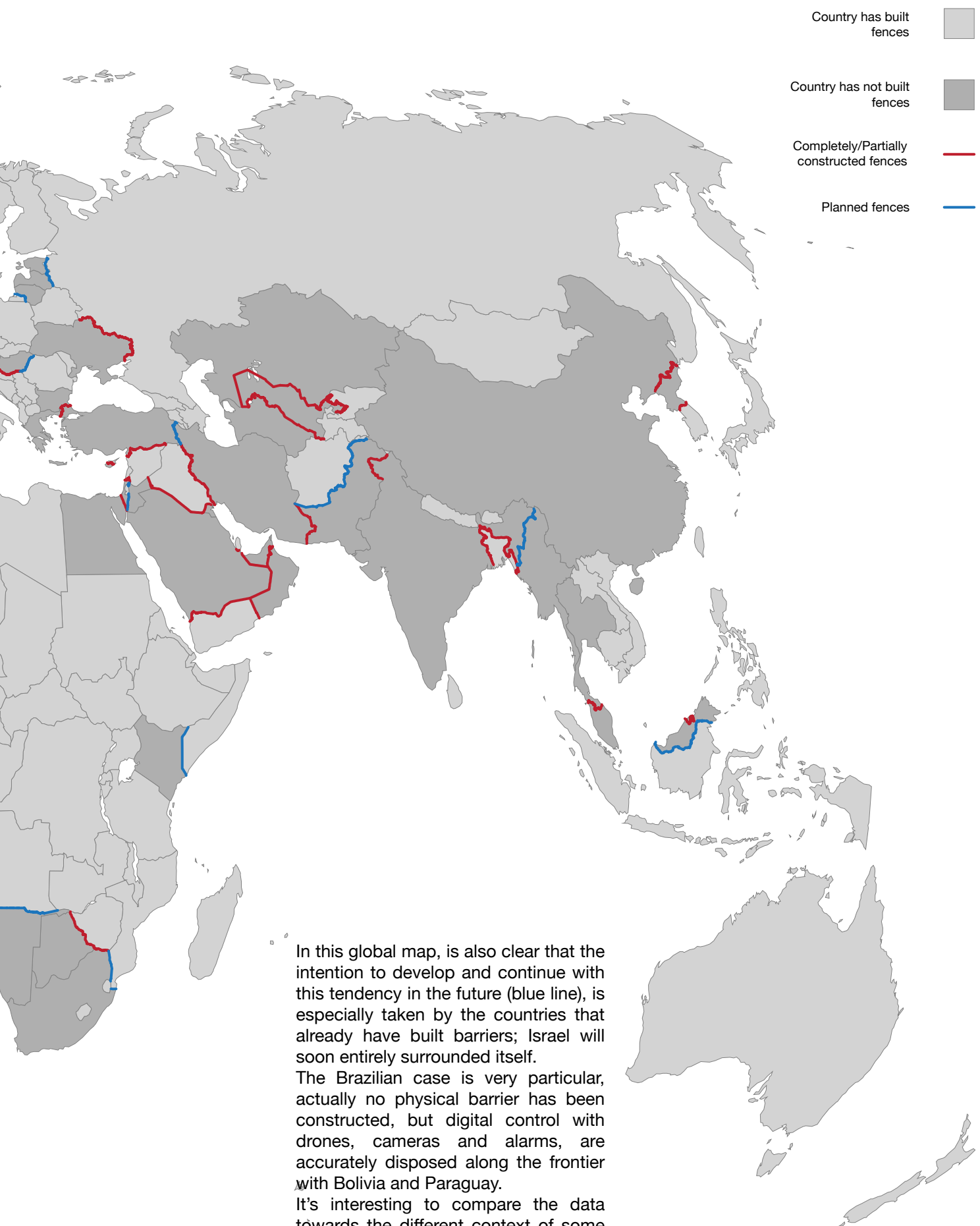




WORLD FENCES

Before jumping into the US-Mexican case, it's important to contextualize the worldwide vision, concerning the attitude of dividing and creating fences, several countries decided to conform to the attitude of separatism, creating obstacles of control to the human flows above the earth.

Since the fall of the Berlin Wall in 1989, 40 countries around the world have built fences against 64 of their neighbors. The majority of them have declared security concerns and the prevention of illegal migration as issues. More than 30 of those decisions were made following 9/11. In the Middle East, the wars in Iraq, Afghanistan and Syria as well as the associated wave of refugees have encouraged most countries to mark and close borders.



WORLD FENCES

Iraq-Kuwait

Construction Timeline: Finished in 1991 by the United Nations

Materials: Concertina wire, electrified fencing, ten feet high dirt berm, trenches, guards and helicopters

Purpose: To prevent re-invasion by Iraq

Length: 193'12 km

Reaction: Saddam Hussein viewed the barriers as an illegal separation of Iraqi land. There is no comment from the current government.

Outcome: Completed



Baghdad-Iraq

Construction Timeline: Started April 10, 2007

Materials: Moveable 7.1-ton concrete sections, 4m high

Purpose: To end sectarian violence

Length: 5 km

Reaction: Some Iraqi citizens feel they were not included in the proposal and that the U.S. is isolating the Sunni section of the city.

Outcome: U.S. military says they will continue building the security walls, but that they will be taken down after the area is deemed secure.



Egypt-Gaza

Construction Timeline: December 2003

Materials: steel wall along the Gaza border extend 18 metres below the surface.

Purpose: defend Egypt "against threats to national security"

Length: 10-11 km

Reaction: The Islamist group of Hamas, the governing authority of the Gaza Strip, opposes the barrier and has called it a "wall of death"

Outcome: Nowadays, after several pauses, the finition of the wall is nearly complete.



India -Pakistan

Construction Timeline: Drafted and created based upon the Radcliffe line in 1947

Materials:

Purpose:

Length: 2'900 km

Reaction: Since independence of India and Pakistan, the border has been a site of numerous conflicts and wars between each country,

Outcome: It can be seen from space at night due to the 150,000 flood lights installed by India on about 50 thousand poles





Saudi-Yemen

Construction Timeline: Saudi Arabia began construction in 2003.

Materials: Concrete walls, multilayer fences, intrusion detection, exclusion area on both sides.

Purpose: prevent the unauthorized movement of people and goods into and out of the Kingdom against Yemen, to prevent infiltration and smuggling.

Length: 75 km.

Reaction: Yemeni government strongly objected, stating that it violated a border treaty signed in 2000. Saudi Arabia agreed to stop construction in February 2004.



Israeli West Bank

Construction Timeline: Began in 2002, about halfway completed.

Materials: Concrete walls, multilayer fences, intrusion detection, exclusion area on both sides.

Purpose: To stop Palestinian terrorists from entering Israel.

Length: 701'67 km

Reaction: One of the most controversial separation walls worldwide. The Israelis see the wall as necessary to Israel's security against terrorism. The Palestinian view is that the wall cuts Palestinians off from their farmland and places of work, and confines them to specific areas. The international community, including the Red Cross, the U.N. and Amnesty International, all condemn the wall in its current form as illegal under international law.

Outcome: The wall continues to be built in spite of opposition and is expected to be completed in 2010.



Afghanistan-Pakistan / Durand Line

Construction Timeline: established in 1893

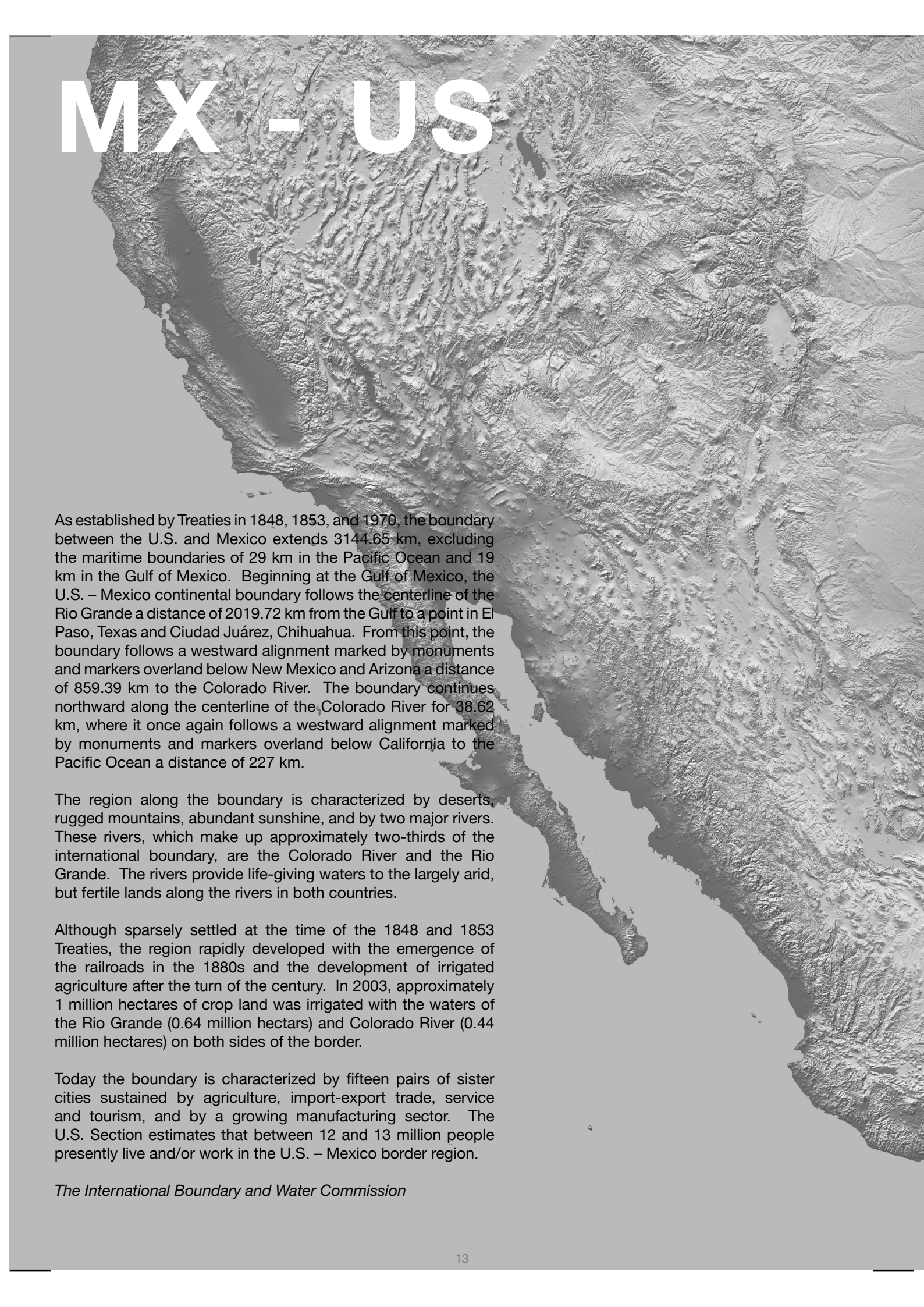
Purpose: fix the limit of their respective spheres of influence and improve diplomatic relations and trade. Afghanistan ceded various frontier areas to British India to prevent invasion of further areas of the country.

Length: 2,250 km

Reaction: Afghan President Hamid Karzai has said that Pakistan was trying to "enslave the Afghans" with the fence. Opposition groups within Pakistan have said the fence would be "detrimental to the social and economic interests of the ethnic Pashtun tribes."

Outcome: Preliminary work has begun on a 32 km section.

MX - US



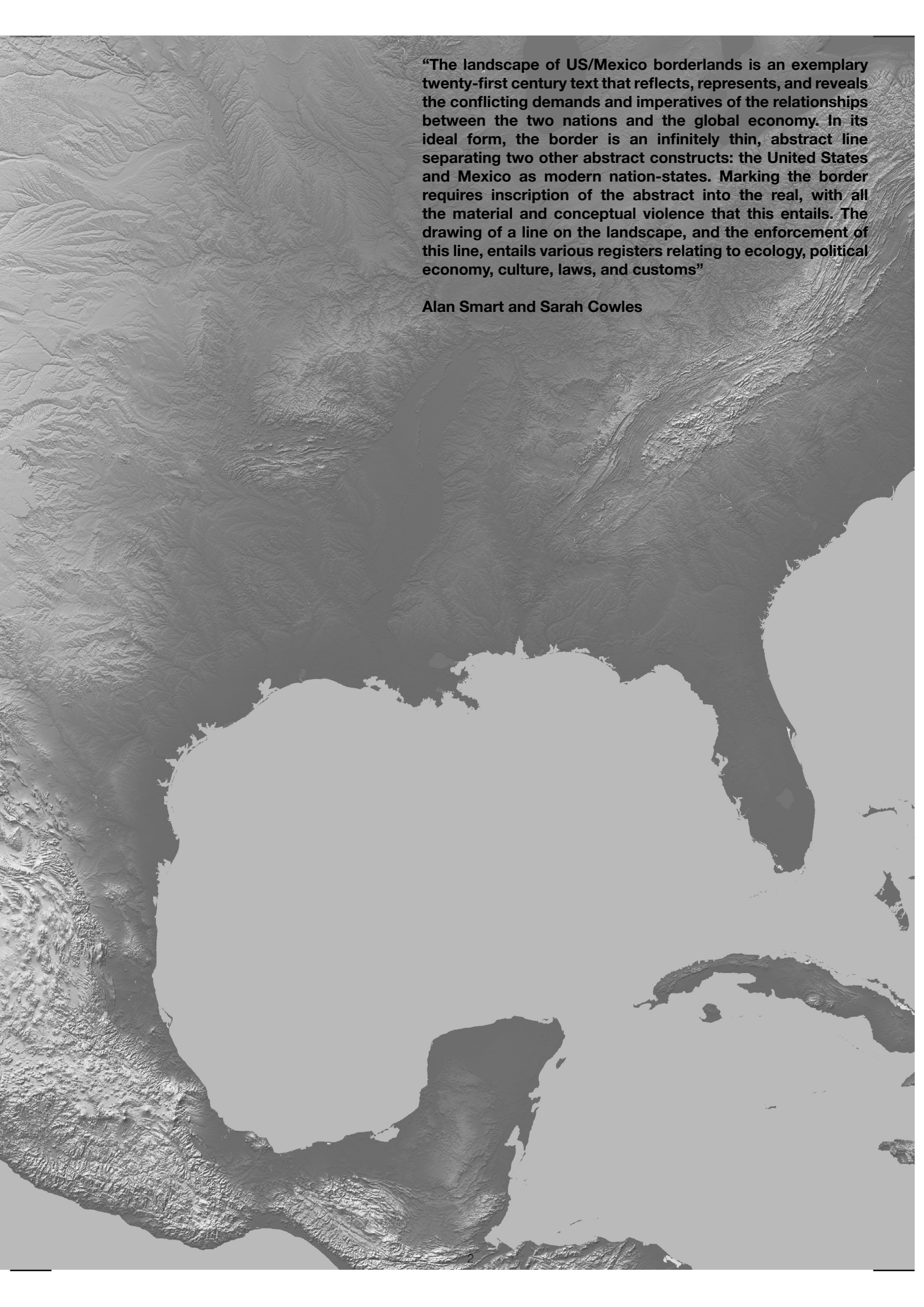
As established by Treaties in 1848, 1853, and 1970, the boundary between the U.S. and Mexico extends 3144.65 km, excluding the maritime boundaries of 29 km in the Pacific Ocean and 19 km in the Gulf of Mexico. Beginning at the Gulf of Mexico, the U.S. – Mexico continental boundary follows the centerline of the Rio Grande a distance of 2019.72 km from the Gulf to a point in El Paso, Texas and Ciudad Juárez, Chihuahua. From this point, the boundary follows a westward alignment marked by monuments and markers overland below New Mexico and Arizona a distance of 859.39 km to the Colorado River. The boundary continues northward along the centerline of the Colorado River for 38.62 km, where it once again follows a westward alignment marked by monuments and markers overland below California to the Pacific Ocean a distance of 227 km.

The region along the boundary is characterized by deserts, rugged mountains, abundant sunshine, and by two major rivers. These rivers, which make up approximately two-thirds of the international boundary, are the Colorado River and the Rio Grande. The rivers provide life-giving waters to the largely arid, but fertile lands along the rivers in both countries.

Although sparsely settled at the time of the 1848 and 1853 Treaties, the region rapidly developed with the emergence of the railroads in the 1880s and the development of irrigated agriculture after the turn of the century. In 2003, approximately 1 million hectares of crop land was irrigated with the waters of the Rio Grande (0.64 million hectares) and Colorado River (0.44 million hectares) on both sides of the border.

Today the boundary is characterized by fifteen pairs of sister cities sustained by agriculture, import-export trade, service and tourism, and by a growing manufacturing sector. The U.S. Section estimates that between 12 and 13 million people presently live and/or work in the U.S. – Mexico border region.

The International Boundary and Water Commission



“The landscape of US/Mexico borderlands is an exemplary twenty-first century text that reflects, represents, and reveals the conflicting demands and imperatives of the relationships between the two nations and the global economy. In its ideal form, the border is an infinitely thin, abstract line separating two other abstract constructs: the United States and Mexico as modern nation-states. Marking the border requires inscription of the abstract into the real, with all the material and conceptual violence that this entails. The drawing of a line on the landscape, and the enforcement of this line, entails various registers relating to ecology, political economy, culture, laws, and customs”

Alan Smart and Sarah Cowles

HISTORICAL FRAMES

The Americas in 1492 are estimated to have had a population of about sixty million; 35 percent, of this lived in Mexico.

The culture of this aboriginal population was extremely heterogeneous. European settlers identified and named at least forty- five different groups. Where favorable agricultural conditions permitted, larger villages and more densely settled sub regions existed. Along the banks of Sonora's important rivers, for example, relatively abundant supplies of water supported the villages of the Yaqui and Mayo.

These people's lives would be radically altered by contact with Europeans. Remarkably, three-quarters of the indigenous groups would survive to maintain some portion of their identities.

The inhabitants of central Mexico-both natives and European settlers-perceived many obstacles to settling the Far North. Both the geographical landscape and the social setting made the area unattractive. Mountains and desert wastes combined with hostile indigenous populations to keep central Mexicans at bay for hundreds of years.

Moving north along the coastlines, explorers surveyed unknown areas in search of cultures matching the civilization of central Mexico. Land expeditions likewise discovered little sustain the attention of European settlers. But explorers found no cities of fabulous wealth or any other compelling reason to settle the area. The discovery of major veins of silver proved to be the stimulus for northern expansion during the colonial period. Mining became the motor of change throughout Mexico's Far North. As the silver boom continued, both Europeans and Native Americans moved north. Because silver was found in areas where other resources were lacking, mining towns developed complex social structures to meet the need for water, food, and fuel. The industry required large supplies of labor, wood, chemicals, staple foods, work animals, meat, iron, cloth, and leather. Large estates and smaller farms emerged to provision the mines; long-distance and local commerce developed to supply goods and credit. Along the major North-South road and its branch roads, thousands of mules carried commodities to the North and silver to the South.

As other European powers became interested in the region and Spain's interest in protecting its empire grew, the Far North was increasingly the focus of Enemprs to impede intrusions. Defense against the spreading influence of the French, English, and Russians became one of the main foundations of settlement.

Frontier towns attracted shopkeepers, notaries, craftsmen, artisans, and merchants, and rural areas soon had ranchers and truck gardeners who supplied the towns with staple goods.

Two characteristics made the frontier population unique: the inhabitants were of varied and mixed ethnicities including Native Americans, and frontier society was also characterized by the prevalence of wage labor, which spread from the mines and urban settlements to agricultural areas, as a result of the high return on investment in the region Frontier populations transformed the indigenous societies with which they came into contact.

The expansion of Europeans into the North did not take the form of a constantly advancing frontier. Nomadic natives of the region reacted fiercely against the occupation of their territory and the increased competition for its meager resources. Resistance and rebellion meant that by the mid eighteenth century the Spanish settlers could claim to have made only limited in roads into the region.

During the relatively brief span from Mexican independence in 1821 to the end of the war between the United States and Mexico in 1848, Spain's far-northern frontier territories became borderlands the, terrains between Mexico and the United States.

Mexico sought to integrate the area into the national mainstream by building political and economic ties. But attempts to make the region part of the nation fell short of success. The era culminated in the acquisition of a great portion of the Mexican North by the United States.

© Cartography Associates, David Rumsey Collection

HISTORICAL FRAMES

Mexico's inability to integrate its northern frontier into the country's core reflected, above all, the difficulties of establishing political stability after independence. A complete collapse of effective administration in the North doomed the borderlands to remain on the periphery economically and politically. Independence encouraged a return to local autonomy rather than a strengthening of ties between the North and the center.

The result of these actions in the North was a growing sense of separation from central authority. Relations between periphery and center became increasingly strained.

Another force that tended to move the North out of the central Mexican sphere of influence was commerce. Illegal trade with French, English, and U.S. citizens had existed under Spain, but commerce with foreigners increased dramatically after the young nation officially authorized such trade in 1821.

The bulk of business was with the United States and Europe rather than with central Mexico.

These commercial links strengthened the economic independence of the North and tied it ever more closely to the United States.

Border society underwent several important changes during the early national period. The most notable was the decline in sedentary, native population and the increase in the numbers of Europeans and mestizos. U.S. citizens sought new wealth in the mining zones of Sonora and Chihuahua and in livestock raising and commercial agriculture in Coahuila y Texas, New Mexico, and Alta California. The United States established wagon roads and subsidized stagecoach lines.

Changes followed immediately upon the establishment of the new border.

After the boundary was drawn, many Mexicans migrated south into Mexico, where they founded settlements along the border.

Within months of the beginning of the gold rush in California, the call was raised to "liberate" property held by Mexicans. Texas proved particularly

problematic, since one of the conditions of its 1845 admittance to the United States had been complete control over its own lands.

Midcentury witnessed the first major economic boom on the border.

In 1848, before the signing of the Treaty of Guadalupe Hidalgo, gold was discovered in California. Large numbers of people began freely moving north and west to take part in the prosperity of the region. Between 1840 and 1860, 300,000 people migrated west on overland trails. The nonindigenous population of California increased from about 14,000 in 1848 to about 225,000 in 1852.

During the mid nineteenth century, the border region was officially recognized by the Mexican government as a special area with distinct and unique needs.

These sectors led to an economic expansion on the Mexican side, as free trade and consumption of U.S. manufactures increased in 1885.

The free zone stimulated smuggling into the rest of Mexico, that it brought unfair competition for national manufactured goods, and that it prevented the government from collecting import taxes. U.S. border merchants complained of unfair competition and large-scale smuggling into the United States as well.



1840

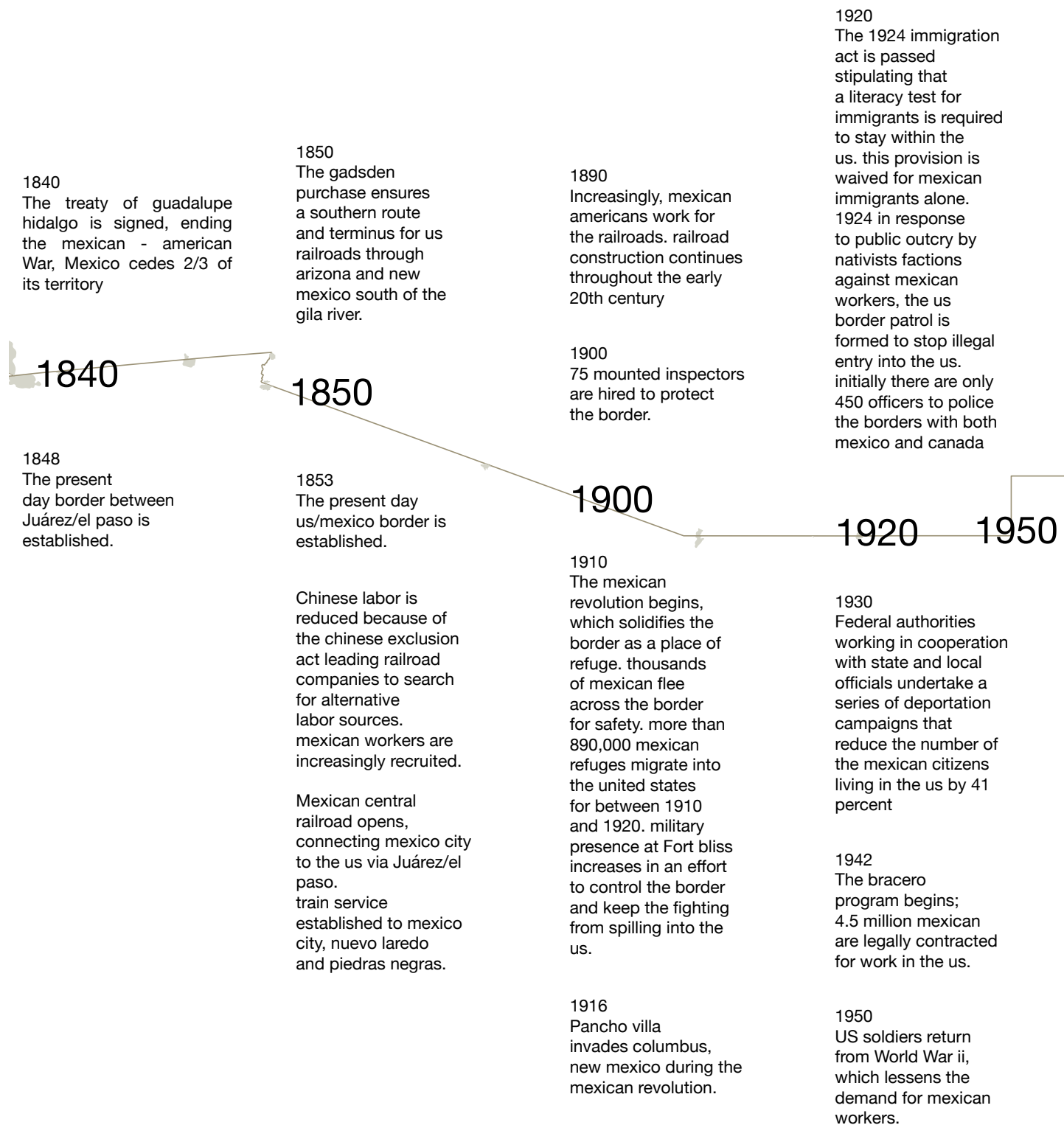


1845



1853

HISTORICAL FRAMES



TIMELINE

1964
The bracero program ends, depriving agricultural laborers from Mexico of their legal, guest worker status. Many are deported and migrants crossing into the border now must evade the US border patrol. During Operation Wetback the US immigration service deported more than 3.8 million people of Mexican heritage.

1980
The Immigration Reform and Control Act (IRCA) allows undocumented workers to receive green cards. Over three million people are legalized, because workers who entered the US before 1982 receive amnesty. Mexico joins the General Agreement on Tariffs and Trade (GATT). GATT works to reduce barriers to international trade and becomes a precursor to the World Trade Organization.

1993
Operation Hold the Line begins. 1993 Operation Blockade (El Paso, TX) begins. 1994 Operation Gatekeeper (San Diego, CA) begins, and becomes one of the largest deployments of enforcement resources in US history.

2000
Unmanned Aerial Vehicles (UAV's) developed for use by the military for surveillance purposes begin to be used by border patrol personnel for monitoring the border and identifying illegal crossings.

2005
Mexico launches Operation Secure Mexico to control organized crime and decrease violence in communities that have housed cartel wars in Mexico. Customs and Border Protection (CBP) is created under the Department of Homeland Security to protect the US border from terrorism, human and drug smuggling, illegal migration, and agricultural pests.

1965
The border industrialization program begins; the first maquiladoras are constructed along the border. El Chamizal agreement: 600 acres along the Rio Grande in El Paso are ceded to Mexico.

1970
The Immigration and Naturalization Service starts a public relations campaign that warns of the dangers of illegal migration.

President Carter prescribes infrastructure at the western seven miles of the San Diego border. It includes a ten foot chain-link fence, backed with flood lights and increased helicopter patrols.

1998
Operations Linebacker and Rio Grande (Brownsville, TX) begin, giving local law enforcement greater resources and an expanded role in policing the border.

1994
The NAFTA agreement is signed. The peso collapses, catalyzing an economic crisis in Mexico. Border populations increase dramatically.

2006
Operation Jump Start sends 6,000 National Guard troops to the border. The Department of Homeland Security (DHS) appropriations act provides \$35 million for the construction of the border fence in San Diego. The DHS projects that the San Diego border fence will cost \$127 million for its 22.5 km length.

2010

CONTINUITY

Three geographical factors have shaped the border region from the time of earliest human settlement, through its period as frontier and borderlands to the present. First, the region is vast in size.

The area through which the international boundary passes is as large as Europe, stretching across North America from the Pacific Coast to the Gulf of Mexico and from the southern Rocky Mountains to the beginning of Mexico's Central Plateau.

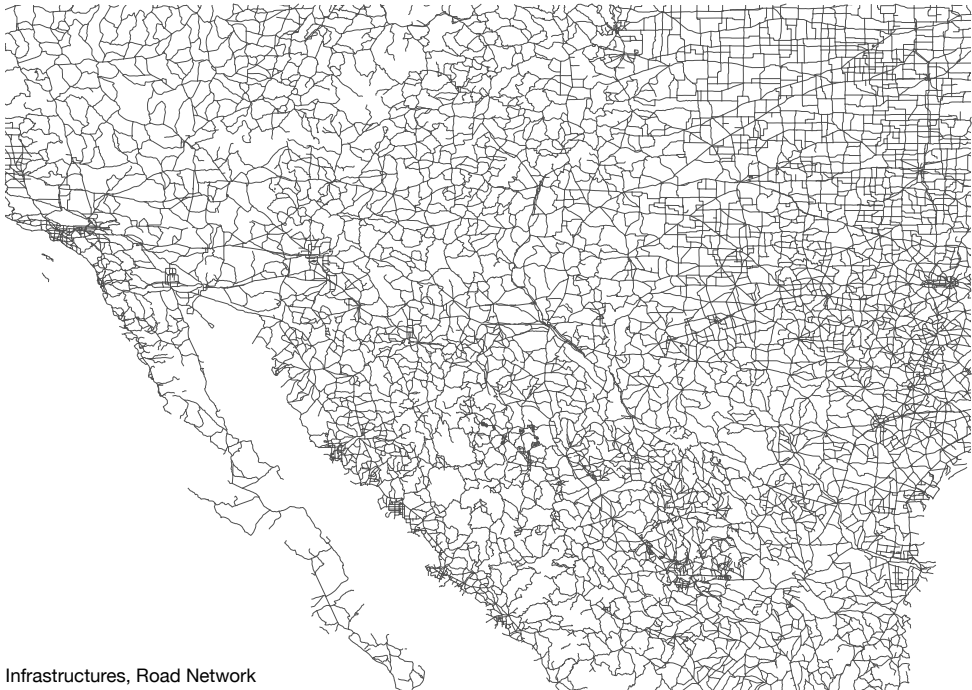
Second, the region is mountainous, crisscrossed by a maze of inhospitable ranges that divide the area into isolated sub regions. Third, and perhaps most important, the border region is unrelentingly arid: rainfall is inadequate for agriculture; it is also unpredictable sporadic and occasionally destructive. Although the introduction of railroads, highways, and air travel improved accessibility to this vast and rugged terrain, the lack of both water and dependable rainfall remain major obstacles to human settlement throughout the area.



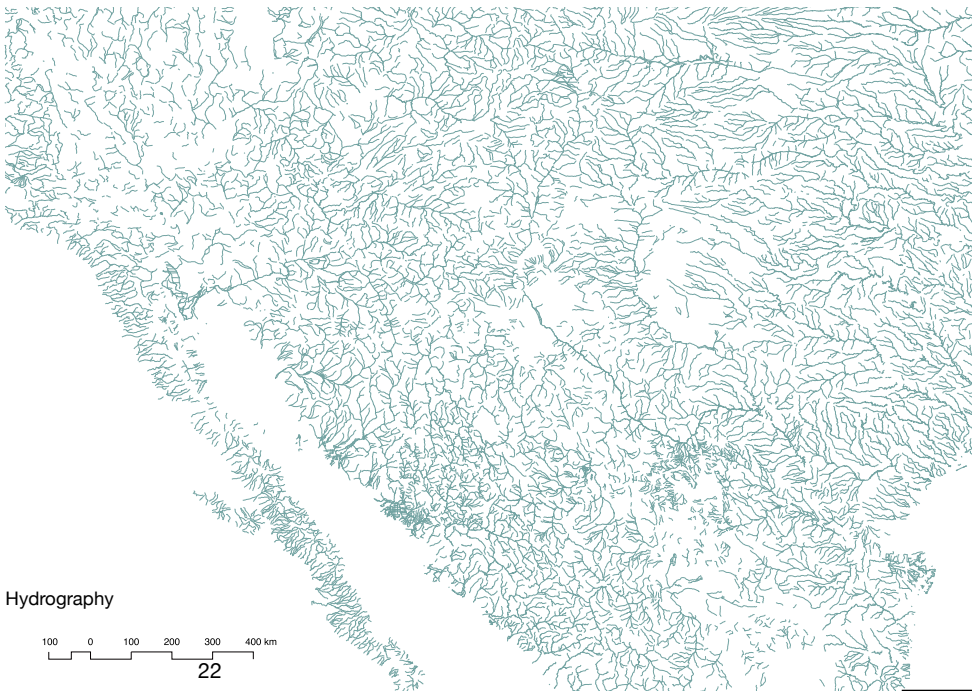
OR MAPS WITHOUT THE WALL



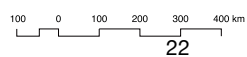
Topography



Infrastructures, Road Network



Hydrography

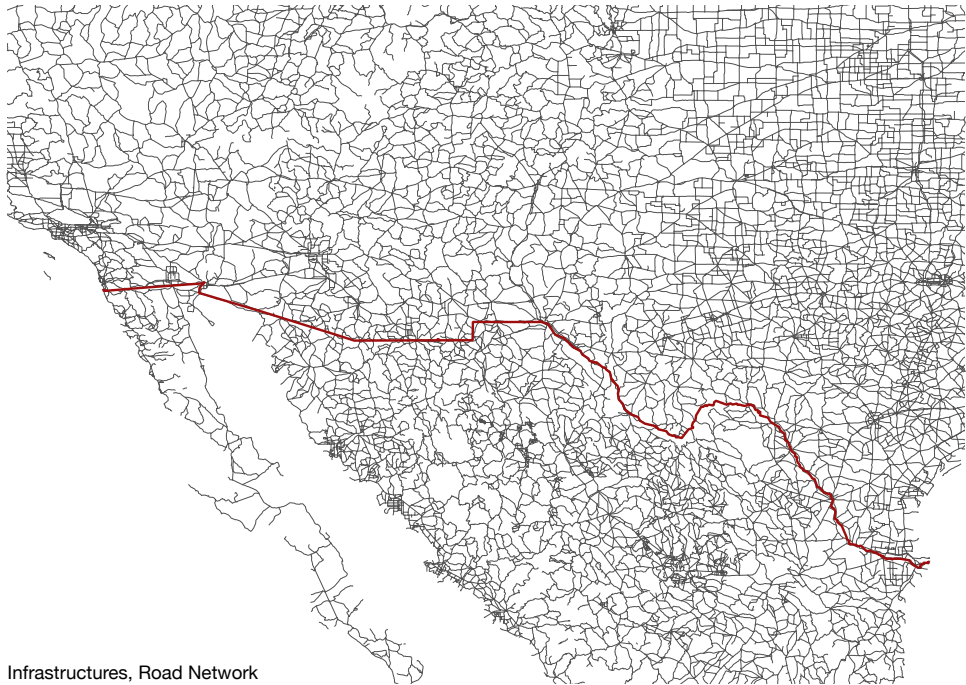


CONTINUITY

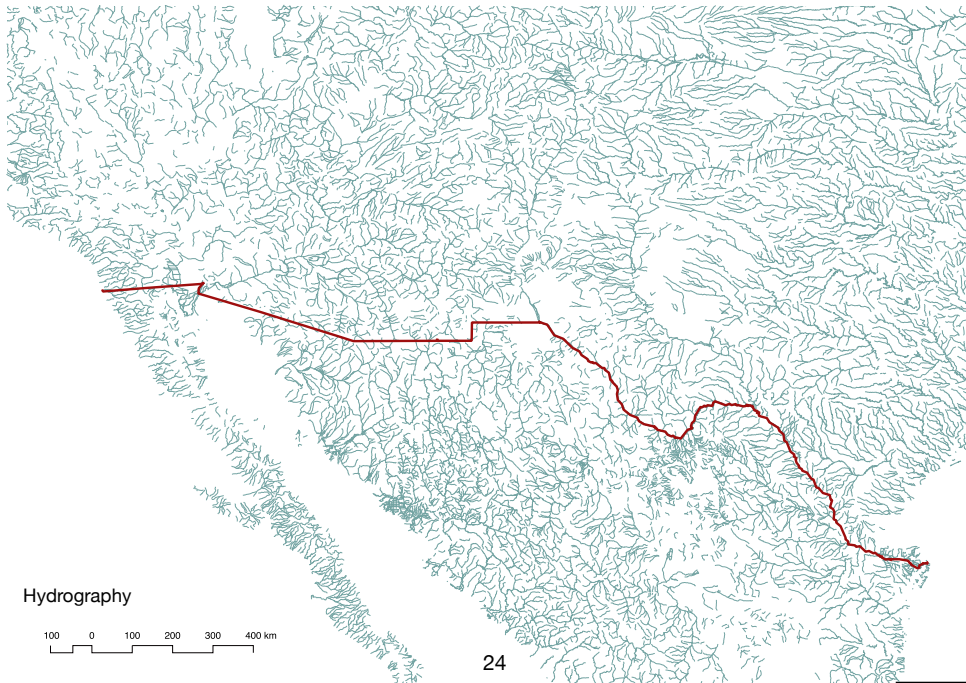
OR MAPS WITHOUT THE WALL



Topography



Infrastructures, Road Network



Hydrography

100 0 100 200 300 400 km

DEFINING REGION

The maps on the right show three different ways to think of the border region, reflecting different criteria used by government officials and researchers to define the it.

The Two-hundred-kilometer border as defined in the 1983 U.S-Mexican La Paz Environmental Agreement that establishes an arbitrary zone of one hundred kilometers on each side of the international boundary.

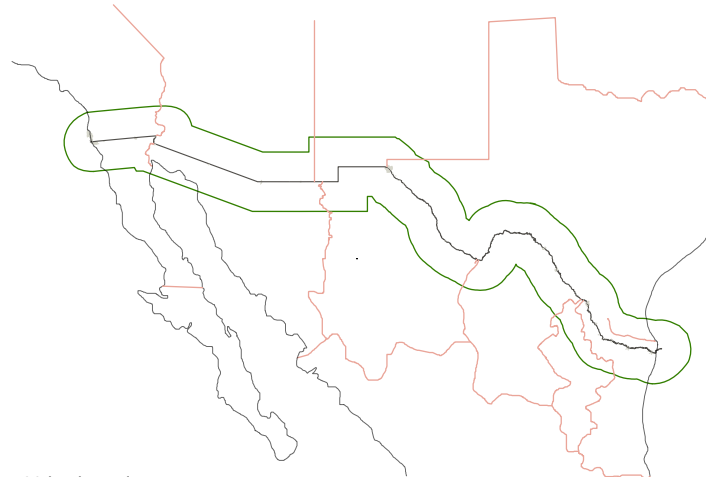
Next proposition employs a definition of the border based on the boundaries of natural systems, in this case the watershed and sub watersheds that cross the border.

Last definition would be the administrative boundaries of the USA border counties and Mexican border municipalities that abut the international boundary.

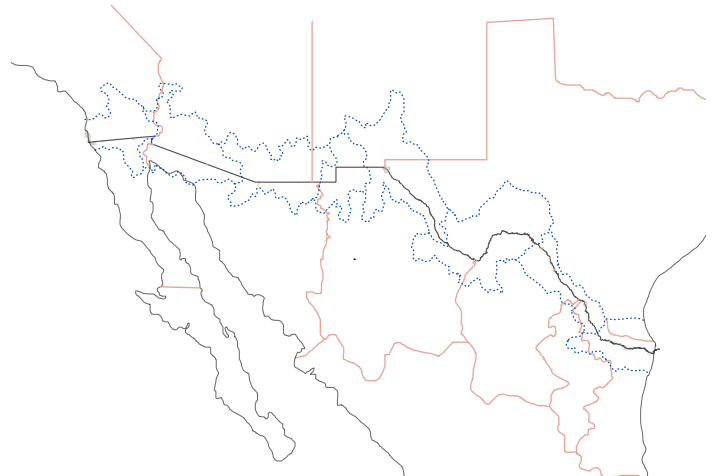
Since many of the basic statics on the border regions are collected on the basis of these local administrative units, including data for all the border's twin cities, the last can be thought as the most common official view of the border.

Other options for defining the border include employing the boundaries of the then border states, or the transnational urban areas constituted by tween cities. A definition based on the presence of Mexican-origin populations or Spanish-language usage would encompass most areas of both Mexico and the United States

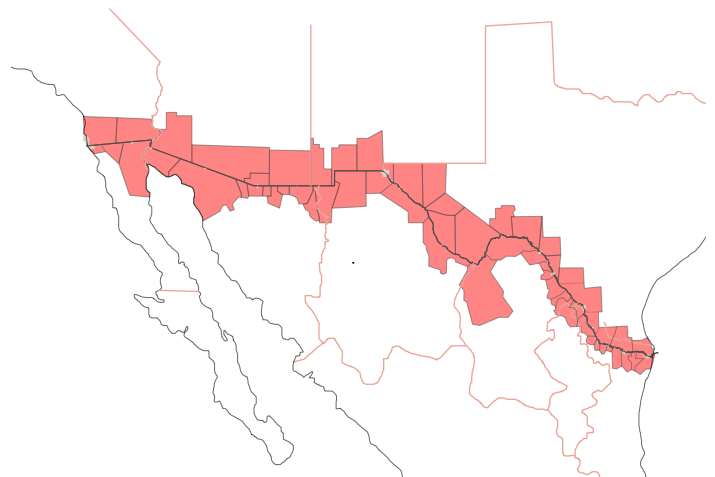
(Ganster)



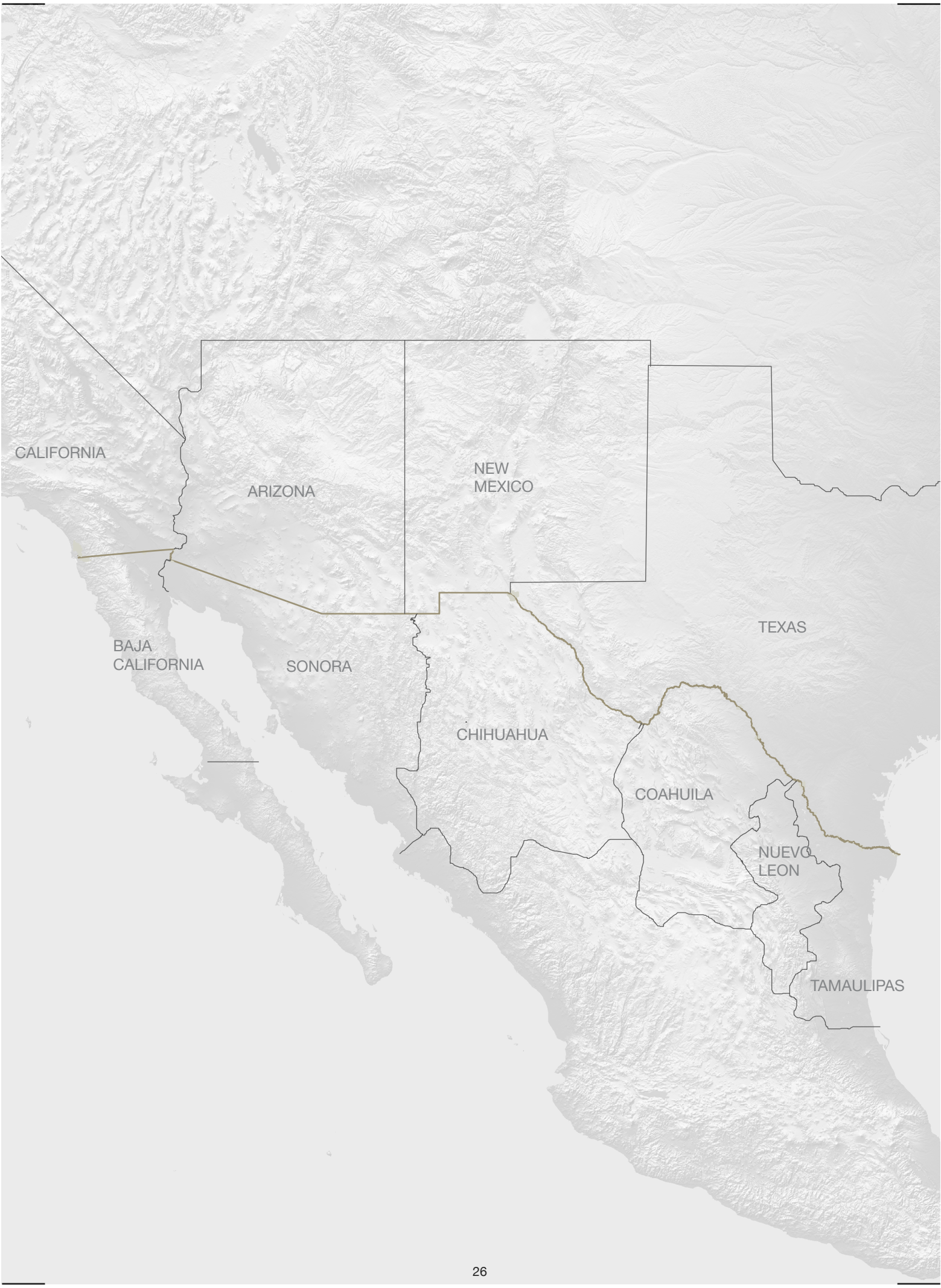
100 km boundary



Boundaries of natural systems



Municipality and administratives boundary



DUALITY

The Border is characterized by a clear duality, defined in one hand by a totally artificial fence, from Tijuana to Ciudad Juarez, and on the other hand by the natural course of the Rio Grande, from El Paso to Brownsville. My research will continue on the analysis of the artificial fence, the constructed artifact.

SAN DIEGO

CALEXICO

YUMA

MEXICALI

TIJUANA

SAN LUIS RIO
COLORADO

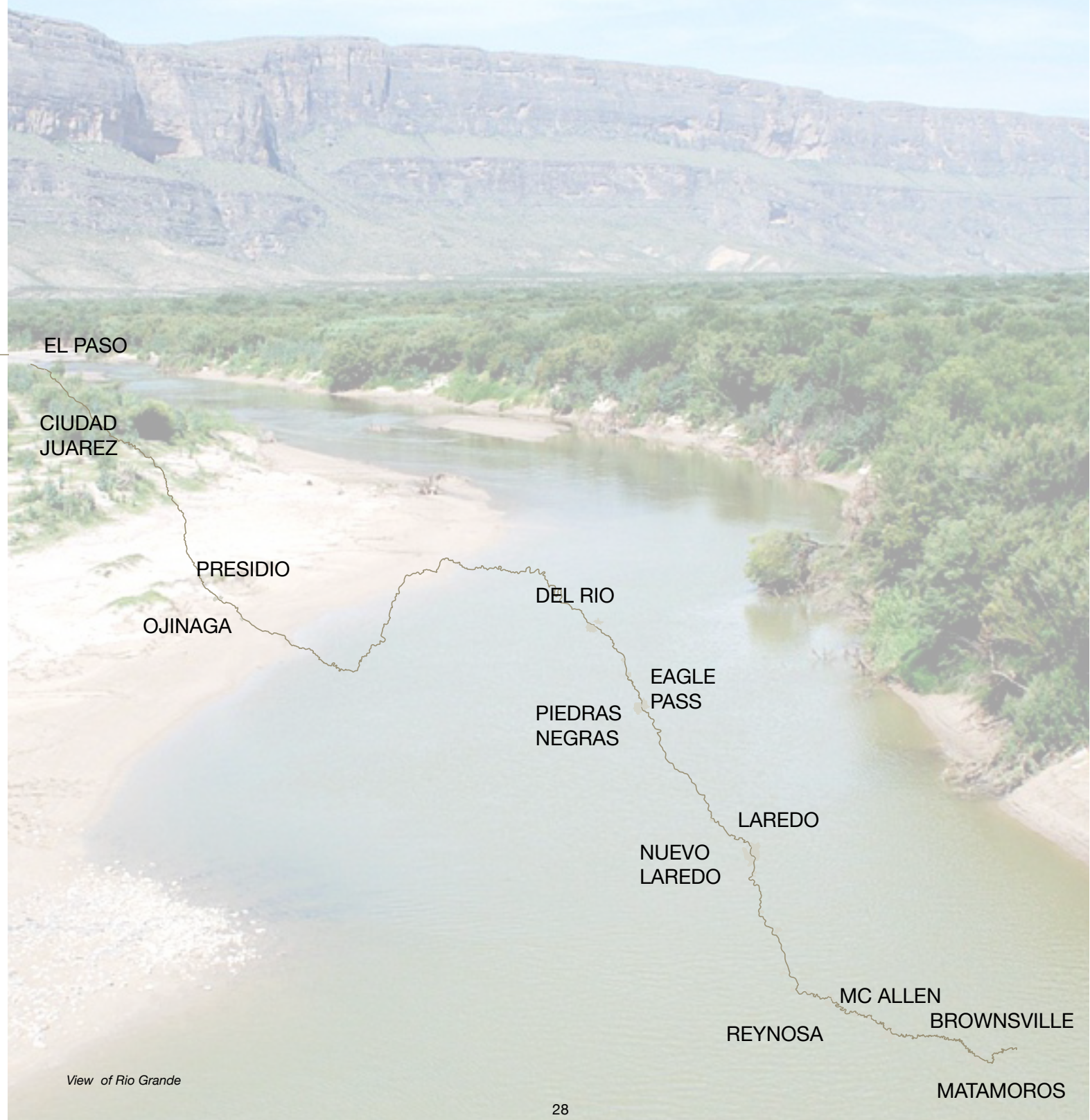
SONOYTA

DUGLAS

NOGALES

AGUA
PRIETA

OR NATURAL AND ARTIFICIAL FENCE



EL PASO

CIUDAD
JUAREZ

PRESIDIO

OJINAGA

DEL RIO

PIEDRAS
NEGRAS

EAGLE
PASS

LAREDO

NUEVO
LAREDO

REYNOSA

MC ALLEN

BROWNSVILLE

MATAMOROS

View of Rio Grande

DEFINING THE FENCE

The barrier is a series of fences, accurately planned and placed by the US to control and prevent the flow of illegal border crossings into the Southwestern United States.

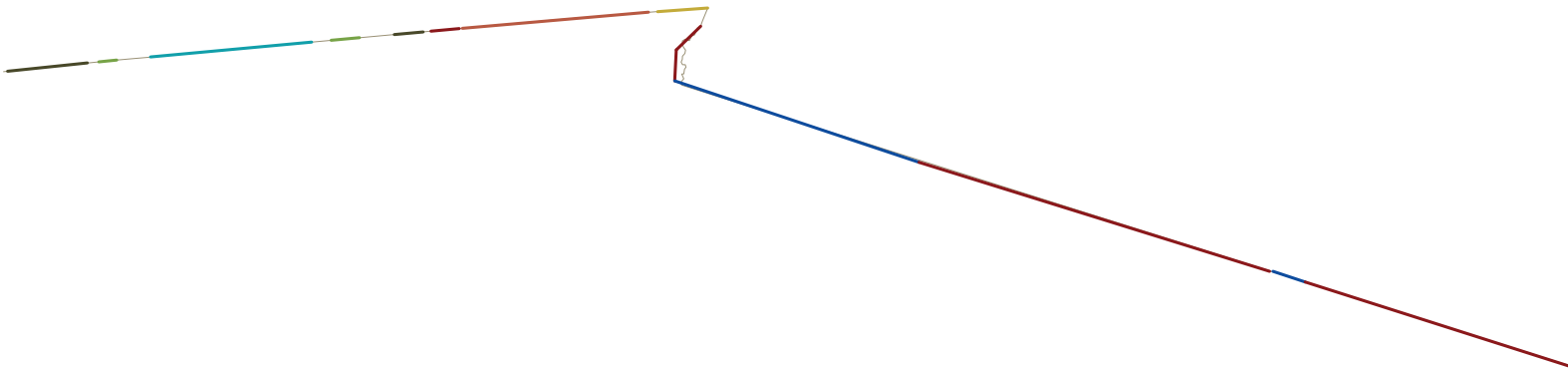
The barrier, not only exists in walls, and fences, several sections are interspersed with a 'digital fence' of sensors and cameras. The United States spends an enormous amount of resources and efforts to the construct infrastructure of the border. More than \$1.2 billion has been spent on the most recent round of border fence construction.

"After 9/11, the Immigration and Naturalization Service was dissolved, and the border security has been placed under the jurisdiction of the Office of Homeland Security. The infrastructure of border control ranges along the border's length from hardened zones of multi-layered fences in urban areas to barely marked open sections in sparsely inhabited desert regions. In the open desert vast distances and the harsh environment provide the most formidable deterrent to border crossing."

(Velde van der, M. and Houtum van, H.)

"The border is controlled with a combination of material barriers that physically impede movement and "soft" controls of surveillance systems and mobile border patrol units that keep watch over the landscape"

(Alan Smart)



More than \$1.2 billion has been spent on the most recent round of border fence construction.



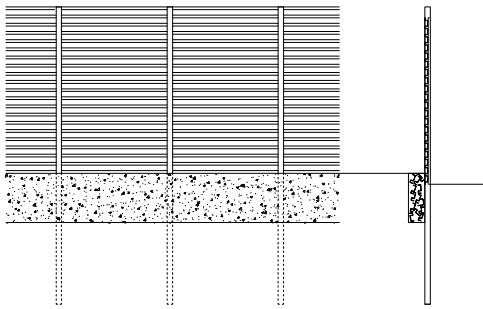
- Double layer fence
- 10 foot steel Beam
- 10 foot Mat
- New Fence
- Vehicle Barrier
- 13 foot Mash
- 16 foot floating Beam



TYOLOGIES

Actually, the fence is composed by two general typologies: vehicle and pedestrian fencing. Pedestrian fencing is often 3 m to 5.5 m high, and inhibit the free passage of pedestrians from walking into the US by foot. Vehicle barriers prevent drivers from crossing the border, sometimes the two types are also combined along various moments of the border, for example in urban areas.

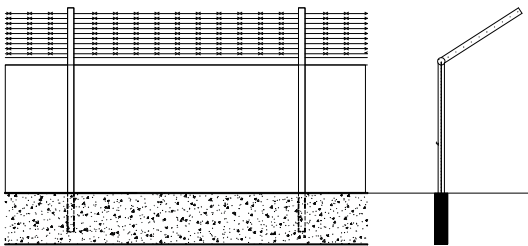
The next five drawings represent the most common pedestrian fences; the last one is a vehicle barrier, which compose the 90% of the border.



Double layer fence
Mat Fence



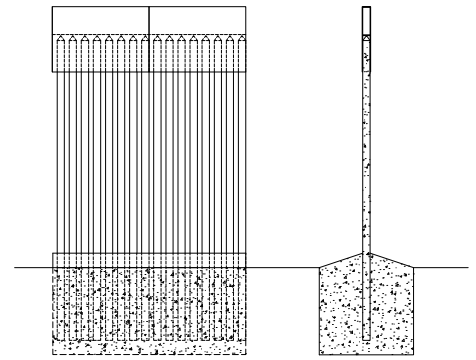
Tijuana



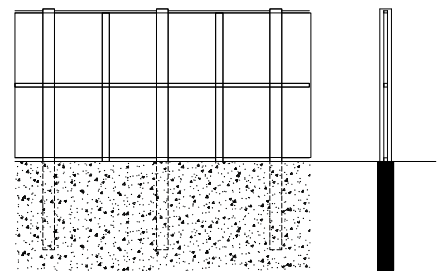
Chain Link Fence



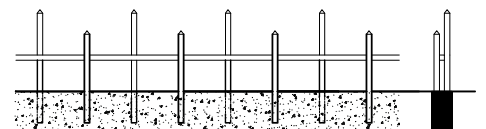
Agua Prieta



10 foot steel Beam



13 Foot Mesh Fence



Straight rail vehicle Barrier

DISCONTINUITY

In this schema, the real face of the barrier.

It was impossible for me to reach the border zone, but through a “street view” tour along the frontier, it is possible to actually have a vision of the constructed wall facade in different spots. Unfortunately the camera was not always available, but all the typologies, in the most significant spots, can be observed in the pictures.

The territorial, infrastructural and hydrographical continuity, seems to be impossible to feel. Every frame disturb the view, obstacles bar the panorama, no more contact with the other side. Each series of photos, distributed vertically, shows the territorial impact of the wall to the corresponding landscape of a precise area, as well as the particular frame of the materiality, the proportions, the details of the fence, as if we were standing direct in front of it.



OR THE FORCED SEPARATION

“Most borders are mental constructs: You cannot see the lines of the borders on the territory, as you are not able to see the Equatorial line or the Polar circle,” he writes. “But in the northwestern border between Mexico and the United States, that imaginary line becomes tangible in the form of the border wall. The fence in the pictures IS the line on the map. If you cross the wall, you are crossing the line of the map.”

Ignacio Evangelista’s “The Line on the Map”



WHEN WALL MELTS IN WATER

The very crucial moment happens when the artificial wall must stop, to cross a natural element, water. In this precise place, the river starts to represent something more than just a source of water; it marks a territorial line that divides two nations, and even more.

But before jumping to this particular area, is fundamental to understand what this river really is.

It's about the Colorado River, "the most contested, played-upon, silt-laden, diverted, engineered, dammed, stored and Metro-dependent River in America" (The Colorado River: Flowing Through Conflict).

The next chapter will be totally dedicated to the analysis of the Colorado River, its understanding will lead to the choice of the Case Study area.



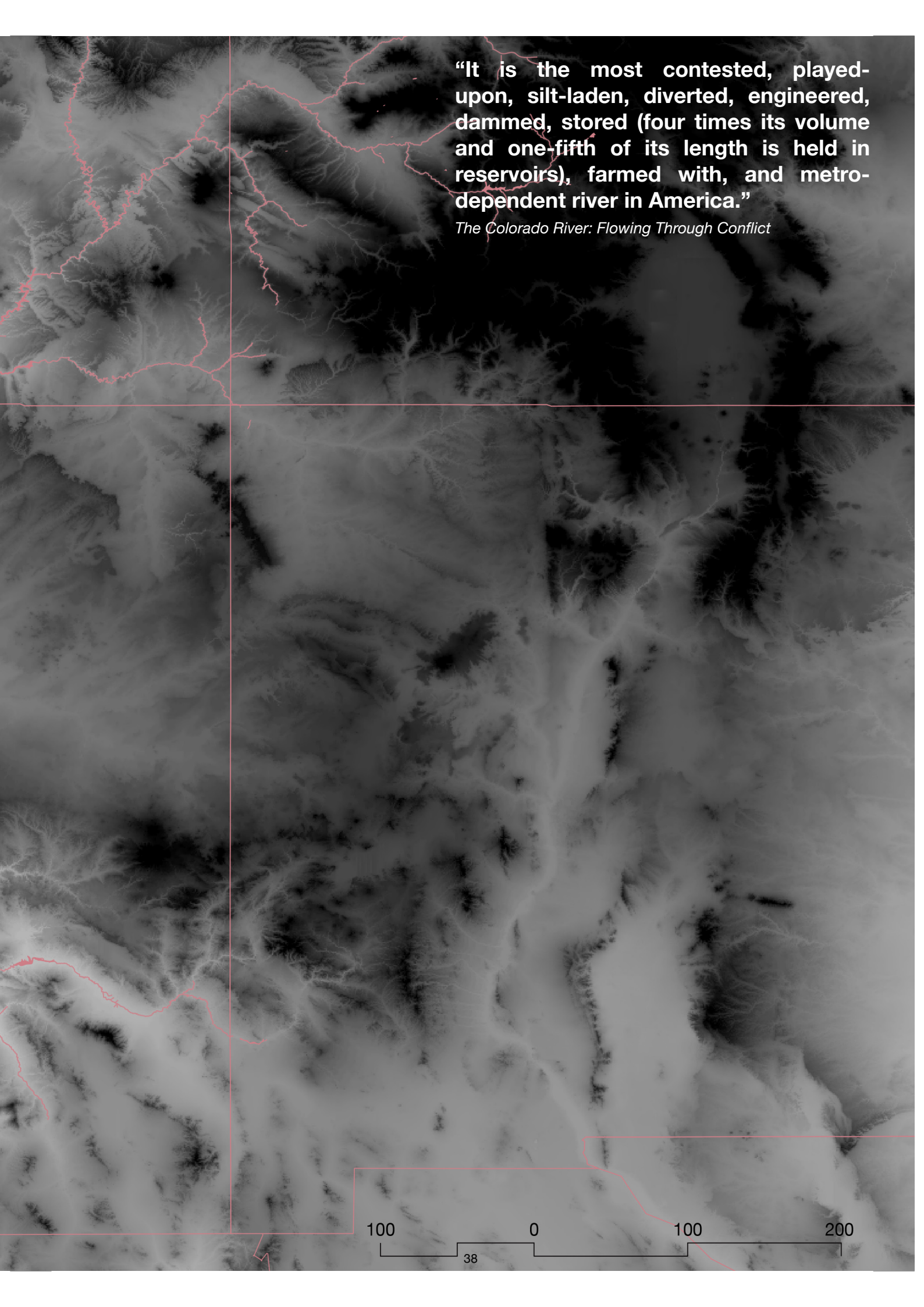


BAJA
CALIFORNIA

CALIFORNIA

ARIZONA

THE PARADOX OF COLORADO R I V E R



“It is the most contested, played-upon, silt-laden, diverted, engineered, dammed, stored (four times its volume and one-fifth of its length is held in reservoirs), farmed with, and metro-dependent river in America.”

The Colorado River: Flowing Through Conflict

100 0 100 200
38

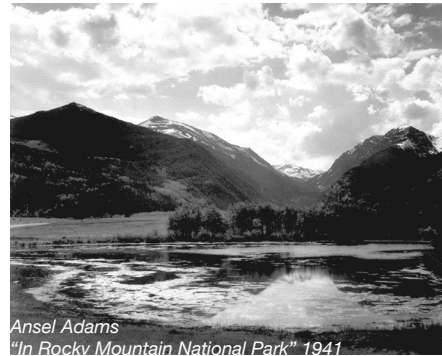
CONTINUITY THE OASIS

The Colorado River starts at La Poudre Pass in the Southern Rocky Mountains of Colorado at 3 km above sea level. Afterwards the river turns west below Grand Lake. For the first 400 km of its course, the Colorado carves its way through the mountainous Western Slope, a sparsely populated region. As it flows southwest, it gains strength from many small tributaries, as well as larger. After passing through De Beque Canyon, it emerges from the Rockies into the Grand Valley, a major farming and ranching region where it meets one of its largest tributaries, the Gunnison River. Most of the upper river is a swift whitewater stream ranging from 60 to 150 m wide.

In northwest direction, the Colorado begins to cut across the Colorado Plateau, a vast area of high. Here, the climate becomes significantly drier, and the river becomes entrenched in progressively deeper gorges of bare rock. Farther downstream it receives the Dolores River and defines the southern border of Arches National Park.

The next State touched by the river is Utah, where it flows primarily through the “slickrock” country, which is characterized by its narrow canyons and unique “folds”. This is one of the most inaccessible regions of the continental United States. Below the confluence with the Green River, the Colorado enters Cataract Canyon, named for its dangerous rapids, and then Glen Canyon. Here, the San Juan River, carrying runoff from the southern slope of Colorado’s San Juan Mountains, joins the Colorado from the east. The Colorado then enters northern Arizona, where since the 1960s Glen Canyon Dam near Page has flooded the Glen Canyon reach of the river, forming Lake Powell for water supply and hydroelectricity generation.

In Arizona, the river passes Lee’s Ferry, an important crossing for early explorers and settlers and since the early 20th century. Downstream, the river enters Marble Canyon, the beginning of the Grand Canyon. Below the confluence with the Little



Colorado River, the river swings west into Granite Gorge, the most dramatic portion of the Grand Canyon, where the river cuts up to 1.6 km into the Colorado Plateau.

Then the Colorado widens into Lake Mead, the largest reservoir in the continental United States, formed by Hoover Dam on the border of Arizona and Nevada. Situated southeast of metropolitan Las Vegas, the dam is an integral component for management of the Colorado River, controlling floods and storing water for farms and cities in the lower Colorado River basin. Then turns due south towards Mexico, defining the Arizona–Nevada and Arizona–California borders.



After leaving the confines of the Black Canyon, the river emerges from the Colorado Plateau into the Lower Colorado River Valley, a desert region dependent on irrigation agriculture and tourism and also home to several major Indian reservations. The river widens here to a broad, moderately deep waterway averaging 150 to 300 m wide and reaching up to 400 m across, with depths ranging from 2 to 20 m. Before channelization of the Colorado in the 20th century, the lower river was subject to frequent course changes caused by seasonal flow variations.

COURSE

WYOMING

ROCKY MOUNTAINS

COLORADO

Lake Powell

Lake Mead

Lake Mohave

Lake Havasu

COACHELLA
VALLEY

IMPERIAL
VALLEY

Gila River

SONORA
DESERT

BAJA
CALIFORNIA

SONORA

UTAH

NEVADA

ARIZONA

NEW MEXICO

COLORADO PLATEAU

CONTINUITY THE OASIS

The Lower Colorado River Valley is one of the most densely populated areas along the river. Here, many diversions draw from the river, providing water for both local uses and distant regions including the Salt River Valley of Arizona and metropolitan Southern California. The last major U.S. diversion is at Imperial Dam, where over 90 percent of the river's remaining flow is moved into the All-American Canal to irrigate California's Imperial Valley, the most productive winter agricultural region in the United States.

The Colorado River exits the United States into Mexico beneath the San Luis Colorado-Colonia Miguel Alemán Bridge (2009)

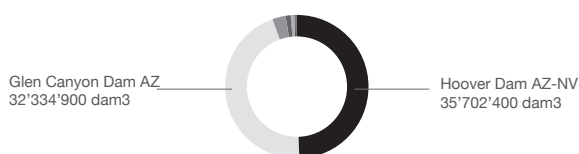
Below Imperial Dam, only a small portion of the Colorado River makes it beyond Yuma, Arizona, and the confluence with the intermittent Gila before defining about 39 km of the Mexico–United States border. At Morelos Dam, the entire remaining flow of the Colorado is diverted to irrigate the Mexicali Valley, among Mexico's most fertile agricultural lands. Below San Luis Río Colorado, the Colorado passes entirely into Mexico, defining the Baja California–Sonora border, the stretch of the Colorado between here and the Gulf of California is nowadays dry or a trickle formed by irrigation return flows. The Hardy River provides most of the flow into the Colorado River Delta, a vast alluvial floodplain covering about 7,800 km² of northwestern Mexico. A large estuary is formed here before the Colorado empties into the Gulf about 120 km south of Yuma.



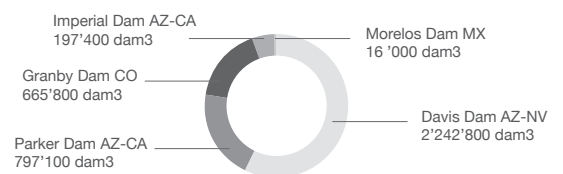
Imperial Dam, Mavens Manor



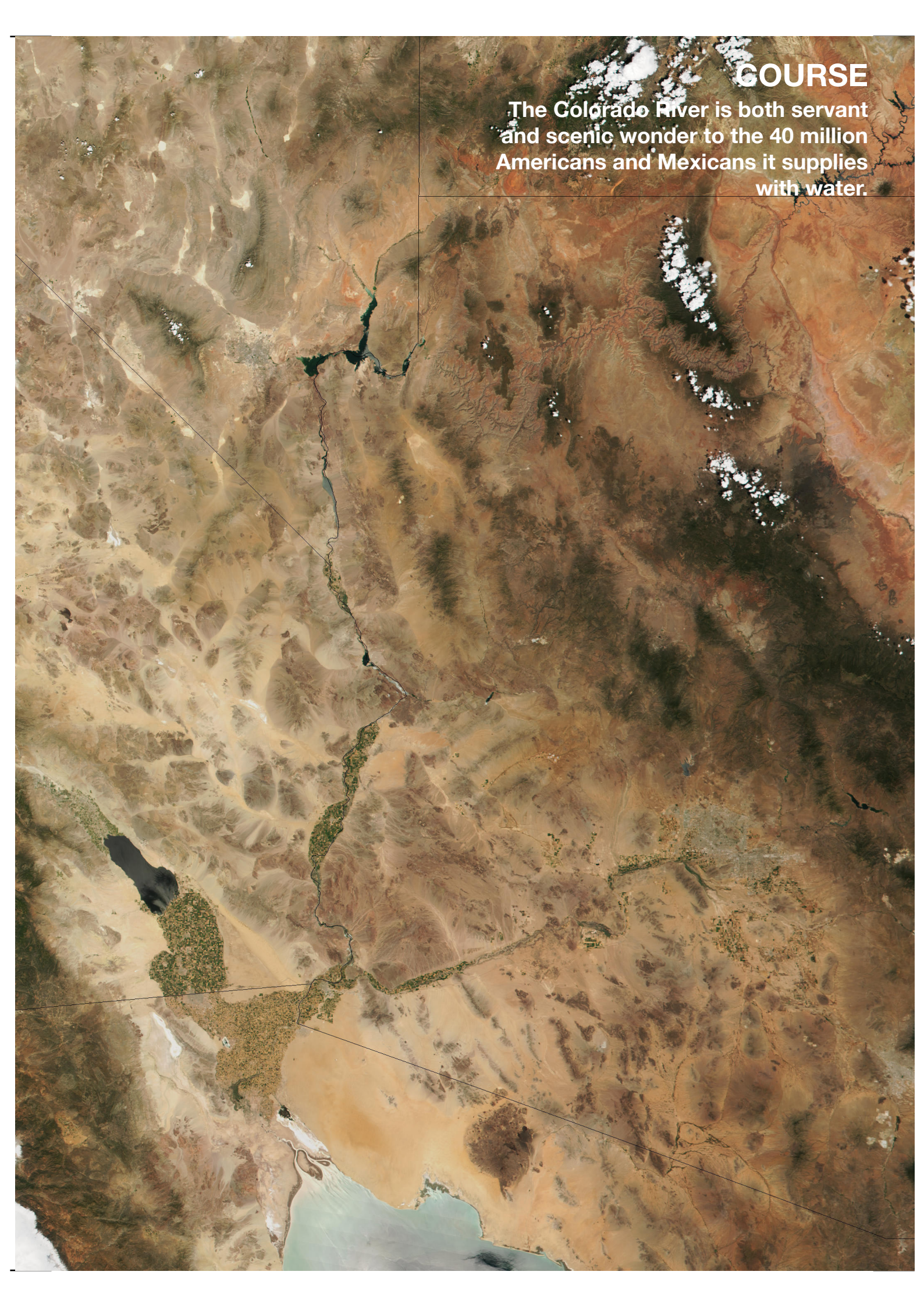
Los Algodones Dunes, Imperial Valley, Mavens Manor



Reservoir capacity of the Major Dams



Reservoir capacity of the other Dams

A satellite map of the Colorado River basin, showing the river's path from the snow-capped mountains in the north to the Gulf of California in the south. The terrain is a mix of brown, tan, and green, with the river appearing as a dark blue line. The text 'COURSE' is in the top right corner.

COURSE

The Colorado River is both servant
and scenic wonder to the 40 million
Americans and Mexicans it supplies
with water.

CONTINUITY

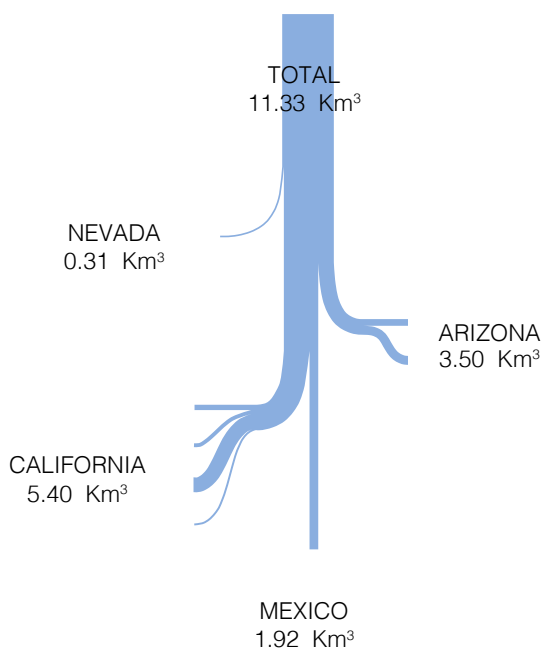
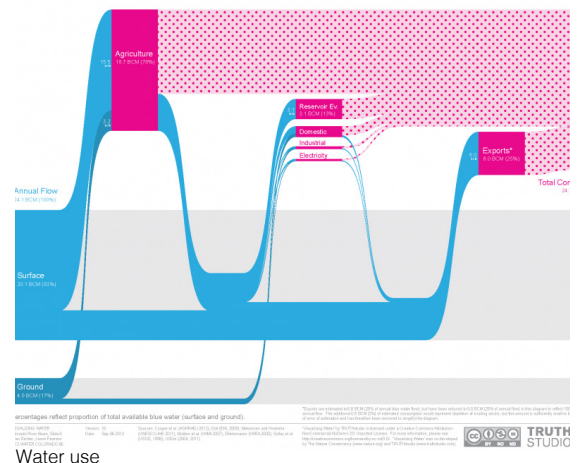
“The Colorado River is managed and operated under numerous compacts, federal laws, court decisions and decrees, contracts, and regulatory guidelines collectively known as the ‘Law of the River.’ This collection of documents apportions the water and regulates the use and management of the Colorado River among the seven basin states and Mexico.” – *U.S. Bureau of Reclamation on The Law of the River*

The Colorado River supports a quarter million jobs and produces \$26 billion in economic output from recreational activities alone, drawing revenue from the 5.36 million adults who use the Colorado River for such activities each year.

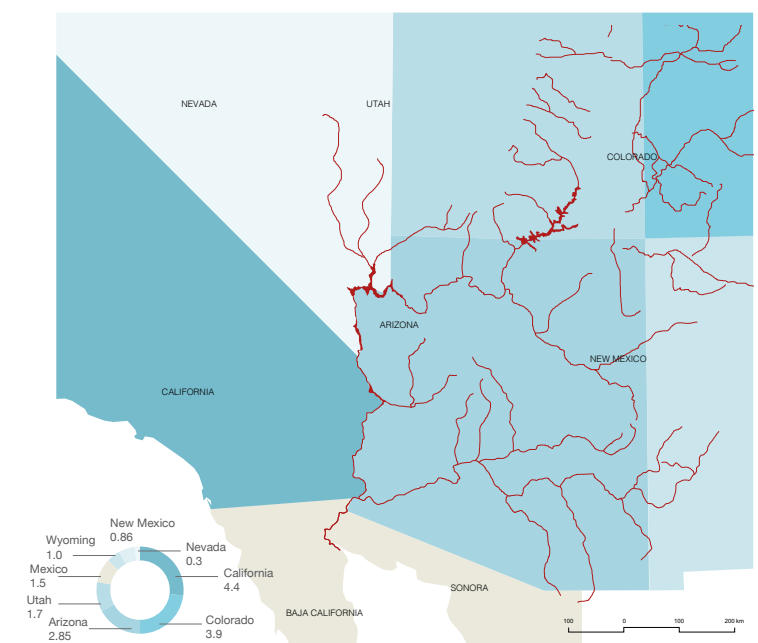
More than 40 million people across Arizona, California, Colorado, New Mexico, Nevada, Utah, Wyoming, and Mexico depend on the Colorado River for their water supply.

The river is a symbol of the West and it sustains life in the dry states through which it passes. Just as humans depend on healthy blood flow, the Colorado River depends on healthy water flows, which are being compromised by current management practices and policies, as well as a warming climate.

The Colorado River Compact of 1922 is the cornerstone of the Law of the River. It was negotiated by the seven Colorado River Basin states and the federal government. However, it put the river on an unsustainable course. “Based on flows from a wetter time, the 1922 Colorado River Compact divvied out one-fifth more river water than what exists today.” – *The Colorado River: Flowing Through Conflict*



Lower Basin Colorado River Reporting and Water Use rapport



Water Allocation in Million Acre Feet per Year

WATERSHED



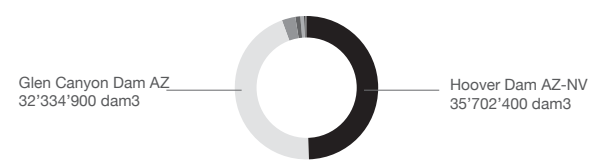
CONTINUITY ENVIRONMENTAL CATASTROPHE

“Lack of access to safe drinking water, which poses a significant threat to public health in border communities. Inadequate collection and treatment of wastewater, which contaminates surface waters and aquifers and threatens public health and the environment. Inadequate management of stormwater pollution that contributes significantly to water pollution problems and the potential for floods. Inadequate public access to water quality data, which decreases the public’s ability to know whether a waterbody is safe for recreational use. Impacts of climate change that affect precipitation patterns and duration of droughts, making water availability even more challenging in an already arid region, and making wastewater infrastructure more vulnerable to damage from floods”.

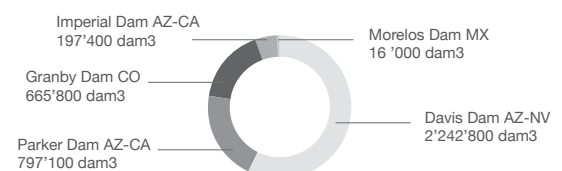
(Water policyforum)

California and the other U.S. states that share the water of the upper Colorado River basin use huge quantities of water to support growing urban populations and irrigated agriculture, leaving only about 10 percent of the Colorado River’s poor-quality waters to reach Mexico and usually not even a trickle reaches the Gulf of California.

Reduction in flow caused by dams, diversions, water for thermoelectric power stations, and evaporation losses from reservoirs has had severe ecological consequences in the Colorado River Delta and the Gulf of California. Before the delta with its large freshwater outflow and extensive salt marshes provided an important breeding ground for aquatic species in the Gulf. Today’s desiccated delta, no longer provides suitable habitat, and populations of fish, shrimp and sea mammals in the gulf have seen a dramatic decline.



Reservoir capacity of the Major Dams



Reservoir capacity of the other Dams

THE EMPTY DELTA

For decades, the mighty Colorado River has been diverted to growing cities and farmland, halting the river's progress to the sea.

Now with governments and environmental groups in the U.S. and Mexico working together, there is hope to once again connect the river to the sea.

nationalgeographic.com/video/freshwater-colorado-delta

CONTINUITY

ENVIRONMENTAL

CATASTROPHE

The Colorado used to transport from 77,000,000 to 91,000,000 tons of sediment or silt to the Gulf of California each year. This sediment nourished wetlands and riparian areas along the river's lower course. Nowadays, the majority of sediments carried by the Colorado River are deposited at the upper end of Lake Powell, and most of the remainder ends up in Lake Mead. Dams trapping sediment not only pose damage to river habitat but also threaten future operations of the Colorado River reservoir system.

Reduced flows have led to increases in the concentration of certain substances in the lower river that have impacted water quality. Salinity is one of the major issues. By the early 1970s, there was also serious concern about salinity caused by salts leached from local soils by irrigation drainage water, which were estimated to add 9,100,000 tons of excess salt to the river per year. Further efforts have been made to combat the salt issue in the lower Colorado, including the construction of a desalination plant at Yuma.

Agricultural runoff containing pesticide residues has also been concentrated in the lower river in greater amounts. Toxins derived from pesticides have led to fish kills. Pesticide issue is even greater in streams and water bodies near agricultural lands irrigated by the Imperial Irrigation District with Colorado River water. In the Imperial Valley, Colorado River water used for irrigation overflows into the New and Alamo rivers and into the Salton Sea. Both rivers and the sea are among the most polluted bodies of water in the United States, posing dangers to aquatic life, to contact by humans and migrating birds.



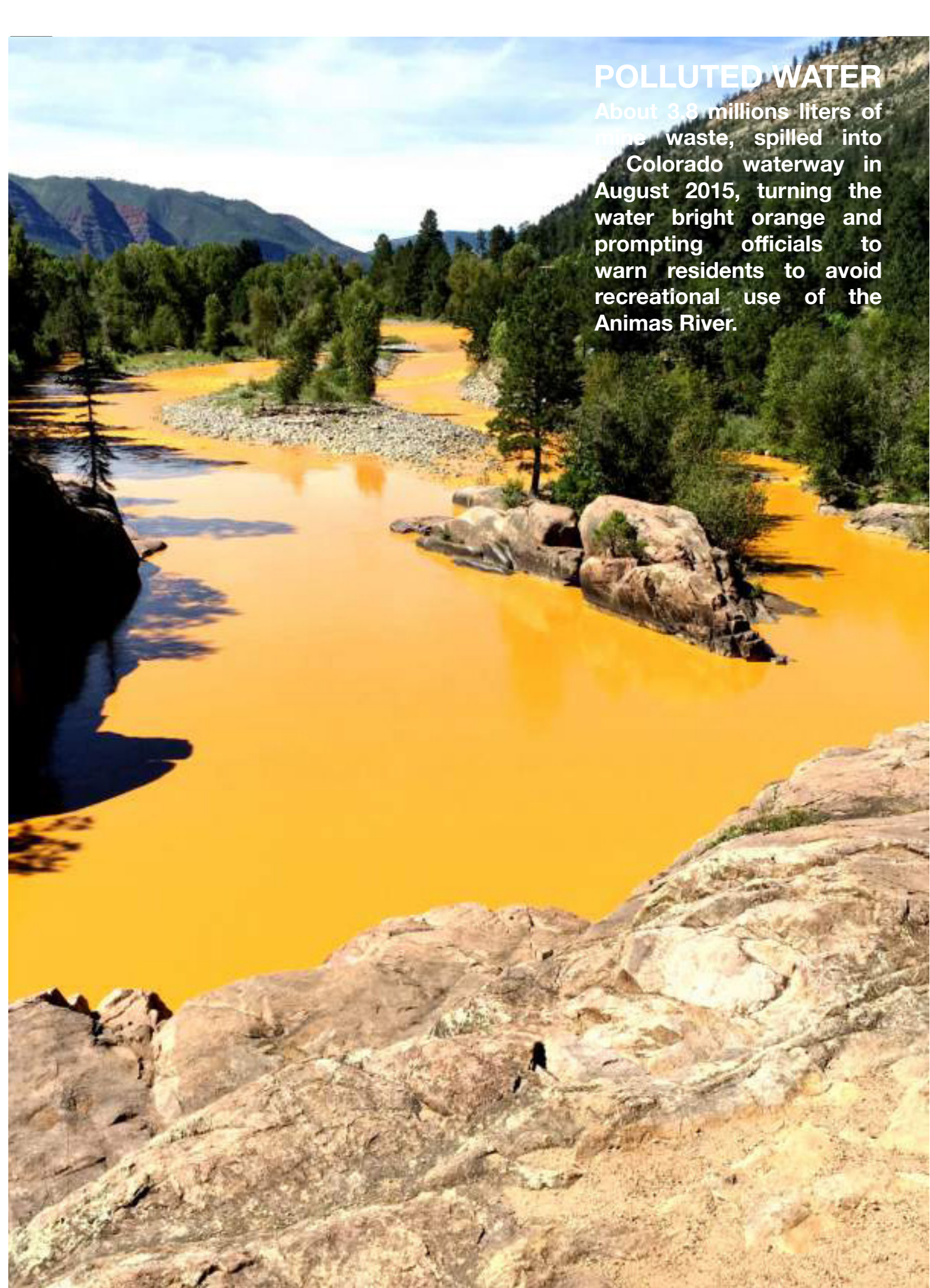
“The river is a symbol of the West and it sustains life in the dry states through which it passes. Just as humans depend on healthy blood flow, the Colorado River depends on healthy water flows, which are being compromised by current management practices and policies, as well as a warming climate”.

(The law of the River)



POLLUTED WATER

About 3.8 millions liters of mine waste, spilled into Colorado waterway in August 2015, turning the water bright orange and prompting officials to warn residents to avoid recreational use of the Animas River.



DISCONTINUITY DIFFICULT DOUBLE

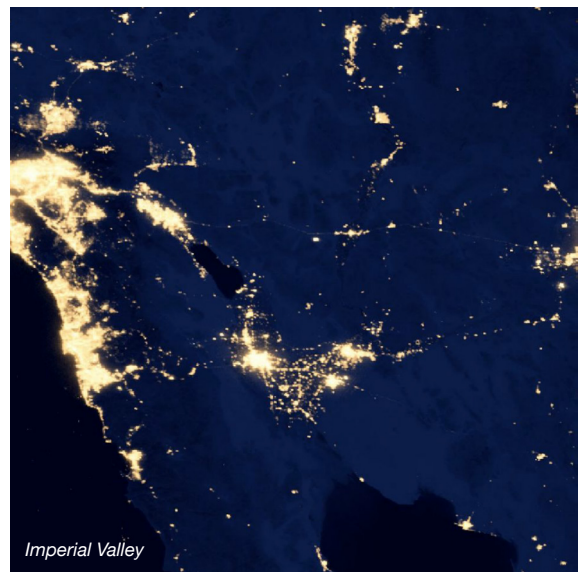
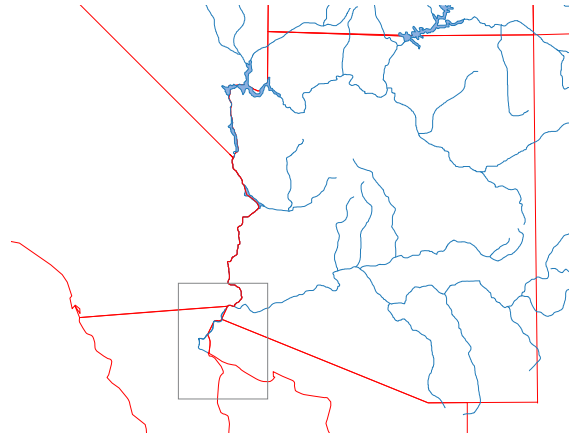
Finally, it's time to focus on a specific area of the Colorado River, as well as the US-Mexican Border, the Case Study.

It's the southern part of the Lower Colorado Basin, the lower Imperial Valley, and Coachella Valley, where the Sonora Desert starts.

This area, viewed in the specific frame (image right), show how drastically the before explained continuity of the Colorado River, is no more thinkable.

It's imperative to define the discontinuity of this region, due to the presence of the wall, and the contrasts between the two nations.

In a region where water constitutes the lifeblood of both urban and rural existence, it is not surprising that the flows of major regional rivers and subsurface aquifers became a source of lasting conflict between Mexico and the United States.

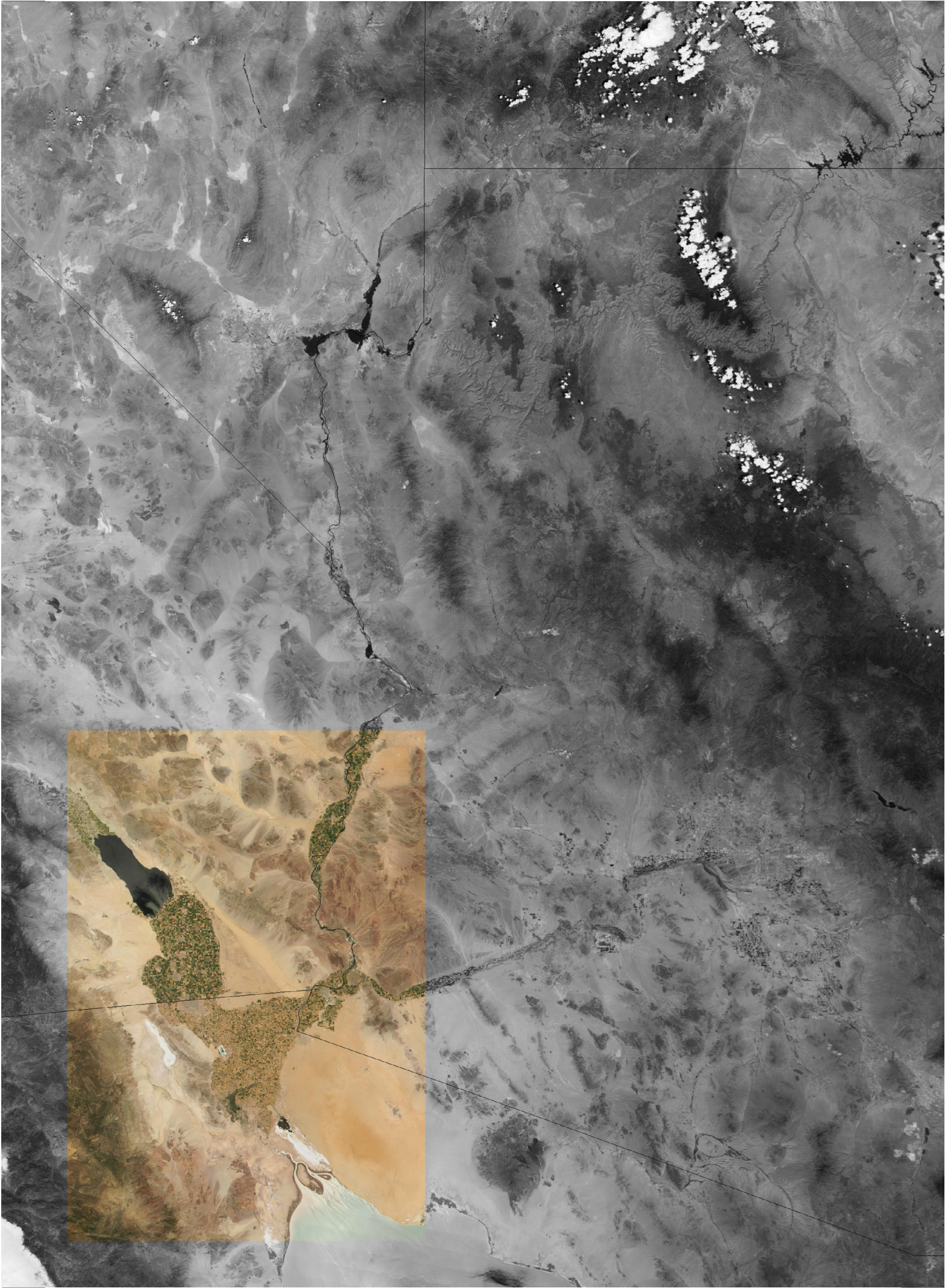


The region is part of the last territorial acquisition of the United States, with the Gadsden Purchase or Venta de La Mesilla.

Is the area of 76,800 km² of present-day southern Arizona and southwestern New Mexico that was purchased by the United States in 1853.

It included lands south of the Gila River and west of the Rio Grande; so that the U.S.A. could construct a transcontinental railroad along a deep southern route.

The treaty provided for a joint commission, to determine the final boundary between the United States and Mexico. The disputed territory involved a few thousand square miles and about 3,000 residents; more significantly, it included the Mesilla Valley. Bordering the Rio Colorado, the valley consisted of flat desert land measuring about 80 km, north to south, by 320 km, east to west. This valley was essential for the construction of a transcontinental railroad using a southern route.



DISCONTINUITY DIFFICULT DOUBLE

“Toward the end of the nineteenth century, as population increased all along the border and in the adjacent states, U.S. entrepreneurs began building irrigation works, which reduced the amount of water entering the Mexican border states from the Colorado River. In 1895, Mexico filed a \$35 million claim with the International Boundary Commission. The commission urged the two countries to negotiate a comprehensive treaty regulating the use of water for irrigation. But settlement of the dispute would not come until 1922, when U.S. state representatives signed the Colorado River Compact, which divided the river into two basins, each with rights to half the water”.

“Conflicts over the Colorado’s water intensified in the 1940s and 1950s, as Infrastructure investment in agricultural production soared in both countries.

By the 1960s, due to water usage in both countries, water flowing to the delta in the Gulf of California-on the Mexican side of the border-had ceased entirely. Mexico filed complaints with the United States about both the amount and the quality of water it received”.

(David E. Lorey)





DISCONTINUITY THE SOURCE OF PRODUCTION

The area, placed in the American Imperial Valley, which extends for 80 km from the south of the Salton Sea to the Mexican Mesa de Andrade, is protected by the range of the Sierra de los Cocopas on the west and the Gila Mountains on the east side.

The topography is almost flat in this valley, It is the lowest region of the Colorado River Basin, almost entirely below sea level.

The river has flowed into the Imperial Valley over millions of years and deposited soil creating fertile farmland.

Bordered by sand dunes and barren mountains, the Valley was uninhabited until 1901, when the Imperial Canal was opened and diverted Colorado River water into the valley through Mexico.

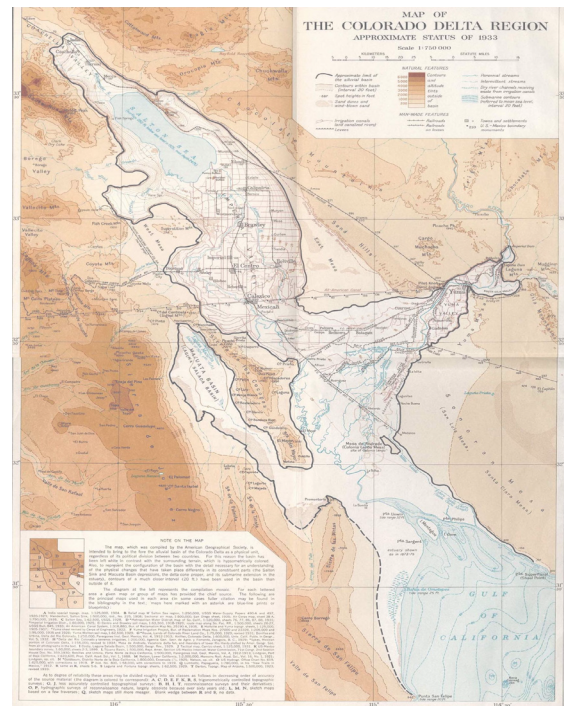
Floodwaters in 1905–07 destroyed the irrigation channels and filled the Salton Sea, its surface is 71.5m below sea level, and extends 974 square kilometers; is the biggest lake in California.

The artifact that maintains the valley fertile, is the All American Canal, it conveys water of the Colorado River, in the Imperial Dam, just before it enters in Mexican territory. The All-American Canal is a 130 km long aqueduct, constructed along the frontier. It replaced the Alamo Canal, which was located mostly in Mexico.

In the Mexican side, the water of the Colorado is also diverged, to the Canal Alimetador Central, from the Morelos Dam, exactly on the border, irrigating the Mexicali Valley, and living the rest of the Rio Colorado course dry.



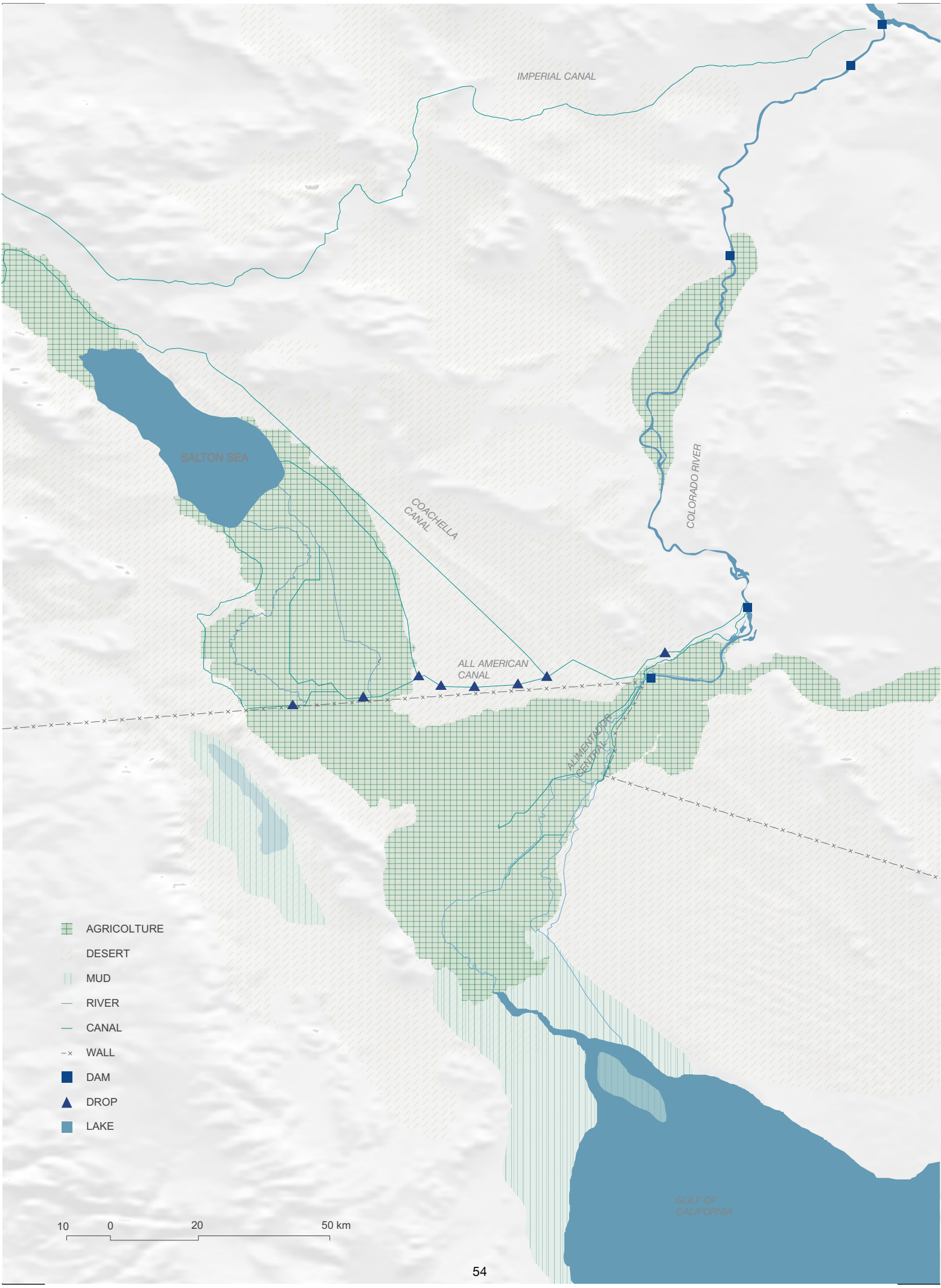
View of the Colorado from San Luis



The Salton Sea, Dennis R. Dimick National



Morelos Dam from USA, just behind the fence



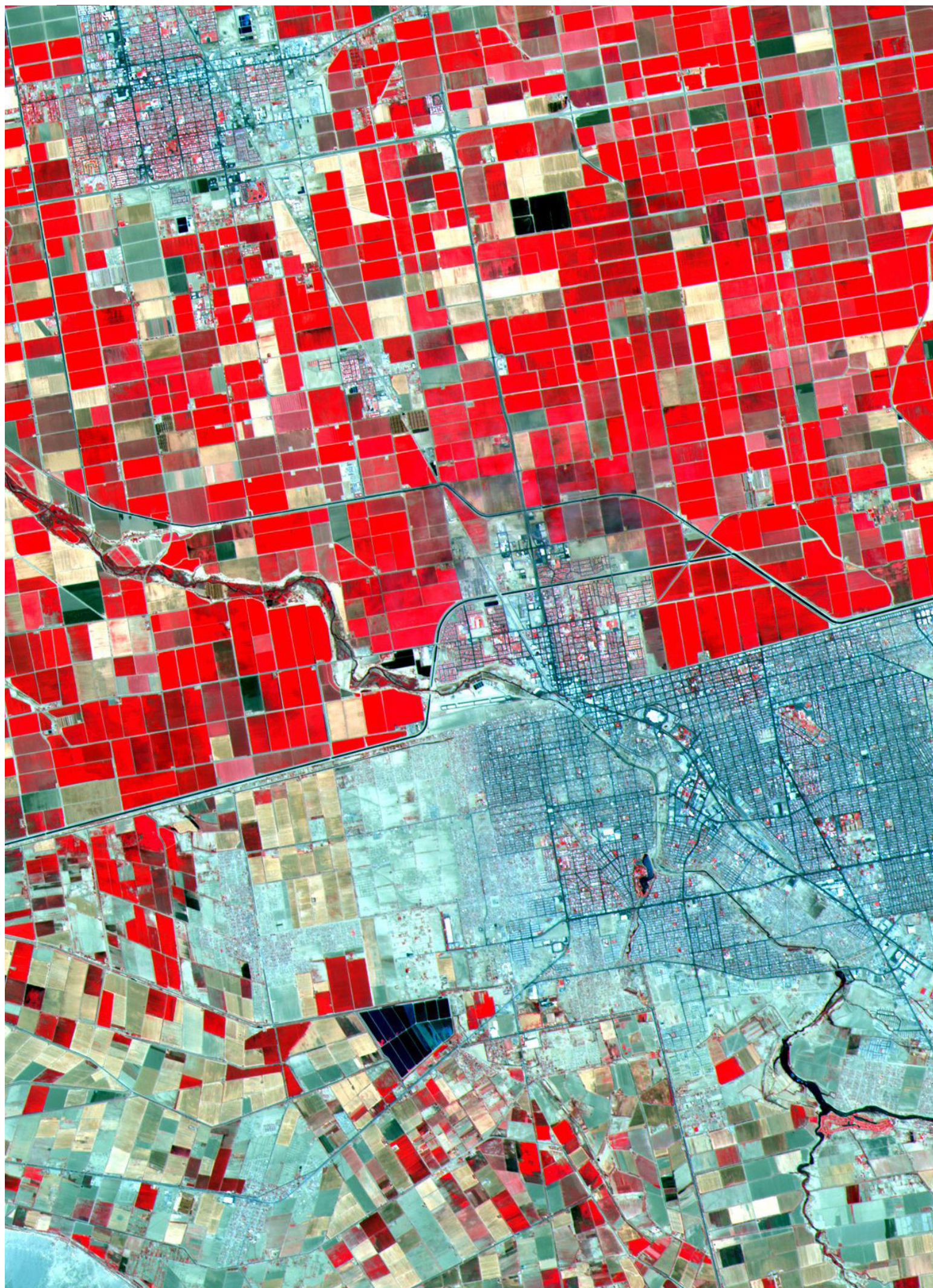
DISCONTINUITY THE SOURCE OF PRODUCTION

The figure on the left shows the border between Calexico (North) and Mexicali (Sud). The image is made using near infrared bands of the electromagnetic spectrum to highlight the green vegetation (crops), which show up as bright red in the image. Notice the drastic change that occurs at the Mexican border.

The dramatic difference in land use patterns between the U.S. and Mexico is highlighted by the lush, gridded agricultural fields of the U.S., and the more barren fields of Mexico. The Imperial Valley of California is one of the major fruit and vegetable producers for the U.S.

At any given point in time, only about half of the arable land in the Mexicali Valley is cultivated due to a lack of sufficient water. Due to the salinity of the water, crops are currently experiencing a 10-15% decline in production. This upset in the natural flow of the water and the disruption of the balance of sediment erosion and deposition has changed the ecology of the river delta. Not only has it left coastal villages dry, but it has caused several species to struggle for existence as well. Birds, marine life, and creatures adapted to the salt water marshes of the delta are all left struggling as the environment changes from the one they adapted to into something different.

(visibleearth.nasa.gov/view)



DISCONTINUITY U R B A N CONSTELLATIONS

In the Imperial Valley, several urban settlements are to be found along the border.

The major cities, Mexicali (SO) and San Luis Rio Colorado (SO) base their economy on agriculture, industries and commerce of goods, between Mexico and U.S.A.

Mexicali is the most populated city with 1'025'743 habitants.

Developed directly on the borderline, has a relatively high density; his airport connect the region with the capital Mexico City, Guadalajara and Hermosillo.

A 4m high pedestrian wall separates the city of Mexicali from the tween city of Calexico (CA).

The Port of entry of Calexico, the population is composed for 88% of Hispanics.

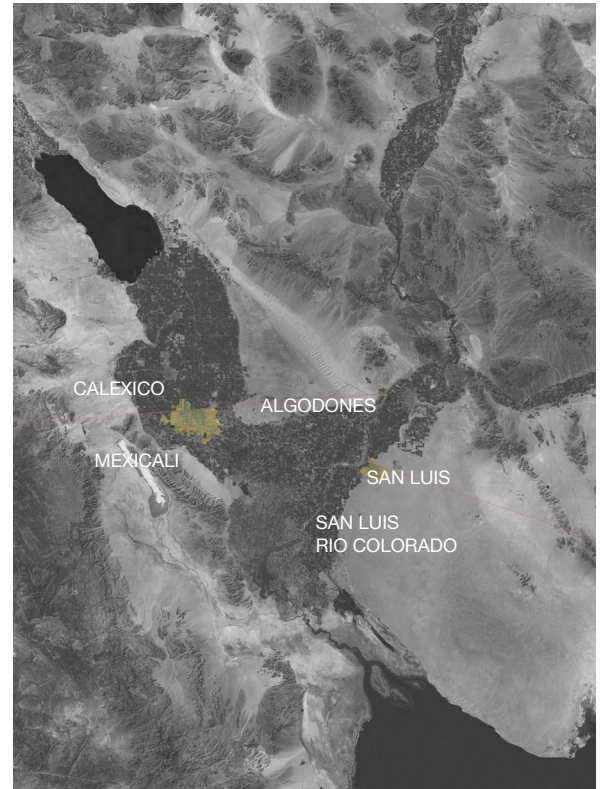


San Luis Rio Colorado is located on the point that marks the state border with Baja California. is reputed to be Mexico's fastest-growing city, with a population of 150'000 habitants, with hot summers and mild winters; it is one of the hottest and driest cities in the entire Mexico.

Its tween city is San Luis, located in the southwest corner of the state of Arizona.

The city was established in 1930 with the opening of a border-crossing station.

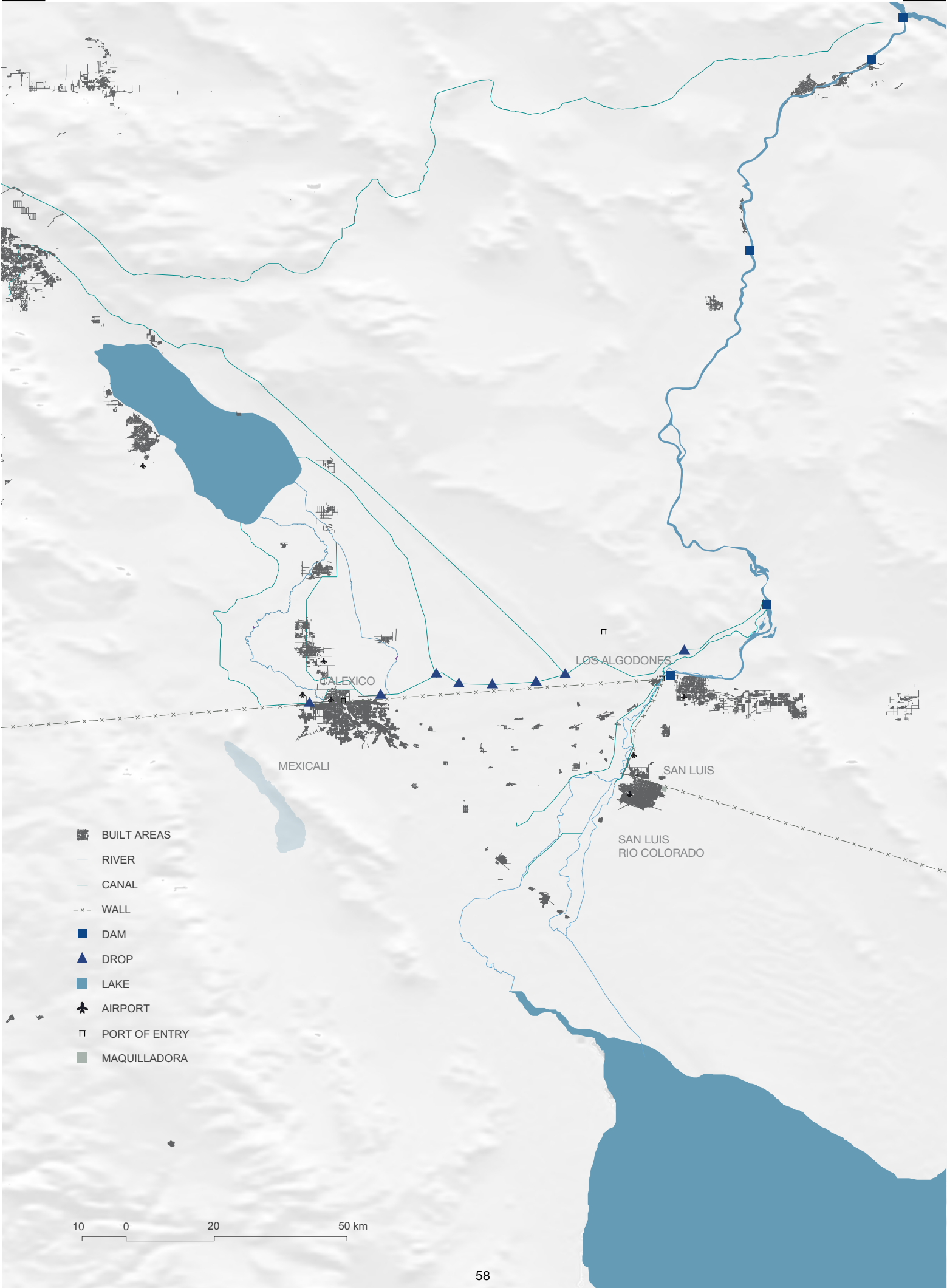
Los Algodones is a small town, Situated between Mexico, southeastern California and southwestern Arizona, near the Morelos Dam, it has become a popular tourist attraction due to convenient shopping and restaurants as well as inexpensive medical care and medicines prescription.



Urban settlements



Domestic travel hubs



CALEXICO

Institution	1908
Area	21.733 km2
Elevation	0.9 m
Population	38'572
Density	1'800 km2
Economy	Agriculture
Sports	Golf, Baseball, Rugby
Tourism	Casinos, Mariachi festival, "Perspective of the Latino Race" art exhibition



MEXICALI

Institution	1903
Area	13'700 km2
Elevation	8 m
Population	1 025 743
Urban	996 826
Density	81.94 km2
Economy	Agricultural, Industrial Maquilladoras
Sports	Soccer, Basketball, American Football, Baseball,
Tourism	Host the Baja Prog, a progressive Rock event; shopping malls; Tourists are mainly attracted to local taco stands, restaurants, pharmacies, bars and dance clubs; Plaza de Toros "Calafia"; Bosque y Zoológico de la Ciudad; Edificio del Instituto de Bellas Artes; Silicon Border Project.



ALGODONES

Institution	1894
Area	61.26 km²
Elevation	33 m
Population	5'474
Economy	industry, agriculture, ganadería, fishing, commerce
Tourism	curio shops, pharmacies, open air cafes, dentists.



SAN LUIS

Institution	1930
Area	68.5 km2
Elevation	40 m
Population	31'091
Density	316.0/km2
Economy	retail trade, agriculture, manufacturing
Sports	Golf, Baseball, Rugby
Tourism	Territorial Prison, Fort Yuma and the 16th century Fort Thomas Mission, Fishing, water skiing and swimming at lakes along the Colorado River



SAN LUIS R.C.

Institution	1917
Area	61.26 km²
Elevation	45 m
Population	158'089
Density	1,800 km2
Economy	industry, agriculture, ganadería, fishing, commerce
Sports	wrestling, soccer, baseball, basketball
Tourism	Reserva de El Pinacate; Virgen de Guadalupe festivities; Parque Benito Juárez; Casa de la Cultura; Reserve of the biosphere El Pinacate and Gran Desierto de Altar, heritage of humanity, Alto golfo de California y delta del río Colorado, heritage of humanity.





DISCONTINUITY PARADOXICAL OVERLAPPING

Observing the layers underlined in the specific zone, we can notice a particular overlapping of several infrastructures, roads networks and canals.

The principal and secondary roads reveal a network that cover every part of the agricole region, the organization of the structure is significantly diversified in the Mexican territory, following the homogeneous division of private land parcels.

Also canals, and water diversions don't belong to a clear raster.

In the US part, the structure changes completely. The main roads, as well as the secondary roads follow the Jefferson Grid, perfectly disposed in a pure geometrical system, orthogonal to the north.

The All American Canal follows exactly the line of the wall, to fill the Imperial Valley.

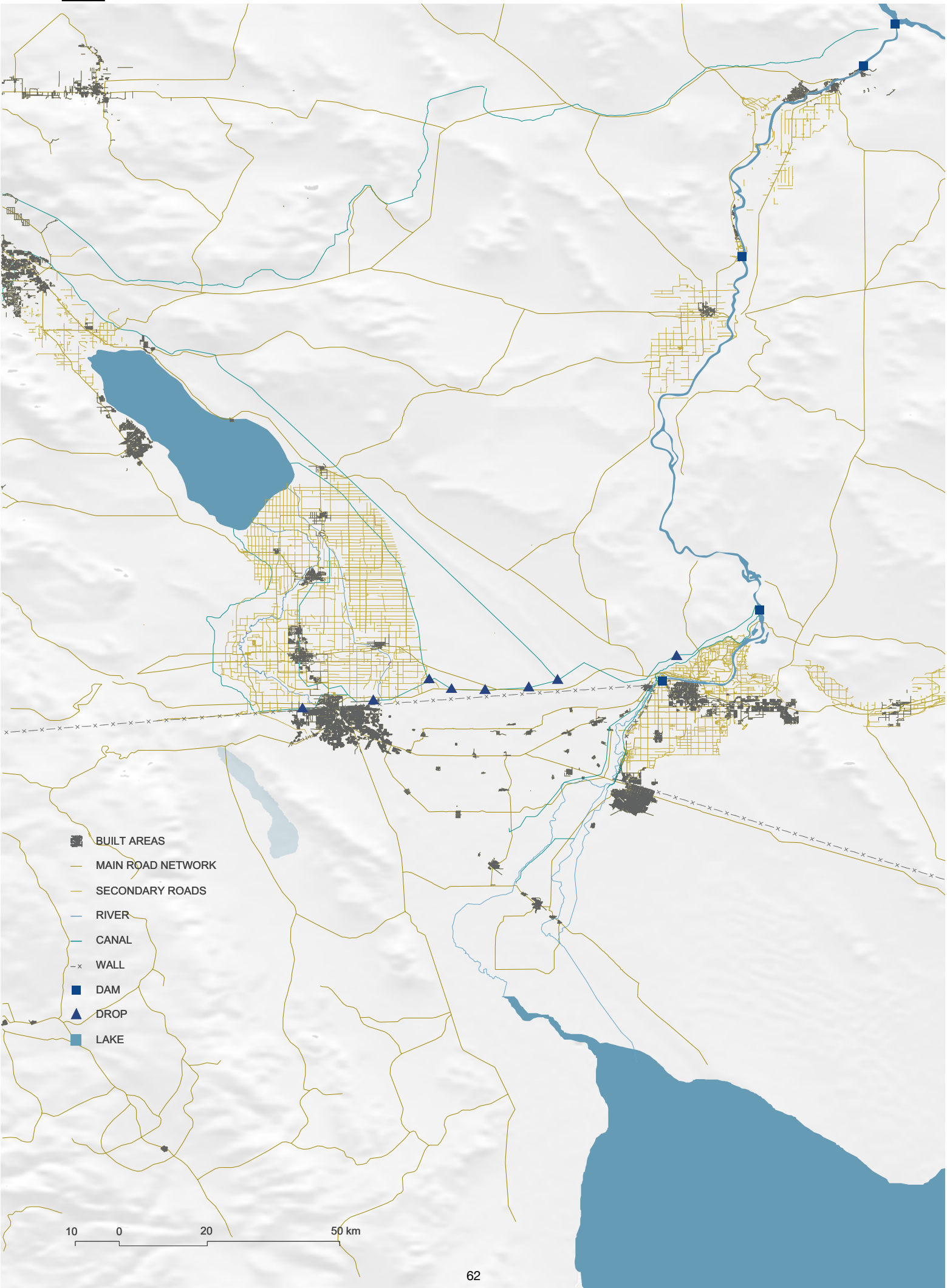
The presence of the fence marks the spots of higher density, and in the same time, cuts the water distribution.



Roads, bridges, canals, wildness



Canals and agriculture



DISCONTINUITY THE INGREDIENTS OF THE FIELD

The complexities of the valley are resumed in the map on the right.

Analyze the wide area is fundamental to understand the issues concentrated in the boundary zone.

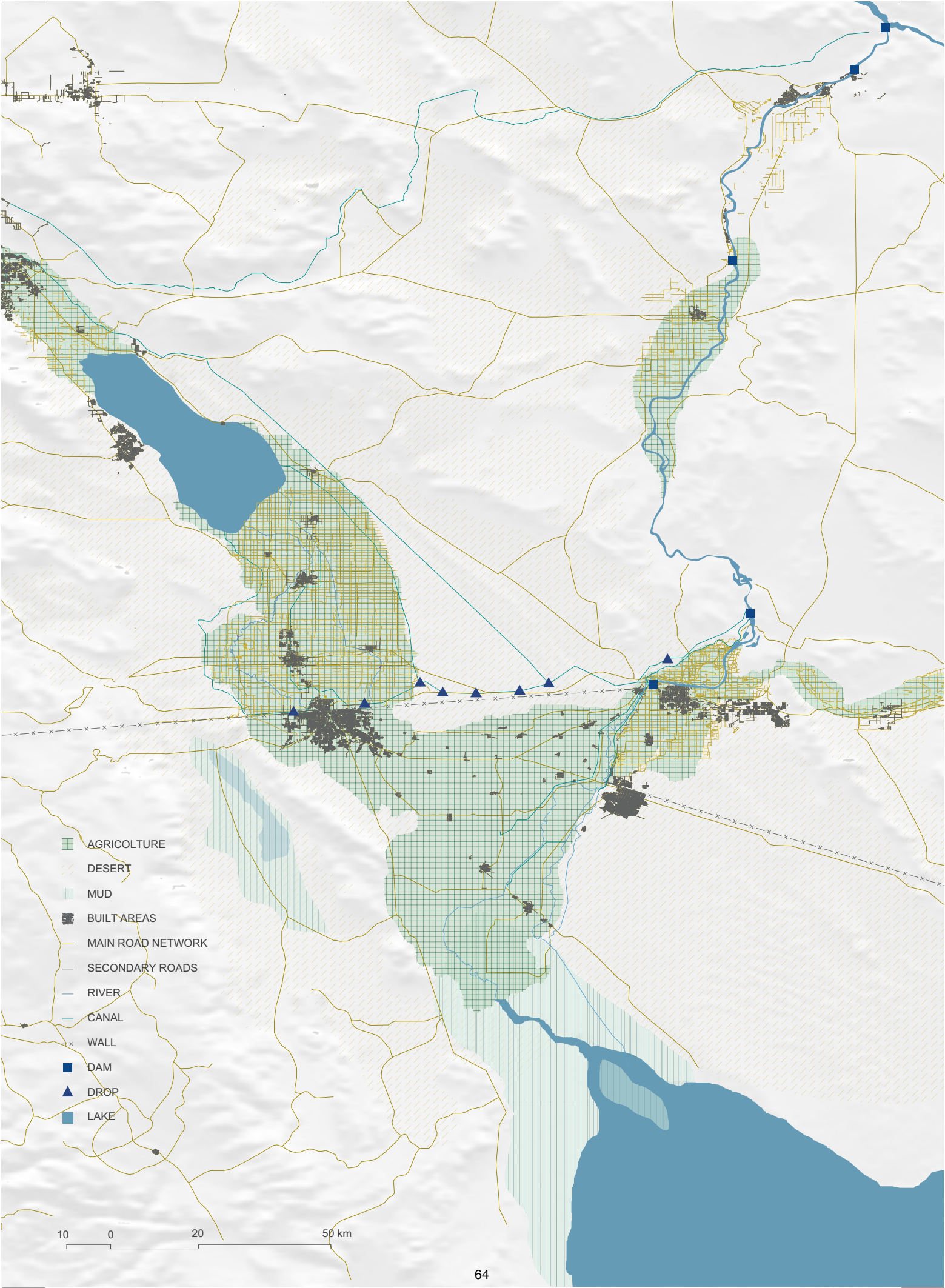
The Colorado River, creates an almost 30 kilometers long natural fence.

Nearby, in the US side, a 20 km long vehicle fence has been constructed, it starts near Los Algodones, in the northern point on the other side of the river; a pedestrian steel beam fence closes the remaining 8 kilometers strip of the border, finishing in the San Luis Port of Entry.

But what are the potential of this strip of land? What the possibilities for the urban settlements where the wall finishes and restarts? What infrastructures could revitalize the area on the border? Is still possible to imagine a different future for the Rio Colorado?



View of the fence from the USA



VISION



FORGOTTEN SPACE

The area between the two countries, seems to be somehow forgotten, the riverbed is abandoned; the remaining water that should arrive to the delta is dispersed in a controversial place.

The map shows that actually, all the infrastructures, the irrigation plants, the road network and the agriculture land, do not penetrate the area.

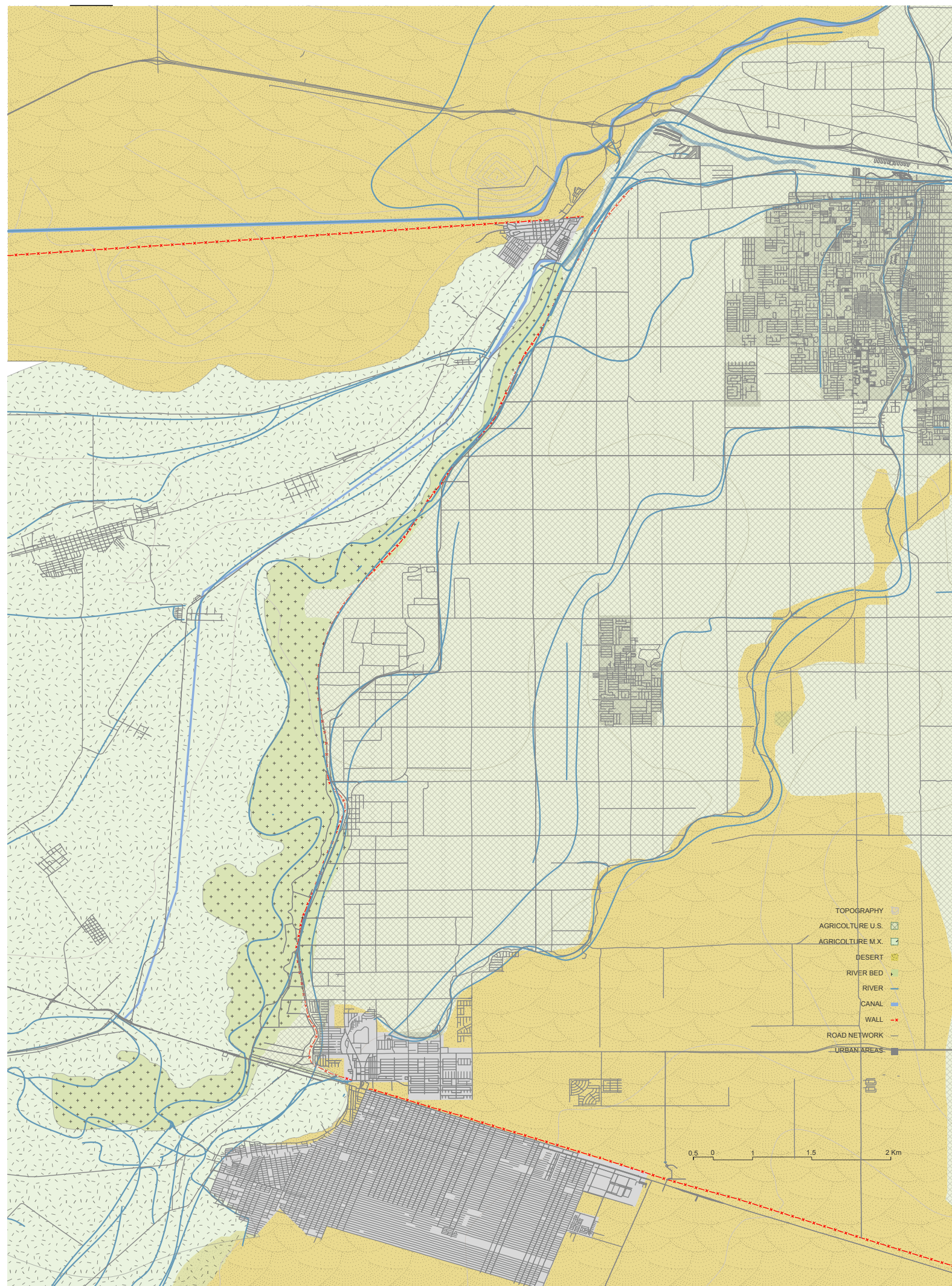
As explained before, the US constructed a barrier directly nearby, even if the immigrants achieve to cross the river, the fence will block them.

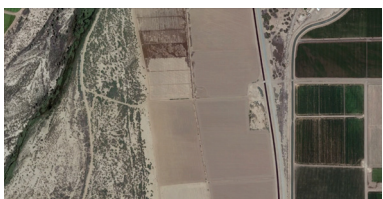
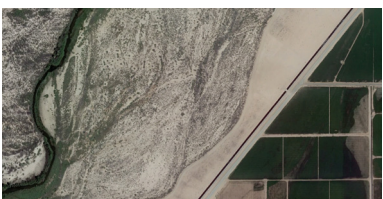


Production of "ladrillo", near Algodones



View of the Imperial Valley







INBETWEEN

Between the three countries, California, Baja California and Arizona, in the highest point of Mexico, and of all Latino America, the position of the little town of Los Algodones (traduced: the cotton plants) is particularly interesting. Is a very popular destination for the US citizens.

Through Andrade (CA), visitors usually park their vehicles just behind the wall and simply walk across the border, or they can also drive across the port of entry.

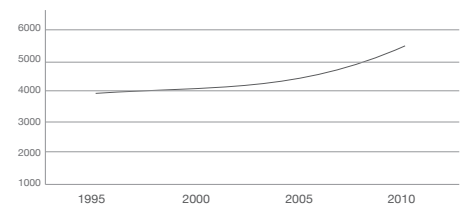
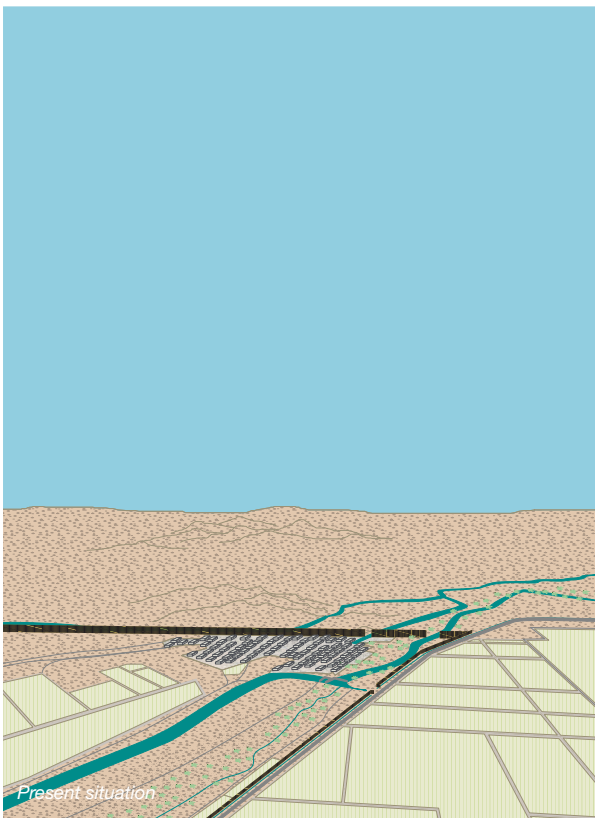
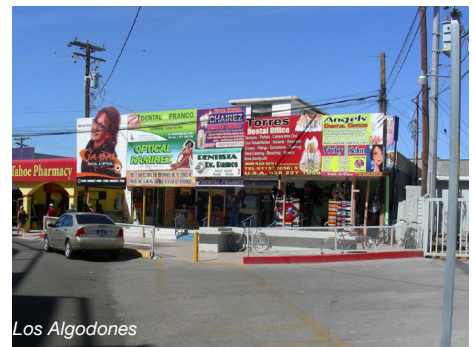
The Canadian and U.S. senior citizens interest to the cheap prescriptions and medical care, caused a Boom of pharmacies and dental offices. Many of the open-air shops and restaurants have been displaced directly across the wall, effectively the town's focus shifted from tourism to medicine.

But the very exceptional fact about this town is the proximity to the Colorado River, and to the beautiful and fertile landscape it creates.

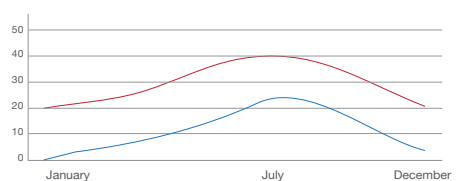
Nowadays, only the hydropower infrastructures, such as the Morales Dam, and the agricultural fields nearby, benefit from this powerful neighbor.

My proposal is to reveal the beauty and the potential of the riverbed near the urban area of Los Algodones, through infrastructural intervention, water cleaning and efficient irrigation.

A park that could protect the area, menage flooding, and give life to the river.



Population growth, Los Algodones.



Annual Weather average, Los Algodones, Max and min.



THE COTTON P L A N T S

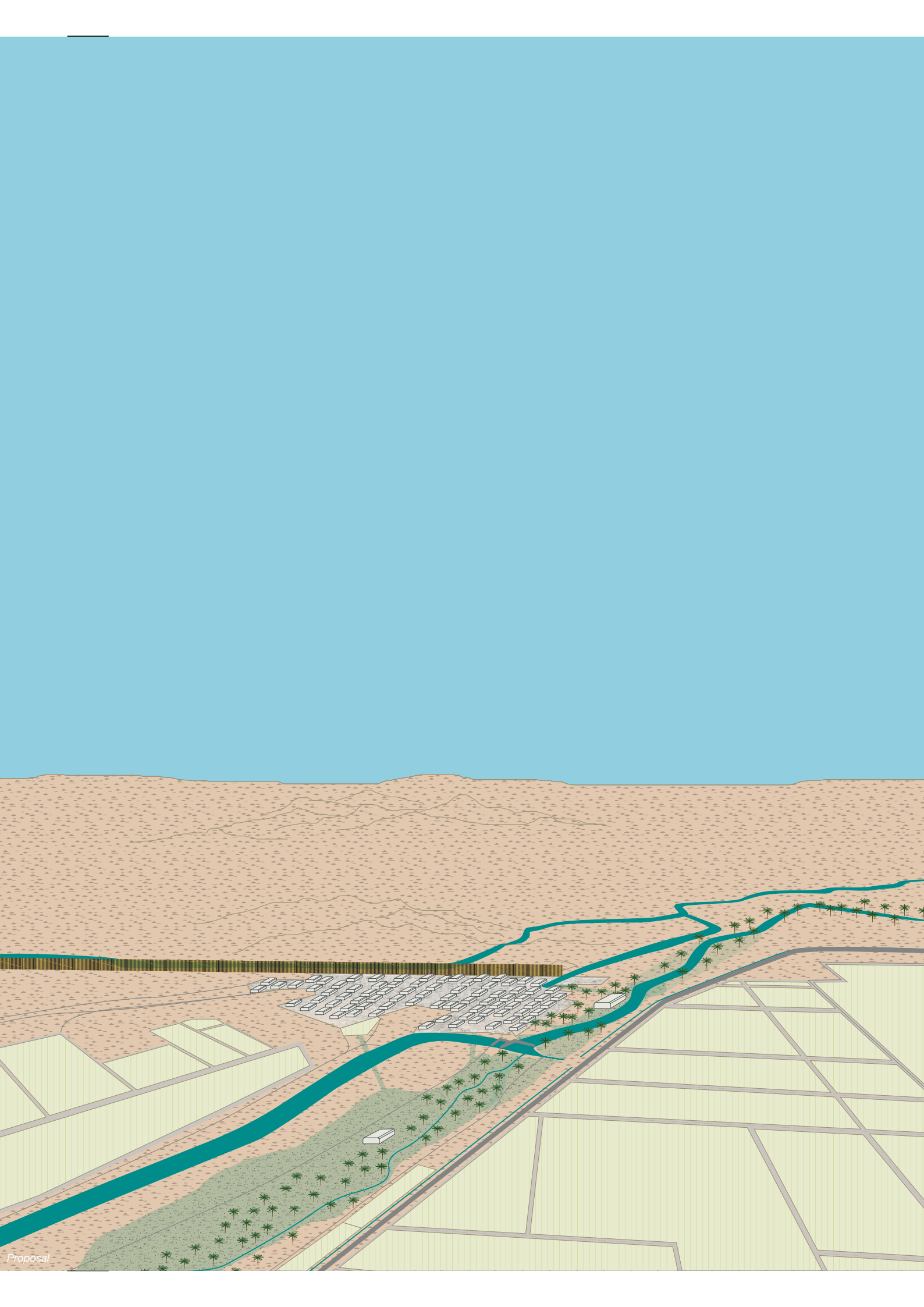
In the Image on the right, the proposal for a different kind of border, a highly protected area, a natural park, which will belong to both nations; water from the Colorado River will pass through cleaning reservoirs, and managed to be stocked for periods of drought. Laboratories stations will study and control this zone, and also the reserves nearby.

Collaboration between the USA and Mexico will be fundamental, both of the countries will have the same goal to negotiate with the climate warming issues, and management of irrigation together, for the survival of the Delta, and for their own prosperity.

The town of Los Algodones will be linked to the area.



View of the USA, from Los Algodones





BIBLIOGRAPHY

BOOKS

Alan Smart and Sarah Cowles, *Borderland*

Ana Cordova, *El muro fronterizo entre Estados Unidos y Mexico*, 2012

Augusta Dwyer, *On the line*, 1996

Barry A. Feinstein Mohammed S. Dajani-Daoudi, *Permeable fences make good neighbors: a seemingly intractable border conflict between Israelis and palestinians*

Charles D. Thomphson, *Border Odissey*

Danelo, *The Border*, 2008

David E. Lorey, *The U.S Mexican Border in the twentieth century* 1999

Eyal Weizman, *Hollw Land*, 2011

Henk van Houtum, Olivier Kramsch and Wolfgang Zierhofer, *B/ORDERING SPACE*, 2005

Krista Schlyer, *Continental Divide*, 1971

Lefebvre, *The Production of Space*, H.1991

Michael Dear, *Why Walls Won't Work*, 2013

O'Tuathail, Dalby, *Rethinking Geopolitics*, 1998

Paasi, A. A *Companion to Political Geography, Territory*, 2003

Paul Ganster, *The U.S Mexican Border Today*, 2007

Ronald Rael, *Borderwall as Architecture* 2015

Said, E. *Culture and Imperialism*, 1993

Shannon O'Neil, *Dos Naciones Indivisibles*, 2014

Soja, E.W. *Thirdspace: Journeys to Los Angeles and Other Real-and-Imagined Places*, 1996

Velde van der, M. and Houtum van, H. *Borders, Regions, and People* 2000

WEB

<http://www.coloradoriverbasin.org>

<http://www.usgs.gov>

<http://www.epa.gov>

<http://www.sci.sdsu.edu/salton/>

ImageryandCartography.com

<http://video.nationalgeographic.com/video/freshwater-colorado-delta>

<http://www.cbp.gov>

<http://www.economist.com>

<http://digitalcommons.wcl.american.edu>

http://www.ibwc.gov/About_Us/about_us.html

<http://earthobservatory.nasa.gov>

<http://apps.npr.org/borderland>

<http://download.geofabrik.de>

<http://naresearchpartnership.org>

<http://ngmdb.usgs.gov>

defense.gov

ICONOGRAPHY

BORDERS

David Taylor, Mural with Fences, Sonora 2009

David McNew

Matt Clark

WORLD FENCES

Credits to: <http://www.economist.com/blogs/graphicdetail/2015/09/daily-chart-10>

[jack moore news week zoria.net](#)

[gyptindependent.com](#)

[defencetalk.net](#)

[businessinsider.com](#)

[conflictedland.com](#)

[dawn.com](#)

MX-US

[photojournal.jpl.nasa.gov](#)

[davidrumsey.com](#)

[defense.gov](#)

PARADOX OF COLORADO RIVER

Ansel Adams, 79-AAM-14 "In Rocky Mountain National Park" 1941

[hdrinc.com/portfolio/hover-dam-bypass](#)

[photography.nationalgeographic.com](#) Annie Griffiths Belt

[gchudleigh.com/barbarahistory](#)

[visibleearth.nasa.gov](#)

[MavensManor.com](#)

Peter McBride

I want to thank :

my Family
my Assistant Charlotte Truwant
Jorge Viladoms
my friends
Myrna Weber
Islas-Hermann Family
Chesini Family