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Mapping Texas

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Mapping Texas

by

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Abstract

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The evolution of scientific reasoning and its practice today is noticeable to say the least. Access to the Internet exemplifies how technologies redefine the speed, access and interaction with information. In cartography, innovations at the turn of the twenty-first century travel alongside the growth of computation and the Internet, particularly in the graphic presentation and reproduction of maps. The Internet has molded cartographic practices to advance the virtual representation of space, a tool bounding potential voters for political ends. Simply, they provide a platform to make populations legible to the point of immediacy. The method of this thesis is to get entrenched in the fiction of Texas. Fiction, here, is interchangeable with the idea of social constructions. It is an attempt to build off the approach of Walter Benjamin, as described in Susan Buck Morris's *The Dialectics of Seeing* (1989) where consumers get engulfed in a dream world with the commodities that makes their relation to society more personal. The commodity of interest for this work is that of maps. Accordingly, this work builds its analysis on the fiction that makes up the Texas story, as told by maps and cartography. In addition, fiction itself is specifically theorized in analyzing the field of demography and cities in Texas. In conclusion, in calling for critical thought, particularly feminist thought, modern mapping practices are presented to help provide voters an empowering lens in relation to electoral mapping.

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Introduction

The evolution of scientific reasoning and its practice today is noticeable to say the least. Access to the Internet exemplifies how technologies redefine the speed, access and interaction with information. In cartography, innovations at the turn of the twenty-first century travel alongside the growth of computation and the Internet, particularly in the graphic presentation and reproduction of maps. This recent evolution is part of a long history that can be condensed in the interactive screens of computers and mobile devices. That is the approach of this work, to build upon the research of cartography as a method to critically dialogue with mapping as a tool making sense of data.

The cartographic application of interest is that of electoral mapping. Mapping products, such as Google Maps and ArcGIS, provide powerful tools for canvassing efforts in political campaigning. Simply, they provide a platform to make populations legible to the point of immediacy. The Internet has molded cartographic practices to advance the virtual representation of space, a tool bounding potential voters for political ends. Accordingly, the governance emanating from the procedural exercise of electoral politics is entering a scientific reasoning in its canvassing efforts that needs to be further examined. In this work, such reflection focuses on population projections in the state of Texas.

As a Californian lured by the story of electoral politics in Texas, this work makes sense of its approach in the critical dissection of myths. Interacting with history for what

it is, a storytelling of fiction and social constructions allows for the theoretical malleability to contend with the creation of Texas history and its projected future. As a result, in an attempt to organize this work, I have adopted David Harvey's conception of Time-Space Compression as a historical narrative allowing for a perceived understanding of history in its totality. Time-Space Compression plays to the instrumental power of the technological advances contended with in this research; a power defined in the speed, access and interaction with information via the Internet. Modern cartography provides the potential for history to be understood in its totality, and permitting an empowering space to fill in the gaps.

For history to be understood in its totality, the past must be understood onto the present, and from the present onto the future. Accordingly, the thesis is broken up into two chapters: the Past, interrogating the development of cartography and the mapping of Texas; and the Future, conversing with the positivist approach of population projections in demography through a post-modern reflection. Finally, the conclusion reflects on the Present, analyzing the current political reality of voters and political parties in Texas through modern demographic and cartographic practices.

In order to tell the cartographic history of Texas, I introduce the concept of Blank Canvass Politics; a politics that entangles an experience of human development manufactured on a perceived "blank canvass," void of history so that theoretical approaches of the American project can be instituted. Blank Canvass Politics evolves from the scientific reasoning and advances in technology that the story of cartography conveys. I invent this term in order to create a space upon the map that can converse

with the story of Texas in its mapping and the current imagination that make up the scientific reasoning behind mapping technology.

Blank Canvass Politics is a story about the increase and redefinition of speed that the evolution in production and graphic presentation of maps communicates from transformations of the Industrial revolution. It is about the enlightenment influences on the Texas Republic, and a frontier ideology of individualism that continues after joining the electoral process of the United States. It is the story critically dialoguing with scientific innovation, in its practice and theoretical application, as a lens to probe history in its totality. It is about using science as a tool for social justice, in which technology can be intentional in inviting a critical reflection against the blind support of objectivity in the process of progress within modernization.

The method of this thesis is to get entrenched in the fiction of Texas. Fiction, here, is interchangeable with the idea of social constructions. It is an attempt to build off the approach of Walter Benjamin, as described in Susan Buck Morris's *The Dialectics of Seeing* (1989) where consumers get engulfed in a dream world with the commodities that makes their relation to society more personal. The commodity of interest for this work is that of maps. Accordingly, this work builds its analysis on the fiction that makes up the Texas story, as told by maps and cartography in the first chapter. In the second, fiction itself is specifically theorized in analyzing the field of demography and cities in Texas. In conclusion, in calling for critical thought, particularly feminist thought, modern mapping practices are presented to help provide voters an empowering lens in relation to electoral mapping.

The first chapter interrogates the constructed “past” through the evolution of cartography and the mapping of Texas. It is divided into three sections for the purpose of relating current advances in cartography to past ones. The first section, “Colonial Imaginary,” looks at the period from the sixteenth to eighteenth century, the second, “Nation-Building Imaginary,” focuses on the nineteenth century; and the final section, “Modern Cartography,” looks at cartographic advances starting in the last decade of the twentieth century. All three periods are characterized by a redefinition of understanding society through an increase of speed in the Industrial and Internet Revolutions. This historical analysis focuses on maps as recorded information, a form of media illuminating how ideas form present realities. Mapping is not an innocent task, but a purposeful action. As a result, this section will be told in relation to how the present bordered reality of Texas came to be.

The second chapter investigates the constructed “future” of Texas by examining demography and population projections. Here, the future is treated as fiction, magnified by the power of the seamless virtual reality interacting with actuality; a process that has evolved with scientific innovations in ways of thought and practice. Science fiction continually addresses these notions, especially in the imagination making modern mapping possible. The first part of this chapter looks at how the policy orientation of the field of demography views population projections and overpopulation. Next, the fiction is expanded to include cities as theoretical constructions that create a fictive environment. Yet in Texas, cities provide the potential for a critical conversation to contend with the myths of Texas. Finally, critical thought, particularly that of Feminist thought, is utilized

as a lens to properly respond to the fiction, as a postmodern reflection allowing for constructive action.

Finally, the conclusion ends by looking at the “present” reality in illustrating the current state of politics in the State of Texas after the 2014 Midterm Elections, using Google Maps and ArcGIS. The continuation of Blank Canvass Politics is at the cost of those who lack institutional access, producing a dialogue that absence an honest, informed pathway towards effective relationship building. This work calls for the use of contemporary and potential uses of mapping by voters outside of political campaigns circles. Modern cartography, accordingly, is empowered for the amateur voter to implement and get involved in map making strategies to give them leverage.

THE PROCESS

Google products act as the primary medium making this project possible. With a significant presence in online interactions, Google is utilized as a means to delve into the organization and presentation of data that this project investigates. The same fashion in which maps evolve into the interactive tools that make up modern cartography, this thesis seeks to emulate that evolution in technology. The increased speed provided by the rapid evolution of technology in terms of access and interaction with information is the focus.

First, the actual thesis is written using Google Documents. This provides both the advantage of being easily accessible on any device with internet capabilities for its production, and a convenient means for its presentation. Google Maps is the other product utilized as a comparison to ArcGIS. As the leading online mapping product,

Google Maps provides an accessible product popularized on mobile devices. ArcGIS, on the other hand, while more limited at online capabilities, is one of the leading products for displaying mapping data in the Geographic Information Systems (GIS) platform. Partially due to their functionality, the former is a free and simple to use while the latter requires training and includes a membership fee.

Finally, a webpage using Google Sites acts as the medium organizing the whole thesis together. Rather than limit the vision of this project to words on a page, this webpage widens the availability of presentation to better represent technology available today. In addition, it allows for a dialogue with how the data, again, is organized and presented. This conversation is continued in the conclusion by addressing how technology currently and in the future can influence mapping practices. You can access the website at the link, <https://sites.google.com/site/mappingoftexas/>

Past

And then they sent a young scout from the battlements, bloody and loud
With the words of farewell from a garrison valiant and proud
Grieve not little darling, my dying, if Texas is sovereign and free
We'll never surrender and ever with liberty be

Johnny Cash, Remember the Alamo

The past is a continual reflection of what was once the present. A story defined in its recording. Here, the focus concerns how cartography communicates the evolution of recording data with maps. For, maps present knowledge as a commodity, and the history of Texas develops during a period in which rapid innovations in mapping techniques help not only tell, but mold the Texas story. The goal is to arrive at the process which informs today's understanding of recorded knowledge, particularly that of electoral and online mapping. Both present a unique form of scientific practice, yet embody a form of thinking that must be critically analyzed in tandem. Science cannot be limited to a concept for a common good if it can also be a tool perpetuating violence in the name of objectivity. And, the mapping of Texas helps tell this story.

Several scholars have examined cartographic practices as methods for constructing the story of the Texas region. Offen and Dym (2011) assert that the region, as the rest of Latin America, is linked to a process of, "cultural constructs whose histories are strongly linked to cartography and mapmaking" (3). Magali M. Carrera's *Traveling From New Spain To Mexico: Mapping Practices Of Nineteenth-Century Mexico* (2011), Raymond B. Craib's *Cartographic Mexico: A History Of State Fixations And Fugitive*

Landscapes (2004) and Paula Rebert's *La Gran Linea: Mapping the United States-Mexico Boundary, 1849-1857* (2001) exemplify works building on the thin field of cartographic influence in the nation-building process of Mexico. Particularly Carrera's book, as the latest work, pushes beyond the confines of cartography and links eighteenth and nineteenth century Mexican map making to a broader investigation of art and visual culture developing in the narratives of the new nation state. .

Carrera, in addition, skillfully connects this emerging field of cartography to a more established field of deconstructing the power of maps. This is accomplished in linking to a field commonly associated to have emerged from the groundbreaking multi-volume work, *The History of Cartography*, started by Brian Harley and David Woodward in 1987. The principle tie Carrera utilizes focuses on visual culture as influenced by Jonathan Crary's *Techniques of the Observer: on Vision and Modernity in the Nineteenth Century* (1990), who notes the societal transformations in the Industrial and Internet revolutions influencing the creation of a new "nature of visibility" (Crary, 1,4). The speed of processing information through the evolution of graphic presentation and production of maps is of concern here.

Several authors have pushed on Crary's work, including Denis Wood's *Rethinking the Power of Maps* (2010) and John Pickles's *A History of Spaces: Cartographic reason, mapping and the geo-coded world* (2004). Denis Wood poses maps as propositions, or in other words, "statements that affirm or deny the existence of something" (Wood, 41). John Pickle's builds off Crary to discern the "cartographic gaze," or the "particular constellation of ways of seeing with its particular practices and

institutions of mapping that emerged in the modern era” (Pickles, 80). I use both Pickles and Wood’s concept of counter-mapping to conclude this work, in discussion with modern mapping practices of Texas politics.

To continue theorizing with the modern capabilities of cartography, “The insubstantial pageant: producing an untoward land” by Nigel Thrift (2012) is used to argue Google Maps as a commodity, that “can run at the rate of life itself” (4). For Thrift, this evolution of commodities can provide the imagination of innovation to consumers, as seen through the Open Source related software that has come to define the Internet. This current imagination does not have gaps in time or space, and can at the same time be individualized to the consumer, while interacting with many other consumers. I use Thrift to expand on Jonathan Crary’s work in demonstrating a new “nature of visibility” in the redefinition of speed for mapping and demography, specifically in their seamless, virtual integration. Finally, Rasmus Nielsen’s *Ground Wars: Personalized Communication in Political Campaigns* (2012) and Michael Peterson *Mapping in the Cloud* (2014) provide the data to make the interpretations on modern mapping and its use by political campaigns.

COLONIAL IMAGINARY

As a recent phenomenon, Texas is a site that has continually been contested and encountered different imaginations since the founding of “America.” Leaders of European empires dominate the imagination of the colonial period through maps. The

earliest maps of the region show this, such as that of Cartographer Martin Waldseemüller, who named the newly found continent after the explorer Amerigo Vespucci, titled the *New World* in 1507 (Herbert in Offen and Dym, 29).



Figure 1: Martin Waldseemüller's *Universalis cosmographia secundum Ptholomaei traditionem et Americi Vespucii alioru[m]que illustrationes*, 1507 (Library of Congress).

This colonial imaginary illustrates the empire's need to reference from what they know in the “old world” to define the newly “discovered” territory. This name was quickly adopted by other cartographers, as seen in the *Typvs Cosmographicvs Vniversalis* in 1527, which had an almost identical world map to Waldseemüller's map. There is no need to experience or sense “America”, for imagination can be transferred through the

information of mapmakers, who themselves don't need a physical connection, just the information.

Spain began the colonial claim to the territory later to become the state of Texas. The first map of the region came from Alonso Alvarez de Pineda in 1519, mapping the Gulf Coast from Florida to the Yucatan peninsula (Jackson, 1990, 3). However, the coast was the extent of mapping produced by the Spanish for they found no reason to map the vast inland territory. The privileging of maps for colonial conquest limited much of their use to the decision making of land use and future financial endeavors. Spanish maps become a source of portraying valuable information, limiting its access to those in power within the empire. As a result, the privacy of maps only intensified when the Spanish felt the threat of a French intrusion into the region. Jack Johnson, in *Mapping Texas and the Gulf Coast* (1990), presents not only the creation of a rivalry between the two empires, but also a tension in cartographic practices. The Spanish strategy to keep maps private contended with the French tendency to share them, noticeable from the first maps to be charted of the region, or more appropriately, the earliest maps available for interpretation as a recorded history of Texas.

The colonial imagination, therefore, was engulfed in tactics of empire. Spain, with much time spent in the region as its glorified “discovery,” wanted to control the “empty” space from the French and English empires. But, a French traveler by the name of Louis Juchereau de Saint Denis, with a vast knowledge of the terrain, including and surrounding present day Texas, pushed the cartographic race in the actual production of maps.

After the King of Spain got word that the French had entered Louisiana, he called for military force to push out the threat, and maps to make sense of the territory.

Between 1685 and 1689, this mandate was implemented through the expeditions of the Spanish Alonso de Leon with the intent to find Rene Robert Cavalier, Siuer de La Salle, who had begun a French settlement in Matagorda Bay. Cosmographer Carlos Siguenza y Gongora used notes from de Leon's expedition to create the first "real information on the Texas interior" (Jackson, 4).

Spain's control of knowledge concerning the region reemerged when French contraband trader, Saint Denis, stopped at San Juan Bautista, in present day Coahuila, Mexico, during his many travels in 1715. After questioning from Spanish forces, he was sent to Mexico City to face further questioning because of his impressive understanding of the territory between Louisiana and Coahuila (6). Juan Manuel Olivan Rebolledo, part of the *Royal Audencia*, created several maps for the King from two meetings with the Frenchman in 1715 and 1717 (8-10). However, these maps were kept secret, which exemplified the colonial and pre-industrial mentality of the Spanish. Keeping the knowledge private, also, increased the value of these maps.

On the other hand, private efforts of French settlers made use of the same information to create maps that Jack Jackson claims to be made with superior mapping skill. This perception of a "superior" production in the maps results from an emerging trend of scientific reasoning calling for an open process, allowing for greater expertise in cartography. One of the leaders of the scientific practice came from the French

missionary Francois Le Maire. With key relationships back home, including a common acquaintance with “premier” Paris map maker, Guillaume De L’Isle (29).

The best map to work with at the time was Siguenza’s map from the Leon’s expedition, a fact noting the lack of Spanish efforts to map the region, or share the information necessary for them to be made (32). Building off the notes from others, La Maire is credited for re-imagining how maps presented themselves. Jackson writes that La Maire, “eliminated the useless vestiges that so many other cartographers had felt obliged to perpetuate, compensating for their lack of knowledge. Thus, his maps were rendered in the lean style that was to signal a new era of scientific mapmaking” (38). Le Maire’s map made it to De L’Isle in Paris, who then created what is considered the most acclaimed map of the eighteenth century, *Louisiana*, 1718 (39). These two French cartographers, consequently, created the interpreted imagination on which mapping west of the Mississippi River came to be accepted, a “methodical manner” that presented information in a hollowed out form (47). Setting up the building blocks for the Blank Canvass.



Figure 2: Guillaume De L'Isle's *Carte de la Louisiane et du cours du Mississipi* [i.e. *Mississippi*]: dressée sur grand nombre de mémoires entr'autres sur ceux de Mr. le Maire, 1718 (Library of Congress).

The enlightenment influenced Bourbon King Carlos III, implemented reforms to make the administration of American colonies easier in order to regain the empire's power in the region (Calvert, 2010, 43). As a result, people of New Spain, including those in Texas, began to take ownership of their “semi-autonomous” relationship and resent Spain, especially the “unnecessary intrusion into their personal affairs” (48). However, even after the midpoint of the eighteenth century, the northern region of New

Spain was a frontier that, “was still loosely delineated, inadequately understood and organized, and underdeveloped” (Reinhartz in Dym & Offen, 93). The Texas region will continue to be a frontier environment, even during the territories claim under the Spanish, Mexican and Texas Republic.

Yet, the Bourbon Reforms help empower the “*generacion 1730*,” or generation 1730, which represented a growing Criollo sense of cultural identity in New Spain. When King Phillip V placed a royal mandate to gather the most up to date information on the landscape of the New Spain domain, this generation took up the cause. Juan Francisco Sahagun de Aravallo Ladron de Guevara and Jose Antonio de Villasenor y Sanchez, in the creation of *Teatro Americano* in 1746, illustrate such an example. Magali Carrera describes the presentation of this document as one for a “traveler,” where the King was to be the eyewitness (Carrera, 52). However, although the document was kept secret, the process of its creation helped create a platform of national identity for the people of New Spain, giving them agency of place (Carrera, 59). Their achievements brought them great pride, for the maps in *Teatro Americano* are cited by the Viceroy Revillagigedo until 1791 as the best available of the region (55).

In *Teatro Americano* we see a heavy influence of demographic data, showing a scientific approach evolving. However, it is important to note Ricardo Padron’s view that “even the most purportedly scientific, value-neutral maps are shaped by the interests they serve and are loaded with ideological purpose and cultural bias” (Padron in Dym & Offen 87). The vice regal period is one defined by the accumulation of information on the people to better “exploit the resources” of the territory (Carrera, 111). Accordingly,

although the colonial method of governance sought to better control the population, cartography created a realm for those participating in map creation in New Spain to take ownership of the forming nation (113).

NATION BUILDING IMAGINARY

If imperial powers had used maps to make American spaces into colonial places, the lesson was not lost on those who led the region's independence movements. Maps not only gave Creoles ideas of independence, but also contributed to rooting identities within national rather than local or imperial space.

Dym & Offen, 122

Leading up to Mexican Independence in 1821, encroachment onto the soon to become Texas Republic occurs through Anglo migration into the region, but also through its mapping. Further scientific advances in cartographic practices after the colonial imaginary period help perpetuate the objectification of its people, which in return also allowed for the comprehension of the emerging state. Partha Chatterjee (2004) in his discourse on governance would define this as the emergence of unbounded and bounded seriality, or the imagining and participation of one with the nation-state. Unbounded seriality refers to the, "everyday universals of modern social thought," such as the notions of citizenship and nation, which anyone can imagine and be empowered by (Chatterjee, 5). Bounded seriality, on the other hand, is associated with governmentality, "the finite totals of enumerable classes of population produced by the modern census and the modern electoral systems" (6). Cartography in the nineteenth century began to emulate

these two forms of seriality, by making the state visible and by adapting demographic data to further understand them. For Denis Wood, in his work on the power of maps, these mapping techniques “flourished” and “took off with the state” (Wood, 23). Since the period of colonial imaginary, atlases helped define a unified nation for those inside and outside its imagined borders (31).



Figure 3: Alexander Von Humboldt’s *A map of New Spain, from 160 to 380 North latitude reduced from the large map, 1804* (Library of Congress).

Alexander von Humboldt, with the creation of the *Carte Du Mexique* in 1804 opens the new century in such a way, ushering several scientific advances in presenting maps. The first is witnessed in the collaboration of the map with census data on the same graphic display, “allowing the viewer to have a comprehensive overview of the inhabitants of New Spain” (Carrera, 75). Population, in its terminology, is constructed through the organizing of complex and large demographic data into, “grouped patterns of people. The viewer could see New Spain’s population without seeing a New Spanish person... a new synthetic and intensified visuality for New Spain” (76). Continuing on the notion of the outsider looking in as in *Teatro Americano*, *Carte Du Mexique* ushers the technique with technological innovations of the nineteenth century.

To build off Chatterjee's concept of bounded seriality, Michel Foucault’s notion of bio politics helps address the switch of governance from the discipline of individuals to the regulation of masses by the state. Foucault contends that the eighteenth and nineteenth centuries brought upon governments whose mechanisms were, “a matter of taking control of life and the biological processes of man-as-species and of ensuring that they are not disciplined, but regularized” (Foucault, 1997, 247). Regulation, or the control over life, is made feasible through the use of demographic data, which mapping began to integrate in this era. Maps provided not only the method to understand the population, but the method to imagine on how to regulate them from their understanding.

The second major advancement from *Carte Du Mexique* concerns the increased production of maps. For as Carrera notes of Alexander von Humboldt’s work, “the

expansion of the less expensive printing technology.... allowed his publications to overflow with illustrations, thematic maps, graphs, and charts, and to be reproduced inexpensively” (78). The technological advances of the Industrial Revolution increase the speed of production, and maps as any other product were no different. In union with the advances of graphically displaying demographic data, maps allowed for an increased in the speed of understanding data. One did not have to delve through immense amount of data, rather they simply had to look at an image which organized the information for them. Humboldt’s work, for Carrera, “translated data into summative works that shaped a reimagined American continent, as well as New Spain, for both learned and popular international audiences...he fabricated a holistic space of New Spain” through the increase of speed in aggregating data through graphs and the physical production of maps (81).

The scientific approach employed by Humboldt, however, needs to be critically examined. Carrera hints to using a “cautionary” lens in illustrating Humboldt’s 1814 piece *Atlas géographique et physique d’un nouveau continent*, which included an adaptation of van der Straet’s 1638 print, *America*, in which Vespucci awakens America. As seen in the colonial imaginary period, Humboldt’s scientific advancement is another example of “America need(ing) European culture to provide it with information about itself” (Carrera, 81). Yet, as the quote from Dym & Offen at the beginning of this section demonstrates, the adoption of these scientific practices become the empowering manner in which communities in America, including Mexico, begin to build their own nations. In addition, as Craib and Carrera demonstrate, the lack of scientifically advanced

mapping techniques of Mexico's northern territory, including Texas, became a factor in the new nation-state of Mexico losing its northern territory to the United States.

The last quarter of the nineteenth century witnessed a tremendous transformation after which Texas no longer constituted a frontier region. Since prehistoric times, people of diverse cultures had seen Texas as a land of promise...By the 1880s, Anglo Texans had established their hegemony over the state, having removed all other claimants to the region through warfare, usurpation, or simply by absorbing them into the new social mainstream...The forces of modernity were so potent that neither inhospitable terrain nor the stiff resistance of its Native inhabitants could forestall the frontier's consolidation into the new sovereignty. Nevertheless, the legacy of the nineteenth-century adventurers remained. The self-confidence and individualism that emerged during the era of the Republic of Texas persisted.

Calvert, 210

At the start of the nineteenth century, Texas still remains one of the least populated territories of New Spain with roughly 4,000 non-indigenous inhabitants (Calvert 2013, 28). However, this trend quickly changes as cattle and other trade, "strengthened the provinces capitalist orientation, for it encouraged the concentration of private property, contributed to varying degrees of individual wealth and abetted the division of labor," forming sustained ties with the economy of the United States (32). Consequently, Anglo American's and their slaves increased the population of Texas to 20,700 by 1834 (66). Two years later, Sam Houston would be elected governor of the new Republic of Texas, and in 1845, it gained admission as a state of the United States (108).

The mapping of the region during these decades by the United States and Mexico became important in determining the southern boundary of Texas from the Treaty of Guadalupe

Hidalgo in 1848 (108). Mexico would not have a scientifically accurate map outlining its nation until, as Carrera and Craib emphasize in their books, Antonio Garcia Cubas creates his *Carta general of 1857*. Created almost a decade after the treaty, negotiations for the boundary between the two countries depend on the *Mapa de los Estados Unidos de Méjico of 1847* by John Disturnell, an American businessman, for it was considered to be the most accurate maps at the time (Rebert, 3).



Figure 4: John Disturnell’s *Mapa de los Estados Unidos de Méjico: segun lo organizado y definido por las varias actas del congreso de dicha república y construido por las mejores autoridades*, 1847 (Library of Congress).

However as Carrera paraphrases for Cubas, “the Disturnell map came to mark a low point in Mexican cartography because it marked the inability of Mexico to map itself

at this critical juncture of Mexican history” (Carrera, 105). For Raymond Craib, “science and data is important for a time in a succeeding Texas, and U.S. officials relied upon a kind of cartographic determinism to justify their imperial pretensions” (Craib, 24). The scientific practice of producing accurate maps defines the creation of the republic and state of Texas, a definition dependent upon an emptying of history.

The scientific approach, as a theoretical vehicle asserting dominance through the deceiving blind of objectivity, occurs both on the part of its perpetrators and its consumers. To accomplish this, the frontier is heralded as building oneself in an empty vessel, a place that has no history except the one being created by the individual acting in the present moment, in the now. This is the root of Blank Canvass Politics, the spearheading mentality for Manifest Destiny and the existence of the United States after its independence. As the Historian Frederick Jackson Turner argued at the turn of the twentieth century, the frontier is where the American nation is formed. Even during Mexican control of Texas between 1821-1836, the region is a frontier as a result of its long distance from Mexico City, forcing its residents to “pursue political solutions more appropriate to their local conditions and less relevant to the political aims of their national government” (Calvert, 52). As the colonial imaginary period demonstrated, the Spanish empire never “effectively” mapped or populated the region. The concept of Blank Canvass Politics blends into the political orientation of electoral politics in the United States. No political parties existed during the Texas Republic, but as soon as they joined the United States, political parties quickly became legible with the question of slavery and the Civil War (88,132).

As a result, the scientific reasoning of focus is that of governance forming in the United States and Texas. Reaching the 20th century, a period of rapid population growth molds the region's frontier ideology into the swagger of a political powerhouse. And electoral maps tell this story. For instance, *Reynold's Political Map of the United States*, illustrates a clear fascination with the country's current political landscape in question of free and slave states in 1850. The emphasis is on the preoccupation of political parties and the evolving ability to comprehend the present political landscape.

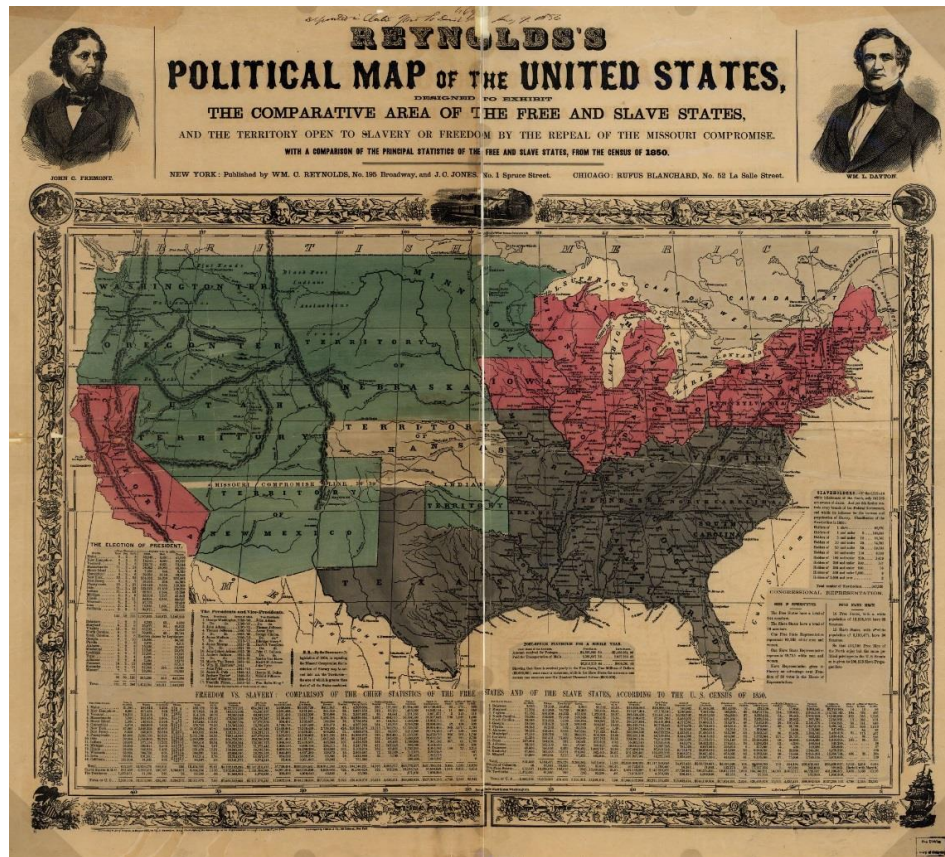


Figure 5: William C. Reynolds's *Reynold's political map of the United States*, designed to exhibit the comparative area of the free and slave states and the territory open to slavery or freedom by the repeal of the Missouri Compromise, 1856 (Library of Congress).

As emphasized, cartographic innovations of the nineteenth century permit one to grasp large amount of data quickly. For political parties, information related to vote counts becomes a guideline for actions to influence voters before they reach the polls. In determining the current perception of voters on political parties, the practice of governance becomes a game of finding answers to why people vote a certain way. And Reynolds's map does just that. Voting results illustrate the clear divide between the North and South in terms of support for slavery. The presentation of data becomes not only a guideline to make sense of the political reality, but a toolbox in order to guide actions looking to change them.

However, at this point in time of 1850, Texas is transitioning into a state within the federal structure of the United States. A transition understood upon the electoral canvass of Reynolds's map as a simple duality between liberal and conservative political parties. Witnessed as support for the issue that would start the civil war and define Texas as a gateway connecting the South to the Southwest, through both space and politics. Support for slavery solidifies Texas' southern roots and its support for the Democrats. Even after the civil war, Texas retains its confidence from its republican cause, an empowerment that till today continues with the story of Texas.

The point being made is that the scientific reasoning illustrated in the advancement of cartography for electoral mapping follows the same trajectory in the politics emerging from the enlightenment. To engage the positivist thought being contented with, we look at the political spatial theory, particularly in its understanding

from *Analytical Politics* by Melvin J. Hinich and Michael C. Munger (1997). Analysis rather than descriptive processes become prioritized in comprehending social realities. They pose analysis as the process of deconstruction, helping making sense of the whole by understanding the working of its parts (3). By doing so, social interactions are simplified to the point that they can be conceived through analytical models which, “are internally consistent bodies of theory that describe human behavior or physical phenomena” (3). Better yet, this work is a theoretical exercise illustrating the analytical process of mapping social behavior for positivist ends in using spatial theory. As Hinich and Munger argue, spatial theory is one of the few complete models, making it an appropriate tool of political and social science for investigating the perceived objective approach of positivist thought, especially at their most abstract level (6).

The focus is on the evolution of understanding with scientific advancement; the ability of “simplifying assumptions (to) make analysis manageable” (4). Electoral maps beg this question, between liberal and conservative, Democrat and Republican. The understanding of politics through a spatial imagination “is fundamental to the way we all decipher democracy (9).” It allowed for the smooth transition of the constructed blank canvass of the Texas Republic to the spatial competition of political parties in the electoral map of the United States. This is the enlightenment influence of the French Revolution of 1789, for it was “the first clear use of the left-center-right spatial metaphor...one of the most durable linguistic innovations” (9). The ideological belief in the equality of all men, contrary to monarchy, allows for “citizenship in democracy to be imagined as left and right” (10-11). It permits for “levelling” vertical distinctions of class

status to a horizontal documentation of acts in voting. The very act of governance becomes, through electoral politics, a continuation of blank canvass politics; the increased ability for analysis through scientific innovation. Governance in democracy accordingly requires the simplification provided by analysis.

Hence, here the map of Texas became completely blank, where individualism is adopted by the privilege of a canvass that can be interpreted as having no history. But, history did exist, as in language and customs adopted from colonial societies, or more importantly, from the experimentation with republics documented with the revolutions of France and the United States. Seen as something natural, theories of the enlightenment are adopted in Texas, while threats are hidden under the protective blanket of U.S. freedom and liberty. Threats were commonplace for the colonization of Texas, whether it be the French on its eastern boundary or the war with Mexico at its southern boundary. However, through Blank Canvass Politics, these threats become adapted to the narrative of individualism, freedom and liberty. As Johnny Cash illustrates in the opening quote of this chapter, Texas is a social construction with the privilege of acknowledging no past, only the actions that act as a rallying cry for a narrative to build its future, for “if Texas is sovereign and free, we’ll never surrender and ever with liberty be.”

INTERNET IMAGINARY

The Internet revolution is continually redefining society with an ever-increasing intensification of speed. In the complex maze of computer screens and servers has come a reality in which access to information feels instantaneous, and maps are no different.

Through the Internet, commodities, or any complex collective good, are producing what Nigel Thrift describes as a, “new, expressive, infrastructural project” that redefines what is and has value (Thrift, 4). The access and use of visual cartographic data is the value of concern here. The process of giving varying values to maps is nothing new, as seen with Spain diligently keeping maps secret to protect the value of their territory, and in printed atlases for the purpose of science or pleasure.

Yet, current innovations in mapping is much different than before. The Internet revolution redefines speed, from that of producing physical commodities in the industrial revolution, to a speed in which commodities themselves are evolving innovation themselves through their engagement with consumers. This speed, for Thrift, is part of a second industrial revolution, accurately claiming that commodities make sense of the, “interaction from among the millions taking place (at) any time as though this were the only interaction that mattered” for the consumer (6). This is the exact power of Open Source software that thrives with the Internet. To tell the story of the Internet through the eyes of cartography, we will look at the evolution of mapping in the Internet with Google Maps and ArcGIS. In addition, at how they provide the platform for political campaigns to redefine canvassing practices through the merger of mapping and demography.

Shortly after the introduction of the World Wide Web at the end of the twentieth century, the display of graphics, sound and video was made possible by the Mosaic web browser in the early 1990’s. Created at the University of Illinois, it was a powerful Open Source program that led to the creation of browsers such as Netscape, Explorer, Firefox, and Chrome (Peterson, 5-6). Open Source came to define the Internet by allowing

innovations to be utilized by anyone with access to the Internet. Consumers, in the words of Thrift, are “actively engaged in a process of discovery,” pushing imagination in this “expressive infrastructure” to the point it can be tracked and mimicked (Thrift, 6).

Although companies have the power to encourage such innovation, the Internet since its inception, has embodied a platform for its consumers to be part of the process of “pooling knowledge” through Open Source software (11).

One of the first to use the Open Source platform of Mosaic starting in 1996 was the map publishing company, GeoSystems, in its creation of MapQuest (Peterson, 6). As the leading map provider until 2009 when it relinquished that title to Google Maps, MapQuest employed a standard client-server technology in which its servers responded individually to a single request from its users, including the task of zooming and centering the map (26). This early age of the Internet based itself on graphic images provided in raster formats (such as GIF or JPEG), in which, “data encodes an image with a matrix of pixels arranged in rows and columns” (23). However, two innovations drastically changed the response speed and the relationship between Internet maps and their consumers. The first advancement was the use of image tiling, which divides maps into smaller, more manageable tiles, in conjunction with Ajax, a new client-server interaction that provided continuous, rather than individual interactions (29). The second innovation came with the introduction of Adobe’s Portable Document Format (PDF) and Flash format, based on a vector rather than raster format. This substitutes the formatting of graphics from pixels to actual coordinates, making maneuvering easier with the zoom level request between both the user and the servers (27). The results of these changes are

critical for the user to interpret their interaction with online maps as a seamless process, different from the delayed experience of early versions of maps from MapQuest.

The Google Maps website was born with the introduction of image tiling technology in 2005 and introducing the vector format in 2010, allowing for compatibility with mobile devices (29, 31). Continuing on the tradition of Open Source software, Google Maps allows consumers to produce a vast range of commodities from their maps, fitting into Thrift's argument that "the cause of invention of more and more commodities pulled into frames that are themselves commodities" (Thrift, 10). This was further encouraged with Google Maps ability to keep up with the physical movements of people after the introduction of Location Based Services (LBS) at the turn of the twenty-first century (Peterson, 368). More than ever, online maps build off the stimuli from their consumers and create an interactive space for further invention. If you own a smart phone, there is a significant chance you have used a mapping application to get directions to a location.

However, what redefined maps in the Internet age was the introduction of the Application Programming Interface (API), allowing users a new inventive power through online mapping tools. This innovation permits the use of data from other websites, known as mashup, to create custom maps (Petersen, 36). One of those mashups is the layering of demographic data, such as the mapping of voters and precincts boundaries to assist in canvassing efforts during elections. At this point, modern cartography redefines the map for political campaigning. It's important to keep in mind what Carrera continually emphasizes, in that "studying maps and the practices of mapping requires constant

awareness of the fragmented appropriating process that underlie their production” (9). The political map of Texas is no different, building upon the colonial, nation building, and frontier imaginary to continue the persistence of Blank Canvass Politics.

Political campaigns have built upon the mashup platform to make use of Google Maps as an active participant in canvassing voters. Rasmus Kleis Nielsen associates this effort with an “increasingly dominant targeting scheme” that makes up the call and walk sheets that volunteer and workers use to speak with voters (Nielsen, 2012, 137). In 2005, Howard Dean, Chairman of the Democratic National Committee announced his goal for the creation of a new national voter file, which came into fruition with the VoterBuilder file, made accessible by the online interface “Voter Activation Network” or VAN (138, 164). Although less accessible because of cost, canvassing efforts can directly interact with Google Maps through mobile devices, and enter information from the contacts made in the streets that then synchronizes with the VoterBuilder file (150). Hence, Google Maps has become a seamless virtual reality to converse with demographic data for political parties.

Future/Fiction

Earth materializes, rotating majestically in front of his face. Hiro reaches out and grabs it. He twists it around so he's looking at Oregon. Tells it to get rid of the clouds, and it does, giving him a crystalline view of the mountains and the seashore...

Hiro looks up, focusing his gaze on Earth, zooms in for a look. As he gets closer, the imagery he's looking at shifts from the long-range pictures coming in from the geosynchronous satellites to the good stuff being spewed into the CIC computer from a

whole fleet of low-flying spy birds. The view he's looking at is a mosaic of images no more than a few hours ago.

Snow Crash, 267
Niel Stephenson

Niel Stephenson's 1992 novel *Snow Crash* opens our investigation of the future and fiction. As a dystopic sci-fi looking at a futuristic United States, the novel exemplifies a fiction that came to inspire technological innovations and their use. John Hanke, one of the creators of Google Earth, acknowledges that the creative process developing the product "travel(ed) in the popular imagination" of *Snow Crash*. Particularly, Hanke is addressing a piece of software described in the book as a creation of the Central Intelligence Corporation (CIC) called, "Earth." The software is a three-dimensional rendition of planet earth accessible in the virtual environment of the Metaverse. It is described in the book as a, "user interface that CIC uses to keep track of every bit of spatial information it owns -- all the maps, weather data, architectural plans, and satellite surveillance stuff" (106). Google Maps, like any other software created within the internet, interacts within the imagination of people.

The past is recorded. The present is felt. But the future is fiction. Conflicted with a post-modern lingo anguishing for action, this work treats academic scholarship as a space reimagining the constraints of social constructions. Academics is utilized as a theoretical space to reflect on the future for what it is, a fiction. And science fiction continuously traverses this arena of thought, working with scientific knowledge as a malleable logic for what can eventually be of technological innovations. This chapter

attempts such an approach by dissecting demography through its evolution of scientific understanding and practice in order to make sense of the future of Texas.

Population projection, as an act anticipating the future, is the focus of the fiction being produced, particularly how demography has become a vital partner for electoral and online mapping. First, a quick overview will be presented showing how the field of demography understands population projections. The focus is on the adoption of a policy orientation of the field, especially on the fear of overpopulation from populations that do not follow a trend of modernization. To make this argument, I converse with Michel Foucault in *Society Must be Defended* (2007) and Partha Chatterjee in *The Politics of the Governed: Reflections on Popular Politics in Most of the World* (2004) to contend how Google Maps is redefining governance in relation to demographic practices.

Next, Nancy Riley & James McCarthy's *Demography in the Age of the Postmodern* (2003) and Cristina Beltran's *The Trouble with Unity: Latino Politics and the Creation of Identity* (2010) is used to help push the point with a postmodern argument that contends with the positivist act of demography. Continuing with the post-modern dialogue, the cities of Texas are deconstructed to theoretical constructions using Niel Brenner "Theses on Urbanization" (2013) and Ash Amin *The Urban Condition: A Challenge to Social Science* (2013). To accomplish this task, the focus will be on the increase and redefinition of speed that has come to mold the city after the industrial and Internet revolutions. This is a conversation about modernity; an interrogation of the fictive notions that guide interpretations of population projections, particularly in Texas,

and how cities themselves can be deconstructed to theoretical conceptions that expose their potential.

Consequently, capitalism, and the dystopic fiction that results from its thinning out to the future, will be contended with in David Harvey's *The Urban Experience* (1989) and Susan Buck-Morrs *The Dialectics of Seeing* (1989). The modern, scientific approach, here, becomes tense with the need for results to make sense of population trends. It is an attempt to enter into the dream with Walter Benjamin and allow a better understanding of history in its totality. Finally, critical and Feminist thought, specifically that of Gloria Anzaldua, is utilized as an empowerment to awaken from the dreamworld.

DEMOGRAPHY

The social construction which demography contends with is that of population. The same concept that Foucault highlights in the emerging understanding of governance in nineteenth century through the regulation of human bodies evolves with the field of demography in the twentieth century. At its core, demography interacts with the three factors determining population change, them being mortality, fertility and the movement of people. Yet, the question of how to interact with these factors traverses a philosophical shift, which Dennis Hodgson describes as transcending a social to policy science (1983). Fear and objectivity resulting from the study's simplistic and descriptive approach becomes the fuel to such change.

Policy studies, unlike the humanities and social sciences, steps purposely outside of academic reflection and into shaping real world practices. It is about governance. Susan Greenhalgh, in looking at western cybernetic science's influence in China's one-child policy, dissects the blend of science and politics dictating acts of governance. She highlights the approach emerging from the field of political sociology concerning "histories of the present," allowing the retracing of history to explain how humans help produce present day realities over uncritical conclusions of that "just how things are" (2012, 127). As a result, the "histories of the present" becomes a "pathways by which better futures can be created" (129). However, although reflecting on the past may result in a better understanding of the present reality, the future is always an unknown realm. More importantly, present actions motivated by fear of the future is a rationality usually not understood until visited in hindsight.

Especially when equipped with the belief of objective truth from a scientific approach, fear can be a misguided influence. For instance, Greenhalgh describes population studies being "a post-disciplinary assemblage that is neither unified nor stable, with coherent boundaries; instead, its contents and boundaries are flexible, varying with the practitioner and the research question being explored" (129). Such an "opportunistic" approach to demography highlights the power behind its descriptive and simplistic make-up. The study interacts with a bold mold of objectivity allowing for confidence in straightforward empirical data, that of birth, death and migration rates, which allows for the flexibility of what seems to be a more informed thought process. Yet, the same fervor

driving Greenhalghs call for just governance can create drastic responses from fear of a dystopic future, a fear of crisis that drove demography to its current form in academia.

Life tables illustrate the thought process making sense of population projections in demography. Of concern is an individual's expected life expectancy at any particular age. Curiosity in mortality trends gave rise to the discipline in the sixteenth century, when John Graunt develops life tables to decipher the probability of surviving and dying in order to predict life expectancy and mortality rates. Mortality accordingly, becomes a probability of recurring patterns that can be documented on paper. And innovations in medical practices promote changes amongst those patterns. Vallin and Mesle point to three major changes influencing the highest life expectancy of people; pasteurization bringing a reduction in famines and new medicine influencing a decline in death from infectious disease, especially amongst infant and child mortality between 1790 -1885; further advances fighting infectious diseases and infant mortality between 1885 - 1960; and finally after 1960, the cardiovascular revolution reducing death from heart and other chronic lifestyle diseases (Vallin, 2009).

This trend is first realized in the west. Before 1790, no major population growth is realized because although fertility rates are high, so are mortality rates. However, in the reduction of mortality rates, and continuing high fertility trends, population growth is realized. As more children reach further along the life table, the population experiences an exponential growth with a larger number of individuals reaching childbearing age, a pattern continuing with successive generations. However, this trend did not persist, as countries in the west began witnessing lowering fertility rates. Populations actually

began stabilizing, as in no significant growth or decline altered the total population of a country. By the 1930's the field of demography sought for a general theory of modern population dynamics to decipher the process of industrialization molding the west.

By 1940's, enough evidence becomes available for the demographic transitory theory to be established, and further enforced from declining fertility rates in Western Europe, the United States and Australia in the late nineteenth and early twentieth century. This marks the beginning of the epidemiological transition, a theory dependent upon the trajectory of modernization and guidance from the west, making sense of the world in its following a linear progression. Such perception that cultural factors influence modernization is still prevalent today, with authors such as Newson and Richerson (2009) arguing that, modernity is the “evolutionary process cause(d) by change in social network structure over time that lead to a lower ratio of relatives to non-relatives.” The power behind the fiction of the linear transition is that all must follow its way towards modernity.

However, the mortality decline in less developed countries by the 1940's spurred a crisis in the field when that linear model was not followed. Prior to the 1940's, political economy and Malthusian theory directed demographers to the fear of population growth surpassing agricultural production, a fear based on the “workings of economy, society, and polity” (Hodgson, 1983, 4). As a result, by 1900 fertility levels and socioeconomic factors became intertwined in understanding the field's view of Western fertility decline, particularly the, “inverse relationships known to exist between standard of living and fertility level, social class and fertility level, and urban residence and fertility level”(5).

Again, when underdeveloped countries did not follow a lowering fertility trend, overpopulation again became a fear, spurring demographers to switch from a social scientific approach simply describing demographic trends, to a policy orientated approach trying to remedy it (11). Academic questions turned into policy responses, and the field of demography sought to control fertility rates of developing countries having trouble reaching the development needed to reach modernity. Thus, crisis pushed the field to an active participant in governance in the twentieth century, trying to control and lower fertility rates across the globe, believing that by altering cultural factors, modernization would be achieved.

The field of demography's policy lens continues putting populations on a single continuum of demographic development. Reproductive behavior is understood as determined by social structural factors. In the social scientific lens of demography, popular before the 1930's, the focus was on macro dynamics, that being the distinction between industrialized, industrializing and nonindustrialized societies. However, in the policy approach, micro dynamics are prioritized, questioning between the users of contraception, potential users, and nonusers (24). Fertility rates, for the field of demography, goes from becoming a trend to study, to a trend to influence. And that is made possible by focusing on an individual's actions.

Andreu Domingo helps link these fears of dystopic realities imagined in demography to popular media. Several films and novels have predicted a doom resulting from demographic predicaments, although from alternative histories. A fact of how science fiction can influence the future (2008, 731). Although demography is the

academic space to reflect on these questions, everyone is open to their interpretations. In concern to electoral mapping, political parties take up this cause to understand the future electorate that will decide their political fate. This is taken up in the next section, while at the same time introducing a postmodern reflection upon its inspection.

FICTION

To a lot of Americans, Texas feels like the future. And I would argue that more than any other state, Texas looks like the future as well—offering us a glimpse of what’s to come for the country at large in the decades ahead. The U.S. is experiencing ever greater economic inequality and the thinning of its middle class; Texas is already one of our most unequal states. America’s safety net is fraying under the weight of ballooning Social Security and Medicare costs; Texas’ safety net was built frayed. Americans are seeking a cheaper cost of living and a less regulated climate in which to do business; Texas has those in spades. And did we mention there’s no state income tax?

Tyler Cowen, October 28, 2013

Texas is big, and growing fast. Two Metropolitan Statistical Area’s (MSA) in the state round up the five largest in the country; Dallas-Fort Worth-Arlington and Houston-The Woodlands -Sugarland, with a population of 6,810,913 and 6,313,158, respectively. The rate of growth is also fast, with no MSA surpassing Houston’s rate of 6.63 percent amongst the top thirty, with the closest being twenty-fifth ranked San Antonio-New Braunfels with a population of 2,277,550 and 6.30 percent growth rate. Yet, the Austin-Round Rock MSA, ranked thirty-fifth with a population of 1,888,051, overshadows the rest with a 9.72 percent growth rate, the third largest of all

MSA's, and the largest of those with a population greater than a 200,000 (United States Census Bureau, 2013). The urban concentration and expansion fostered by the fastest growing cities in the country makes cities in Texas a fascinating example to examine.

The fiction behind Texas is also big. As Tyler Cowen illustrates in the opening quote, Texas continues to occupy the fascination of many, one that today is directed towards the future. It is a fascination that continues on the tradition of Blank Canvass Politics, the place to start anew with popularized slogans such as Gone to Texas (Cowen, 4). Texas is the location for the “new cowboy,” where it is cheap to live, and being self-reliant is a part of the “culture” (9). It is “America’s America,” the space to reflect with a frontier ideology to not only get a “fresh start” but to get lost in its fiction (1).

Population trends in Texas are a fiction that has received much focus. Steve H. Murdock has interpreted it as the *New Texas Challenge (1994)*, a problem that policy must adapt to address the growing Latino population, with *Changing Texas (2014)* being its latest edition. The main problem addressed is that the increase in Latino population will create a crisis for the state, for trends show the population performs poorly in education attainment and thus more likely to acquire low paying jobs. This will result in a lower stream of tax revenue for the state that is currently experienced with a majority Non-Hispanic Anglo population, who tend to perform better in educational attainment and therefore acquiring higher paying jobs. As the state demographer of Texas, Murdock demonstrates conclusions and policy recommendations that can be made with demographic data and projections.

Particularly for political parties with the advent of the Internet and modern cartography, the mythic speed of the Internet Revolution makes populations legible to the point of immediacy. The speed that elevated the ability to transport and produce commodities in the Industrial revolution becomes redefined with an interactive virtual interface that can work in sync with reality itself. Building from Michel Foucault's notion of *biopolitics* and Partha Chatterjee's *Politics of the Governed*, demography is not only made sense in terms of governance in the present, but it is also projected into the future. Governance, accordingly, becomes a process that is not simply predicting populations, but can participate in manipulating the fiction that is interpreted from them.

The positivist approach innate to demography and its field of sociology is a tool vital to making such interpretations. Nancy E. Riley and James McCarthy in *Demography in the Age of the Postmodern* pose a critical reflection for the need of an end game from demographic practices. As they write, "within a post-modern perspective, social science becomes a more subjective and humble enterprise as truth gives way to tentativeness. Confidence in emotion replaces efforts at impartial observation....fragmentation to totalization" (15). Cristina Beltran has initiated such conversation in looking at the Latino population growth in the country with *The Trouble with Unity: Latino Politics and the Creation of Identity*. In her work, Beltran illustrates the refreshing calm that results from allowing the "sleeping giant to rest"; letting the complexities of *Latinidad* to be discussed alongside a postmodern lens finding tranquility in ambiguity.

Political parties converse in “we,” but how do we balance such positivism with the postmodern “who”? As David Scott argues in *Refashioning Futures* (1999) about the ruud bwai and liberation ideology, when blended with the poststructuralist thought of Foucault, allows for politics as ethics to become a focus on self. This initiates an understanding of the process of ‘othering,’ where differences are acknowledged and worked with, not fought against its inevitable reality. For population projections, it can be understanding them as fiction, but a fiction that threads closely to reality.

How can the policy recommendations from the “Texas Challenge” benefit from the postmodern recommendations to demography from Beltran, Riley and McCarthy? How can the fiction of the future be balanced with the social constructions that currently mold understandings of populations that make up one of the fastest growing states in the country? The complexities of cities provide the platform for such a dialogue to prosper. The top down dimensions of the urban have consolidated the bottom up defense mechanisms of survival on the principles of scientific advancement, particularly speed and pressure. Movement becomes defined by the same principles of compressing matter from a gas to a solid. As more people are condensed to small space, bodies are more likely to make contact with each other. However, the direction of the movement bases itself from the interpreted fiction of the city. As illustrated by Mike Davis in *City of Quartz*, cities like Los Angeles have created their own fiction through the decisions of leaders, or those able to influence the consumption of information. The *Noirs* become as important as the politicians and the business type, for the power of information on its potential influence on individual decisions gets consumed through societal interactions.

The urban qualities associated with cities are also social constructions best described as fiction. Recent urban studies scholars have appropriately argued for such theoretical assumptions. Ash Amin calls for thinking in social science to look at the workings of urban networks through a flexible lens that can adapt to the dynamism of cities (204-5). On the same vein, Niel Brenner notes the failure of “academic babel” generalizing everything, including the defining of the urban (91). To make sense of the concept, Brenner calls for the urban to be considered a “theoretical construct,” that is not a “pregiven site, space, or object” (96). The conceptual understanding of modernity that results from urban formation becomes embodied by the fiction of social constructions.

Yet, such fiction is not only depicted within academic theory, but is embedded in the experiential practices of modernity in the city. This falls in line with David Harvey’s postmodern reaction to modernism in a call for an agility that has “a much greater eclecticism of style” for its understanding (258). Building from Lefbvre, Marx and Bourdieu, Harvey asserts that “spatial practices derive their efficacy in social life only through the structure of social relations within which they come into play. Under the social relations of capitalism, the spatial practices become imbued with class meanings” (264). This work is part of a long tradition of literature carving out the fashion in which consumerism, as an ideology, puts spatial definitions into practice. Susan Buck-Morss in the same year (1989) pulls from the work of Walter Benjamin, who similarly to Harvey, builds on concepts of class-consciousness, but in examining modernity in nineteenth century as the formations of a dreamworld that adults partake in through the accepted

social relations of a mass consumer culture. As a result, this becomes a question of modernization and capitalism. For as, Buck-Morss writes,

“this ‘dreaming collective’ was, admittedly, ‘unconscious’ in a double sense, on the one hand, because of its distracted dreaming state, and on the other, because it was unconscious of itself, composed of atomized individuals, consumers who imagined their commodity dreamworld to be uniquely personal (despite all objective evidence to the contrary), and who experienced their membership in the collectivity only in an isolated, alienating sense, as an anonymous component of the crowd” (260).

The question of awakening from the dream that Benjamin describes is not of importance here, rather, what is, is the conceptualization of urban interactions as a learned fiction. Here, as illustrated in the last section, we see the importance of post-modern thought’s ability to contend with the “truths” that result from modernity. For Walter Benjamin, one has an extended ability to critically dissect one’s reality by examining it as a fictitious dreamworld. In the next section, we find that Feminist thought, particularly that of Gloria Anzaldua, Nancy E. Riley and James McCarthy provide a productive empowerment to respond and wake up from the dreamworld.

A CRITICAL AND FEMINIST RESPONSE TO AWAKEN

The interdisciplinary approach of this work allows for the tension in different documentations and interpretations of history to become the vehicle dismantling social constructions. While social science demands scientific methods to interpret empirical evidence, humanitie’s utilizes critical theory to decipher human culture. This underlies academia’s contention with positivist and postmodern thought. It begs the question of

how do empirical approaches in demography dialogue with a personal narrative theorizing on the same space. Nancy E. Riley and James McCarthy in *Demography in the Age of the Postmodern* would associate such train of thought with an increase acceptance of interdisciplinary work within the demography doctrine.

It allows for feminist thought to “infuse scholarly pursuits with both a healthy skepticism about issues such as truth and objectivity on the one hand and a commitment to political action on the other” (18). Chon Noriega exemplifies this notion of critical thinking in rooting Chicano Studies in that “demand can wrench concessions from power,” by opening not only a conversation of nationalism and organized political action, but in a redefinition of knowledge’s origin (Noriega, 2011, 3-4). This question concerns my coupling of *Naturalizing Mexican Immigrants: A Texas History* by Martha Menchaca (2011) and *Borderlands: La Frontera* by Gloria Anzaldua (1999). Both works provide an empowering account of Mexican history in Texas through the lens of a historical anthropologist in the former and a Chicana Feminist in the latter. Although utilizing distinct approaches, both authors ease the tension between their disciplines, discernible in the familiarity in reorienting knowledge and perception of history. Consequently, Anzaldua’s work is utilized as a vehicle amplifying the findings of Menchaca in empowering alternative understandings of *ourselves* as individuals of Mexican-origin within histories constructed in academia.

Borderlands: La Frontera provides a postmodern argument holding to the political action called upon by positivist ideals. In her description of a new *mestiza* consciousness, Anzaldua appeals the practice of *la facultad*, a consciousness that

increases awareness of the structures of material reality in the experiential response to oppressions that “tears the fabric of our everyday mode” (61). This attentiveness allows for flexibility in the new *mestiza consciousness* to interact with different realities through a “tolerance for ambiguity” and contradictions, yet assertive in denouncing oppression (101). Several criticisms might be appropriate for this text, particularly in concern to the idea of “*raza cosmica*” rooted in the use of *mestiza*, yet Anzaldua effectively invokes an empowering alternative narrative for Mexican-origin and female people in Texas. Riley & McCarthy would note *Borderlands: La Frontera* as an “affirmative postmodernist” work, in questioning, “assumptions of modernity... (yet) committed to political action” (17). However, Anzaldua’s critical questioning of modernity conflicts with *Naturalizing Mexican Immigrants: A Texas History* in her assertion that, “in trying to become objective, western culture made objects of things and people when it distanced itself from them, thereby losing ‘touch’ with them. This dichotomy is the root of all violence” (59).

As a historical text deducing from demographic data, Menchaca’s book is not afforded the flexibility to question objectivity, as is possible in a personal narrative. Thus, although a tension still exists between the two works, Martha Menchaca does push on the question of objectivity. Not only does Menchaca utilize demographic data of Mexican-origin people that has not yet been exhibited in academic circles, she gives and places them within a new history. Menchaca presents alternative knowledge, such as the relationship between Benito Juarez and Abraham Lincoln, to guide the reader through the ambiguities and contradictions that exist with past and new narratives of Mexican-origin people in Texas. Both works empowering contributions of new

knowledge illustrates the ability for easing the tension between social science and humanities, between demography and critical thought.

In conclusion, demographic projections in Texas will be an important trend to examine as the growth of cities and the Latino population continue to raise questions of the ‘direction’ of the state by academics and politicians. Rather than trying to reach conclusions of an unpredictable future, how can demographers work with demographic data in a post-modern lens that tries to deconstruct the social constructions of culture? Cities provide the platform for different cultures to mix, and where the unpredictable future of Texas will be formed. There, the story must be written to empower communities who have historically been disempowered, and where science fiction can influence the future. Such a response is attempted in the conclusion of this work.

Conclusion

The present is the reality experienced at the point of sensation; when voters hear the radio advertisements, see the campaign websites, feel the canvassers handshakes. While the past is recorded and the future is fiction, the present is manufactured through the senses in experiences. In other words, the past is a remembrance of memories salvaged upon the sensation of one's present reality. The Theory of Relativity reminds us of the distinction between individual and social experience. The senses that one experiences fare differently from others in terms of time-space, relative to location, not allowing the present to be a universal fact, rather an individual reality. Consequently, social interactions become necessary to make sense and validate the present.

Social interactions, however, are complex. And electoral maps act as a quick blueprint making sense of social interactions. This entails the belief in objectivity and the scientific approach, a confidence strengthened by the graphic representation of data on the cartographic canvass. It is about understanding and influencing political realities of controlling political office. In Texas, that ability becomes ever more useful as the growth of cities begins to take off. In 1850, four cities had a population over one thousand, currently, the state houses five of the eleven largest cities, and several of the fastest growing in the United States.

Google Maps and ArcGIS exemplify the technological capabilities of mapping today. I have utilized Google Maps in the last three national election cycles (2010, 2012,

2014), the former two in a professional capacity, and the latter for the purpose of academic research. Through mashup technology, Google Maps provides the ability for an amateur to create custom maps for voters themselves to interact and control the map. On the Mapping/Texas website you can interact with the 2014 primary election data for the state. The screenshot below illustrates the Latino population percentages of all Texas counties.

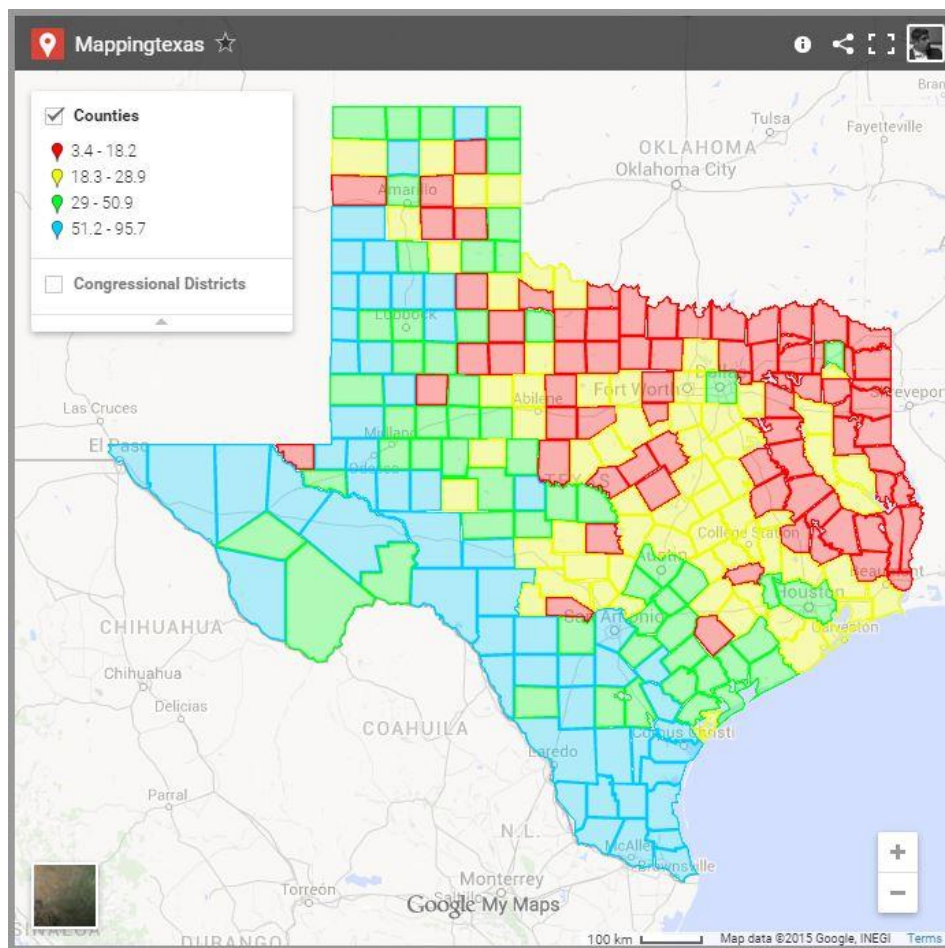


Figure 6: Google Maps showing the Latino percentage make up of each county in Texas. From the mappingtexas website.

By clicking on each county, one can see an overview of census data and electoral information related to congressional elections, of course, as the main body in government discussing immigration reform.

Google Maps provides a product malleable to the imagination. As Nigel Thrift notes on commodities of the new technological revolution, they are able to run at the speed of life itself. I personally drew in the county polygons and input the census and congressional election data. Then, color coded the county polygons depending on the data, as the illustration shows. The real power behind the map itself is the ability for anyone to access and contribute information to the map. As a result, the website becomes a communal venue for discourse.

Yet, the online platform of Google Maps has some limitations. Although the product is available for all to access through the internet, the available processing power to implement the full capabilities of Geographic Information Systems (GIS) is not yet possible. To accomplish this, the processing power from a personal computer is necessary to interact with GIS software, such as ArcGIS. ArcGIS, as the leading GIS software product, provides the capability to manipulate maps in many imaginative fashions. One of those methods involves making cartograms, in which geographic boundaries are distorted in order to show quantitative data.

Cartograms provide a great visual tool for interpreting Texas populations. As a large geographic area, the concentration of population in major cities can be overlooked in the investigation of voter data of the state. For example, below is a map of Texas that

illustrates how successful either the Democrat or Republican Party was in the 2014 general congressional elections.

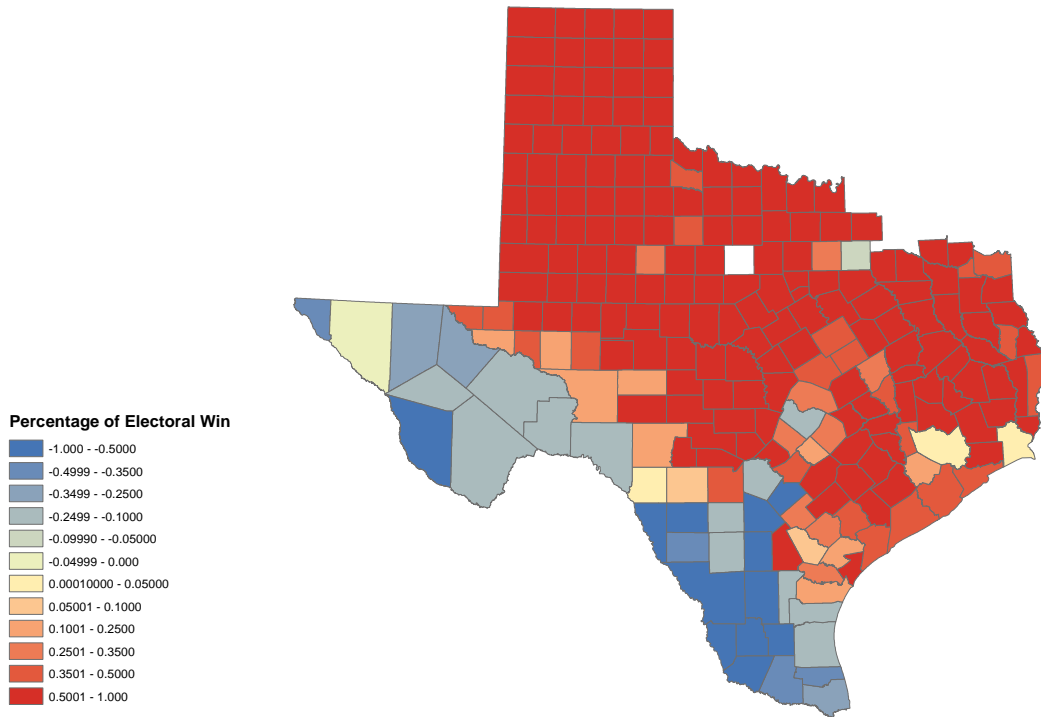


Figure 7: Congressional election results by county using ArcGIS.

The darker the gradient, the greater the number of votes the party won by in the county. At first glance, the state looks like a very Republican state. However, the following map presents the same data in a cartogram, in which each county size is manipulated to equal the total number of votes coming from each county.

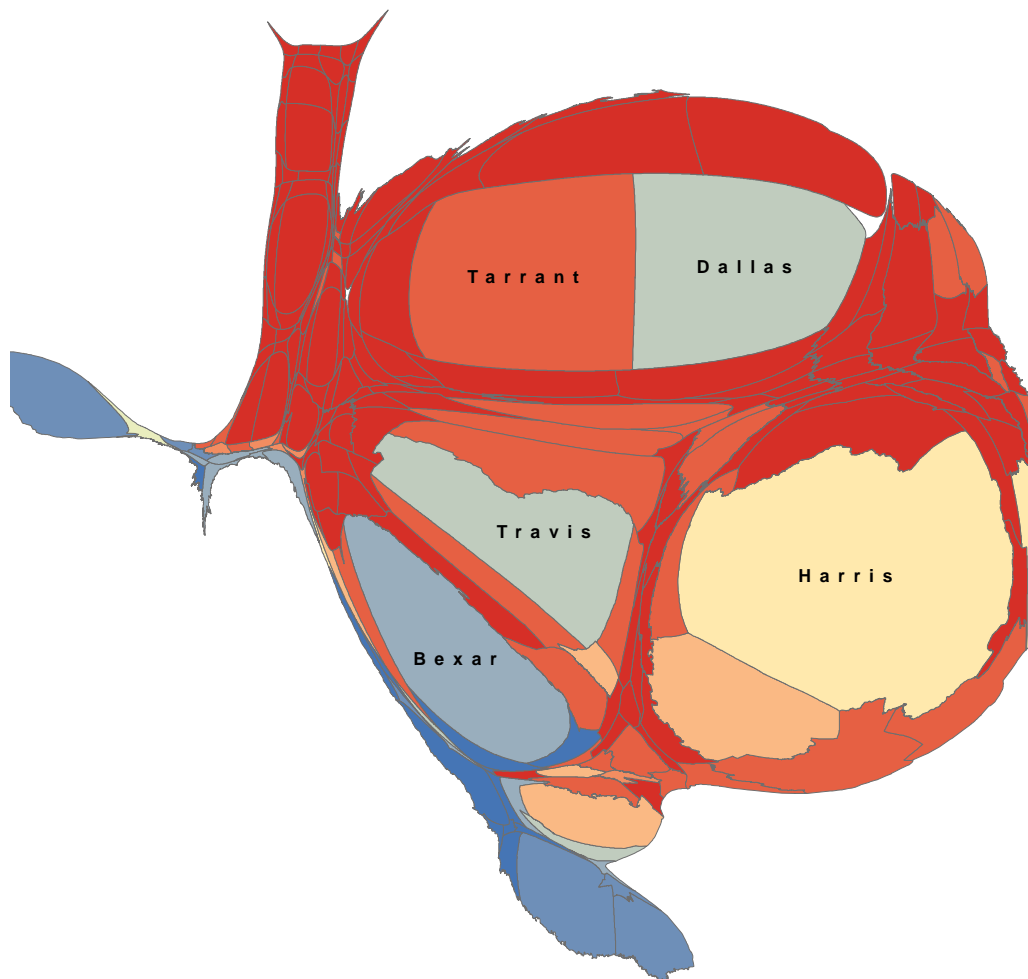


Figure 8: Cartogram showing the same data as Figure 7 with a manipulation on county size to be proportional to the total votes for congressional elections in each county.

The county's housing the five major cities, Dallas (Dallas), Tarrant (Fort Worth), Harris (Houston), Bexar (San Antonio) and Travis (Austin) are represented proportionally to their population size. This map demonstrates that the state is more

competitive between Democrats and Republicans than the regular map of Texas shows. The rural dark red counties are shrunk, while the light metropolitan counties are blown up.

Both Google Maps and ArcGIS show the potential of modern cartography. They hold the power to implement what Pickles and Wood define as counter-mapping. Pickles argues the new forms of cartography, such as that of map-making in the internet, provide a space for democratization (Pickles, 170). Wood takes a more critical approach and blames states for making maps to define bodies, such as that of a soldier or a worker, and calls for their elimination, even if just in theory (Wood, 254). Modern mapmaking, accordingly, can be a middle ground between the claims of Wood and Pickles in political campaigning.

Maps are propositions, and we make of them what we conclude from our interpretation. As this work has demonstrated, the scientific approach combined demography and cartography, making populations and nation-states visible. Also, through Blank Canvass Politics, the frontier culture, which Texas embodies through the colonial and nation-building periods, allows it to hollow out its history, and focus on the freedom and liberty of the individual. However, the potential of modern cartography allows for a reverse of this trend. To return to David Harvey's notion of Time-Space Compression, we can bring back history, in its totality, back into maps through mashups. Maps can become a virtual space to encourage community, rather than the individual. Voters, through Open Source technology of Google Maps, can lead canvassing efforts themselves rather than depending on political campaign leaders.

Mashups allow history to fill gaps within maps. Hence, modern mapping provides the opportunity to critically examine the history of Texas and contribute to the overall electoral process.

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