

# Traveling on Fredericksburg Road: 120 Years in 12 Miles

By interpreting Fredericksburg Road as morphological timeline, “Traveling on Fredericksburg Road: 120 Years in 12 Miles” allows the public to explore San Antonio’s expansive past, thereby enabling a more critical deliberation of the city’s expanding future.

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## **ABSTRACT**

This paper describes the pedagogical structure of a graduate architecture seminar titled “Traveling on Fredericksburg Road: 120 Years in 12 Miles.” The class investigated the historical foundations of suburban expansion in the United States, focusing on the life of a single street: Fredericksburg Road in San Antonio, Texas. Fredericksburg Road, founded in the 1840s as a military route to the frontier, served a number of purposes throughout the years: as a camel route for the Army in 1855, as a path for troops during WWI, as an automotive link to the Old Spanish Trail highway in 1929, and most recently, as a highly traveled commercial arterial in the city.<sup>1</sup> For the purposes of this design research project, Fredericksburg Road served as a morphological timeline, chronicling the physical expansion of one of the ten fastest growing cities in the United States.<sup>2</sup>

The class culminated in the installation of a large-scale timeline at the Institute of Texan Cultures in San Antonio, Texas. The timeline simultaneously projected Fredericksburg Road across two axes: one marking time and one marking distance. Students recorded the time-axis over a period of 120 years, beginning in 1890 and ending in 2010. The 1890 starting point corresponded to the oldest and southern-most stretch of Fredericksburg, an area that originated adjacent to the city’s historic core. The axis extended north towards the suburban periphery: territory marked by big boxes, office parks, and cul-de-sacs. Students next measured the distance-axis across 12 miles, beginning with mile-0 and extending to mile-12. Similarly, the 0-mile marker corresponded to the older, southern portion of the road, while the 12-mile marker extended to the city’s more recent northern suburbs.

This paper proposes that the development of a timeline enabled students to make powerful connections between the road’s historical, geographic, and formal expansion. As an instrument for research, the timeline allowed students to



measure and compare disparate elements, establishing sequence and order across time and distance. The use of film and oral histories further permitted students to examine both perceptual and social issues. The learning outcome for students included a highly integrated comprehension of suburban history, geography, and form. The production of similar additional timelines offers a robust and repeatable platform for the analyses of future streets and territories. The technique further offers the possibility to develop a digital corollary, a project that is now underway.

## BACKGROUND

*The Importance of Suburban Expansion.* The reality of suburban expansion in the United States is a phenomenon almost as old as the nation itself. While suburbs did not become the dominant pattern of growth in the United States until after the Second World War, the pattern of decentralization emerged as early as 1814, when Manhattan ferry operators began offering regular service to Brooklyn, effectively created the first commuter suburb.<sup>3</sup> Since then, the trend towards suburban growth and decentralization has continued unabated in U.S. cities. Between the years 1960 and 1990, the population of America's 213 largest urban areas grew 47%, while the amount of land needed to accommodate this population grew by 107%.<sup>4</sup>

This situation is particularly relevant in San Antonio, where the city emerged as one of the ten fastest growth cities in the U.S. between the years 2000-2010.<sup>5</sup> During the same time frame, San Antonio established itself as one of the cities most conducive to sprawl in the nation.<sup>6</sup> This reality is best demonstrated by comparing the ten-year growth rate inside of the I-410 Loop, which stands at 1%; with the growth rate outside of the I-410 Loop, which has reached an astronomical rate of 233%.<sup>7</sup> These staggering numbers remind us that any discussion of the future of life in San Antonio and the U.S. in general necessarily confronts the reality of suburban growth and decentralization.

*Precedents for the Research Methodology.* Urban scholars have long utilized streets as lenses through which to decipher the shifting form and culture of urban

Figure 1: Five Points neighborhood in 1963 (image courtesy of UTSA Libraries Special Collections).

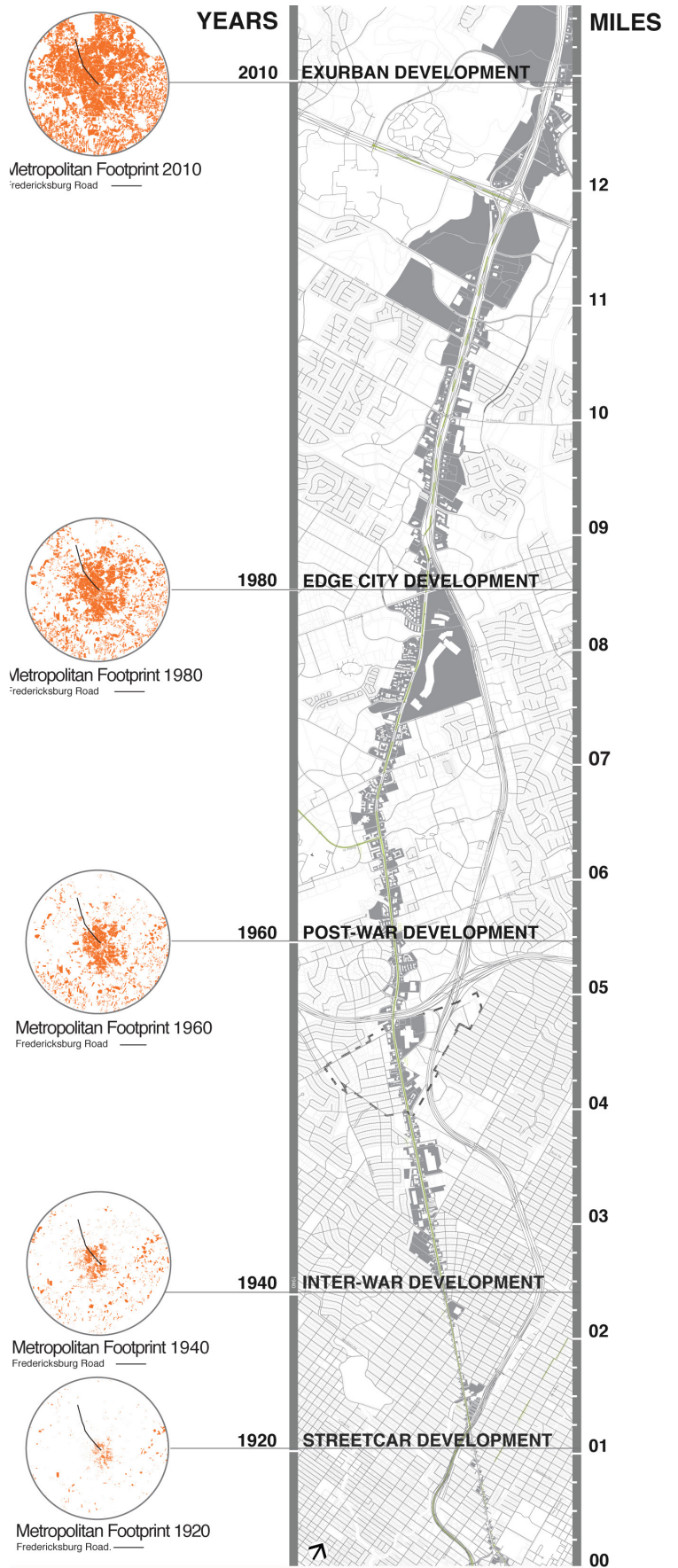


Figure 2: Tracking the expansion of time and distance along Fredericksburg Road.

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life: In 1964 Peter Blake lamented the commercialization of the North American suburban landscape in *God's Own Junkyard*<sup>8</sup>; in the same year, Kevin Lynch and a group of researchers from MIT analyzed the impact of automobiles on human perception in *A View from the Road*<sup>9</sup>; in 1972, Robert Venturi, Denise Scott Brown, Steven Izenhour, and a group of architecture students from Yale analyzed Las Vegas Boulevard in an attempt to crack the code of the postmodern city<sup>10</sup>; and in 1993, Allan Jacobs undertook a critique of the contemporary street, seeking refuge and guidance in the traditions of western European urbanism.<sup>11</sup>

Each of these seminal studies advanced our ability to read and comprehend the emerging landscape of U.S. suburbia. They did so by uncovering the formal and spatial logic of these places, rendering previously incomprehensible landscapes legible. The Fredericksburg project extends these traditions, adding historical and geographic considerations.

*The Importance of Chronology.* The initial project focused on five physical and chronological periods, each of which represented a distinct stage in the physical expansion of Fredericksburg Road. The chronology operated simultaneously along a time-axis and space-axis. The time-axis was measured over a period of 120 years, beginning in the year 1890 and running through the year 2010. The 1890 starting point corresponded to the earliest remaining physical urban development along Fredericksburg Road. This area, known as Five Points, resided on the southern portion of Fredericksburg Road near downtown. The space-axis was measured in 12 miles, beginning with mile 0 and extending to mile 12. Again, the 0-mile marker corresponds to the Five Points neighborhood, while the 12-mile marker extended to the northern limit of Fredericksburg Road's development, near the La Cantera shopping mall.

The project broke down into five historical periods:

*Period 1: 1890-1920 Streetcar expansion.* Like most cities in the U.S., the development of San Antonio's streetcar lines had a profound impact on the physical expansion of the city. The first mule-drawn streetcar appeared in 1878, providing service from San Pedro Springs to Alamo Plaza.<sup>12</sup> In 1890 electric streetcar lines began to emerge, radiating from the downtown area to the emerging residential suburbs to the north, south, east, and west. Line #18 ran northwest on Fredericksburg Road, and its influence remains apparent today in the narrow scale of the street, the prevailing "taxpayer" typology of commercial buildings, and the fine grain of adjacent residential fabric. The location of these early streetcar lines had a significant impact not only on patterns of residential development but also the eventual location of motorbus routes.<sup>13</sup>

*Period 2: 1920-1940 Inter-war suburban expansion.* At the turn of the twentieth century, a new transportation technology emerged that would again transform the urban fabric of San Antonio. The first gasoline powered automobile, a Haynes-Apperson, arrived in San Antonio in 1901, though it would take two decades for the technology to fully impact the way people navigated the city.<sup>14</sup> As Henry Ford revolutionized methods of industrial production, the cost of automobiles decreased dramatically while the volume increased exponentially. To put this transformation in perspective: in 1905 there were just 9,000 registered vehicles in the U.S.; by 1925 this number had increased to 20 million vehicles; and by 1945 the number surpassed 30 million.<sup>15</sup> Along the stretch of Fredericksburg Road now known as the "Deco District," the large-scale introduction of automobiles transformed the scale and character of the built environment. The most





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profound changes included the widening of the street to allow for head-in parking, the introduction of new building typologies like the Fredericksburg Drive-In Theater (1940), and the emergence of novel landscapes such as the Cool Crest Miniature Golf Course (1929).

During the same time period San Antonio undertook a campaign to pave the city's roads. In 1919 the Old Spanish Trail--currently Fredericksburg Road--began to take shape, the result of a partnership between the chamber of commerce and private businesses.<sup>16</sup>

*Period 3: 1945-1960 Post-war suburban expansion.* In 1934 the federal government founded the Federal Housing Administration (FHA), which for the first time regulated and insured home mortgages. These policies increased the number of people who could afford the down payment and monthly payments associated with home mortgages. The result was a massive increase in the level of suburban home construction. Just over two decades later, The Interstate Highway Act of 1956 would

Figure 3: Opening night at the Institute of Texan Cultures.

become the largest public works project in American history, providing an original authorization of 25 billion dollars for the construction of 41,000 miles.

Together, these two policy interventions accelerated the process of decentralization in cities: simultaneously subsidizing the construction of suburban homes and making it faster to access them via the highway. In 1952 San Antonio received \$27M to construct I-10, which provided a major metropolitan expressway and connection to the Federal Interstate system. By 1961 the interchange between I-10 and the 410 Loop was complete.<sup>17</sup>

During this time period regional shopping malls began to emerge in order to serve the burgeoning suburban marketplace. In 1961, Malls of Wonderland Shopping City opened along Fredericksburg Road at the intersection of Interstate 10 and Loop 410 in Balcones Heights. In 1963 the San Antonio economy received another major jolt with the opening of the North Star Mall. The mall boasted important stores including Frost Bros, Joske's and eventually Dillard's. The emergence of North Star, along with the construction of the I-410 Loop, accelerated the city's on-going suburban expansion to the north. Shortly thereafter, new subdivisions began to appear. It was during this period that the 36 square mile boundary of the original Spanish colonial city completely dissipated. Between the years 1930 and 1970, the population of San Antonio more than doubled from 320,000 to 770,000.<sup>18</sup>

Across the county new urban typologies emerged in response to the burgeoning car culture including garages, motels, service stations, trailer and mobile homes, and drive-in movie theaters.<sup>19</sup> Along Fredericksburg Road these trends were manifested in the appearance of car-focused structures as the Balcones Apartments (1955), Gulf Oil & Texaco (1960), and the Malls of Wonderland Shopping City (1961).

*Period 4: 1960-1980 Early sprawl and edge city expansion.* The decentralization that occurred after the Second World War involved more than shifting residential patterns; in fact, it redefined every aspect of national life including manufacturing, shopping, and professional services.<sup>20</sup> Probably the most important change involved the relocation of the workplace from downtown to the periphery, a shift that transformed suburbs from bedroom communities to workplace communities. By 1963 half of all industrial employment was based in the suburbs; by 1981, this number reached two-thirds, as manufacturing moved to "industrial parks" outside of the city.<sup>21</sup>

In 1954, a watershed moment occurred when General Motors moved out of midtown Manhattan to a suburban campus in White Plains, New York. This began an exodus from New York City that included many of the largest companies in the world: IBM, Gulf Oil, Texaco, Xerox, Pepsico, and Nestle.<sup>22</sup> In 1976, such trends gained traction in San Antonio as United Services Automobile Association (USAA), a financial services company that is among the largest insurers of automobiles and homes in the nation, built what was then the single-occupant building in the world on Fredericksburg Road near I-10. USAA's decision to locate at the city's periphery mirrored national trends, as major business centers vacated downtown, relocating far beyond the historical central business districts.<sup>23</sup>

*Period 5: 1980-2010 Exurban development.* In 1991 author Joel Garreau extended our understanding of sprawl, classifying the decentralization of U.S. cities into three distinct phases: In the first phase, Garreau notes that people moved their homes outside of the city and began commuting to work. This trend began in



Figure 4: Frames from the short film.





Figure 5: Frames from the oral histories (produced by Dr. Sarah Gould, lead curatorial researcher at the Institute of Texan Cultures).

earnest at towards the end of the nineteenth century and only accelerated by the eventual proliferation of the automobile. In the second phase, people tired of going downtown to shop, so they the moved the marketplace to the suburbs. This development, which occurred during the 1960s and 1970s, constituted the “mallng” of America. The third phase involved the relocation of jobs and wealth creation to the suburbs. According to Garreau, this led to the creation of Edge Cities, or self-sufficient urban entities.

Perhaps the most prominent Edge City in San Antonio, the South Texas Medical Center, sits on the northwest side of the city just south of Fredericksburg Road. The sprawling campus currently consists of 600 acres with another 300 acres in development.<sup>24</sup> In 2010, the center employed 26,913 people and accounted for \$235 million in research funding.<sup>25</sup> In 2013, the Center was home to more than \$478 million in on-going capital projects with an additional \$400 million planned over the next five years.<sup>26</sup>

**THE PROJECT**

*Class Format and Schedule.* Eleven graduate students under the direction of Assistant Professor Ian Caine undertook “Traveling on Fredericksburg Road: 120 Years in 12 Miles” during the spring semester of 2013. Dr. Sarah Gould of the UTSA Institute of Texan Cultures advised the class on topics related exhibition design and produced all of the oral histories in the final exhibition.

The initial class took the form of a 3-credit research seminar. Additionally, three students completed independent studies over the summer in preparation for the opening of the exhibition during the fall of 2013. The class met for two 75-minute sessions each week: the Thursday session featured a lecture by the instructor on the topic of suburban expansion in San Antonio; the Tuesday session was typically devoted to designing and producing the timeline.

The semester began with two sessions devoted entirely to GIS instruction. The instructor next provided critical background lectures including “A Timeline of the Timeline,” which explored the use of this critical historical instrument, and “The History of the History of the Street,” which examined the existing body of street-related research.

The instructor devoted the balance of the lectures to the history of suburban expansion in the United States, with an emphasis on San Antonio. The class considered universal trends and identified unique local circumstances that distinguished San Antonio’s growth from that in the rest of the country. The lectures unfolded in chronological fashion:

- “1815-1875 Early Commuter Suburbs”
- “1888-1918 Streetcar Suburbs”
- “1920-50 Early Commercial Development”
- “1950-70 Post War Housing/New Towns”
- “1970-90 Sprawl and Edge Cities”
- “1990-2013 Post-Sprawl Trends and Responses”

The class utilized the large number of available historical archives in the San Antonio metropolitan area including the Office of the City Clerk/Municipal Archives and Records, the San Antonio Conservation Society Library, the San

Antonio Conversation Society, the Esperanza Peace and Justice Center, the Center for Archeological Research/UTSA, the Texas Transportation Museum, the Institute of Texan Cultures Reading Room, the Daughters of the Republic of Texas Library, the Trinity University Elizabeth Huth Coates Library, the University of Texas Harry Ransom Center, and the San Antonio Central Public Library/Texana Room.

It also utilized multiple online databases as a source for geographic and morphological data including Sanborn maps, GIS San Antonio Database, and The Handbook of Texas Online. Finally, the class utilized multiple software platforms including ArcGIS, AutoCad, ArcGIS plug-in for AutoCad, Adobe Photoshop, Adobe InDesign, Adobe Illustrator, and Google SketchUp.

Exhibition at the Institute of Texan Cultures. The product of the class was a 3-part public exhibition, which ran at the Institute of Texan Cultures in San Antonio Texas from September to December 2013. The museum is affiliated with the Smithsonian Institute in Washington D.C. and enjoys an annual visitation of 130,000. The ITC was a co-sponsor for the event and provided in-kind contributions including exhibition materials, exhibition space, production labor, equipment, installation, and oral histories.

The exhibit was listed on the museum's website and featured in a variety of press outlets including NewYorkTimes.com, Texas Public Radio, San Antonio Express-News, and Texas Monthly.

The exhibition featured three components: a timeline, a short film, and a series of oral histories.

The timeline consisted of a 33-foot x 9-foot two-dimensional drawing chronicling 120 years and 12 miles of suburban development along Fredericksburg Road. Topics for GIS-based analysis included building typology, lot size, residential density, parking counts, land value, roads, sidewalks, program, zoning, transportation, and infrastructure.

The short film consisted of an eight-minute recorded drive along Fredericksburg Road. Students shot the sequence with a dashboard-mounted camera, then narrated and edited the footage using Adobe Premiere. A simulated "odometer" supplemented the film, simultaneously marking 120 years and 12 miles of history.

Finally, Dr. Sarah Gould—lead curatorial researcher at the ITC—recorded, transcribed and edited multiple oral histories, combining them into a short film.

#### FUTURE TRAJECTORIES

In recent years, several university-based projects have begun to utilize GIS technology in an attempt to create more dynamic research and learning platforms. UCLA's HyperCities project offers a collaborative platform for research and education that allows website users to travel back in time using historical maps.<sup>27</sup> Similarly, the Spatial History Project at Stanford provides a way for multiple scholars to collaborate in a spatial analysis of humanities topics.<sup>28</sup>

The next iteration of the Fredericksburg project builds on these precedents, digitizing the project while adding scholars from the disciplines of geography and history. In January 2014 Assistant Professor Caine collaborated with the Center for Cultural Sustainability at UTSA to submit a development grant to the National Endowment for the Humanities. The proposal builds on the success of the original research: extending the methodology by adding a digital component, while

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deepening the inquiry by including scholars from the humanities-based discipline of history and cultural geography. The expanded project will provide a more comprehensive reading of suburban growth in San Antonio.

The new project represents Fredericksburg Road as a multi-media timeline, utilizing multiple formats including digital animations, a podcast tour of Fredericksburg Road, oral histories, a short film, website, and community forums. The variety of anticipated outlets reflects the multi-disciplinary nature of the project team and intended public, allowing diverse perspectives to emerge while creating a complex and multi-layered reading of the city. The work gathers and assembles new visible and invisible histories of San Antonio into a visual and intellectual mosaic, creating a more complex and nuanced reading of the city.

The disciplines of architecture, history, and cultural geography each provide a unique and powerful intellectual lens through which to read urban history: through architecture we experience the primacy of physical form, through history we come to know the consequence of social narrative, and through geography we grasp the power of natural and human systems. The expanded Fredericksburg project seeks to draw on the best traditions of each discipline to write a more complex, nuanced, and alternative narrative of suburban growth in the United States. Once implemented, the project will offer a digital platform that allows scholars from all three disciplines to study the relationship between the visible and invisible life of Fredericksburg Road.

A successful NEH grant will also allow the research team to elevate production values by utilizing professional graphic design and exhibition design firms. New team members include two cultural geographers, two historians, an historic preservationist, art historian, curator, exhibition designer, graphic designer, website designer and coder.

This project comes at a moment when San Antonio is in the process of redefining itself through the SA 2020 initiative. The public campaign, led by Mayor Julián Castro, uses the occasion of San Antonio's sprawling growth to initiate a discussion of future metropolitan scenarios. By interpreting Fredericksburg Road as morphological timeline, "Traveling on Fredericksburg Road: 120 Years in 12 Miles" allows the public to engage a parallel exploration of San Antonio's expansive past, thereby enabling a more critical deliberation of the city's expanding future.

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