Long L-lot Colonial Landscapes in New Mexico and Texas; the Spanish-French Frontier Connection, 1693-1731

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Abstract

In New Mexico and Texas, small ribbon-like farm plots form the foundation of the Spanish historical landscape. -These elongated rectangles of land, known as long lots, represent an interesting yet understudied aspect of North American settlement patterns that blended Spanish and French traditions. -When the Spanish formed settlements in New Mexico after 1693, and later in the vicinity of modern San Antonio, Texas after 1721, they divided the land into long lots. -In both regions, permanent agrarian settlements emerged around a French-like landscape, and historical evidence suggests that the French may have introduced this land management practice to the northern frontier of the Viceroyalty of New Spain. -Long lots are parcels of narrow rectangular agricultural fields often configured in riverine settings with homes and structures paralleling the watercourse above the flood plain. -This paper differs from standard academic opinion, first developed by Terry Jordan-Bychkov, that holds that long lots appeared in Texas and New Mexico as a result of independent invention, and instead marshals evidence to argue that long lots diffused from the French to the Spanish in New Mexico after 1693 and in San Antonio from 1718 to 1731. Key Words: Cultural landscapes, Long lots, Settlement patterns, New Mexico, Texas, Terry G. Jordan.

As they quickly pass by on highways of New Mexico or Texas, most people pay little attention to the small ribbon-like farms at the foundation of the Spanish historical landscape. While often ignored, these elongated rectangles of land, known as long lots, represent an interesting yet understudied aspect of North American settlement patterns that seemingly blended Spanish and French traditions. -When the Spanish formed settlements in New Mexico after 1693, and from 1718_-to-1731__within a riverine setting that developed into modern San—Antonio, Texas, they divided the land into long lots, which developed into modern San Antonio, Texas. -In both regions, permanent agrarian settlements emerged around a French-like landscape. Elsewhere, the Spanish typically alienated irrigable land into square or rectangular plots with one by two dimensions which varied in size from about three and a half acres and up. -While squares of land and rectangular plots of any size were sometimes subdivided in a manner which created

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or augmented long-_lot patterns, "no precedent" for its use "was found in Spain or New Spain" for original grants in riverine settings within New Mexico and San Antonio (Jordan: 70)._—This article postulates that long lots diffused from the French to the Spanish while they cooperated in colonial outposts in proximity along the northern frontier of the Viceroyalty of New Spain (FIGURE 1).

Long lots are parcels of narrow rectangular agricultural fields often conFiguredconfigured in riverine settings with homes and structures paralleling the watercourse above the flood plain. -The system afforded great flexibility because additional tiers of lots could be easily added or extended along the watercourse as local conditions permitted (Price 1992: 290). -Other colonial land alienation schemes were used in North America, but most French and eventually some Spanish communities on the frontier preferred to adopt this system for at least seven of the following practical reasons: 1. +high density development with centralized nodes containing a church and other structures required the construction and maintenance of fewer miles of roadway, 2), neighbors lived nearby facilitating mutual support, 3.) ploughing long fields was easier because the team had to be turned fewer times, 4), the ease of surveying and establishing boundaries helped communities avoid conflict, 5.) when utilized in arid regions fewer miles of irrigation canals had to be constructed for the same number of farms, 6.3 long lots facilitated drainage of fertile flood plains in the humid east and irrigation in arid regions, and 7). long lots maximized access to available resources including water rights within a river valley (FIGURE 2). While it was a common landscape in France and French settlements in North America, the long lot pattern of development was absent from generalized Spanish settlement guidelines found in the Laws of the Indies. -This created a possibility for syncretic adaptations that appeared in New Mexico and Texas (Nuttall 1922; Wright and Campbell 2008: 552; Roth

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2017)._-This paper marshals historical evidence to argue that long lots diffused from the French to the Spanish in New Mexico after 1693 and in San Antonio from 1718 to 1731. -This work differs from standard academic opinion holding that long lots appeared in Texas first and later New Mexico as a result of independent invention (Nostrand 2018: 18-27).

In Terry Jordan's his paper published in the Annals of the Association of American

Geographers in 1974, he Terry Jordan opined that unknown Spanish officials independently invented long lots in 1731. —When a Spanish soldier utilized the system in 1731 for a group of colonists, Jordan found no French influence in San Antonio (Jordan 1974: 82, 71-82). —While this may be possible, no known official report or document supports this argument. —Jordan's 1974 work was reprinted by Material Culture in 2005.

Following Jordan's conclusion in 1975, Alvar Carlson published an article in the Annals of the Association of American Geographers claiming that long lots appeared in New Mexico with a series of grants issued in the 1750's, ands and resulted from "knowledgeable assessment of local physical conditions"."—According to Carlson, unnamed Spaniards made this innovation (1975: 55, 48-57). -Carlson concluded, "There is no indication that the French influenced Spanish settlement in the Rio Arriba" (Carlson 1975: 55)."

Both Jordan and Carlson were asked for comment on research leading to this paper, and neither provided a source or insight into why they adopted their theory of independent invention.

Geographer Edward T. Price recognized a yet unfilled gap in scholarship on long lots in his 1992 work *Dividing the Land*. He writes.: "No completely satisfactory explanation has been offered for the special association between French settlement and riverine long lots in North America."

(Price 1992: 302). Price welcomed the search for a direct French connection to the Spanish long_lot settlement pattern that emerged early in the colonization of New Mexico and Texas

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(Price 1992: 338). My paper offers a new timeline for the introduction of Spanish long lots, the identification of possible sources, and evidence of a French antecedent to the Spanish version. A revised story of the Spanish long lot begins at the source where the pattern held an integral place in the French colonial landscape.

Long Lot Patterns in North America

Colonists from France adhered to traditional land alienation and tenure patterns in North America, and they held a strong preference for the use of the long lot. -Before 1731, significant numbers of French colonists settled on long lots within the Mississippi River Basin in places such as Natchitoches, Louisiana. -They pushed westward using ribbon-shaped agricultural plots that stretched away from waterways or roads. -By the eighteenth century, dimensions of the lots varied but each was apportioned to accommodate the needs of a single family in sizes varying from about one hundred 100 to one hundred and sixty 160 acres (Price 1992: 289-304).

French people preferred this pattern when distributing agricultural land (Harris and Warkentin 1974: 39-41; Butzer 2002: 451-464). -The French formed their settlements in the New World based on practices learned in Europe_-and successfully used long lots before New Mexico and Texas were colonized (Hart 1968: 464)._-Cole Harris and John Warkentin described long lots appearing in the Americas after 1630 as "the preference of the settlers" rather than dictate from central authorities (1974: 39-40). -Walter Kollmorgen and Robert Harrison noted the habitual use of the long lot in line settlements of Louisiana and called it a "cultural phenomenon" rather than adaptation to the physical environment. -They write_: "Like the French language and Catholic religion, line settlements and the complex and intimate social life which they engender, have become an integral part of the culture of French Louisiana" (Kollmorgen and Harrison

Commented [EB11]: Number formatting discrepancy. He's been spelling out the numbers for everything so far, so I changed these from numerals to keep with the formatting. 1946: 153). -A century of evidenced based academic work recognizes that almost everywhere the French settled, they etched the long lot into the landscape.

In contrast, the plots were much smaller in New Mexico and Texas because the Spanish accommodated grazing and lumbering outside of the irrigated long lots. -Dividing large parcels of land into groups of long and narrow lots proved to be an efficient manner of distributing individual plots in colonial settings. -Importantly, the long lotlong lot system provided a sense of greater fairness among colonists because it offered a potential for equitable access to water resources. Landholders and communities perceived a great benefit from this system as local authorities easily granted numerous individual plots without complex surveying or technical skill beyond the use of a compass. -Only the narrow corners of the plots along the waterway had to be measured at fixed intervals with a common oblique or perpendicular compass direction.- The length could be pre-established but often remained undetermined until after settlement commenced (Price 1992: 290). Once allocated, long lots facilitated population growth because old plots were subdivided and new tiers of lots were added. -In North America during the seventeenth and eighteenth centuries, long_-lot settlements were distinctively French and came to exist almost everywhere the French settled (Peattie 1922: 174-179; Kollmorgen and Harrison 1946: 153, 156; Harris 1966: 119-121; Jordan 1974: 81; Butzer 2002: 452, 464-465).

A New Timeline for the Introduction of Long Lots in New Mexico

The Spanish occupation of their northern colonial frontier started in 1598 and sustained a decade long interruption following the Pueblo Revolt of 1680. -During that period, the Pueblos destroyed most all documents, land records, and property deeds; however, no evidence suggests that the Spanish used long lots before the reoccupation of New Mexico during the 16902s._-The

earliest documentation of settlement in New Mexico appears after the Reconquest of 1693. Alvar Carlson claimed that long lots in New Mexico appeared during the early 1750's or about sixty years after reoccupation of New Mexico (Carlson 1975: 53-55).

My examination of archival documents from the 1690's in State Archives of New Mexico showed numerous individual long_-lot grants after land distribution commenced in 1695 (SANM I, Roll 4). -Among others in the documents, we learn Matías Madrid, a presidial soldier, and Diego González, a member of the militia, received long lots which - Tihey lived on these until their deaths (SANM I Roll 3, 7; Twitchell 1914: 1-31; Chávez 1992: 190). -Long lots described in deed records establish a new timeline for earliest use in New Mexico, which shifted the possibility of French cultural influence into a much earlier period.

A French Source for Spanish Long Lots

In 1693, the roster of New Mexico's reconquest listed two men from France. -These two arrived in the New World with Robert Cavalier Sieur de La Salle's failed expedition to the Mississippi River which floundered in Texas.- In 1687, La Salle was murdered and most survivors returned to Canada. Jean L'Archeveque and Jacques Grollet (in Spanish Juan Archibeque and Santiago Gurule), remained in Texas where they sought refuge with the Tejas Indians. They went on to lead extraordinary lives in New Mexico (Parkman, 1968; Joutel in Foster 1998; Gilmore 1998: 43).

Archibeque was well-educated and from an upper-class family in the lowlands of

Western France (Weddle 1987: 240; Esquibel and John B. Colligan 1999: 53). -He was probably
born on December 24, 1665, in Bayonne along the lower Adour River near the Atlantic. -While

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the story of his early life and experiences remains unclear, around the age of eighteen he was recruited by La Salle as a cabin-boy or sailor of some kind. -Gurule was one of La Salle's naval officers from La Rochelle, a city in the freshwater marshes of western coastal France. He was born in about 1664 and by. By the time he joined the final La Salle expedition, he was an experienced sailor (Esquibel and Colligan 1999: 54). Little is known about their time with the Tejas, but they received tattoos and learned the Tejas language well enough to serve as interpreters for the Spanish.

For reasons that remain unclear, the Frenchmen arranged a meeting with the Spanish and surrendered to Captain Alonso de Leon the leader of an expedition into Texas on May 2, 1689 (Casis 1899: 290; Hacket 1923(2): 471-472; Esquibel and Colligan 1999: 58-59). -While in the custody of the Spanish, Gurule measured and provided the Spanish with depth soundings of Matagorda Bay and also assisted in mapping the area (Weddle 1999: 197-198). In completing this task, Gurule demonstrated technical skills common to many naval officers of the period which included training in geometry and cartography. _-To accomplish the surveying, he used a compass, cross-staff, and astrolabe demonstrating valuable skills needed in determining gradients and building irrigation canals (Watkins 1973: 2-7). -In January 1690, the Frenchmen arrived in Spain under the care of Don Andres Pérez, and then faced interrogation by members of the court of King Charles II for two years (Bandalier 1893: 295; Weddle 1972: 417). -In May 1692, Archibeque and Gurule petitioned for a return to New Spain (Weddle 1972: 417). -At the time of their release, the Spanish gave them clothes and _-a stipend, and in July 1692, the two crossed the Atlantic on their third voyage which ended in New Mexico (Esquibel and Colligan 1999: 61).

With a decade of experience instrumental in a colonial frontier setting, Archibeque and Gurule joined the reconquest of New Mexico led by Don Diego Vargas some time during 1692

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or 1693 (Esquibel and Colligan: 61). -Gurule, as already demonstrated, possessed requisite skills necessary for surveying of land and building irrigation canals. -Evidence suggests that Gurule and Archibeque drew from their cultural heritage and introduced long lots in Spanish North

America. -The similarity between the line settlements constructed on the irrigable lands of New Mexico and those of French settlements suggests a potential for cultural transference of long lots.

Archibeque and Gurule's social role and opportunity for influence can be measured with their prominence in the historical record, evidenced by b.—Both receivinged land grants before 1697.—From 1695 to 1699, the Frenchmen participated in the campaigns that reestablished the Spanish colony within the upper-Rio Grande. At the same time, authorities planned communities based on irrigated agriculture and granted land to colonists. -Within New Mexico, Gurule alone possessed demonstrable technical skills needed for surveying and building acequias (Kessel 1998(2): 1146, 1156).

Archibeque thrived in public life and lived in New Mexico until his death in 1720. -Of the two Frenchmen, Archibeque was always characterized as the leader. In his twenty-seven years among the Spanish, Archibeque became a prominent soldier, trader, and citizen (Weddle 2001: 257; Weddle 1972: 419). -Demonstrating technical skills when he had surrendered in 1689, Archibeque painted La Salle's ship the La Belle. -This painting on animal skin vellum offers a lateral perspective from the ship's stern and shows details of its construction and layout._— Apparently, Archibeque painted it from memory, but the sails and complex rigging appear to be accurately portrayed. -This provides evidence that Archibeque, like Gurule, possessed comprehensive knowledge of the ship, sailing practices, and a range of skills associated with the occupation. -At the least, he was an accomplished and precise draftsmen with keen powers of observation and memory (Archibeque: 1689). -Scholars who study long lots in French colonial

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landscapes recognize that technically competent Frenchmen such as Gurule and Archibeque possessed knowledge of this land alienation practice and used long lots habitually when possible (Peattie 1922: 174-179; Kollmorgen and Harrison 1946: 153, 156; Harris 1966: 119-121; Jordan 1974: 81; Butzer 2002: 452, 464-465).

While he advanced in Spanish society, Archibeque participated in the military campaigns to defeat the Pueblo Indians between 1693 and 1697. -Official documents and other sources recorded numerous accomplishments and notable participation in governance. -This included the distribution of cattle to landowners and service as an assistant magistrate in Santa Fe (-Twitchell 1914; Twitchell 1931: 183; Kessell 2002: 166-178). -In 1893, A. F. Bandalier discovered a collection of documents describing Archibeque as well respected by both Spanish leaders and the general population. Bandalier writes,: "He was consulted concerning all important enterprises. . . (Bandalier 1893: 299)." The historical record reveals bits of his character and described him as a person of "particularly strong spirit (Franklin 1985: 120; Weber 1992: 170-171)." Historian Ralph Twitchell wrote of him; "In his vacant hours he was much inclined to volunteer advice. . . (Twitchell 1963: 166)." Tellingly, his last will was eighty-five pages, and it indicates he was one of the most powerful people in New Mexico at the time of his death (Archibeque 1721 in SANM I, Roll 1; Twitchell 1914: 185; Kessell 2000: 127-129). Archibeque and Gurule left no direct documentary evidence that they contributed the long-lot system or influenced its use by the Spanish in New Mexico; however, both spoke French and possessed other undocumented cultural attributes from their homeland that no scholar would doubt. In all likelihood, long lots formed an integral part of their cultural knowledge like other French people in North America (Kollmorgen and Harrison 1946: 153). The historical record demonstrates an opportunity for French influence while the Spanish planned and occupied New Mexico using long lots. In

addition, Gurule possessed technical skills associated with surveying and both originated from a culture that commonly promulgated the long_-lot settlement pattern elsewhere.

Don Diego Vargas and Spanish Leadership in New Mexico

Don Diego Vargas was appointed governor of New Mexico on February 22, 1691.

Thereafter, Vargas reestablished the Spanish colony and used his power to grant land; however, seven volumes of his translated writing provided no evidence that he introduced long lots to the colonial landscape (Kessel 1989: 50-55; Weber: 137-141). Without specific instruction directing the use of long lots, the acclaimed and capable leader –ordered settlement around Santa Cruz, New Mexico which resulted in a French-like landscape. There, colonists received grants of long lots between 1695 and 1699 (Twitchell 1914: 20). While long lots were clearly used, Vargas had been informed about colonial practices by laws which directed the use of square or one by two rectangular farm plots and he never mentioned long lots or innovative settlement patterns (SANM I, Roll 42, PLC 80: 1; Weeks 1947: 158-159, 167-168).

Vargas was born into Spanish nobility and served as a career government official in New Spain. In describing his outlook on life, John Kessel writes. "[Vargas] held firmly to the honored tradition of warrior-knight (Kessell 1989: vii)." Vargas was adaptable and well-read on a range of subjects including politics, law, military science, architecture, and cooking. He carried a copy of the *Laws of the Indies* with him and reported using it as a guide in making decisions on the colony (Kessell 1989: 11-91). Importantly, neither his orders nor the Spanish planning edicts, Ordenanzas de descrubimiento, nueva población y pacificación forming part of the *Laws of the Indies*, contained directives on long lots. Further, the *Laws of the Indies* lacks sufficient instruction on agricultural systems which created potential for syncretic innovation on

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the northern frontier (Nuttall 1922; Blake 1958-59 vol. 50: 54 Wright and Campbell 2008; 553).

In his translated writings, Vargas detailed agricultural planning, but this reflected the logistical concerns of an administrator. Apparently, he never witnessed the use of long lots in Spain or Mexico, and his recorded experiences fail to portray him as someone who invented the settlement pattern in the region (Kessell 1989: 156-161, 165, 294). Absent some external stimulus, Vargas quite likely would have followed Spanish cultural patterns and issued irregularly shaped or rectangular plots of about one hundred by two hundred varas. A vara is a Spanish measurement of approximately 33 inches in length.

The first settlers of Santa Cruz wanted to become encomenderos (the privileged class in Spanish colonial feudalism) and petitioned Vargas for Pueblo conscripts to work their fields.

Commenting on their shortcoming, Vargas wrote, :- "[the colonists] have not the energy and ability for the profitable cultivation of their cornfields for the reason that they were never brought up to do this kind of labor" (Vargas 1696 in SANM I, Roll 6, Archive 818: 1-7). After the settlers ate their supply of seeds and consumed their breeding livestock, Vargas further derided their abilities and may have been open to experiments in cultivation methods, field layout, or other aspects of administration in unfamiliar circumstances (Kessell 1998, 3-19).

Vargas described his colonists as in a state of "excessive misfortune and nakedness-". Calling them ignorant and incompetent, Vargas claimed that no one had any useful talents (Kessell 1998: 1076). Even though they planned to issue numerous grants of land surrounding new agricultural villages, there were no Spanish surveyors or farmers recorded in the group (Kessell 1995: 34-67, 77-97, 223-343; Kessell 1998: 467-572). Of the colonists, historian John Kessel wrote, -

while a wide variety of occupations was included among the group of recruits, there seems to have been no systematic attempt to provide all the skills necessary for the success of the

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frontier colony" (Kessell 1995: 8-9).

One of the foremost scholars on the origin of the Spanish in New Mexico, Fray Angélico Chávez, agreed and explained how New Mexico's colonists wanted to be "feudal" lords like the generation that preceded, but it soon became clear that all they would receive would be the material benefits of the land much like the colonists of New France who preferred long lots (Chávez 1992: xvi-xix). When the Spanish settled at Santa Cruz, a number of features made the long lot useful and beneficial. Fairness in the allocation of farms was a problem for the new agricultural settlement that had no Spanish surveyor. At that time, they needed to divide and alienate numerous individually-sized plots and document the land each received. Considering the roster of known colonists, this could have been a tedious and contentious affair among aspiring encomenderos. Officials in Mexico City voiced an expectation that the colonists should settle in homes around a central defensible plaza and work irregularly distributed fields (Carlson 1975: 49-50). Often, they settled in houses dispersed on their fields and created settlements much like the French (Chávez 1992: xvii). Thus, as occupation and cultivation became a necessity, initial surveying of many lots at one time was a significant obstacle requiring immediate action.

Between 1693 and 1697, the Spanish adopted long lots which became a common settlement pattern within the irrigable valleys of the Rio Grande Basin. In March 1695, Vargas ordered Luis Granillo to go to Santa Cruz and "confer with the others how many citizens can settle the land".... (Twitchell 1914 in SANM I, Roll 7, Archive 882: 1-31; Kessell 1998: 605, 619)." Nothing in the historical record suggests that the career soldier Granillo -knew about long lots, and he had never owned land (Kessell 1995: 48). Because Due to of his military rankalone, Vargas appointed him the leader responsible for planning an agrarian community and -

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619). The "others" included, which included Archibeque and Gurule (Twitchell 1914: 18-19; Kessell 1998: 618-619). Th, and they alone possessed surveying and planning skills necessary for creating agricultural systems. —Their arrival coincided with the sudden appearance of a French-like landscape in New Mexico and provides a plausible alternative to the notion of independent Spanish invention of long lots. At about the time of Archibeque's death, Spaniards were learning of long lots in Texas and adopting them for use along the San Antonio River.

San Antonio, Texas and the Second French Connection

Long lots appeared in San Antonio before 1731 and archival evidence points to diffusion as a likely explanation for the origin of the pattern because of cooperation with the French colony in Natchitoches, Louisiana. Louisiana. The La Salle expedition motivated the Spanish to protect their northern territory even though Spain maintained only a sputtering presence in Texas from 1690_to-1721. During this period of time, the French established an outpost in Natchitoches, Louisiana and often travelled a well-known road linking the French at Natchitoches to Spanish Texas. -The Spanish and French mixed freely in the remote region around Natchitoches, where -the first three Spanish governors, Martín de Alarcón, Marquis de Aguayo, and Fernando Perez de Almazan, fraternized with influential Frenchmen like Louis Jouchareu de St. Denis and Jean-Baptiste Bénard de la Harpe (Figure 3).

The Spanish and French shared life-ways while creating mixed frontier communities. In 1718, the French founded New Orleans while the Spanish undertook construction of San Antonioo. T, whichkis augmented the connection with flow of commerce (La Harpe to De Alarconne 1719; Pena 1722; Broutin, 1722; Bolton 1913: 427; Chabot 1937:138; Nardini 1963: 31-46, 254; Phares 88: 15-17; Santos 1981: 22, 112; Phares 99; Kessel 2002: 100 205; Roth

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2017.) In 1721, the Marquis de Aguayo moved into Texas with a substantial Spanish force and established an authoritative presence which included additional colonization around San Antonio (Figure 4). Aguayo led about 500 well-equipped colonists who entered Texas with thousands of horses, cattle, and other farm animals. They established missions, presidios, and claimed the irrigable valleys around San Antonio. Far from the scrutiny of the Spanish administrative center in Mexico City, conditions facilitated economic and cultural exchange between the Spanish living in proximity among the French on the eastern frontier (Nardini 1998: 7-32; Kessell 2002: 170-174, 205-208, 216-217). As this relationship developed during the 1720's, Spanish settlement around San Antonio deviated from the *Laws of the Indies* and included the distribution of long lots. (Austin 1905: 301).

To colonize the region, the first three Texas governors needed a system that provided farm plots to numerous settlers. -With a Spanish long-_lot precedent already existing in New Mexico by that time, the following three possibilities seem plausible for the appearance of the pattern in Texas: 1.) diffusion from a French source; 2.) diffusion from New Mexico. or 3. or, independent invention by a Spaniard.- Diffusion from New Mexico may have occurred, but the earliest known New Mexico to Texas connections seem to have appeared after the mideighteenth century. Archives including those in Mexico and Spain may lead to other conclusions (Bolton 1913). After 1721, significant numbers of Spanish settlers, soldiers, and government officials moved north from Mexico. They travelled through the "gateway to Texas" at Guerrero on the Rio del Norte (Rio Grande) on their way to San Antonio and onward to the frontier near French Louisiana.—While Spaniards constructed an irrigation system at Guerrero during the period, nothing suggests they used long lots there. The long-_lot pattern seems to be a frontier adaptation incorporated after 1718.

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Fernando Pérez de Almazán took over as governor in 1722 and records demonstrate that he was well-prepared for his administration-²-He²-He had been a surveyor and the alcalde mayor (chief magistrate) of Saltillo and Parras (Chabot 1937: 138; Santos 1981: 22, 112). In the same cities, he served as juez comisario (judge commissioner) by appointment of King Philip V, and he had distributed land (Bolton 1913: 427). Almazán initiated settlement around San Antonio at the same time he opened the eastern border of Texas to French Louisiana (Nardini 1998: 42).

Initially, the Spanish traded livestock for French goods and grain, but nearly free trade followed (Phares 1999: 186-187). -One historian of Louisiana describes the motive and opportunity for exchange on the Natchitoches-Adaes frontier by 1725:

The governor of . . . the Texas region was lenient with the Spanish who wished to trade with the Frenchmen. He is to be noted as one of the most popular and most loved governors of the Adais-Texas region by the French, the Spanish, and the Indians. Almazon [sic] did more to encourage Spanish settlers to come and settle in the Los Adais area than any other governor who was to hold the same title (Nardini 1963: 43).

During the 1720s, Spanish leadership observed farm operations in the French settlement and returned with knowledge gained from their neighbors (Jordan 1974: 82). Kessel describes border conditions where Frenchmen and Spaniards all but lived together creating "constant exchange" and "intimacy" (Kessel 2002: 237).

Deep ties developed and mixed friendships and families formed. -Almazán reportedly granted land to Frenchmen in Texas (Nardini 1998: 31). -The French observed Catholic mass in Texas and attended church with the Spanish for lack of a priest in Natchitoches (Nardini 1998: 42). The Spanish even fought alongside the French in a regional war against the Natchez Indians in 1731 (Nardini 1963: 44-46). Between 1718-and_1731, a substantial relationship formed and apparently influenced decisions of Alarcone, Aquayo, and Almazan. Clearly, social exchange and cultural diffusion had already occurred by the time the Spanish used long lots in San

Antonio.

Long Lots for New Immigrants at San Antonio, Texas

The history of San Antonio between 1716-and-1731 has yet to be definitively detailed and conflicting published accounts exist. The historical record clearly demonstrates that several hundred colonists farmed irrigated plots of land during the period before 1731. During the 1720's, Aguayo requested support for the resettlement of about 200 families from the Canary Islands in San Antonio but only sixteen families actually arrived. All aspects of the settlement of colonists from the Canary Islands had been planned before they arrived in 1731 (Chabot 1937: 140; Leutennegger 1981; Kessel 2002: 225). Officials in Mexico City expected settlement at San Antonio to occur within guidelines established by the Laws of the Indies, and the Viceroy's orders specified equally divided rectangles of 100 one hundred by two hundred 200 varas—or three to four acre squares of irrigable land (Austin 1905: 342-343; Nuttall 1922; Glick 1972; Price 1992: 307-308). However, an unscientific sketch map drawn by Aguayo in 1730 accompanied the Viceroy's orders, and it shows plots that subsequent maps portray as long lots (Figure 5). On his sketch map drawn from memory while in Mexico, Aguayo portrayed plots divided by width utilized as early as 1718 along acequias now known as the "upper labor ditch" and the "Alamo ditch." He also left vacant a space for land to be occupied in 1731 (Cox 2005; McKenzie 2017).

Aguayo labeled the first tiers of long lots along the upper labor and Alamo ditches as tierras de lavores (working fields) to be used for corn, wheat, and beans (Weber 1992: 165).

Apparently, local authorities distributed one hundred and five 105 vara wide long lots to colonists from 1718 to 1730 (West 1904: 3-78; Austin 1905: 276-352; Buckley 1911: 3-63; Bolton 1913:

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132, 427; Glick 1972: 31; Jordan 1974: 71-72; Phares 1988: 17-19).

In 1731, the task of distributing land to the Canary Islanders was delegated to Juan Antonio Pérez de Almazán, the ranking official in San Antonio. He granted fields oriented in a French-like manner to colonists and told his superior officers that he had followed orders after measuring sixteen long lots along a pre-existing irrigation ditch (Austin 1905: 344-345). Seemingly, Juan Antonio Pérez de Almazán deviated from the central authority and obeyed orders that originated locally, which reflected instructions implied on Aguayo's sketch map. I have demonstrated that the French influenced the first three Texas governors and theorize diffusion of long lots took place from 1718—to-1731 (Figure 6). Even though officials hoped for large numbers, very little official colonization occurred during the Spanish period other than at San Antonio. As a result, use of the riverine long—lot pattern was isolated. Elsewhere in Texas during the Spanish-colonial era, more traditional methods of land alienation were used where no French influence existed or in areas lacking a stimulus to change (Jordan 1974: 74, 76; Almaraz 1989: 14).

Jordan has suggested that San Antonio's natural environment was the impetus for the long lot (Jordan 1974: 71-81). Yet, the local environment around San Antonio was no different from other semi-arid locations such as Guerrero where no long lots are found. Until scholars discover a source supporting Jordan's independent invention argument, proximity to French influence resulting in cultural diffusion becomes a more plausible explanation for the origin of long lots.

Conclusions

Key historical evidence suggests that Jordan and Carlson erred on several points regarding the

origin and diffusion of long lots. First, Jordan theorized that independent invention of the method took place around San Antonio in 1731 and concluded that long lots were probably unique in New Spain at that time (Jordan 1974: 70-84). Carlson apparently accepted Jordan's conclusions as accurate and applied them in error to New Mexico, where he determined that long lots were invented locally and independently during the mid-1700's (Carlson 1975: 48 | 55). Neither provided a source for these assertions and no evidence appeared in research leading to this paper.

A review of translated primary sources demonstrates that Vargas used long lots in the 1690's. This shifts the timeline of introduction six decades earlier to the era of initial colonial reoccupation. At that time, Archibeque and Gurule shared French culture as they lived in New Mexico, had the means and opportunity to introduce the long lot, and worked among the Spanish motivated by need for a method of apportioning plots of land. Archibeque and Gurule knew about long lots, understood the rational system of land alienation, and possessed the technical skills to institute the long_-lot pattern. It seems plausible that Archibeque and Gurule stimulated change among the Spanish by 1695 as they constructed their first agricultural settlement. Historical records clearly demonstrate the importance of two Frenchmen living in the Spanish community and evidence supporting independent invention or another conclusion never materialized during extensive research.

On the Texas frontier near Natchitoches, interaction also took place between the French and Spanish from 1718_to-1731. The historical record confirms proximity and cooperation on the frontier within a timeline associated with demonstrable cultural exchange. Natchitoches served as a diffusion node for French ideas going to Spanish territory, and vice-versa. Elements of French culture including long lots appeared on a known route of diffusion which suggests

Spanish long lots in Texas were of French origin.

During the colonial era, a strong Spanish-French connection existed along a porous boundary that separated people in the imagination of empire builders living beyond the frontier. The long-lot pattern, associated with the French almost everywhere they settled, appeared on the ground at the time of initial settlement in New Mexico, Louisiana, and parts of Texas. In this paper, I described long lots appearing in New Mexico by 1695 and demonstrated a pattern of general cultural exchange occurring between 1693_and_1731 in both New Mexico and Texas. This notable French connection casts doubt on assumptions about independent innovation of long lots by the Spanish. The evidence portrays a story of cooperation among groups isolated in a region far from central authority and imperial rivalry. In North America, people constructed something different as they shared ideas and life on the frontier where new and enduring institutions developed.

Postscript

I was fortunate to have a conversation with Terry Jordan during the fall of 2000 when I presented a preliminary paper on this topic. We later exchanged email after I questioned his conclusions from the 1970'_s-3- On both occasions, Jordan told me he could not remember why he thought long lots were independently invented by the Spanish. I am gratified to report that he also told me I was probably correct in pursuing the French as a source of all early long lots in Texas and New Mexico. Graciously, in 2002, Jordan wrote-; "Of course I remember your ongoing work on long lots. -Your idea that the French may have played a role in New Mexico makes a lot of sense to me. I believe you are onto something there----,"_-_After his death in 2003, Jordan's work on long lots from 1974 was reprinted in its original form in Material Culture

in 2005.

Notes

- ¹ Some confusion about Archebeque's age appears in the academic and genealogical literature. The confusion arises because Archibeque claims to be younger after reaching New Mexico. Archibeque apparently forgot his age or lied about it in Spanish documents indicating he was born in 1671. Esquibel and Colligan traced birth records of the family in France and found 1665 to be the likely year of birth.
- ² There is no complete source on Almazán's tenure. Moreover, the multiple sources that exist which discuss elements of Almazán's career differ in details including his terminal date in Texas. The information from this paragraph was gleaned from multiple sources.
- ³ The Southwest Association of American Geographers annual meeting at College Station, Texas, in 2000. Personal Email Correspondence, Jordan-Bychkov to this author, 2002. Terry Jordan-Bychkov died October 2003. Alvar Carlson declined offers to comment on this research.

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Archives and Special Collections

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The Nacogdoches Archives, Texas State Library, Austin, Texas. -This archive contains extensive documentation of the Spanish and Mexican era. The archive may be viewed in a widely distributed microfilm collection of twenty-six reels. Robert Bruce Blake (see citation below), a Nacogdoches County Clerk and Court Reporter familiar with colonial era Spanish documents, translated much of the Nacogdoches archive as a public service between about 1927-1955 collected in ninety-three volumes.

State Records Center and Archives, Santa Fe, New Mexico. This repository contains historical materials on New Mexico. In addition to regional primary and secondary source material, important information on the Spanish era is found in the extensive microfilm records of the Court of Public Land Claims, 1891, (PLC) and the Spanish Archives of New Mexico, 1621-1821, (SANM I and II).

Western History Collections, The University of Oklahoma, Norman, Oklahoma. These collections support the study of the Trans- Mississippi West of the United States. In addition to most relevant journals and primary and secondary sources, the Western History Collections has a range of specialized material including microfilm editions of the Bexar and Nacogdoches archives.

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