

# Las Marismas to Pánuco to Texas: The Transfer of Open Range Cattle Ranching from Iberia through Northeastern Mexico

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It has long been assumed that an Iberian herding system provided the cultural basis for subsequent cattle ranching in Mexico and parts of the western United States. A number of writers (e.g., Bishko 1952, Chevalier 1963, Rouse 1977) proposed that a range cattle complex was transferred directly from Spain to the New World. This complex reputedly evolved under subhumid to arid conditions on the Spanish Meseta and moved southward with the reconquista frontier into New Castile, Extremadura, and Andalucía (Bishko 1963). It is thought to have been transferred later to the arid highlands of central Mexico (Vizcarra 1966). From there, it allegedly underwent slight modifications as it expanded northward with the frontier of New Spain (Morrisey 1951), eventually reaching Texas (Ramsdell 1949, Faulk 1965, Jackson 1986; Figure 1).

This commonly accepted scenario (e.g., West and Augelli 1976, 277) assumes that the tropical lowlands of eastern Mexico were not directly involved in the northward diffusion of cattle herding in America. The thesis proposed here refutes this assumption and offers a rather different diffusional range herding system may be found in a similar environment in one specific Iberian locale--Las Marismas of the Guadalquivir Delta.

The idea that the east coast of Mexico may have been important in the development of Texas cattle ranching is actually not new. Although it has not been widely recognized, this connection appears to have been anticipated some years ago by Donald D. Brand (1961). On one map (Figure 2) Brand suggested that the tropical lowland of eastern Mexico, specifically the Pánuco area of northern Veracruz and southern Tamaulipas states, might have been as important as the central highlands in the diffusion of cattle to Texas. Brand's map suggests that cattle moved from the Pánuco area, through present-day Tamaulipas, into northern Nuevo León, Coahuila, and Texas. Unfortunately, he did not adequately develop this idea either in the text accompanying the map or in any of his other writings. A perusal of his papers located in the archives of the University of Texas at Austin revealed nothing on the topic. Apparently, this route was something that Brand had suspected, undoubtedly with good reason, but he left no notes or documentation to indicate why.



Fig. 1. Commonly accepted routes of livestock movements through northern New Spain (after West and Augelli 1976).

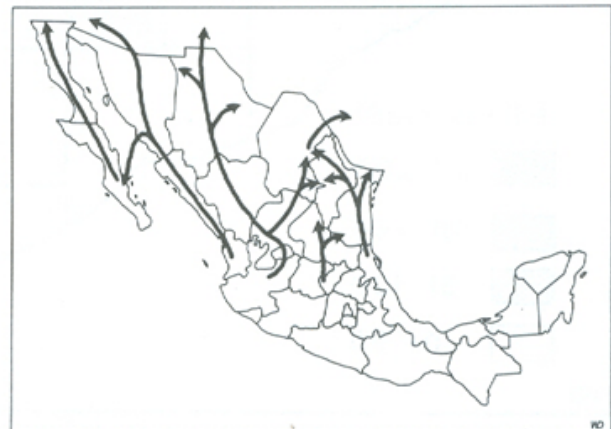


Fig. 2. Movement of cattle according to Brand (1961).

[end p.3] Although only in its early stages, research reported here tends to support Brand's idea, albeit with some modification.

## EARLY CATTLE INTRODUCTION

The first cattle brought to New Spain were unloaded near the site of what is today the city of Veracruz. The exact number of cattle in this first shipment remains unknown. It is widely accepted, however, that the year was 1521 and that the cattle belonged to Gregorio de Villalobos (Hackett 1923, 40-41). These cattle were the ancestors of later animals that were moved to the Valley of Mexico, eventually populating the entire central highlands. They were not, however, the ancestors of cattle that entered the Pánuco area as some have suggested (e.g., Grigg 1974, 243- 46). The first cattle to arrive there were unloaded six years later, well after the Spaniards had established a permanent settlement (Chipman 1967, 157).

In 1522 Hernan Cortés marched from the Aztec capital of Tenochtitlán to the Pánuco area in order to pacify the militant indigenous inhabitants of the region. To insure that his control of the area would be retained, Cortés left 130 soldiers under the command of Pedro de Vallejo at the town of Santisteban de Pánuco, established in early 1523. The subsistence activities of these soldier-colonizers are not known, but it is well documented that they herded swine and did not have cattle (Chipman 1967, 93).

It was not until 1527, when the infamous Beltrán Nuño de Guzmán became governor of Pánuco, that the idea of importing cattle was considered. In June of that year the impoverished and nearly destitute Spanish inhabitants of the region approached Guzmán with a scheme for improving their economic lot. Their plan involved trading Indian slaves from Pánuco for both cattle and horses from the Antilles. There was at the time a sizable Huastecan Indian population in Pánuco and numerous cattle in the Antilles. There was also a need for labor on the islands because the native population there had been greatly reduced in number by European diseases. The scheme proposed by the Pánuco colonists made economic sense and was approved by Guzmán and implemented immediately (Chipman 1967, 157, 198-99).

By 1620 the Pánuco area appears to have possessed some of the largest cattle concentrations in New Spain. According to Lesley Bird Simpson (1952, 73), who assessed the holding of some 7,500 land titles in the first 35 volumes of the Ramo de

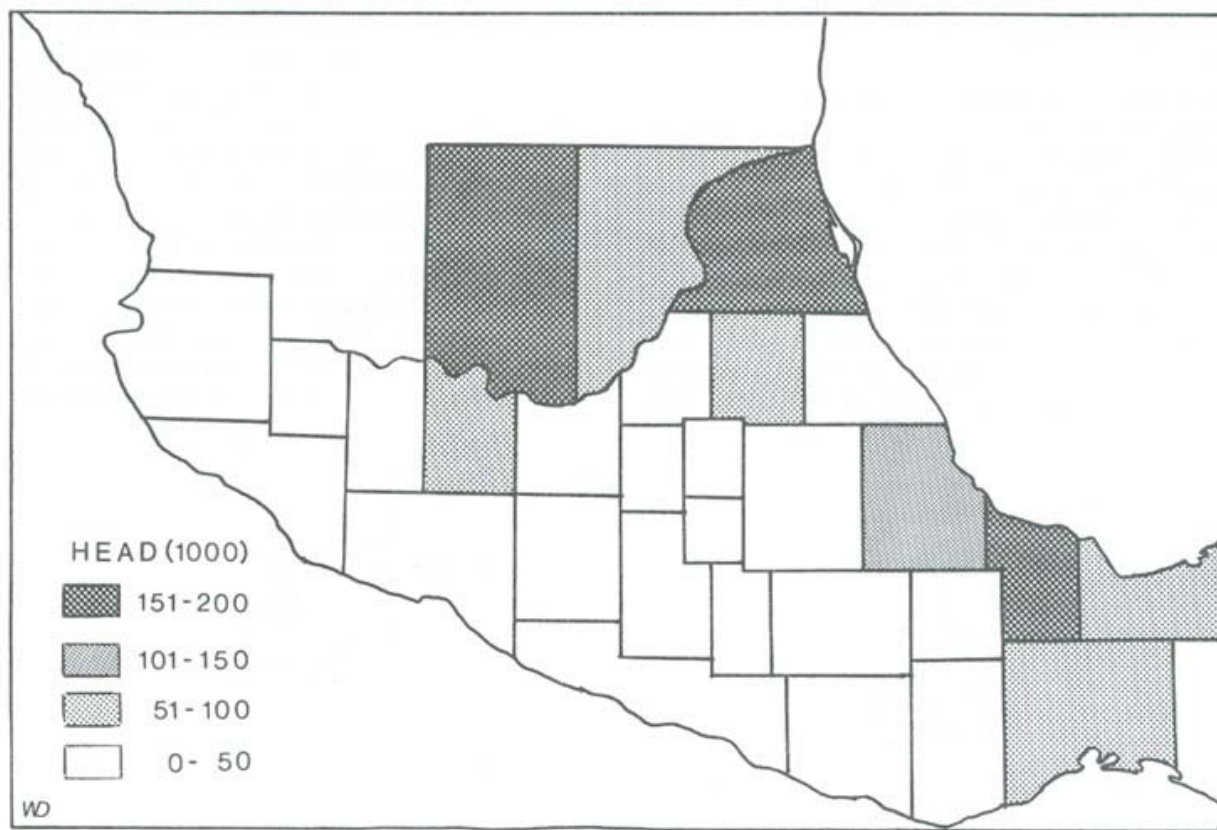


Fig. 3. Cattle numbers in New Spain, 1620. Simpson (1952, 29), on whose data this map and figures 4, 5, and 6 are based, delimited regions by assigning "artificial boundaries of latitude and longitude, generally [to] include communities having a common soil and climate, and, usually, a common ethnography. In most cases their boundaries do not stray too far from natural boundaries."

[end p. 4] Mercedes of the Mexican National Archives, the Pánuco region had a cattle herd that numbered 176,000 head (Figure 3). The central highlands of Mexico had nearly as many cattle as the Pánuco area (Figure 3), but it had a more diversified livestock economy. While cattle were certainly numerous there, sheep were by far the most economically important animal (Figure 4). In contrast, cattle dominated the economy of the east coast tropical lowlands (Figure 5).

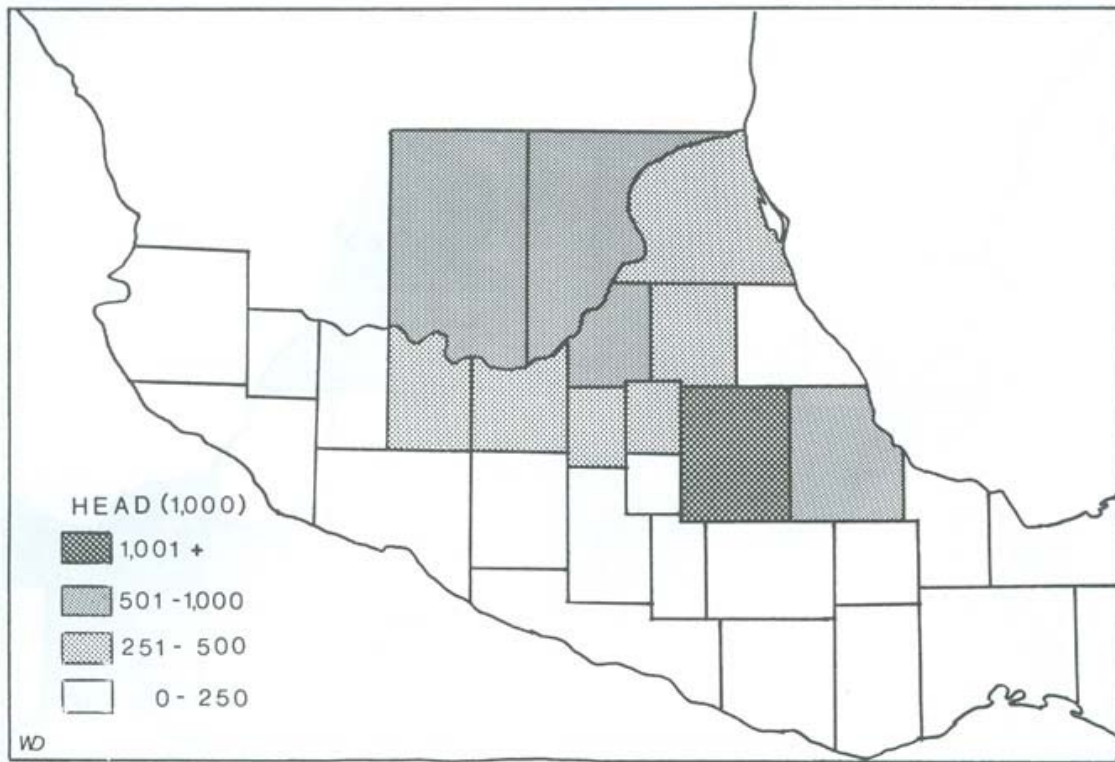


Fig. 4. Sheep numbers in New Spain, 1620 (after Simpson 1952).

Exactly how the Pánuco cattle herds reached such great magnitude in less than a century remains unclear, but the local ecology must have been highly favorable for bovine reproduction. It is quite clear that because ships were small and few, only a limited number of cattle were transported in early colonial times (Rouse 1977, 24, 33). Indeed, it has been estimated that fewer than 1,000 cattle were brought to the New World (Rouse 1977, 43). How many of these animals arrived in Pánuco during the first half of the sixteenth century is unknown, however, the number can be inferred by examining information on trade. Although records of cattle imports are not available, records of slave imports do exist, and the rate at which cattle were exchanged for slaves is known.

Reinforcing the "Black Legend," Bishop Zumárraga claimed that between 9,000 and 10,000 Indians were removed from their homeland and shipped to the Antilles between June 1527 and June 1530. In his detailed assessment of ship registers, however, Chipman (1967, 212, 217) concluded that a considerably smaller number of slaves, 5,861, were taken. These slaves were not traded one for one. To begin with, each shipmaster received one third of the slaves to cover his expenses and make a profit. Furthermore, evidence indicates that Guzmán himself owned and profited directly from another third (Chipman 1967, 211). Such reductions mean that about 1,954 slaves were actually exchanged for livestock. As governor, Guzmán had the authority to set the exchange rate, and he placed it at 15 slaves for each animal (Chipman 1967, 203). At this rate a mere 130 animals can be estimated to have been imported into the Pánuco area by 1530. Complicating matters, however, is the fact that some of these animals were horses. To be conservative, it can be inferred that perhaps 100 of the imported animals were cattle.

The question now, of course, is whether or not 100 animals could have multiplied rapidly enough to result in a herd of 176,000 cattle within 90 years. Early reports of Spaniards in the area suggest that the answer is yes. For example, an observer in the [end p.5]

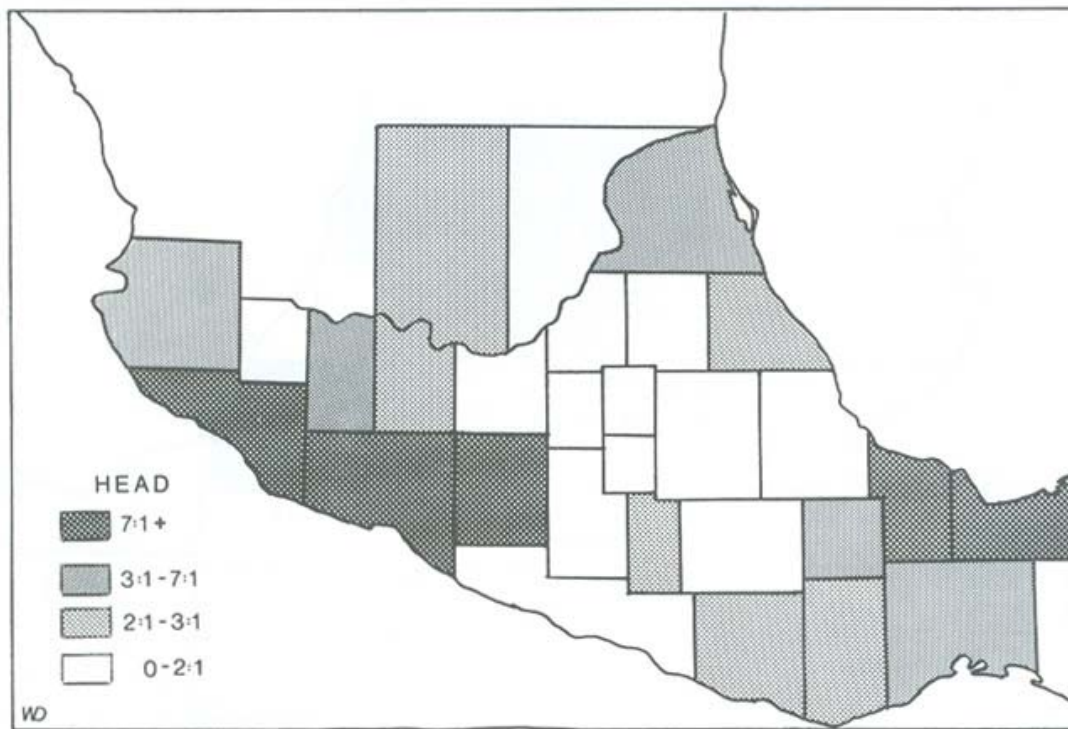


Fig. 5. Ratio of cattle to sheep in New Spain, 1620 (after Simpson 1952).

1540s, Muñóz Camargo, noted that in the Panuco region "cattle are being born and multiplying unbelievably; you cannot exaggerate their numbers" (Chevalier 1963, 94). For New Spain as a whole one Audiencia prosecutor claimed that "herds nearly doubled in fifteen months" (Chevalier 1963, 93). That herds increased is without question. The account of doubling in a little more than a year, however, seems inflated. Cows are physiologically capable of reproducing every 15 months. Calving at such a high rate, however, is extremely difficult even under the most optimal of present-day conditions. Furthermore, doubling at that rate assumes either that every animal bore a calf or that multiple births were common. Both of these assumptions are false. Accounting for bulls that should have constituted approximately half the herd, and single births, the number of cattle could not possibly have doubled in less than two to three years. Furthermore, losses by disease, environmental catastrophes such as floods, and predation by both carnivorous animals and indigenous people would have been great and indiscriminate. It is unlikely that such reductions would have involved only bulls. Accordingly, as many as one-fifth of the animals could have been removed from the herd each year (Jordan 1986, pers. comm.). Given such factors, it was still possible for the Pánuco herd to reach 176,000 cattle by 1620. Assuming a very conservative reproductive doubling rate of four years and a high cull rate of 30 percent (Table 1), the herd size determined by Simpson could have resulted from an importation of only 100 cattle by 1530.

The confirmation of large cattle herds on the east coast of Mexico early during the Spanish era now begs two questions. First, what evidence exists to suggest that these animals led to the establishment of open range cattle ranching in Texas, and did the practice originate in the Old World, and, if so, where?

### ON TO TEXAS

The introduction of cattle ranching into Texas has been, at one time or another, attributed to various people. For example, in 1721 Marqués de San Miguel de Aguayo brought cattle from his hacienda in Coahuila for the missions of south Texas, claiming "there were none in that land" (Forrestal 1935, 10-11, 57, 60, 65). Others argue on the basis of more detailed and less self-aggrandizing and biased sources than Aguayo's account, that cattle were herded into Texas with military explorations in the [end p.6] late seventeenth century. According to Fray Gaspar José de Solís (Dobie 1941,7), General Alonso de León left "a bull and a cow, a stallion and a mare" at each of the rivers he crossed during his attempt to locate La Salle's fort near the coast in 1690. Dan Kilgore (1984, 65) argues that this account is a myth and that most of de León's cattle were consumed by members of the explorer's entourage. He goes on to conclude, on the basis of his review of early eighteenth-century accounts by French explorers who preceded the Iberians into Texas, that cattle were not only present in the region, but that herds were quite large prior to substantial permanent Spanish settlement. These animals, it is claimed, preceded settlement by becoming feral and wandering northward on their own through Tamaulipas (Kilgore 1984, 64- 66).

Table 1. Cattle proliferation in Pánuco.

Year	Cattle Increase	30% Cull	Cattle Number
1530	100	0	100
1534	200	60	140
1538	280	84	196
1542	392	118	274
1546	548	164	384
1550	768	230	538
1554	1076	323	753
1558	1506	452	1054
1562	2108	632	1476
1566	2952	886	2066
1570	4132	1240	2892
1574	5784	1735	4049
1578	8098	2429	5669
1582	11338	3401	7937
1586	15874	4762	11112
1590	22224	6667	15557
1594	31114	9334	21780
1598	43560	13068	30492
1602	69084	18295	42689
1606	85378	25613	59765
1610	119530	35859	83671
1614	167342	50203	117139
1618	234278	70283	163995
1622	327990	98397	229593

Most scholars argue, of course, that cattle and the practice of herding cattle on open ranges originated in and diffused northward from the arid central highlands (Figure 1). There is no doubt that some animals and most settlers did follow this route. Certainly the missionaries who developed ranching into a prominent economic and cultural institution came this way. However, two important factors have been consistently overlooked in attempts to determine the origins of ranching in Texas: the sixteenth-century colonization efforts of Luis de Carvajal, and the role of horses.

In 1579 Carvajal, an experienced slave hunter from the Huasteca, received an *encomienda* and a royal commission to conquer, colonize, and govern that vast region known as Nuevo León (Gerhard 1982, 345). It extended from the mouth of the Pánuco River northward to approximately what is today the location of San Antonio, Texas. For a number of reasons Carvajal did not found any settlements until 1584 (Gerhard 1972, 213). In that year, however, he established his capital city of León, now the town of Cerralvo, Nuevo León, near the geographic center of his grant, and only about 35 miles from the Río Grande. This turned out to be a short-lived settlement, lasting only about 12 years, until the founding of Monterrey, the present-day capital of the state of Nuevo León (Jones 1979, 33). The early settlement effort was, however, important in that Carvajal, according to the stipulations of his grant, herded cattle directly from the Pánuco area in order to establish a livestock-raising industry in Nuevo León when it was initially colonized (Alessio Robles 1938, 101-109; Reyes 1944, 33). While it is not widely appreciated, or even recognized, Carvajal appears to have brought something more than just animals from Pánuco: he also brought a herding technique not known elsewhere in New Spain. This technique involved the

rounding-up of feral or semiferal cattle from horseback.

It is usually assumed that Spanish settlers throughout New Spain not only possessed horses but depended on them for the success of their subsistence activities (e.g., Denhardt 1975). Horses were certainly present in the area during colonial times, but the degree to which they were required has not been previously established. The common notion has been to link horses to the herding of cattle simply because both animals are known to have been used. In fact, however, horses were most widely used by nobility and others who were economically well-off (Campa 1979, 25). These people tended to be small in number and not engaged in the everyday working of livestock. Horses, in other words, were used most commonly for transportation purposes by the privileged few. Their role in everyday economic activities might well have been far less important than is commonly thought.

There can be little doubt, of course, that horses were widely used for working purposes in various places at various times. Indeed, they were used quite extensively early on in Texas. The accounts of using horses to drive cattle out of the brush and round them up are simply too numerous to list. Suffice it to say that horses were common in the area. Now, where did these horses come from? In his assessment of animal numbers in 1620, Simpson (1952, 73) [end p.7] determined that there were only about 500 horses in the area that extended from Querétaro to Zacatecas (Simpson 1952, 85), the area traditionally identified as the hearth of open range herding. In contrast there were approximately 10,000 horses in the Pánuco area (Figure 6). Although routes of diffusion northward have yet to be fully substantiated, it seems quite clear that Carvajal probably brought more horses into Nuevo León early on than did later settlers from the central highlands. Certainly the number of horses available was much greater on the eastern coast than in north central Mexico.

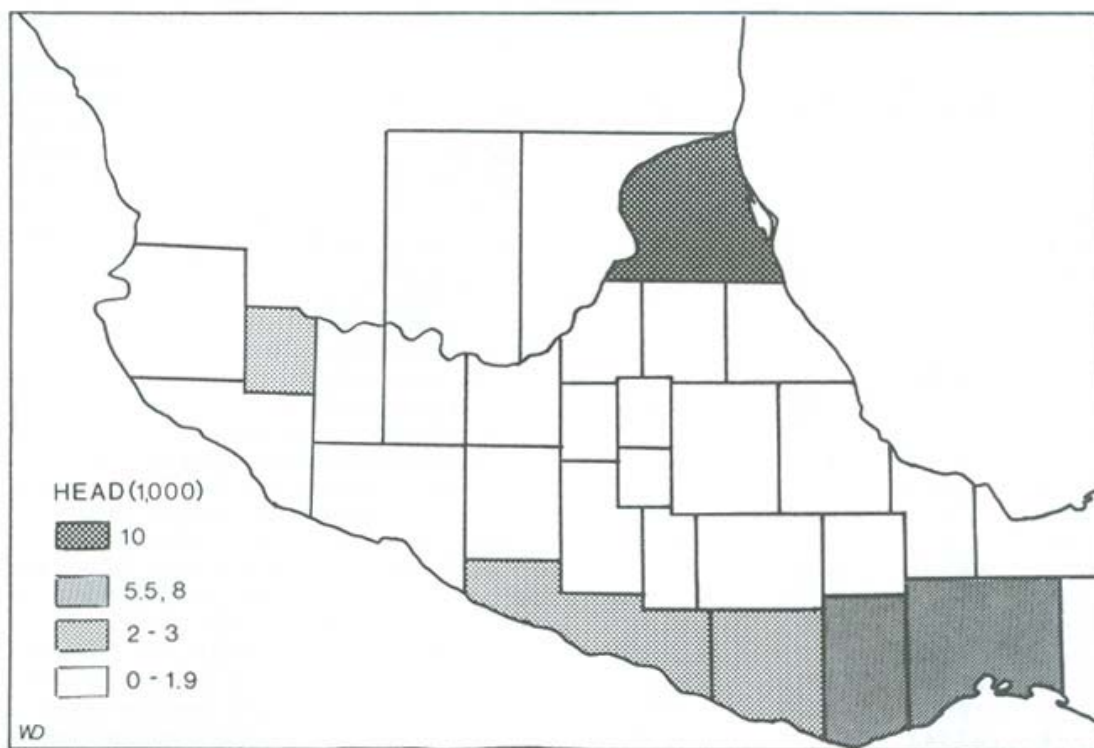


Fig. 6. Horse numbers in New Spain, 1620 (after Simpson 1952).

In sum, the herding of cattle from horseback, as it was later to become famous in Texas, began in New Spain in the Pánuco area (Figure 7). It was then carried north by Carvajal and his colonists to northern Nuevo León. From there cattle continued to multiply and the feral animals expanded their range northward, across the Río Grande (Bravo), into what is now Texas. Later settlers and, especially, missionaries from Zacatecas, Querétaro, and Saltillo were undoubtedly familiar with herding cattle before leaving their homelands in north-central Mexico. They were not, however, familiar with herding animals on horseback. This practice they learned from Carvajal's settlers near their new homes on the edge of the frontier. As Spaniards moved into Texas they quickly applied their newly acquired skills and began herding feral cattle that had already increased markedly in number.

The herding activities of Carvajal's settlers from the Pánuco region must, therefore, be considered the precursors of the practices employed later by the missionaries in the San Antonio River valley who raised open range ranching to the level of

an institution. The mixed economy involving cattle and sheep in the central highlands probably involved the herding of well-controlled animals on foot. This system was clearly not the forerunner of the ranching system used in Texas.

### MARISMAS ORIGINS

The practice of herding feral cattle with the use of horses was not invented in the Pánuco area, but appears to have been transferred nearly intact from Spain. Most researchers accept this fact, but they fail to take into account that the Iberian peninsula is an ecologically and culturally diverse region, not all parts of which were involved in open range herding by mounted men. Indeed, there is only one small part of Spain where such activities are found---the marshes at the mouth of the Guadalquivir River. In many respects this marshy area, Las Marismas, is similar to the environs around the mouth of the Río [end p.8] Pánuco on Mexico's east coast. Both areas are low-lying, grass-covered, and seasonally inundated. Historically, cattle have been driven into the Guadalquivir marshes in spring when the waters begin to recede and grasses sprout. They forage there largely untended until October or November when rising waters produced by the onset of the Mediterranean wet season force them out. The winter half of the year is spent in wooded hills surrounding the marshes. Often cattle were rounded up and kept in wooden corrals (Jordan 1986, pers. comm.).



Fig. 7. Route of transfer for the open range, horse-dependent cattle herding system.

The hallmarks of this herding system are the dominance of cattle, neglect of the animals, and horsemanship. Although some sheep and swine are raised in Las Marismas, cattle have traditionally been by far the most important animals. Given the nature of the marshes and the fact that rising waters often trapped animals and left them isolated from herders for months, ferality became one of the animal's behavioral characteristics. This tendency to run wild necessitated the use of horses. Indeed, Las Marismas is one of the few areas in Spain where cattle are the dominant animals and where horses have been historically important (Butzer 1986, pers. comm.).

Ecologically, Las Marismas appears to be the Iberian hearth for the open range cattle herding system that had its Mexican beginnings in the Pánuco area and reached its zenith in Texas. Migration data substantiate this hypothesis.

The 130 soldiers that Cortés left when he established Santisteban de Pánuco constituted all the region's Spanish settlers during the first half of the sixteenth century. Numerous slave and military ships did arrive in the area. It is doubtful, however, that landings by these vessels accounted for any immigrants. Living conditions were so poor in Pánuco that it seems improbable that anyone would have been attracted to the region in its early decades. Indeed, the population appears to have declined after the initial settlement founded by Cortés. Chippman (1967, 175-76), for example, estimated that there were only 70 Spaniards in the region in 1530. Later, in 1532-33, Visitador Gómez Nieto enumerated only 46 *encomiendas* (Chipman 1967, 292293).

Currently available data indicate that a significant proportion, between 25 and 30 percent, of the sixteenth-century Pánuco colonists came from areas near the Atlantic coastal marshes of Andalucía. In his studies of Spanish colonial demography, Peter Boyd-Bowman (1973, 1976) was able to identify the home districts of 743, or approximately one third of the earliest Spaniards who emigrated to Mexico. For the Pánuco region itself, he identified 68 individuals who entered with Cortés. At least 15, or 22 percent of these early settlers, were from towns around Las Marismas (Boyd-Bowman 1964, 248). This is a significantly large percentage of people to have come from such a small area. It might well be, however, that an even larger number was involved.

In Cortés's 1522 march to Pánuco he left 130 of 400 soldiers as settlers. In order to ensure the colony's success, he might have carefully chosen those most suited--those who had experience living near marshy environs. That the first settlers raised pigs is not surprising. Cortés himself was from Medellín in Extremadura where hog raising was important. Furthermore, hogs are extremely durable animals that not only fend well for themselves with little care, but are efficient converters of plants to meat. They are ideal animals to use during both exploration and colonization, particularly if forests are present. What should also not be overlooked is that when the colonizers had a choice, when the new Governor Guzmán arrived, they requested both cattle and horses. In all probability, the horses were intended for mounted herdsmen, in the manner of Las Marismas [end p. 9]

## CONCLUSIONS

This paper has presented evidence to suggest that, contrary to popular belief, the central Mexico highlands appeared to play a minimal role in the spread of open-range cattle ranching in northeastern New Spain, including Texas. The region might well have been responsible for the development of the sheep dominant, mixed herding system that was established in New Mexico, but additional research is needed. Also, work needs to be done on the origins and transfer of cattle ranching along the west coast of Mexico into Sonora and eventually California.

As in the case of colonial ranching in both New Mexico and California, more work needs to be done on the development of cattle herding in Texas. This paper has tentatively found parallels between herding practices employed in Texas and the Andalucían marshes. It has also found parallels between Las Marismas and the Pánuco region, where cattle were introduced early on. The exact degree to which the herding system used in Andalucían marshes was implanted in the Pánuco marshes has yet to be determined. Similarly, the link between what actually took place on the east coast of Mexico and in Texas requires additional investigation. Suffice it to say now that cattle connections between Spain and Texas involved Las Marismas and Pánuco, two areas previously given little attention in the origins and transfer of animal herding practices in the New World.

## ACKNOWLEDGMENTS

I thank my wife, Diane, for assisting me in the field during the spring of 1984. I also thank Terry G. Jordan and Karl W. Butzer for providing insight into Iberian environments and herding practices, and Martha A. Works and an anonymous reviewer for their most helpful comments.

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