MAKING SAN ANTONIO

The Story of San Antonio Manufacturing

by Joe Carroll Rust

A publication of the San Antonio Manufacturers Association

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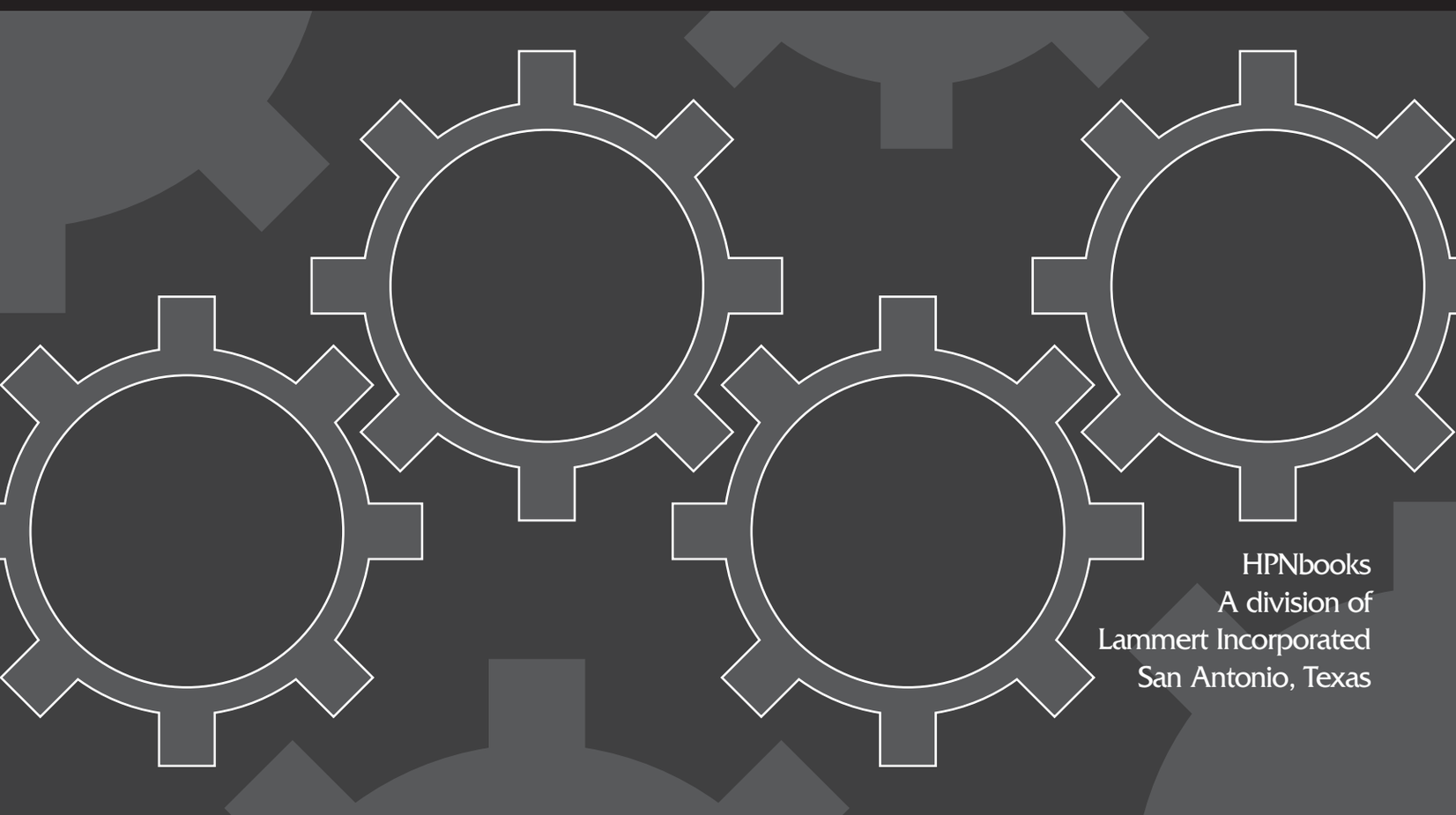

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FOREWORD

In the last century, the manufacturing industry in both the United States and in San Antonio has seen significant change take place. It has grown and retracted and then grown anew. It has evolved to meet regional as well as global economic and market changes. Throughout all of this, our manufacturing industry has remained a key element to San Antonio's economy. The products that are produced today in San Antonio are different than those made in the early 1900s. The advancement of technology has played a large role in this evolution, changing both the types of products made as well as how they are made. Manufacturing is no longer the labor intensive, dirty business of shoveling coal into a blast furnace. Today's manufacturers are highly automated, using computers to control large segments of the manufacturing process and robots to perform tasks too complex or hazardous for people to perform. With technology playing a large role in the evolution of manufacturing in San Antonio, the manufacturing industry has remained a key element in the growth of our community.

As you will see in this celebration of the 100th anniversary of the San Antonio Manufacturers Association, more commonly known as just "SAMA", manufacturing has evolved into today's high technology industry that is a mainstay of San Antonio's economy. Although San Antonio's manufacturing industry has been largely invisible to the general public, today's regional manufacturing industry is an economic powerhouse, currently contributing more than $30 billion annually in economic impact benefits to the community, leading all other business segments. As you will see on the following pages, our local manufacturing industry is very diverse, ranging from food to robots, furniture to aircraft, medical implants to vehicles, and everything in between.

We welcome you to this celebration of 100 years of SAMA's leadership in the development of San Antonio's manufacturing industry and its contribution to our community. It is our hope that you will enjoy learning of San Antonio's manufacturing heritage as much as we have in being part in its legacy.

Javier Garcia
2013 Chairman of the Board
San Antonio Manufacturers Association

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"WHAT SAN ANTONIO MAKES...MAKES SAN ANTONIO"

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This simple rock/concrete structure on the campus of the University of the Incarnate Word has profound significance. It protects the Blue Hole, the headwaters of the San Antonio River, a stream which has been a lifeblood for many manufacturing activities in the Alamo City.

CHAPTER 1

A Word Beforehand

San Antonio. They say she is the Alamo City, the Military City, the Mother-in-law of the Army, the Place Where the Sunshine Spends the Winter, the Home of Military Medicine.

But, a Manufacturing City?

No, many would say, but…

Yes, but.

To cite a fact sheet published by the San Antonio Manufacturers Association (SAMA):

> The manufacturing industry is a key sector of San Antonio. Although not an industrial giant, it is a significant contributor to the economy and provides many high-paying jobs.

San Antonio certainly is not an "industrial giant," a Chicago or a Detroit or a Pittsburgh, a home to large steel plants and supersized manufacturing plants. And, it is not likely the gentle folk of the Alamo City would want it to be.

But, San Antonio is a manufacturing city, and always has been, and the primary goal of the historical section of this book, *Making San Antonio: The Story of San Antonio Manufacturing*, is to raise the awareness of how manufacturing always has been, and continues to be, a key factor in forging the progressive economy of this major American city.

A study on the economic impact of San Antonio manufacturing commissioned by SAMA in 2012, covering the year 2011, in conjunction with the Greater San Antonio Chamber of Commerce, highlighted the tremendous boost to the local economy supported by manufacturing. At that time, the impact was $22.5 billion annually, excluding the positive impact of exported products, which would have hiked the figure to more than $30 billion as a multiplier effect.

Later in the book, this impact will be fleshed out in more detail. It is likely that SAMA will be commissioning a new study to show the continuing spiraling economic effect of San Antonio manufacturing, but it is not likely that study will have been published by the time this book is.

This book heralds the opening of the centennial of SAMA as the guardian of the rights, duties and importance of manufacturing in the area.

The impact study cited above points out that even though manufacturing has been a key part of the San Antonio story from the beginning, the 1,556 manufacturing companies in the greater San Antonio area "have been largely unnoticed by the general public," even though they "have made products critical to the regional, national, and world economies for decades," adding, "Virtually every segment of manufacturing is represented by the manufacturers within the San Antonio region, producing goods ranging from food products and power generation to satellite communications and autonomous robots."

In this starter book, it would be impossible to explore the stories of all the manufacturing operations in the area, and no attempt is made to do that. It is of concern to the author that recognition for many companies will have been left out, due to the lack of material on those companies or blind ignorance of the writer. For that, an apology is made up front. It is hoped that this book will be but the beginning for others to take up the flag of recognition of the many manufacturing firms in the area and tell their stories. There is but minimal attempt, with a few exceptions, in this book to explore the manufacturing prowess of manufacturing firms in nearby smaller towns, in areas such as wine, jewelry and hat making.

The book will speak of some manufacturing "firsts" in San Antonio, as the Alamo City has a rich history in other "firsts."

It should be noted that more than eighty percent of the manufacturing companies in the Greater San Antonio Metropolitan Area are small businesses, each employing fifty or fewer employees and account for the majority of the manufacturing employment in the region.

From the beginning, San Antonio has been a haven for small business, the home of operations which have upheld the American dream and the rich history and heritage of a city which now is listed as the seventh largest in the nation. San Antonio's population is recorded at 1,383,000, sandwiched between Phoenix and San Diego. The upsurge in manufacturing activity, along with the arrival of new bio-tech firms, has been a major factor in producing this impressive population figure.

This book is not a history book per se, even though the stories are played against the rich fabric of the history of San Antonio, part of which involves a river which has been a life stream for that history.

The book tells the stories of many unheralded heroes in manufacturing, people of a quiet pride, many who never had the financial and/or political means to ballyhoo their companies and products. There also are stories of major companies whose names became household in the Alamo City, some because they had the means to let themselves be known or whose products became so important in daily life, or both. The stories involve some of the first families of the city, but also many just ordinary Joes.

The history section of the book is organized "chronotopically"—that is, the story sometimes is told in a chronological fashion, but other times by topic.

Some of the companies cited some may not necessarily think of as manufacturing firms, as the very definition of manufacturing lends itself to expansion. For instance, some aspects of homebuilding might be considered manufacturing, even though this book does not explore the homebuilding industry, an industry which itself has its own sector organization. Some construction might also be a contender. Too, some service industries—laundries, for instance, might fall into a manufacturing definition.

Pinpointing just what is manufacturing is not a simple task, but Mike McIver, a former SAMA chairman, has penned a definition which seems to hit the mark. "Manufacturing," he says, "is the use of machines, tools and people (labor) to transform raw materials or sub-assemblies into finished goods for use or sale." McIver is the vice president for manufacturing for Pressure Systems International, a significant San Antonio firm which is the manufacturer of the Meritor, a tire inflation-system representing ninety-two percent of the large truck tire inflation operations in the nation. This firm is known worldwide for its operations, but has received scant recognition here.

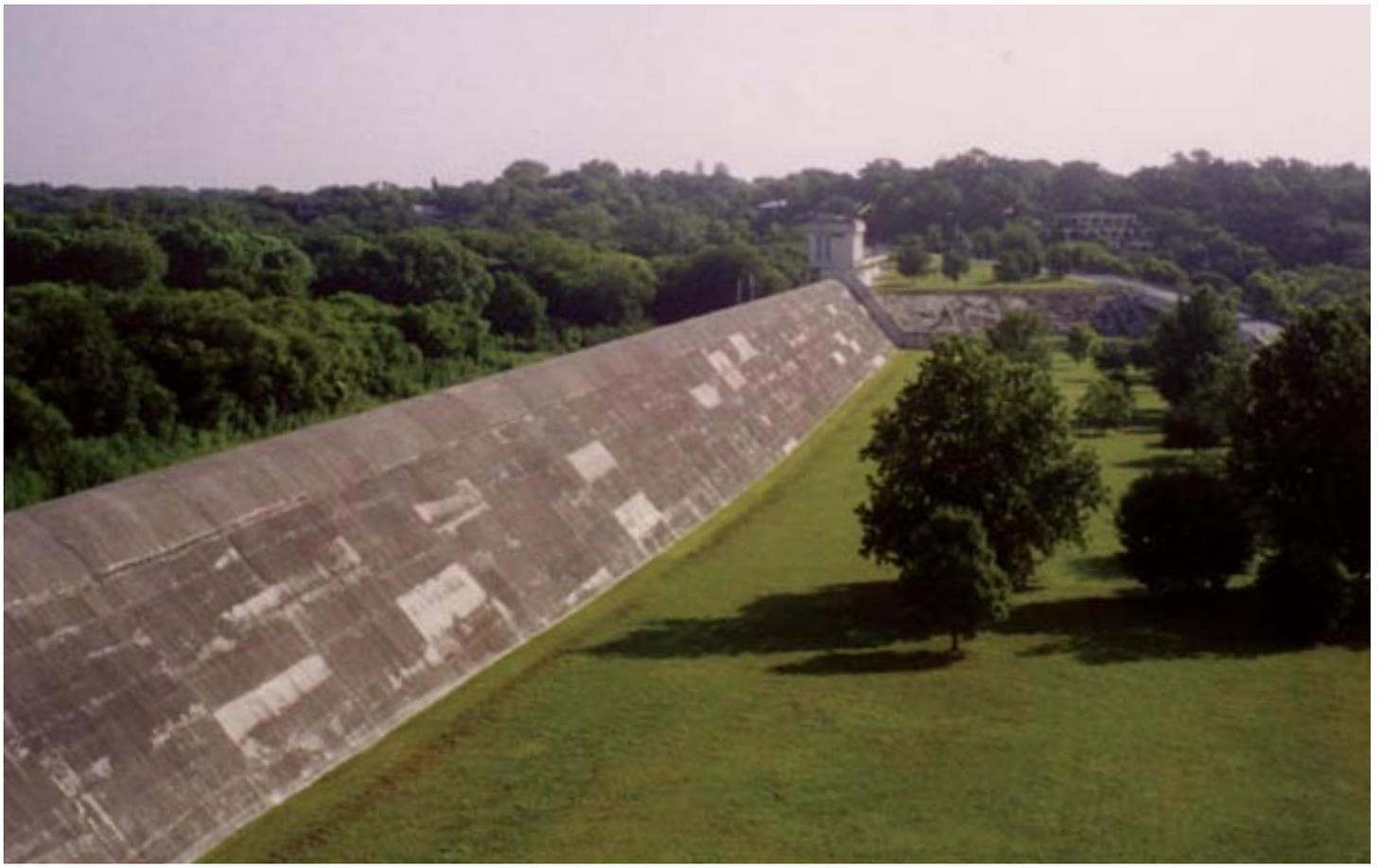
Producing the history section of this book has been akin to assembling a jigsaw puzzle, as there is no findable record of an effort ever having been made before to create a volume telling the story of so many significant companies in the Alamo City. At the same time, it has been an adventure which has produced a mosaic which the author hopes will be an inspiration to others to expand upon.

Hundreds of sources, some credited in this work, have been used in producing the mural. A key resource has been an insert published by the *San Antonio Express-News* on November 11, 2003, announcing the coming 90th anniversary of SAMA. That insert provided a handy list of so many manufacturing firms inaugurated in the Alamo City over the past 160-plus years.

Finally, this writer would be remiss if he did not credit the authorship of a simple, yet key, phrase, which explains the diversification of San Antonio manufacturing over these many years. Bill Cox, who is president and CEO of Cox Manufacturing Co., Inc., a major San Antonio company which as early as 1956 was producing bobbins required for computer memory and as early as the 1960s was supplying millions of clock stems used in mechanical automobile clocks, says:

> San Antonio always has been a community of craftsmen. The only thing which really actually has changed over all these years is that the craftsmen today are more technically skilled and more highly paid.

And, with that from Cox, also a former SAMA chairman, let us begin the story of how manufacturing has played its key role in making a great city.



The Olmos Dam in the Olmos Basin, where Native Americans trekked more than 10,000 years ago.

CHAPTER 2

How It All Began

The story of San Antonio manufacturing begins about 10,000 years ago during the Clovis culture in a fertile river valley in what now is north central Bexar County (Bexar being the home county of the Alamo City). There hunter/gatherers came to what is now the Olmos Basin, separating the suburban towns of Olmos Park and Alamo Heights and serving as the backdrop to "The Quarry Market," a commercial shopping mall carved out of a quarry in one of the cleverest adaptive reuse plans in the area.

These hunter/gatherers, who might be considered the first tourists to visit San Antonio, carried many Native American tribal names long forgotten by most. There is no evidence they ever established permanent residence in the basin, an area of rich vegetation and cool waters at the headwaters of a stream later to be named the San Antonio River. Nearby are massive rock outcroppings, later to be the source of building supplies for such projects as the Spanish colonial missions further south.

These peoples were primitive manufacturers, making stone tools with which they might, for instance, slay the mammoths of the area on which they might rely as food. It appears they were gentle folk on the most part, and some believe they even produced basic music instruments.

It appears that the descendants of some of these hunter/gatherers about 7,000 years ago did set up some permanent abodes in an area further south in an area along the river, near Leon Creek and the Medina River, near the southern border of the county.

Right: The Olmos Dam after its completion in 1927.

PHOTOGRAPH COURTESY OF THE *SAN ANTONIO LIGHT* COLLECTION, AT THE INSTITUTE OF TEXAN CULTURES AT UTSA.

Below: The Olmos Dam as it is today.

Opposite: An engraving of Rene Robert Cavelier, Sieur de La Salle, a Frenchman whose brief exploration in Texas touched off the Spanish expedition which discovered San Antonio for the Spanish, based on a painting by Leon Mayer, 1865, which was itself based on a portrait in Pierre Margry's Memoires et Documents pour server a l'Histoire des Irigines Franccaises des Pays d'Outremer. *Fortier, Alcee.* A History of Louisiana.

PHOTOGRAPH COURTESY OF THE INSTITUTE OF TEXAN CULTURES AT UTSA.

The names of these early tribes eventually melded one by one into the Coahuiltecan and Tonkawan peoples, those who laid the stones of the local Spanish missions and lived there. Some of these people were overtaken by the more-warlike Lipan Apaches and Comanches, tribes of Native Americans who never were "Europeanized" to become residents of the missions.

Those yearning to learn more about the early hunter/gatherers of the area might find additional information in hundreds of books on the history of San Antonio, including this author's *Historic Bexar County: An Illustrated History*, published in 2004.

It is likely that the first Europeans to encounter the area's Native Americans were commanded by Spanish conquistador Alvar Nunez Cabeza de Vaca, as he, in the 1520s, mapped rivers in Texas, a project which probably included the stream later called the San Antonio River. A later encounter might have occurred as the Spanish apparently camped at the headwaters of the river in the 1670s. These conquistadors claimed the land for Spain, but did not set up settlements.

Not until 1691, however, did San Antonio become a major player in the story of conquest of lands in the American Southwest by European powers. It all happened because a Frenchman, Rene Robert Cavelier, Sieur de La Salle, overshot his landing in the New World by 600 miles. After discovering the Mississippi River on his first voyage, he returned to establish a colony, but landed on the coast of Texas, rather than in Louisiana. He went ashore, claimed the land for France and built Fort St. Louis, to honor his monarch.

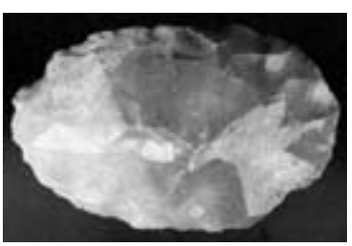
The Spanish, headquartered in Mexico, recognized the incursion of the French into Texas lands that Spain already had claimed as their own, but not colonized, and sent expeditions north to throw La Salle out. One of these expeditions arrived on June 13, 1691, at a river the Payaya Indians called Yanaguana, or "refreshing (sometimes called 'pleasant') waters" As it was a feast day of Saint Anthony de Padua, a Portuguese saint, the Spanish renamed the river the San Antonio. From that naming, a city which was to become the metropolis of San Antonio grew, sealing the proposition that current-day San Antonians would forever say "si," not "oui."

Other Spanish expeditions arrived in 1709 and 1714, and in 1718 the San Antonio de Bexar Presidio was chartered south of San Pedro Springs and a mission which was the first mission, later to be called the Alamo, was founded.

Above: Camp of the Lipans, *by Theodore Gentilz, shows the lifestyle of early Native Americans in San Antonio. These early hunter/gatherers were the first manufacturers in San Antonio.*

PAINTING COURTESY OF THE WITTE MUSEUM, SAN ANTONIO.

Below: This is an example of the kind of rock head hunter/gatherers might have used to construct tools.



Eventually, San Antonio was to have five Spanish colonial missions, making it the American city with the largest number of such missions. The Alamo was moved to the center city, where a new presidio was established, and then to its current location on Alamo Plaza (The Alamo officially is San Antonio de Valero). Mission San José, the "queen of the missions," was established, and the further incursion of the French from the east into Texas caused the relocation of three East Texas missions to San Antonio. They were renamed San Juan Capistrano, Espada and Concepcion. The missions were connected by waterways, aqueducts called *acequias* (not a Spanish word, but Moorish, from the Moors moving into Spain). Espada's stone aqueduct is the oldest of continuous use in the United States.

The SAMA fact sheet (also cited in the 2003 *San Antonio Express-News* manufacturing insert) notes:

> Under the guidance of missionaries, the Native Americans (those living in the mission quarters) were taught to work cloth, sew, tailor, quarry and forge materials needed for their existence. They also tanned skins, preserved meats and nuts and foodstuffs.

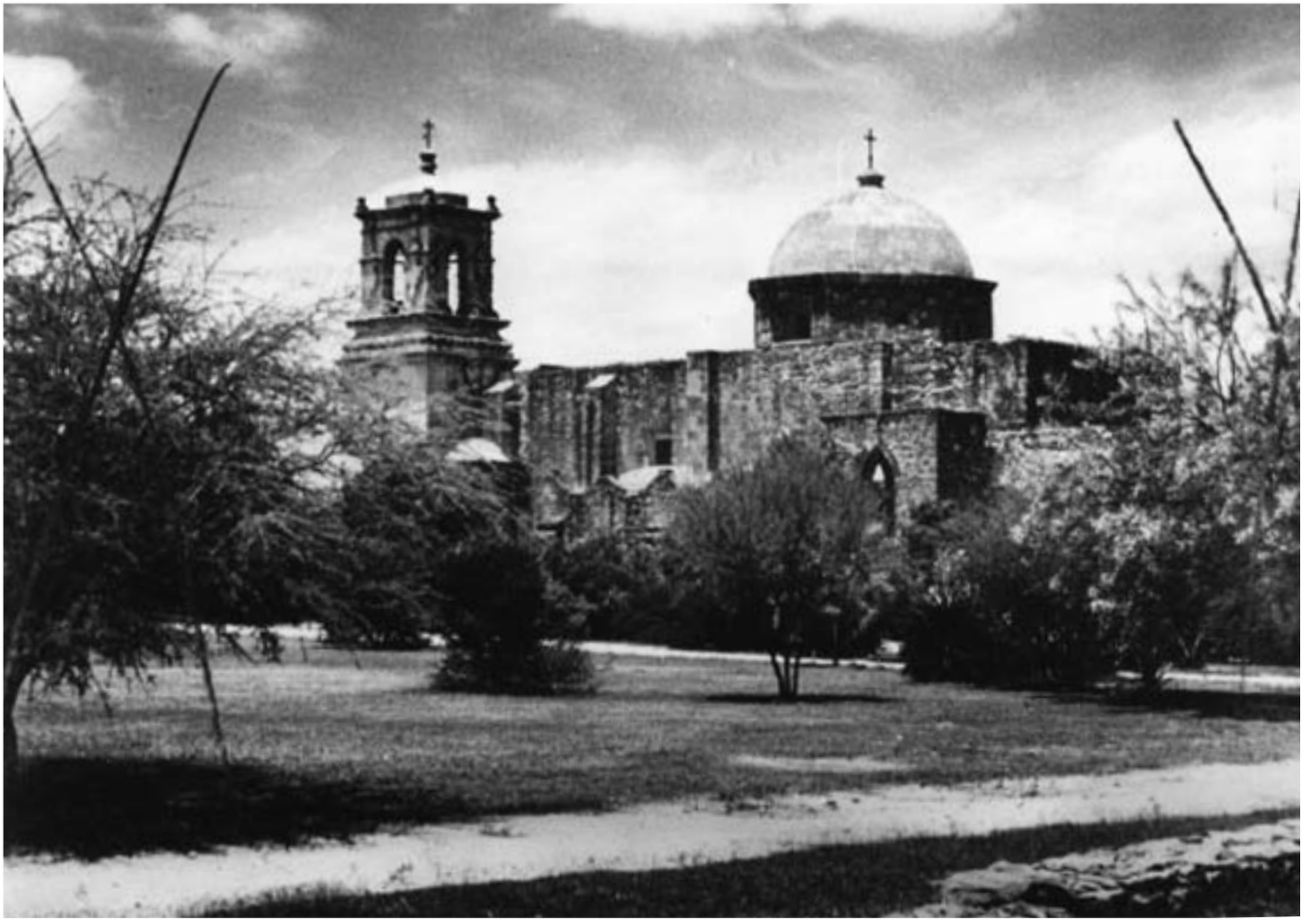
The Native Americans, under the guidance of the Franciscan monks in charge of the local missions, also worked in teaching the art of pottery making, and modern-day pottery from this mission experience still is popular. Some believe the Native Americans also produced some type of violin. As one of the publicized purpose of the missions

Left: This illustration is an elevated, partial cutaway view of a Native American residence at Mission San José, showing the production of crafts in the Spanish colonial period.

ILLUSTRATION COURTESY OF THE NATIONAL PARK SERVICE/ARTIST STEVEN N. PATRICIA.

Below: San José y San Miguel de Aguayo Mission, San Antonio, c. 1945. This "queen of the missions" was the site of a grist mill significant in early area manufacturing.

PHOTOGRAPH COURTESY OF THE INSTITUTE OF TEXAN CULTURES AT UTSA.



was to convert the Native Americans to Roman Catholicism, it is known that church music was brought to Spanish missions in the United States by the monks.

Milling also was a major activity at the missions, with the construction of both flour and sugar mills. At Mission San José, one of the major attractions is the renovation of the grist mill. Blacksmithing also was a mission activity.

Daily mission life is captured well in Lewis Fisher's *The Spanish Missions of San Antonio*.

Outside the missions, the Apaches and Comanches carried on their own manufacturing activities.

In *Our Catholic Heritage in Texas*, Carlos E. Castaneda describes how Apache warriors rode on saddles made of wood, had iron stirrups and used colorful shields made of tough hides. Their arrows were iron-tipped. These Native Americans owed a debt to the Spanish, who introduced the horse to them, allowing their mobility and survival.

The horse culture in South Texas, in fact, brought about the development of the *vaquero*, the Spanish cowboy. Long before the arrival of Roy Rogers, Hopalong Cassidy and the Cisco Kid, the *vaquero* made a normal appearance on the Lone Star scene. The *vaquero* was the key character in driving cattle from south of San Antonio and through the Alamo City and up El Camino Real to Nacogdoches and then into Louisiana, where the beeves were slaughtered and the meat provided to the Continental Army in its fight against the British in the American Revolution. This was a hundred years before the famous cattle drives of the late 1800s, when more than ten million head of cattle were moved along trails, including the Chisholm through San Antonio, to Midwest railheads.

The development of the cattle industry led to a market in leather goods produced in San Antonio, including saddles, chaps and pants. But, more on this later in the book.

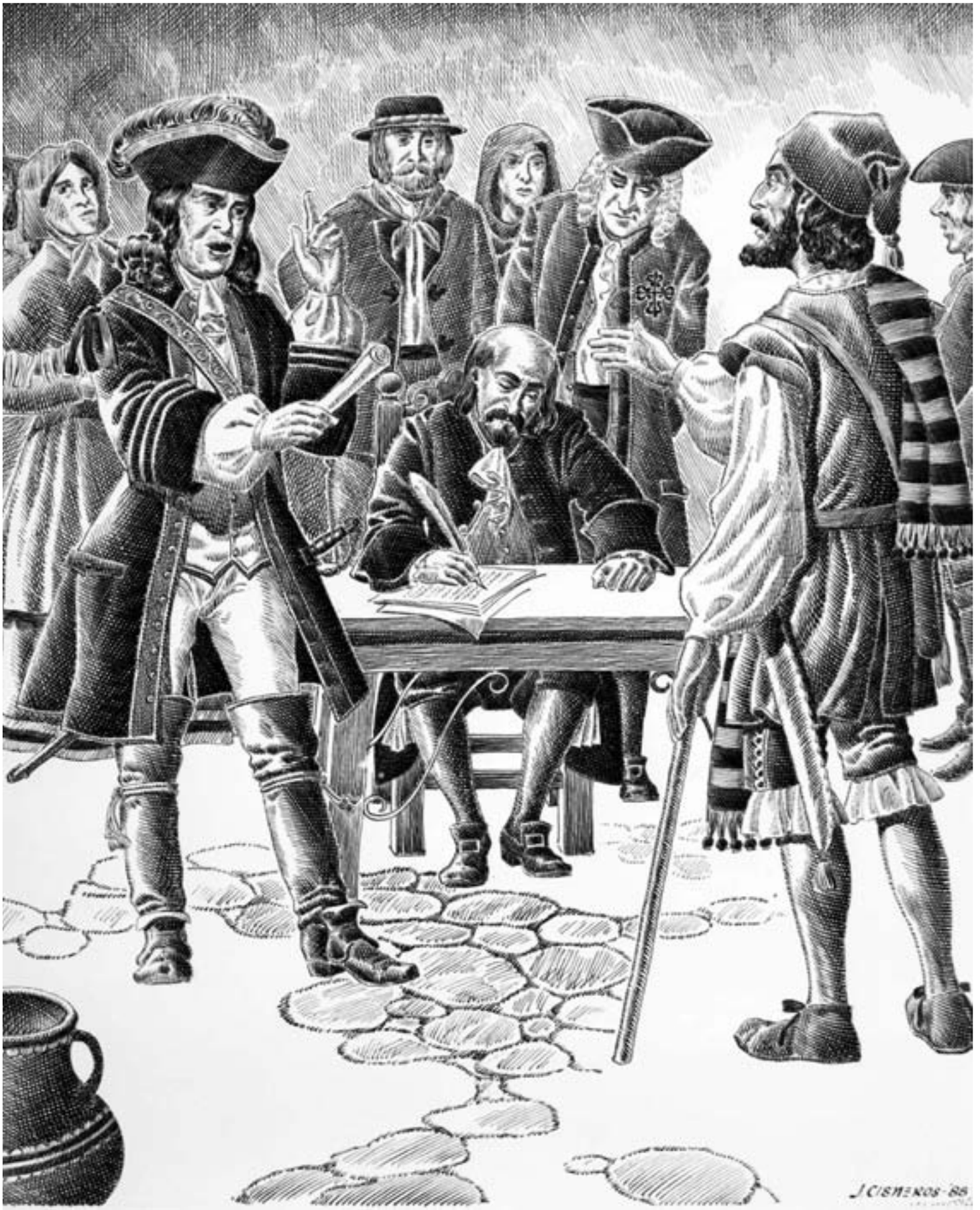
Beef processing also is a major element from the arrival of a new population in San Antonio in 1731.

While the Spanish colonial missions were being developed in San Antonio, the Spanish crown was making additional plans to

The plots of land for the Canary Islanders were laid out from the church.

PHOTOGRAPH COURTESY OF THE BEXAR COUNTY ARCHIVES.

This plaque in the plaza in front of San Fernando Cathedral, noticeably visited by the many pigeons in the area, honors the Canary Islanders.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cement the hold of lands in Texas. At the encouragement of friars and the Council of the Indies, the king was asked to issue a royal decree that a civil settlement would be established to accompany the Bexar presidio. In 1723, he issued such a decree, to dispatch a group from the Spanish-held Canary Islands off the coast of Africa to San Antonio. To entice the move, *el rey* offered the prospective settlers not only free land, but also each an honorary title of *hidalgo*, meaning "son of something," a term of lesser mobility akin to "sir" in England. Today, the Bexar County Commissioners Court awards the title of *hidalgo* to visiting dignitaries, making them part of San Antonio pseudo royalty.

In 1724 the band of travelers began their trip to the Alamo City, via Havana and Mexico City and Vera Cruz, then overland to San Antonio. It was a small group, most historians listing a cadre of 15 families and one bachelor, a total of 56 people.

The Canary Islanders arrived in San Antonio on March 9, 1731. They set up housekeeping as best they could and named their new settlement the villa of San Fernando de Bexar, honoring King Fernando II of Spain. They established a city council, the *cabildo*, the first civil government in Texas, and laid out their homes in a pre-arranged diagram around a Spanish colonial church they were to build and named the church San Fernando. Over time, it became a cathedral, becoming one of the oldest buildings in Texas and the longest continuously operated cathedral sanctuary in the United States.

Opposite: This drawing by Jose Cisneros in 1988 shows Juan Antonio Perez de Almazan, captain of the San Antonio de Bexar presidio, issuing a land title to one of the Canary Islander settlers, who established the first organized civil government in Texas and were manufacturers in many goods.

ILLUSTRATION COURTESY OF THE UTSA LIBRARIES SPECIAL COLLECTIONS WITH THE INSTITUTE OF TEXAN CULTURES.

Below: Spanish presidial cavalry soldier equipped in accordance with the Royal Regulations of 1772 for presidios of the frontier.

PHOTOGRAPH COURTESY OF THE FORT SAM HOUSTON MUSEUM.

The key: 1. Jacket. 2. Riding whip. 3. Carbine. 4. Pouches for food and water. 5. Lance. 6. Pistols. 7. Shields. 8. Boots with spurs. 9. Wood stirrups. 10. Carbine box.

THE DEVELOPMENT OF THE SAN FERNANDO CATHEDRAL FROM A MISSION CHURCH TO A CATHEDRAL – SHOWN ON PAGES 16 AND 17

Top: The cathedral, c. 1868.

PHOTOGRAPH COURTESY OF THE *SAN ANTONIO LIGHT* COLLECTION, THE INSTITUTE OF TEXAN CULTURES AT UTSA.

Middle: This image is from the 1880s.

PHOTOGRAPH COURTESY OF THE ZINTGRAFF COLLECTION, THE INSTITUTE OF TEXAN CULTURES AT UTSA.

Bottom: The cathedral and Frost National Bank on Main Plaza, in the late 1890s.

PHOTOGRAPH COURTESY OF THE INSTITUTE OF TEXAN CULTURES.

Opposite: The cathedral in 1978.

PHOTOGRAPH COURTESY OF THE ZINTGRAFF COLLECTION, THE INSTITUTE OF TEXAN CULTURES AT UTSA.