THE ESPADA ANCHA OR MACHETE OF NORTHERN MEXICAN FRONTIERS AND THE SPANISH SOUTHWEST FROM THE 18th THROUGH 19th CENTURIES

by Jim McDougall

At some time in about the mid eighteenth century in the rugged and remote Spanish colonial settlements and presidios of New Spain, a distinct form of heavy bladed short sword had evolved indirectly from the Spanish machetes used since the sixteenth century. In this paper we will discuss this evolution and some of the variations (figure 2) and characteristics of these, which have placed them as the most iconic examples of Spanish colonial edged weapons. It is also important to clarify that the proper term for these heavy bladed short swords was, in fact, always the colloquially used term machete and never the term espada ancha which is used to describe them today.

In the north of Spain in Basque regions, the working peasantry used the machete, which was a heavy bladed edged weapon between a large knife or a heavy short sword, for agricultural field work. These became readily suitable for use on the galleons sailing to the New World, with these serving well aboard these vessels for the necessary utility needs as required in addition, of course, as weapons. While typically known as machetes in Spanish parlance, in later years the term cutlass became a popular term for these and any heavy bladed sword used on vessels. This term became



FIGURE 1: A Californio vaquero, circa 1820 - 1830, with an espada ancha having the classic heavy blade form of the late 18th century in a typical saddle mount. Original artwork by David Rickman, illustrator and historian.

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Originally published in Svenska Vapenhistoriska Sällskapets Skrifter: Nya Serien XXXVIII, Stockholm 2023, pp. 101-120.



FIGURE 2: Grouping of espada anchas having the standard hilt styles with heavy blades seen throughout northern colonies in New Spain and the Borderlands from the 18th into the 19th centuries. The top example with a heavy blade is earlier; the second example in center has the blade with a slightly upticked point characteristic of the 1830s while the bottom example is shorter with a similar upticked point. These were the derisively called 'frog stickers' from about the 1840s. *Author's collection*.

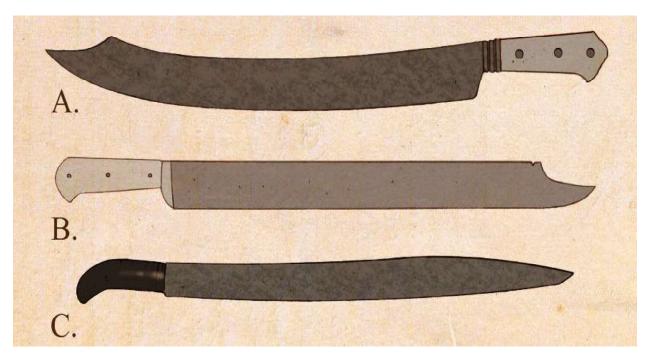


FIGURE 3: Spanish machetes dating to the early 17th century found on shipwrecks of Spanish galleons. A, the Atocha (1622) and B, the Maravillas (1656) both sank off the Florida and Bahamas coasts. C is a Cuban machete circa the 1750s. Artwork by David Rickman, after drawings in *Small Arms of the Spanish Treasure Fleets*, Noel Wells, 2006, examples A and B after illustrations by James Levy.

predominant in general maritime jargon, however colloquially they were still regarded as machetes in many Spanish contexts and references. Aboard the regular voyages to the colonies in the New World, these edged weapons found their way into the settlements there, and examples of their early forms (figure 3) have been found in the shipwrecks of the Spanish galleons Atocha (1622) and Maravillas (1656), off the Florida coast.¹ In addition to the machetes which were actually used on vessels, in Southwestern Colonial Ironwork (M. Simmons and F. Turley, 1980, p. 132) it is noted that in 1551 an inventory of goods from Spain shipped to the city of Puebla in New Spain included "...ten dozen machetes from Vizcaya." Vizcaya was a term for Basque country.

As the colonies in New Spain became settled the machete was, of course, a most important tool where it was essential for utility and as a weapon. While it is not clear exactly when the knuckle guard became an added feature of these heavy bladed machetes, it seems, of course, likely that the European hunting hangers often present on Spanish vessels with this feature may have been the inspiration. Many of these hunting hanger hilts also had a heart or scallop shell type langet which was downturned from the cross guard. While this feature was typically decorative, it also served pragmatically to secure the sword in a sash if not worn in a scabbard. It is notable here that the terms machete, cutlass and hanger often became interchangeably used, with the apparent commonality being their manner of use as chopping weapons.

As the Spaniards explored northward in the early 17th century in the regions of New Spain (now Mexico) the use of these heavy bladed



FIGURE 4: The Spanish regulation military sword M1728, typically known in English parlance as the 'bilbo' for the Spanish port of Bilbao, where Spanish swords and blades were often exported. These 'dragoon' broadswords used widely in the colonies were the source for the blades used in many espada anchas. *Author's collection*.

machetes was, of course, well known, but soldiers were typically required to primarily use the regulation type swords as shown in figure 4. These were broadswords, as technically the proper Spanish term espada ancha was used to describe them as double edged, and these were full length blades of usually about 33 inches. They were mounted with a heavy hilt with bilobate shell guards.² Though officially regarded as the model 1728 dragoon sword for mounted military forces, this actual form of sword was probably in use

¹ Small Arms of the Spanish Treasure Fleets, Noel Wells, 2006, Dallas, TX, pp. 67-68. The example from the Atocha (1622) is 20 inches overall; that from the Maravillas (1656) is 18 inches. The machete from colonial Cuba circa 1750 is 22 inches overall and is remarkably similar to the 'duckbill machetes' of Oaxaca, Mexico which continued well into the 20th century.

some years earlier. While, of course, these were designed for European style warfare, the soldiers in these rugged frontier regions were facing an entirely unconventional enemy. The native Indian tribes which they encountered were remarkable guerilla fighters, and against such tactics the sword was all but useless, becoming mostly a cumbersome annoyance in the perspective of the soldiers. In later years, the machete became more popular, though many soldiers had simply cut down the regulation blades for easier handling on horseback.³

In the seminal article on Spanish colonial edged weapons by Los Angeles County Museum curator Arthur Woodward, "Swords of California and Mexico in the Eighteenth and Nineteenth Centuries" (Antiques magazine, August, 1946), in referring to the Portola Expedition from Upper Mexico into Alta California in 1769, he notes, "...in the main the swords brought to California were quite short, frequently wide of blade and very heavy. The espada ancha or broad sword is mentioned as one of three offensive weapons employed by the first military in California (Miguel Constanso, Diario of the Expedition Made to California (1769) in the Spanish Occupation in California, San Francisco, 1934)."

In Woodward's article, in his reference to the espada ancha, he clearly means the regulation sword, as he states, of the three offensive weapons, "...some swords were of cut and thrust style, some were of the single edged type for slashing only. The latter were sturdily made and served as brush cutters quite as frequently as for action against an enemy." As the espada ancha described is the regulation sword, the second and third types must have been both the knuckle guard short sword and open hilt machete.

In the illustrations (showing these knuckle guard short swords) he describes these as from 16 to 28 inches in length (some have the dragoon type blades) and that they were "...known by a somewhat loosely used term as machetes, though in style at least they differed from the type called machete today." In a reference cited from a prominent Mexican charro he had interviewed, he describes carrying the machete attached to the saddle, and that "...some prefer to carry the sword instead of the machete."⁴

As Woodward has noted by inference that the espada ancha term refers to the regulation style 'broad sword' and that the heavy bladed short sword with knuckle guard was actually termed machete, we look further into how they became generally known in modern terms as espada ancha.

In 1965, Sidney Brinckerhoff and his colleague Odie Faulk wrote *Lancers for the King*, which was essentially a translation of the Royal Regulations of 1772 set by Carlos III of Spain for his colonies in New Spain. In this, translated from the original text on page 20, the authors

² These regulation arming swords were affectionately called *boca de caballo* allegedly by Spaniards, meaning 'mouth of the horse' for the ironwork guard system which was mindful of the horse bit. As these were typically shipped out of Spain from the Basque port of Bilbao, the English term 'bilbo' was used to refer to the highly regarded Spanish swords from the 16th century and the term became colloquially applied to these swords used by the Spanish military through the colonies from early 18th century into the 19th.

³ "still another weapon carried by the *soldado de cuera* (also by the light trooper) was a wide bladed sword (espada ancha). Although the regulations specified this was to be of the same style as that used by the regular army in Spain, the frontier troopers usually cut off the blade to a length of almost 18 inches for easier handling on horseback." From *The Presidio*, Max L. Moorhead, 1975, p. 190. In this reference the practice of actually reducing the length of regulation dragoon blades is specified, but does not specify these were in the locally made hilts.

⁴ "attached to the *mochilla* and lying under the left leg of the rider was a sword in its scabbard. At first it served as a weapon of defense and offense, but later it was found to be a most convenient tool for brushing out trails and there it was that the broader blade was preferred, the best of which were like the machete." *Californios*, Jo Mora, 1994, p. 110.

translate the original text in Spanish to English, " ... the weapons of the presidial soldier shall consist of a broad sword (literally, in the original Spanish text, termed espada ancha), lance, shield, musket and pistols; the sword must be of the same size and style used by other mounted men of my armies." As the words of the King note the sword should be of the same size and style of the mounted men universally used by his armies, this can only mean the regulation M1728 broadsword with heavy shell guard hilt. The subtle transference of the espada ancha term appears elsewhere in the book with an illustration of the knuckle bow guard hilt captioned as an espada ancha.

In 1971, Odie Faulk wrote The Leather Jacket Soldier in which he describes the equipment of the presidial soldier noting these being closely described in the Royal Regulations (of 1772), but he uses the espada ancha term as correctly used in the original text and inadvertently describes the heavy bladed machete in place of the intended regulation broad sword, as follows, "....first was the sword, listed in the Royal Regulations as the espada ancha. Generally translated broad sword, this referred to a short, wide bladed heavy instrument much akin to the modern machete. Most were manufactured on the frontier by local blacksmiths, so they varied considerably in length, width and weight. The length ranged from sixteen to twenty eight inches, but was generally twenty four inches, and it was one and three quarters to two inches wide."

Presumably in mind was the notion of 'ancha' meaning 'wide', rather than a 'broad' sword, which in proper connotation simply meant a double edged blade.

This classification became firmly emplaced with the publication of *Spanish Military Weapons in Colonial America* 1700-1821 by Sidney Brinckerhoff and Pierce Chamberlain in 1972, in which the section on swords includes these wide bladed knuckle guard short swords and their variations. Here they are classified as espada ancha, and while, of course, as we have noted, not properly termed, this term has become the generally held and used classification for these swords.⁵ Despite being technically incorrect, it has now become semantically convenient to use the espada ancha term to avoid confusion with the familiar open hilted agricultural tool well known as the machete.

At this point in discussion, we will continue to use the espada ancha designation to refer to the knuckle guard short swords as used on these frontiers by both soldiers and civilian ranchers and herdsmen known as vaqueros, as well as those examples often seen with the blades from the regulation broadswords of varied length.

The Forms and Variations

As has been discussed, the espada ancha short sword was typically mounted with a heavy blade, a knuckle guard hilt, which often, though not always, had a langet of either scallop shell or heart shaped shield style. We know that with the Portola Expedition in 1769, the example shown in figure 5 with a knuckle guard seems heavy but quite short.⁶ A similarly short and heavy espada ancha type is shown

⁵ The fact that Sidney Brinckerhoff had indeed effectively applied the classifying term *espada ancha* to these heavy bladed short swords with knuckle guards was told to Delaware based illustrator historian David Rickman some years ago. As we have noted, the term machete is the actual Spanish term used 'loosely' as noted by Woodward (1946) for these and the standard open hilted agricultural tool. Mr. Rickman, who provided the artwork included in this article, told me of this in personal conversations in late 2022.

⁶ In this illustration (figure 5) of two swords from the collection of noted caballero Don Antonio Francisco Coronel, the espada ancha at top was claimed to have been from the Portola expedition, while the bottom example is his personal sword with one of the dragoon blades fitted with a later hilt from the mid 19th century. The photo is used courtesy of the Seaver Collection for Western Research at the Los Angeles County Museum of Natural History.



FIGURE 5: Swords from the Don Antonio Francisco Coronel collection with the upper example an espada ancha believed to have been with the Portola Expedition of 1769. The full size sword below it is Don Coronel's from circa 1850s. Courtesy of Seaver Collections for Western Historical Research in the Los Angeles Museum of Natural History.

in figure 6, along with an example of a Sonoran form machete, possibly quite like those also on the Portola expedition.⁷ Clearly there were widely varying preferences for sword forms in the presidial regions of Mexico, and while the machete type heavy blade was typically preferred, in many cases the blades from regulation dragoon swords were used in these locally produced swords. It seems generally held that those mounted with somewhat altered regulation dragoon blades were produced in the later eighteenth century with the lengths of the blades varying, but often well exceeding the short sword definition with lengths often up to 28 inches. The example shown in figure 7b is one of these noted with

dragoon blade and bone hilt, and has the florally decorated heart shaped langet at the cross guard. It has provenance from Santa Fe, New Mexico and is most likely from the end of the 18th century. An example remarkably similar to this type is in the Los Angeles County Museum of Natural History and belonged to Don Jose Maria Avila who was killed in the small skirmish known as the Battle of Cahuenga Pass near Los Angeles on December 5, 1831. The sword was brought to Los Angeles by his father, a soldier from Sinaloa, Mexico in the 1790s. Clearly, many of these swords often remained in use in families through generations and the sword in the museum was believed to have been carried by him in that combat. We may presume, of course, from the origins of this heirloom example that the use of the dragoon blade retaining substantial length was popular in the northern colonial regions of New Spain and into Nuevo Mexico (Santa Fe). Espada anchas contemporary with the heavy bladed machete types are shown in

⁷ The illustration shown in figure 6 shows the typical reference to both espada ancha and machete the same, from the article "The Espada Ancha" by Charles Hanson, Jr. in *The Museum of the Fur Trade Quarterly*, vol. 14, no. 1, Chadron, Nebraska and used with their kind permission.

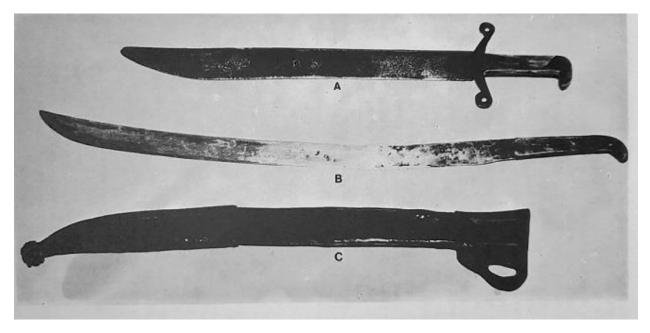


FIGURE 6: The machete/espada ancha of colonial style (top), and the machete proper of Sonoran type from 1760s into 1840s. From Hanson (1978, op.cit.) with kind permission of the Museum of the Fur Trade, Chadron, Nebraska.

figure 8. Often the dates applied to these swords are, of course, entirely speculative as local makers followed their own interpretations of style and features which defy consistent period assessment.

Returning to the heavy bladed machete form which became the namesake for the espada ancha term (= wide sword), a remarkable example of the classic form shown in figure 9 is believed to be from about 1800, also with Santa Fe provenance. An example of this classic form is shown being worn in the traditional saddle mount under the left leg of the rider as depicted in the remarkable illustration by David Rickman, in figure 1, of a vaquero of about the 1820s - 30s in Alta California. These types with very heavy blades were well known throughout these northern Mexico regions into New Mexico and California where they remained in use sometimes for generations. They were of course made by local blacksmiths and this work was noted by Simmons & Turley (1980, op.cit. p.177) describing that "...a specimen in the Museum of New Mexico shows evidence of having been forged from a plow point." The embellished features and motif on this classic example of the espada ancha reflects the pride and skills of the blacksmiths who made them, as with all their iron work. This more elaborate embellishment became less prevalent in the following years, and many hilts and blades lacked the distinct artistry seen in these classic forms from the end of the eighteenth century into the nineteenth, though still using horn grips and somewhat decorated plates over them. The original horn grips on this example are now gone and have been replaced with bone plates riveted directly to the tang.

While these forms of the espada ancha show us the evolved forms in the northern regions of Mexico and the Borderlands, it is important to look again toward forms of the machete which lent to the evolution of the espada ancha form. While the exact period and developmental stages are unclear, it seems likely to have been earlier in the eighteenth century in the regions around the viceroyalty in Mexico City and diffusing northward through the years as more regions were settled. As earlier mentioned, the heavy bladed machete type sword aboard Spanish vessels was used by sailors from the seventeenth century and, of course, into the eighteenth for



FIGURE 7: Examples with double-edged sword type blades mounted with typical espada ancha knuckle guards.

A. The 'Avila' sword used by Don Jose Maria Avila at the Battle of Cahuenga Pass near Los Angeles where he was killed December 5, 1831, as shown in *The Leather Jacket Soldier*, Odie Faulk and Sidney Brinckerhoff, noting the use of these 'dragoon blades in many of these.' The blade is 28 3/8 inches long with three short fullers. Also note the florally decorated shield langet similar to the hilt on example B. *Seaver Collections for Western Historical Research at Los Angeles Museum of Natural History*.

B. A late 18th century espada ancha with bone grip, floral shield langet and dragoon blade of 28 inches length with three short, narrow fullers as seen with the 'Avila' sword (A, above). From Santa Fe, but of a form known in Sinaloa. Author's collection.

C. An espada ancha, weighing 1 pound and 6 ounces, reputedly recovered from the area of Cuba, New Mexico along with an old horse bit. The mounts are solid silver, riveted over horn scales for the grip, and the langet and a portion of the knuckle guard are long lost. The blade is 25 3/8 inches in length and etched with celestial symbols of sun, moon and stars, not uncommon on trade blades of the era, presumably placed to imbue talismanic protective qualities. *Lee Jones' collection*.



FIGURE 8: Espada anchas with heavy single-edged machete type chopping blades. The example on the top, mounted in iron, weighs 1 pound and 11 ounces and has a blade length of 19 inches. The knuckle guard has been broken away while an intact semicircular guard extends only to the right. The bottom example weighs just over 2 pounds and has a $22\frac{1}{2}$ inch blade. *Lee Jones' collection*.

FIGURE 9: Heavy bladed espada ancha of late 18th century and Santa Fe provenance. The horn grips, now absent, are replaced with bone grip plates. This is the form shown in the illustration in figure 1, at the beginning of this article, of a vaquero circa 1820s with one strapped to his saddle. A detailed image of the hilt shows the beaded knuckle bow, serrated vertical lunette on crossguard and ringed quillon terminal. *Author's collection*.





FIGURE 10: An espada ancha/cutlass of mid eighteenth century from Spanish colonies from Florida to the Gulf of Mexico coast, perhaps as far as Vera Cruz. The horn hilt resembles many seventeenth century maritime cutlasses, but instead of the scallop shell guard, is has a simple guard with raised lunette at cross guard and open knuckle guard that does not reach the pommel. The heavy blade has astral symbols, as often typically seen on Solingen blades, but with a yellow metal flower design inlaid on the forte, in Spanish style. *Author's collection*.

shipboard utility as well as for combat and as well ashore in clearing vegetation and other utility functions. While Santa Fe in the North had other contacts from regions to the east in trade, it is, of course, possible that a degree of evolution there derived from the various types of hunting and military hangers that came in with traders in addition to the influences from the south in those caravans from Mexico City; however, the machete remains the strongest contender for the ancestry of the espada ancha.

The example shown in figure 10 may be a version of these machetes or cutlasses that may have had remarkable influence in the origins of the espada ancha, and this example seems quite likely to be from about the mid eighteenth century. It has an open hilt of horn, with a single upturned branch guard. While the blade is a heavy machete type, notably similar to those on many espada anchas, blades like these were produced by Solingen makers and often embellished with the cosmological symbols placed on blades, presumably to imbue talismanic protective qualities (figure 7c). What is most interesting is the inlaid yellow metal floral decoration, an affinity often applied to these early Spanish machetes and espada anchas that is seen later applied to augment the blade in Spanish style. While this example



FIGURE 11: The Potosi type single branch guard and turnback pommel. This is a distinct variation from the standard espada ancha hilt of northern Mexico and the borderlands and probably influenced the later pommels of zoomorphic theme on knives from Oaxaca regions. The full length view shows the short heavy blade with uptick point that became well known in examples of espada ancha from the 1820s into the 1830s. *Author's collection*.

has been attributed to Spanish colonies in Florida or on the Gulf of Mexico, it is tempting to include it perhaps in the port areas of Vera Cruz. Its resemblance to seventeenth century cutlasses with large scallop shell guards suggests the possible mid eighteenth century period in form but without the shell. While the hilt is essentially an open guard, the crossguard has a vertically raised lunette with ribbing, a feature often seen on many espada ancha guards, which adds to the potential of this possibly being a version of the espada ancha. As we know, these forms of espada ancha, cutlass and machete typically entered the colonial sphere in New Spain through the port of Vera Cruz, whether as used aboard the vessels or as the machetes arriving as goods from Spain. From there the diffusion of them would have moved into neighboring regions and, of course, northward with the conductas (supply trains) into the settlements and presidial locations of the northern frontiers and Borderlands where their use as both tool and weapon were essential. As previously noted, it is unclear at what point or where the knuckle bow guard was added to the well known machete forms, however it has become abundantly clear that the espada ancha as a heavy bladed short sword was quite separate from the open hilt agricultural tool with which it shared its commonly used name.

The example shown in figure 11 is the closest example of a form with potential regional provenance and is shown in the 1985 article by Bill Adams, "The Unique Swords of Old Mexico," referring to a form he suggests is from regions in San Luis Potosi and Guanajuato north of Mexico City. This form has the typical blacksmith forged blade but it terminates in the upticked pointed blade which evolved around 1830 leading to the term 'frog stickers' for espada anchas (as seen in two examples in figure 2), and with a pommel that turns downward to meet the top of the knuckle guard. This distinct pommel characteristic is quite contrary to the typical pommel cap which is part of the knuckle bow guard on the most familiar espada ancha forms. It does seem this turnback type pommel became known in later years on the edged weapon forms which were created in Guerreo, and in Oaxaca, where there was notable production of various forms of edged weapons produced well through the nineteenth century into the twentieth. This example has the branch type guard which began appearing at about 1810 - 20s in these regions with the forces of the insurrection that led to the independence of Mexico from Spain in 1821. While having only a single branch, these types of guards were becoming more directed to other espada forms with curved saber type blades and this example may have been adhering more to the simple guards on the espada anchas.

It seems that after 1800 espada anchas with short heavy blades had become popular and those with very slightly curved blades became notably present, as they began to meld together with the open hilt machete type into more of a combined form. It seems that these two sword forms had always run closely parallel and were used contemporaneously as required in the rugged circumstances of these colonial contexts. As shown earlier in figure 2, these examples of three espada anchas from the first half of the nineteenth century may illustrate a possible progression in blade forms, while the favored knuckle guard hilts remained very much the same, though typically less decorative . The blades seem to have remained heavy as locally forged blades tended to be, but many began to have more of an upward tick to a sharp point, as noted with figure 11, just as described and, as noted, derisively termed 'frog stickers'⁸, probably from these distinctly upturned points. Thomas James in 1822 saw two Mexican swords at Santa Fe and called them "a frog sticker called a sword" and a butcher knife called a sword.⁹ As previously noted, Santa Fe as a key hub for travel and trade provided a dynamic center for exposure to many styles and influences, with weaponry, of course, prevalent in many forms. In 1848 Lt. Brewerton saw riders in a trading caravan from New Mexico and declared that the 'old swords' they seemed to prize so much, and 'strapped under the leathers of the saddle' were not easily drawn with all the straps and knots, and worthless for battle even in close quarters.¹⁰

The examples shown and discussed here, of course, only show a fraction of the numerous variations of espada ancha which had evolved into the latter eighteenth century, and through the nineteenth with the form well established as an important combination of tool and weapon used by vaqueros, soldiers, traders and herders. While the accounts observing these in the previous entries are dismissive of the viability of their use, writer George Frederick Ruxton in his *Adventures in Mexico and the Rocky Mountains* (1973, p. 98) describes a battle where

⁸ As noted in Hanson (1978, op. cit. p. 10)

⁹ Cited in Hanson (1978, op. cit. p. 10) from Thomas James, *Three Years Among the Mexicans and Indians*, 1846.

¹⁰ George Brewerton, "A Ride With Kit Carson Through the Great American Desert and Rocky Mountains" *Harper's New Monthly Magazine*, August, 1853.

a rancher armed only with his 'little sword' and attacked by Comanches killed two of them before he fell with twenty arrows in him.¹¹ This sounds very much like the 'frog sticker' previously described and likely like the third example in figure 2.

As we have discussed, these rugged swords, a combination of tool and weapon, have become icons of Spanish Colonial edged weapons and culture, which likely had profound influences on the development of the American Bowie knife of the Plains and American frontiers. By the 1860s, the Mexican army had swords with heavy cutlass blades recalling early espada anchas while in the American Civil War, the large Confederate 'Bowie' knives are so similar in character to the rustic espada anchas that they are sometimes confused with them. Though, as shown, the espada ancha term has become their generally held classification in modern times (post 1972), they will always be known properly as the machete for the common tool/weapon from which they evolved, and for those very tools which served alongside them in so many instances throughout Spanish Colonial history with both sharing that name.

I would like to express my deep gratitude to illustrator and historian David Rickman for the outstanding illustrations he so painstakingly detailed for this article as well as for the key information on the term espada ancha and author Sidney Brinckerhoff's implementation in classifying these. I would like to thank Lee Jones for not only sharing examples of these swords from his personal collection, but for the years of collaboration in the study of them. The original paper he wrote served as an inspiration for me to complete this work, and appropriately his skilled editing and revising this for presentation here deepens my gratitude profoundly. With that, I express my thanks to Staffan Kinman of the Swedish Arms Society for his gracious permission to republish this paper.

SELECT BIBLIOGRAPHY

Adams, Bill, "The Unique Swords of Old Mexico." *Knives '85* (Northbrook, Il.: DBI Books Inc., 1984) pp. 21 - 24.

Brinckerhoff, Sidney B. and Faulk, Odie B. Lancers for the King. (Arizona Historical Foundation, 1965).

Brinckerhoff, Sidney B. and Chamberlain, Pierce A. *Spanish Military Weapons in Colonial America* 1700-1821. (Harrisburg, Pa.: Stackpole Books, 1972) p.74 - 77.

Faulk, Odie B. The Leather Jacket Soldier. (Pasadena, Calif.: Socio-Technical Publications, 1971).

Hanson, Charles Jr. "The Espada Ancha." Museum of the Fur Trade Quarterly 14 (1978) pp. 7 - 11.

Jones, Lee A. "Espada Ancha: Swords of Mexico and Spanish Colonial America." (1998) vikingsword.com/ ethsword/espadaan/index.html.

Simmons, Mark and Turley, Frank. *Southwestern Iron Work*. (Santa Fe, New Mexico: Museum of New Mexico Press, 1980).

Wells, Noel. Small Arms of the Spanish Treasure Fleets. (Dallas, Texas: Rock Bottom Publications, 2006).

Woodward, Arthur. "Swords of California and Mexico in the Eighteenth and Nineteenth Centuries." *Antiques* (August, 1946.)

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¹¹ Hanson (1978, op. cit.)