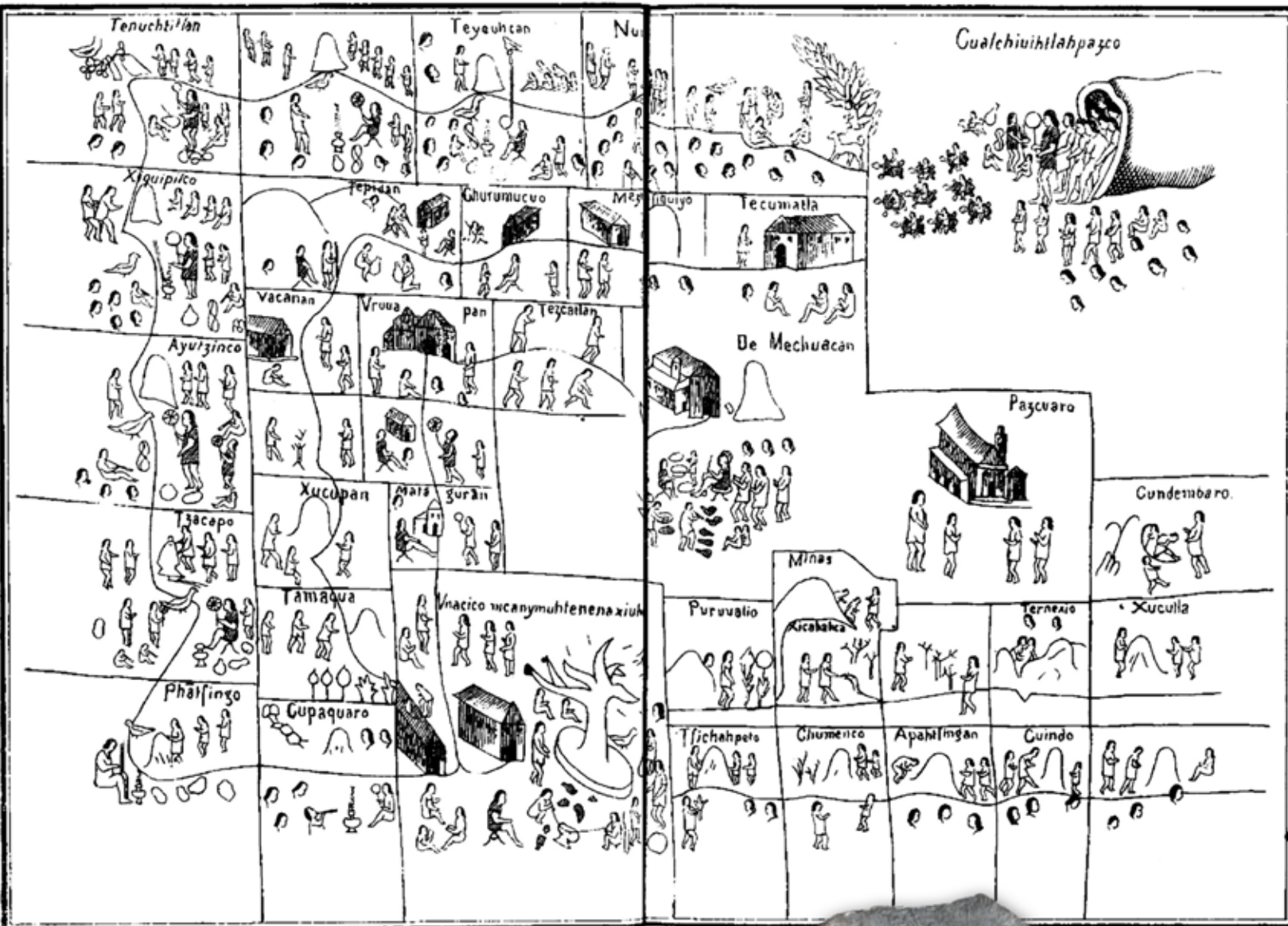


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## FROM THE EDITOR

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All but one of the articles in this issue highlight the importance of documentary evidence to further our knowledge. I am writing this in the state archives of Sonora – one of the two states that I collect – and feeling frustrated. Apart from the personnel, little appears to have changed since I was first here in 1991. They still actually rely on the same dog-eared typed inventory of *tomos* (volumes or boxes) and *expedientes* (folders) – and this for just some of their records (luckily mainly 1880 to 1925 so covering much of the period that I am interested in). When I was first here, supposedly because of worries about an employee, they had collected many of the ‘Moneda’ *expedientes* into one cardboard box, including samples of rare private issues. That box had disappeared by the time of my second visit and now even more has gone; often the ‘Moneda’ *expediente* is the only one missing from its *tomo*.

In 1991 I often just made notes, though I copied out the important texts by hand, and I have since transcribed them onto my computer, and added from other sources such as Manuel González Ramírez’ collection of typed transcripts, now in the National Archives. So I now have a better collection of original sources on my laptop than this State Archive. And more easily searched.

Which leads me to pondering deeper questions. What part can we, or the Association, play in the inevitable move from accessing physical records to storing information “in the cloud”? How can we avoid our research being isolated in its own bubble? How can we stop the needless reduplication of effort?

At the last count I had just over 3,700 Word pages of archival records, official gazettes (*Periódicos Oficiales*) and Mexican and American newspaper cuttings on Chihuahua and Sonora paper currency. Others will have their own accumulations. Is it all destined for the wastepaper basket?

Simon Prendergast  
simon.prendergast@lineone.net



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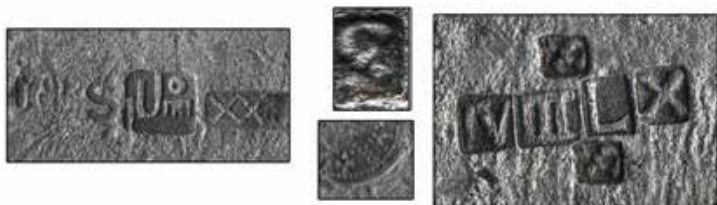
John C. Reynolds

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## COVER IMAGE \_\_\_\_\_

The backdrop is a line drawing of the Lienzo de Jicalán, a piece of cotton cloth, possibly produced to accompany a report about copper working commissioned in 1533 by Vasco de Quiroga. The drawings, using black and red pigments, depict strings of mining villages in the state of Michoacán, linked together by five separate routes that lead to a settlement called Xiuhquilan (now identified as Jicalán el Viejo), where smelting is clearly shown. Workers squat on either side of a fire and use long pipes to oxygenate the fire to ensure high temperatures.

The inserts depict a detail from the Xiuhquilan panel showing the two Indians smelting metal, and tumbaga bar M7. This bar, with a weight of 7.41 lbs and a size about 9 x 27 cm, is marked with two tax stamps and two different finenesses: IVIILX (1360/2400 = 56.7% pure) with control marks "&" above and below; and IUiiiXX (1420/2400 = 59.2% pure) next to an "S" and "YoBI3" (which could represent Juan Ibañez, a blacksmith who worked for Cortés in the mid-1520s). From the "Tumbaga wreck", sunk off Grand Bahama Island ca. 1528.





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# LETTERS

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Dear U.S. Mexican Numismatic Association,

Many thanks for your generosity with regards to my reward. I was very touched and am trying to figure out on where to hang my plaque when it arrives. Perhaps it would encourage other readers to venture out on an article of their own if you inform them that the monumentality of Mexican Numismatics allows not only the great and learned experts in the field to contribute, but also those of modest knowledge such as myself. There are more niches than the accomplished can explore.

Kim Rud

Fellow Association members,

Some of you may remember me from the article published in the October 2010 Journal about my ridiculous quest to acquire a complete set, by Series and Subseries, of the Banco de México Azteca Peso notes. Stated briefly, I set out to collect the complete series of 1,997 notes in 2003 assuming it would take a year or two to accomplish. When I presented the article in 2010 I was still in need of 241 notes to reach my goal, and now, five years later, I still lack 44 of them. Needless to say, at age 73, I am again in doubt of my sanity, but am still hoping to finalize the collection in this lifetime. If anyone out there can help, please do.

Below is the list of notes I am still looking for. If you have any of the Series/Subseries listed to sell please let me know by email, snail mail, or telephone. I am Jerry D. Fuller, PO Box 1546, Cortaro, AZ 85652, email: tocallo@aol.com, telephone: (520) 245-3643.

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CH-G	EM-T	FA-V	GV-B	HB-N	HU-W	HY-L	BDN-Z
CI-Q	EM-W	FZ-N	GV-U	HF-Y	HU-X	IR-M	BDP-L
EC-Q	EO-T	FZ-S	GX-R	HG-M	HV-G	BDB-U	BEA-C
EE-L	EP-A	GB-T	GZ-L				

Thanking you in advance,  
Jerry D. Fuller

# NEWS

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## Another commemorative coin

The Banco Nacional de México has issued the latest in a series of commemorative \$20 coins to commemorate the 200 anniversary of the 1815 death of generalísimo José María Morelos y Pavón. The coin has a diameter of 32mm and a weight of 15.945 gr. It is bi-metallic with a center that is 75% copper and 25% nickel, and an outer ring that is 92% copper, 6% aluminum, and 2% nickel.



## Elmer and Diane Powell Collection on the Mexican Revolution

Association Director Elmer Powell has donated a collection of memorabilia of the Mexican Revolution to the Southern Methodist University, Dallas. The university is scanning, digitizing and uploading the photographs in the collection, and so far 386 are available at <http://digitalcollections.smu.edu/cdm/search/searchterm/elmer%20powell/field/all/mode/all/conn/and/order/title/ad/asc/cosuppress/>

## Bill Rappanoti

It is sad to report that dealer Bill Rappanoti died on Christmas Day 2015. Bill started with a coin and collectibles shop in Houston, Texas, was a regular on the numismatic show circuit, and traded online and on Ebay as the Roamin Roman. He was living in Seattle, Washington area when he died but given a military funeral at Fort Sam Houston in San Antonio on 29 January. He is survived by his wife, Diane, four children and one grandchild.

## **"TUMBAGA SAGA"**

### **TREASURE OF THE CONQUISTADORES IN MEXICO**

by Agustín "Augi" García-Barneche

There was no way to anticipate the type of treasure the Marex company would find in the summer of 1992. No one—and certainly not Marex—was scouring the Bahamian shoals for a shipwreck carrying treasure of the conquistadors in Mexico.



The recovery by Marex of over two hundred gold and silver bars from a dispersed wreck site passed almost unnoticed in the archeological community.<sup>1</sup> These bars were sent to Florida for conservation by Douglas R. Armstrong, who immediately sensed the importance of these ingots and called them "*silver tumbaga*," referring to a metal that is a mix of gold, silver and copper, in this case primarily of silver. According to Armstrong, "*tumbaga*" was a word adopted by the Spanish from Indians in South America to describe a quasi-alloy of gold, copper and silver. It came to signify a low-quality alloy of gold and silver. Armstrong went beyond his assigned task of preserving the bars to undertaking a scientific study of them. His study, published privately in 1993, combined metallurgical analysis with a history of assaying practices in sixteenth-century Spanish Mexico.<sup>2</sup>

In April of 1993 a small portion of the bars were sold through Christie's auction house in London, but the sale attracted little interest.<sup>3</sup> Frank Sedwick, Ph.D., a Florida numismatist, purchased most of the lots; he felt that these bars were the earliest and

rarest silver bars ever salvaged from a Spanish shipwreck in the New World. Dr. Sedwick, Mr. Armstrong and a few other numismatists suspected that this group of "*tumbaga*" bars might be treasure that was being sent home to Spain by the first generation of conquistadors in the New World. Dr. Alan Craig, a professor at Florida Atlantic University and researcher for the Division of Historical Resources for the State of Florida, was quoted in the Christie's auction catalog as saying: "[This] material... has no equal in the museum collections familiar to me. It represents booty seized in some of the very first Spanish *entradas* into Indian territory.... These *tumbaga* bars are the actual physical evidence of these historic events that writers have written about for centuries, but never seen."<sup>4</sup>

Very few people took the opportunity to examine these remarkable bars before they disappeared into private collections in the 1990s. They do not resemble at all the treasure bars found on the *Atocha* (1622), the *Maravillas* (1656) or the 1715 Fleet treasure wrecks. Even with a cursory examination of the bars, it is obvious that they were made without, and probably prior to, official specifications. These ingots are an unusual and uneven mixture of metals hastily reduced into portable bars and show signs of a very primitive method of assaying and smelting, just what one would expect to find if the source of the precious metals was the silver and gold artifacts of native people. This was the legacy of Cortés, the conqueror of these natives, who probably never envisioned a smelting or minting operation. In addition, rivalries and internal dissention were as much of a threat to the Spaniards as to the confused Aztecs who questioned whether their conquerors were good or evil gods. The bars are fascinating relics of this era of conquest when the conquistadors rapaciously extracted loot from the Aztecs and other tribes like the Tarascans and hurriedly shipped it home to Spain as ingots. The recovery of the "*tumbaga*" bars, as they are most often called, has been one of the most important finds in the history of treasure hunting and furthers our understanding of very early Spanish colonial practices.

I first became aware of the Marex treasure about a decade after the London sale. Because I was already familiar with the gold and silver bars usually found on Spanish New World wrecks, I immediately recognized the "*tumbaga*" bars as something different. After reading Armstrong's monograph, I knew the bars deserved further research into their origin and history.

The story of the Tarascan conquest relies to a significant degree on *The Conquest of Michoacán 1521-1530*, written by J. Benedict Warren. Its original Spanish version was part of the collection *Estudios Michoacanos VI* and contains documentary information about the source of the silver "*tumbaga*" bars and also offers an explanation for the unique copper-silver alloy used in the bars. "*Tumbaga*" bars are much more interesting than later Spanish treasure bars for

1. For details of the company and logistics of the recovery, see article entitled "*Tumbaga Bars*" written by Bob "Frogfoot" Weller for *Treasure Quest* magazine (Vol. 9, No. 2, 15, March-April 1998). Marex subcontracted a boat managed by John McSherry in the summer of 1992 to find the *Maravillas* wreck, but in the process he discovered the "*Tumbaga*" wreck.

2. See Douglas R. Armstrong, *Tumbaga Silver for Emperor Charles V of the Holy Roman Empire*.

3. See Christie's, *Coins, Banknotes, Commemorative Medals and Treasure from Spanish Shipwrecks* (London, April 1993).

4. *Ibid.*, 27.

several reasons. The later bars were governed by rigorous regulations about how they were made and marked and how ownership was registered. While “tumbaga” bars have what at first seem to be indecipherable markings, by comparing them with later bars we find an explanation for some of these markings, specifically the different types of numeric stampings and codes. The major difference between “tumbaga” bars and later specimens is that “tumbaga” bars are not official foundry products. They were melted mixtures of precious metals and artifacts with a great variety in the fineness or purity of the component metals. In other words, each bar is unique.

### The Account of Bernal Díaz del Castillo

In Chapter 104 of his work *Historia verdadera de la conquista de la Nueva España*, Díaz del Castillo first alludes to the greed of the conquistadors, an issue addressed by Gómara as well.<sup>5</sup> Cortés asked Montezuma, lord of Mexico, for more gold and ordered him to collect treasure from other *caciques*, or leaders of the area. At first Montezuma balked at having to ask for treasure from others of lower rank, but, after some negotiations, persuasion and force, Cortés got his treasure. Then there was the problem of converting looted artifacts into a more portable and measurable form. Cortés had to melt down the artifacts into solid ingots or bars and then assay the fineness of the bars, and only after that could he pay the royal fifth that was shipped back to Spain. Significantly, from the same chapter we have a reference to the “tax stamp” used by Cortés and the first mention of melting treasure into bars:

*The cuño had the mark of Las Armas Reales like on a 1 real and the size of a Tostón de a cuatro. The fine jewelry pieces were not marked in order not to destroy them, and to weigh all the bars of gold and silver and the jewels we had to use weights or a balance, so Cortés thought that it would be good to make some scales of iron up to one arroba [equal to 11.5 kilos], with weights of one arroba, half an arroba, two pounds, one pound, half a pound, four ounces and others, and they were not very exact, but to the half ounce more or less. At each weighing that was done, the officials of the king said how much gold was in it, some [already] made into bars, plus the ores from the mines, and the pieces and jewels totaled more than six hundred thousand pesos, not counting the silver and other jewels which were not evaluated.<sup>6</sup>*

That process created its own set of issues because Cortés and his conquistadors did not even have an official seal or *cuño* to mark the bars to certify that they had collected the royal fifth for the king. At that time it was illegal to ship bars without this seal. Because Cortés had no silversmith traveling with him, the manufacture of the *cuño* in iron had to be undertaken by one of his blacksmiths.<sup>7</sup> According to Antonio Cortés,<sup>8</sup> Bernal Díaz del Castillo mentioned several times the blacksmiths of Hernán Cortés, but apparently no proper names were given. This fact makes us question the difference and importance that a *platero*, or silversmith, had compared to a blacksmith. The work also shows a plate with some of the different forged iron markings approved and used by the time of Cortés to mark livestock. The full plates of all 144 markings can be found in an official decree (Acta del Cabildo de la Ciudad de México) of 16 June 1529. What is interesting about these plates is that they show the complexity and style of the markings made by the blacksmiths, who in some cases had obvious silversmith ability. Of course these marks are not related to the bars, but they show what a common blacksmith could do.



*Some of the complex markings forged in iron by blacksmiths in the late 1520s*

### The First Foundries in New Spain and the Melting of Loot Seized by the Conquistadors

During the unstable period of the Spanish conquest of the Aztecs and Tarascans, a royal decree from Spain dated 14 September 1519, authorized Hernán Cortés to assay, mark and affix tax stamps showing that the king's fifth had been

5 “Cortés asked Tendile, an official of the Aztec king, if Montezuma had more gold. After his positive response, Cortés replied with this well-known statement: ‘Send me some of it, because I and my companions suffer from a disease of the heart that can be cured only with gold.’” Francisco López de Gómara, *Cortés: The Life of the Conqueror by his Secretary* (California: University of California Press, 1966), 58.

6 Bernal Díaz del Castillo, *Historia Verdadera de la Conquista*, 201.

7 As a reference the book *Hierros Forjados [Forged Iron]*, written by Antonio Cortés in 1935, is a very interesting source referring to the importance of a blacksmith at the time of the conquest. Blacksmiths had to execute the delicate markings for the tax seal, an accurate work usually done by *plateros* and assayers. Also Cortés ordered his blacksmiths to forge markings for branding natives as slaves.

8 Antonio Cortés, *Hierros Forjados* (México: Talleres Gráficos del Museo Nacional de Arqueología, Historia y Etnografía, 1935), 39.





*Florentine Codex (chapter 17) – Spanish and allies melting down loot (note the arm and leg in the foreground are just to show how the jewelry was worn and do not signify that they were physically cut off)*

Bernardino Vázquez de Tapia,<sup>13</sup> two other conquistadors of high reputation, were brought in to oversee the melting and assaying of the proceeds of the ongoing conquest by Cortés, an amount equal to more than 130,000 *castellanos*.<sup>14</sup> The royal treasurer was in charge of the taxing and receipt of the royal fifth. Naturally, this second Mexican foundry did not yield coins marked in the same manner as those made at the official mints in Spain.<sup>15</sup> Instead it produced small cut pieces of gold known as *tejos* or *tejuelos de oro*, or more commonly *oro corriente*, and silver pieces called *tejuelos de plata*, or more commonly *plata corriente*. These gold and silver pieces, stamped with the blow of a hammer, bore no resemblance to properly struck coins.



*Oro and plata corriente (and money chain link) – ex:Jorge Proctor collection.*

paid on the gold and silver gathered in great quantities in the wealthy Tenochtitlán area. To carry out this decree, Cortés used the palace of Montezuma's father as a foundry, effectively the first foundry in the territory of New Spain. From the beginning the Spaniards exploited the native manpower by relying upon the able and experienced silversmiths of Azcapotzalco, a practice which later permitted them to establish even larger and more elaborate foundries.<sup>9</sup> The technique used by these natives can be seen in this drawing from the *Florentine Codex*.<sup>10</sup> This technique consisted of using canes to blow into a pot in order to reach the proper temperature to melt the metal and pour it into a mold. This was not a perfect technique and sometimes it was necessary to repeat the heating process.<sup>11</sup>

According to Bernal Díaz del Castillo, the smelting of metals—specifically gold—was not new to the Spaniards, as many of those who followed Cortés to Mexico had seen the foundries in Cuba and Santo Domingo where *guanín*, a mixture of low-purity gold and bronze, was smelted.<sup>12</sup>

By 1521 Cortés had relocated the Spanish foundry to Coyoacán at the southern end of Tenochtitlán, supposedly requisitioning one of the rooms in his own house for the job. Changes to the operation and oversight of the foundry were put into place by royal decree in 1522 with the primary change being the addition of various foundrymen who helped to consolidate the administration and to create new posts relating to specific tasks within the foundry. Officials such as Julián de Alderete, royal treasurer in Tenochtitlán, and Alonso de Grado and

9 Román Beltrán Martínez and Ramón Beltrán Martínez, "Primeras casas de Fundición," *Historia Mexicana*, Jan.-Mar. 1952, 373-393.

10 The *Florentine Codex* is the name given to twelve volumes created under the supervision of Bernardino de Sahagún right after the Spanish conquest in the mid-1500s.

11 The process is described as "*soplando con unos canutos de caña*" (blowing with canes). See Francisco de Cárdenas y Espejo, Joaquín Francisco Pacheco and Luis Torres de Mendoza, *Colección de documentos inéditos, relativos al descubrimiento, conquista y organización de las antiguas posesiones españolas de América y Oceanía, sacados de los archivos del reino, y muy especialmente del de Indias. Competentemente autorizada* 42 vol. XII (Madrid: 1864), 260-268.

12 Francis Augustus MacNutt, *Fernando Cortés and the Conquest of Mexico, 1485-1547* (New York: G.P. Putnam's Sons, 1909), 17.

13 Lawrence Leslie Anderson, *The Art of the Silversmith in Mexico, 1519-1936*, 123.

14 Standard unit of value at the time (1 castellano=4.6 grams of gold at 23-3/4 karat).

15 Román Beltrán Martínez and Ramón Beltrán Martínez, *op. cit.*, 373-393.

According to the historian Lucas Alamán in his book *Disertaciones Sobre la Historia de Méjico* [*Dissertations on the History of Mexico*], by resolution of the council on 6 April 1526, all previous discs, gold ingots, *oro corriente*, *tejuelos de tepuzque* and (in some references and old documents) *oro de guanín* (“*tepuzque*” and “*guanín*” referring to low-fineness metals) were to be recalled within four years.<sup>16</sup> Low-purity gold like that found in *oro de guanín* had led to corruption and dishonesty at the foundry when pieces were incorrectly assayed or marked with incorrect fineness, resulting in a lower tax, or *quinto*. Alamán states that the *tejuelos* were to be returned to the foundry house to be exchanged for others with correct purity or fineness. The owners would pay the usual tax and assayers would correct the recorded fineness. These new pieces would bear a large, clear fineness mark so that there would be no doubt about their authenticity or their purity. Two overseers at the mint with good reputations among the locals, Juan Celada and Diego Martínez, were in charge of the re-assayed pieces of gold. As for the silver, Alamán states that inferior-quality silver was called *plata de tepuzque*, and in fact the name *tepuzque* remained in the local vernacular, applying not only to silver and gold but also to people and things having a “false gloss”. Despite the reputation of these pieces, they served as money in the absence of proper coinage and circulated as late as the 1550s.<sup>17</sup>



Coin-like gold “tejuelo”  
(Sedwick specimen, now  
in a private collection)

Until recently, no *tejuelos de tepuzque* were known to have survived the recall. The first of these surviving rarities, also from the “Tumbaga wreck”, surfaced in the original 1993 Christie’s sale in London, but no one recognized them for what they were. Outside the auction Dr. Frank Sedwick and his son Daniel Sedwick, also a professional numismatist specializing in Spanish colonial and shipwreck coinage and artifacts, acquired what they considered the best of the known cut gold pieces: a pentagonal chunk with all the prescribed markings bold and full, including a crowned “C” for King Charles and a fineness marking of “XV” followed by a column of three dots indicating 15¾ karats. This was also the most coin-like of the recovered *tejuelos*, as it was nearly exactly pentagonal in shape, about 7/8 inches in diameter, one-quarter inch thick, with sloping sides, markings on the top, and 23.8 grams in weight—almost exactly the weight of five gold *castellano* coins (at 4.6 grams per coin) or seven gold *excelente de la granada* coins (at 3.52 grams per coin). It was also the purest of the ten *tepuzque* gold pieces, as most of the others were somewhat copper-colored and one was clearly marked “VIII” for (only) 9 karats. Other examples in higher-karat gold were recovered from a later wreck, the so-called “Golden Fleece wreck” of ca. 1550.<sup>18</sup>



Small, coin-like cut piece of a gold  
“finger” bar, 28.5 grams, marked with  
fineness XXI and three dots (21-3/4K),  
from the Santa Margarita (1622).  
3/4” x 1/2” x 1/4”.

Later in 1526, a Spanish official named Luis Ponce de León arrived in Mexico with new seals to mark the gold and silver issued there along with a royal directive in which the king would consider establishing an official mint.<sup>19</sup> Several more attempts to establish a mint were considered in the ensuing years, and finally, in a decree dated 11 May 1535, and signed by Queen Juana<sup>20</sup> (mother to Charles), the new Mexican Viceroy Antonio de Mendoza<sup>21</sup> received authorization for the opening of a mint, and the first official mint of the Americas became a reality.

## The Tarascan Culture of Michoacán

The Tarascan state was an important pre-Columbian civilization of Mesoamerica. Its territory coincided approximately with the present-day Mexican state of Michoacán. The Tarascan capital was located at Tzintzuntzan, on the banks of Lake Pátzcuaro.

The name “Tarascan” (*tarasco* in Spanish) comes from the word “*tarascue*,” which means “son-in-law” or “father-in-law”. Its application to the pre-Columbian people of Michoacán seems to stem from some early marriages between Spaniards

16 Lucas Alamán, *Disertaciones sobre la historia de la República Mejicana, desde la época de la conquista que los españoles hicieron, hasta la independencia* (Habana: Imprenta de La Voz de Cuba, 1873), 218. Lucas Alamán was a controversial figure in 19th-century Mexico. A scientist, politician, historian, diplomat, and writer, he was conservative by nature and expressed a nostalgia for monarchic rule. He was an influential politician in the early years of the Mexican Republic and favored a strong central government. Alamán was also instrumental in creating the Mexican national archives. Along with its comprehensiveness, Alamán’s history is also notable for its favorable view of the Spanish presence in Mexico.

17 *Ibid.*, 113.

18 See lot 51 in *Treasure Auction #3* (May 29, 2008) by Daniel Frank Sedwick, LLC. This piece was described as a small cut gold ‘coin,’ with a fineness of 19½ karats, weighing approximately 14.2 grams, and measuring approximately ¾” x 5/8” x 1/8”. It was recovered from the “Golden Fleece wreck,” which sank circa 1550 in the northern Caribbean.

19 Pilar González Gutiérrez, *Creación de casas de moneda en Nueva España* (Alcalaá de Henares: Servicio de Publicaciones, Universidad de Alcalá, 1997), ensayos y documentos, 26, 75.

20 Note that technically Charles co-reigned with his mother Joanna, who was mentally unstable.

21 Mendoza was well acquainted with mint practice, having been, at one time, treasurer of the mint in Granada. See Wilbur T. Meek, *The Exchange Media of Colonial Mexico* (New York: King’s Crown, 1948), 96.



and the daughters of the Tarascan *caciques*. When some of their new family members were introduced to them as *tarascue*, the Spaniards mistakenly interpreted this as the name of the entire people.<sup>22</sup>

At the time of the Spanish conquest the Tarascan empire was the second largest territory in Mexico. Founded in the early fourteenth century, it was overrun by the Spanish in 1530 after a brief struggle that began in the late 1520s. The people of the Tarascan empire were mostly P'urhépecha or Tarascos in ethnic origin, but the empire also absorbed other groups such as the Nahuatl, Otomi, Matlatzinca and Chichimec. These ethnic groups were for the most part peacefully assimilated into P'urhépecha culture.

The Tarascan state was contemporary to the Aztec empire, with whom they were chronically at war and fought several major battles. Because of its relative isolation within Mesoamerica, the Tarascan state developed many cultural elements dissimilar from those of its Mexican neighbors and other Mesoamerican cultures. It was particularly notable for being among the few Mesoamerican civilizations able to work metal for tools and ornamentation. Tarascan metallurgy was a complex technology and a major source of wealth for the ruling dynasty.<sup>23</sup>

### **The Tarascan Conquest by Cristóbal de Olid in 1522 and the Link between the Metal of Michoacán and the "Tumbaga" Wreck Treasure**

Cristóbal de Olid was born in Zaragoza, Spain, but grew up in the household of the Governor of Cuba, Diego Velázquez de Cuéllar. In 1518 Velázquez sent Olid to Mexico to relieve Juan de Grijalva. En route to Mexico, Olid's ship wrecked in a hurricane and he barely made it back to Cuba. On 10 January 1519, Olid again sailed for Mexico, this time with Hernán Cortés' fleet, and arrived in time to take an active part in the conquest of Mexico. The "tumbaga" story begins in 1522, almost a year after the fall of Tenochtitlán, when Hernán Cortés sent one of his top lieutenants to Michoacán to conquer the Tarascans. Another objective of the expedition, according to Bernal Díaz del Castillo, was to get rid of some soldiers who were increasingly unhappy with Cortés and believed that Cortés had kept almost all the loot from the Tenochtitlán conquest for himself.

According to Cortés, the Michoacán expedition was undertaken because the Tenochtitlán loot had already been spent and divided, and he now had reports of new riches in the Tarascan Empire.<sup>24</sup> It is not hard to believe that Cortés had kept most of the treasure for himself and his circle of trusted friends because he was under a great deal of pressure. Not only did he have no way of knowing what new demands would come from Cuba or the king of Spain or other people involved in the conquest, but he felt that his responsibility as sole commander of the conquest was immense. He had to make crucial decisions for which he would be held responsible without any way to consult his superiors. The person put in charge of the Michoacán expedition was one of Cortés' best men, Captain Cristóbal de Olid. Olid had been at Cortés' side throughout their time in Mexico and was part of the conquest in Tenochtitlán. Before Olid was sent to Michoacán, Cortés named him captain-general of one of the three divisions of his army.<sup>25</sup>

The expedition was organized and ready to go by the summer of 1522. In July the troops were on their way to Michoacán. The size of the Olid expeditionary force was surprisingly small, according to Cortés in an unpublished section of the *Residencia de Cortés*.<sup>26</sup> The document lists all 174 Spaniards who went on the expedition. The list also records that there were Tlaxcaltecs (Spanish allies) who joined the expedition. Their total number is unclear and varies considerably according to different sources. Perhaps several thousand native allies accompanied Olid. The list was made at the end of the expedition in order to distribute the proceeds obtained from auctions of the gold, silver and the metal of Michoacán that the army brought back to Tenochtitlán.<sup>27</sup>

22 J. Benedict Warren, *The Conquest of Michoacan: The Spanish Domination of the Tarascan Kingdom in Western Mexico, 1521-1530*, 6.

23 Helen P. Pollard, "Political economy of prehispanic Tarascan metallurgy" (*American Antiquity*, 1987) 52(4), 741.

24 Hernán Cortés, *Cartas de Relación* (Mexico: Ed. Porrúa, 1979), 176.

25 J. Benedict Warren, *op. cit.*, 50.

26 *Ibid.*, 42-43.

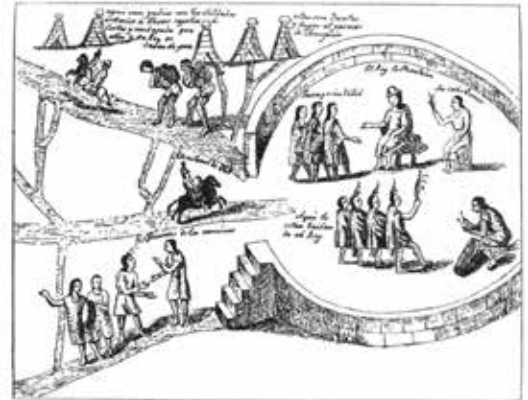
27 The list can be read in a modern Spanish version of *La Conquista de Michoacán* (1977) edited by Agustín García Alcaraz.



The only contemporary account of the Olid expedition is contained in *La Relación de Michoacán*, which is the story as told to an anonymous author by a Tarascan nobleman known as “Don Pedro” to the Spanish. According to his account the encounter with the Spaniards was peaceful and the Tarascans agreed to cooperate because they knew what had happened to the Aztecs and probably because Olid was not as aggressive as other captains. Some looting was reported but no atrocities, at least in the first encounter. The Tarascan army numbered in the thousands, but when Olid arrived the Tarascans chose not to fight.<sup>28</sup> Instead Olid was greeted peacefully and given several *ofrendas* (offerings). This is the first time that a Spaniard had a taste of the treasures of Michoacán, which had been hoarded generation after generation since Tarascans mastered metallurgy. The Tarascans not only knew how to work the metal to create spectacular pieces, they also knew how to melt and harden the metal and work in different alloys. They were even good miners.

The first reaction of the chief of the Tarascans, Caltzontzin, was to offer a peace treaty to the Spaniards. Caltzontzin then gave some treasure to Olid, but the Spanish wanted more and found several chests with diadems, shields, discs, half moons and all sorts of ornaments, including some made out of a soft metal the Spanish were able to cut in two with a sword.<sup>29</sup>

The Tarascans did not mention this treasure because it was dedicated to their gods and thus untouchable for other purposes. In *La Relación de Michoacán* the anonymous author said that as many as twenty chests of gold and twenty chests of silver and other metals had been hoarded, and the natives called these “*chuperi*.”<sup>30</sup> The Spanish seized these chests and divided them into forty *cargas* (loaded bags) to transport them more easily. Native smelting centers were located around the Tarascan area and close to the mines to make transportation easier. The smelting practice was not new for the Tarascans since they were used to smelting copper ingots.<sup>31</sup> The Tarascans also had other treasures deposited on an island in the middle of nearby Lake Apupato. According to the *Relación*, these treasures were put there by Caltzontzin’s great-grandfather, and on another island in the lake, called Xanecho, treasure was deposited by Caltzontzin’s father. On Xanecho the Tarascans had stored many shields or discs made from silver of a lower fineness; however, other items were reported to be of almost pure silver. The impure mix was achieved by hammering copper wrapped in silver, creating a “quasi-alloy”. A physical description of these treasures is hard to find and interpret, but hundreds of chests and discs and ornaments were mentioned in *La Relación* and the metal was described as *una plata no muy fina* (low fineness silver) or *plata baja* (low silver) or even *plata dorada* (golden silver), later also known as *el metal de Michoacán*.



From *Los Tarascos* by Nicolás León (1903), depicting natives carrying *cargas*

There is also mention of two other islands in the lake, each with more and more treasure. According to the account in *La Relación*, there was sorting or separation of the precious metals according to whether the Spaniards thought each piece was more or less pure or some sort of an alloy. There is other documentary evidence that the treasure was sorted according to quality before it was melted and cast into what we now call “tumbaga” silver. This may also explain some of the markings on the “tumbaga” silver bars, in particular what I call the “R” code.

According to accounts in *La Relación de Michoacán*, the Spaniards established a foundry in Michoacán, but an official inspection in 1525 exposed the fact that the locals were not paying taxes and were doing a poor job of assaying metals. To avoid being taxed, they sold precious metals directly to merchants who smuggled them out of Mexico. Additionally, slaves, natives and even the Spaniards themselves privately refined Michoacán metal to avoid taxation altogether. Rodrigo de Albornoz, a Spanish auditor and colonial official in New Spain, highlighted the problems at the Michoacán foundry in a letter to the king dated 15 December 1525.<sup>32</sup> He suggested the establishment of an “official foundry” in Michoacán where metals would be smelted and later shipped to Mexico City for refining. Because many of the “tumbaga” bars have two assay marks in different styles, they may have been subjected to a simple refining in Michoacán and a more professional, official refining in Mexico City at a later date, as suggested by Albornoz. This official report gives rise to the idea that our “tumbaga” silver bars may have been moved around Mexico surreptitiously for a few years before they were put on a ship that sank in the Bahamas. The theory that the “tumbaga” bars were composed of metals from Michoacán is supported by Hernán Cortés himself in letters he wrote to the Spanish king and emperor, Charles V, to inform him of his conquests in Mexico. These communications with the king were paramount to Cortés’ future in Mexico and beyond. In the fourth letter dated 15 October 1524, Cortés referred to his conquest of Michoacán and the unique mixture of silver, copper and gold for which that region was known.

28 Shirley Gorenstein, “Introduction” in *Tariácuri’s Legacy: The Prehispanic Tarascan State*, by Helen Perlstein Pollard, from *The Civilization of the American Indian* series, vol. 209 (Norman, OK: University of Oklahoma Press, 1993), xiii–xx.

29 J. Benedict Warren, *op. cit.*, 54.

30 *La Relación de Michoacán* Cap XXVI: “20 chests were seized by the Spanish, later split into 40 *cargas*”.

31 Helen P. Pollard, “Political economy of prehispanic Tarascan metallurgy,” *American Antiquity*, 1987, 52(4), 748.

32 J. Benedict Warren, *op. cit.*, 176.

## The Metal of Michoacán and an Overlooked Connection with the “Silver Tumbaga” Bars

The term “silver tumbaga” is not technically correct since true “tumbaga” was a quasi-alloy composed mostly of gold and copper. It has a significantly lower melting point than gold or copper alone, and that is probably the reason the Tarascans, after experimenting with the way to achieve a casting of this metal, came up with this combination.

According to Dr. Dorothy Hosler, professor of archeology and ancient technology and author of *The Sounds and Colors of Power: The Sacred Metallurgical Technology of Ancient West Mexico*, the Tarascan culture often used an arsenic-bronze to produce silvery-looking artifacts; however, pieces like discs, pendants and other ornaments were probably produced with a copper-silver alloy hammered into sheet-metal. This was a common practice in Michoacán at the time of the conquest and later. According to Benedict Warren, this new metal was called “the Metal of Michoacán.”<sup>33</sup> This hammered mixture of copper and silver sheets, which the Spaniards found hard to melt and assay, was the source of “silver tumbaga” bar metal. Most copper ores have some amount of arsenic, antimony, or nickel, which mix with the copper during smelting.<sup>34</sup> These alloys are still dominated by copper, but the alloy has a lower melting point than pure copper, allowing for easier melting and casting. We know that copper alloy is much harder than pure copper after hammering it. The Tarascans discovered this fact as well.



Lake Pátzcuaro and its islands



Mesoamerican metallurgy, one of the most varied and technically creative metallurgies of the pre-industrial world, was almost extinguished after the Spanish invasion.<sup>35</sup> Ironically, before almost destroying it, the Spanish exploited it. They reduced Tarascan treasure to bars by melting it in pots with a charcoal fuel while using some sort of bellows and then pouring the melt into simple molds. Several illustrations from Spanish colonial-era codices show this. This technique may be the reason why we find charcoal in some “tumbaga” bars. Certainly the temperature achieved was enough for the combination of alloys and metals. In order to work at lower smelting temperatures, natives were

learning to combine metals from different sources. No two “tumbaga” silver bars are the same; however, a few shared the same mold and are therefore similar in shape and weight. These molds may have been made of clay or even carved charcoal, and lasted at the most four or five times based on the study for this in my book: *The Tumbaga Saga: Treasure of the Conquistadors*. There are about ten larger bars, but most weigh four to five pounds. Some of the shapes are interesting, especially the bigger bars. There are some we call “patties,” round heavy ingots with a lot of imperfections on bottom and top, probably made in a soft-ground mold. Some long, wide, flat ones look more like surfboards. According to Danny Lee, a collector in the field, the molds for these “surfboards” may have been made on the ground by using a flat shovel, whose shape they perfectly match.

Aside from the unique shapes and weights, there are three general sizes of bars. So-called “bricks” are rectangular in form, like brick halves, usually below five pounds in weight and measuring approximately 8 x 18 x 2 centimeters. From larger molds came bars that are thicker and well formed, averaging six to eight pounds each. Finally, some bars are even bigger but flatter and range from nine to twelve pounds each. It is obvious that these bars were not made at an official foundry or establishment for melting and refining bars. Further proof of this unofficial refining and melting to make bars can be found in court documents at the trial of Cortés for malfeasance after his campaign against and conquest of the Indians:

33 J. Benedict Warren, *op. cit.*, 119.

34 Smelting is not to be confused with melting. Smelting is the process by which fire is used to extract metal from ores.

35 Susan Toby Evans and David L. Webster, *Archaeology of Ancient Mexico and Central America: an Encyclopedia* (London: Routledge, 2001), 455.

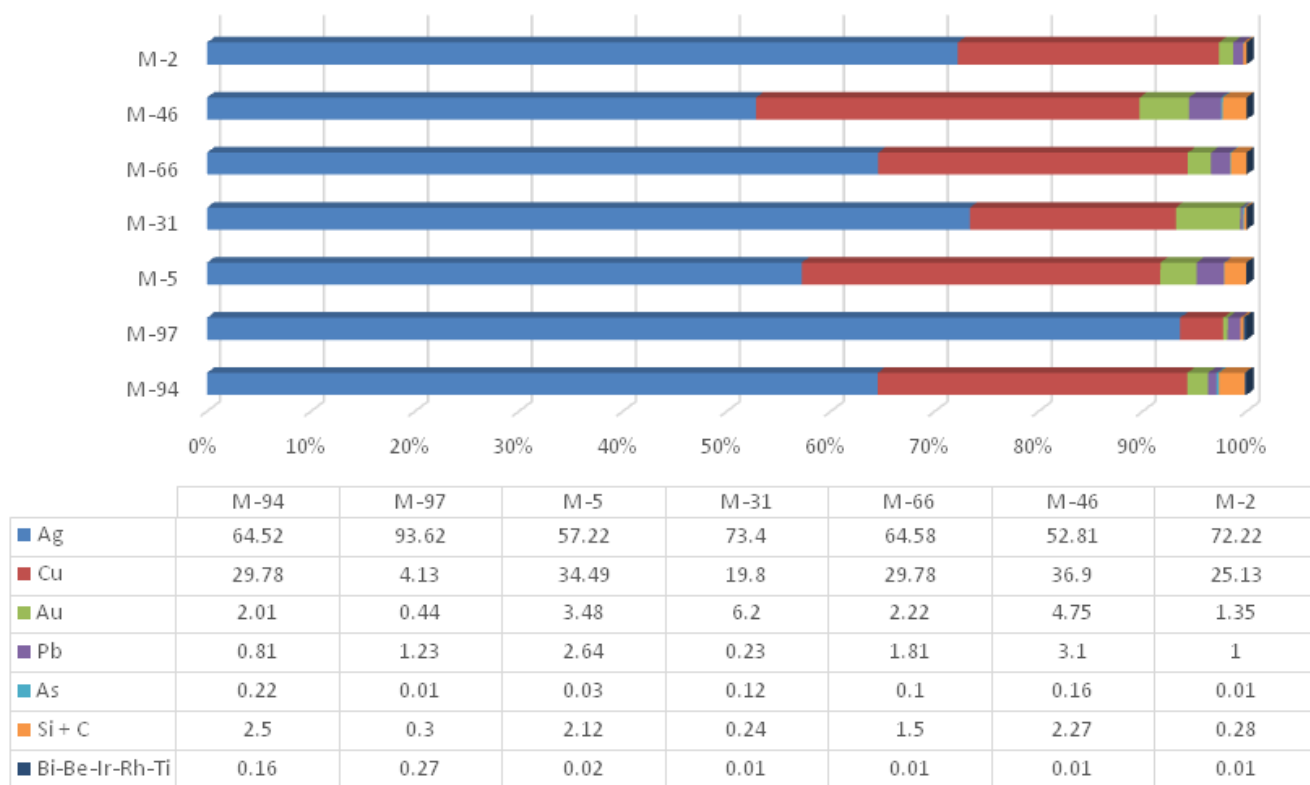
To the forty third accusation that was given, they had rreleras<sup>36</sup> and seals and foundries and marked gold and silver, without giving a quinto to His Majesty, which, it is said, seems to be because the seal had become too flattened and was no longer in Cortés' possession and because a lot of weights of gold were given from morning till night, and in the foundry they melted little gold; because it is said that some bars were measured and they were not made in the rreleras of the foundry.

## Metal Content

While “tumbaga” is by far the most popular name for the bars we are studying, and other names exist (like “Mimbres” bars, referring to the location where the wreck containing the bars was discovered), based on this historical research I feel a better name might be “Michoacán metal” bars. Even *plata de tepuzque* would describe at least the type of metal found in the bars, if not the exact mixture of alloys.<sup>37</sup>

Originally Marex contacted Dr. Adon Gordus of the University of Michigan to sample and analyze some of the bars by neutron activation method.<sup>38</sup> Unfortunately, the surfaces of the bars were clearly affected by their long immersion in sea water and showed an average difference with the Spanish assays of about 23%. Subsequent analyses of the bars by other methods showed the original Spanish assays were generally accurate—in some cases within 1% of the modern assays. The “tumbaga” bars salvaged by Marex are mostly silver rather than copper. A later study of gas chromatograph<sup>39</sup> analysis done with NASA-grade equipment in 1993 showed the exact ratios of metals found in seven of the Marex bars, which Armstrong denoted with M- numbers.<sup>40</sup> The amount of gold is low, something readily apparent from visually examining the bars, but generally higher than each of the other trace metals.

Gas chromatograph analysis (credit Lou Ullian, Douglas Armstrong)



36 Now spelled *rielera*, this denotes a mold used to make bars of melted metals like gold or silver. This passage is translated from *Unpublished Documents relative to the Discovery, Conquest and Organization of the ancient Spanish possessions in the Americas and Oceania taken from the archives of the kingdom and very especially from the one of the Indies competently authorized*, Vol. XXVII (Madrid: Imprenta de Manuel G. Hernández, 1877).

37 Lucas Alamán, *Disertaciones sobre La Historia de Méjico, Tomo I* (Mexico, Imp. De V Agüeros, Editó, Cerca de Sto. Domingo N° 4, 1899), 217-287.

38 Douglas R. Armstrong, *op. cit.*, 22.

39 Chemical analysis instrument for separating chemicals in a complex sample.

40 This analysis was done with the help of Lou Ullian, formerly of the Real Eight Company and for many years a contractor for NASA.



Note this analysis did not show any traces of mercury, known to be used for refining metals.<sup>41</sup> As we can see from the table, most of the bars sampled show a large amount of silver, ranging from 52% to 93%. The wide range of silver content poses a problem. Why is one bar (M-97) over 93% silver when the others average in the low-60% range? One explanation is that a chunk of native silver was used exclusively for the M-97 bar.



Embedded chunks of pure copper in "tumbaga" bar # M-83

## A Study of the Markings and Bar Types

Example of a "tumbaga" bar assayed twice:

- 1 Partial tax stamp
- 2 Fineness stamp (modified Caroline style)
- 2a) Possible owner of the bar or quality-controller Ibáñez (I°BI3)
- 2b) Distinct punch for Modified Caroline style fineness
- 3 Fineness stamp (Roman square style)
- 4 Assay cut ("bite"<sup>42</sup>)
- 5 Partial tax stamp



The royal tax stamp, or *quinto*, was a critical element added to each "tumbaga" bar after its creation. It ensured that the bar had been legally registered and a tax had been paid to the king for its creation. Most bars display several tax seals, all of which are incomplete. The partial (versus complete) impressions of the tax stamps markings is perhaps explained by the fact that the Spaniards did not want to submit the punches to excessive wear and tear (since these punches, fabricated mostly by the local blacksmiths, were of only average

durability). Hence, only partial seals are visible, making the study of this element difficult. The *cuño*<sup>43</sup> mentioned in depositions by Cortés during his trial probably refers to this early tax stamp, a temporary improvisation until an official stamp came from Spain. The official Spanish stamp was later recorded as having the design of a shield with two snakes around the Pillars of Hercules with sea waves below and the legend "Nueva España,"<sup>44</sup> evidently quite unlike the crude unofficial stamp Cortés used.

Below are two renderings of the early tax stamps on "tumbaga" bars. On the left is a composite of several different photos of actual tax stamps, and on the right is a digital rendering of a tax stamp created by Ernie Richards.<sup>45</sup> The legend on the tax stamps was either CAROLVS IMPERATOR or CAROLVS QVINTVS IMPERATOR, although in this study of the "tumbaga" bars only the former was evident. It is known that there were about a dozen varieties of punches for the tax stamps.<sup>46</sup>



Another important element on the "tumbaga" bars is the marking for fineness. Four different styles of fineness stamps were used on these bars: Common Caroline, Roman Square, Modified Caroline, and Italic Caroline. (The example bar pictured above shows two different fineness stamps, Modified Caroline style and Roman Square style, but most bars were not stamped twice like this.) Of the 194 bars studied for my project, about 58% of them were stamped with the Common Caroline style, 22% with the Roman Square style, 18% with the Modified Caroline style and only 2% with the Italic Caroline style.<sup>47</sup>

41 According to *Encyclopedia Britannica*, Bartolomé de Medina developed the "patio process," a complex amalgamation procedure utilizing mercury, while mining in Mexico in the 1550s.

42 Known as *bocado* in Spanish.

43 Tax stamp die.





44 Lawrence Leslie Anderson, *The Art of the Silversmith in Mexico, 1519-1936*, 286-287.

45 *Plus Ultra Newsletter*, Vol. 2 Nr. 2 (En Rada Publications, FL, 1993).

46 Douglas R. Armstrong, *op. cit.*, 13.

47 This total includes the bars sold at the Christie's auction.

Common Caroline, the most common of all the styles and also known as the Carolingian style, was the standard form of writing in the Old World at the time the “tumbaga” bars were made. Roman Square, the second most common style, resembles Roman numerals inside squares. There were some unexplained modifications to standard Roman numerals, however. Instead of the Roman numeral “M” to denote the number 1000, the “tumbaga” stamps bear an “IV” that looks more like the letter “N,” which is similar to the Caroline style of “IU”. Also, the Roman numeral “D” for the number 500 is represented by a reverse open “G.”

-  • Common Caroline on about 58% of the bars
-  • Roman Square on 22% of the bars
-  • Modified Caroline on 18% of the bars
-  • Italic Caroline on only 2% of the bars

	Common Caroline	Roman Square	Modified Caroline	Italic Caroline
2000	IIU	IV	IIU	IIU
1000	IU	N	IU	IU
500	G	G	B	G
100	C	C	C	C
50	L	L	L	L
10	X	X	X	X
4	IIII	IIII	IIII	IIII

The third and probably most distinctive style is what Armstrong called Modified Caroline. Similar to the Common Caroline style, it is straighter and simpler, with some significant modifications as well: for example, the number 1000 is represented by a different-style letter “U” preceded by the letter “I,” so that 1000 becomes “IU”. Two letters “I” before the letter “U,” or “IU,” represents the number 2000, although this is rarely seen on “tumbaga” bars because not many of the bars were of high purity. Another peculiarity of the Modified Caroline fineness stamp style is the representation of the number 400 as Roman numerals “IIII” with a circle on top. Finally, the number 500 is represented by what looks like a mirror-image of a small capital “B,” as opposed to the Roman numeral D. The letter “S” usually preceded the fineness, and it probably represents a location of manufacture or possibly even a symbol for the assayer or owner. Finally, the rarest fineness stamp style, Italic Caroline, is similar to the Common Caroline but more wavy and usually

accompanied with the marking “MS” which possibly represents the owner. “Tumbaga” bars with the Italic Caroline style of marking are usually non-standard shapes or weights, such as the “patties” or very long, heavy bars.

The best hypothesis to explain the use of four different fineness stamps on “tumbaga” bars is that assayers or owners created them to differentiate themselves from one another. While the Caroline style fineness stamps are usually accompanied by additional markings which will be discussed later, the Roman Square style stamp is almost always accompanied by two small marks above and below, which at first look like the letter “x” but are probably the letter “s” with a diagonal slash (rendered in full detail as “&” in the matrix at the end of my book. This was most likely some sort of seal to protect the alteration of the fineness in addition to being a mark for the bar’s producer.



Example of a “tumbaga” bar assayed twice

Bar#	Fineness	Fineness	Difference
M-135	1450	1420	-2.07%
M-97	2300	2284	-0.70%
M-84	1620	1650	1.85%
M-123	1350	1410	4.44%
M-55	1530	1620	5.88%
M-124	1270	1350	6.30%
M-93	1360	1475	8.46%
M-92	1240	1360	9.68%
M-151	1440	1580	9.72%
M-58	1220	1350	10.66%

Note that some numbers are represented by the same character regardless of style. The letter “C” universally stands for 100, the letter “L” for 50, the letter “X” for 10 and the letter “I” for 1. All these representations of numbers are used to denote degrees of 2400 (pure silver). A curious sideline to this is that individual punches were also created that bore a combination of letters to represent a degree of fineness. Perhaps the die sinker was trying to save some time and energy.

Chart showing the difference between the first and second assays on the twice-assayed bars

The “R” Code

While all “tumbaga” bars bear one of the previously mentioned styles of fineness stamps, many bars also show another type of stamp which indicated a grosser measurement and thus was perhaps a stamp used more generically than the traditional fineness stamps. This mysterious stamp, the so-called “R” code stamp, always began with the letter “R” followed by other letters. While no one knows what the letter “R” stood for (*reilera*, *rodela*s, *rey* or *rex*, perhaps?), it is certain that in combination with other letters it indicated a category of fineness. “RL” described the purest bars, those that averaged in fineness around 2000 or higher out of 2400, while “RCxxx” described “tumbaga” bars with the lowest purity, those below 1000 out of 2400. “RC” and “RLxxx” described bars that fell somewhere in between in fineness.

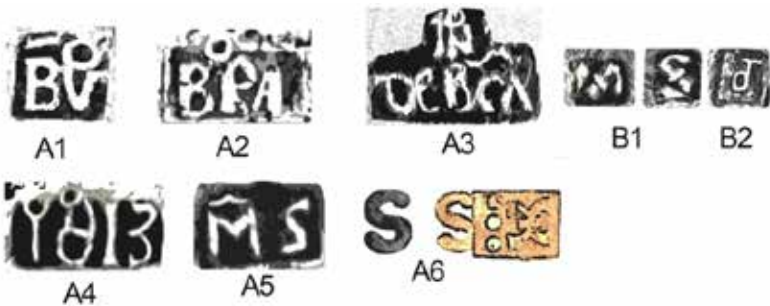


Code	Bar #	Fineness	Ave.	Code	Bar #	Fineness	Ave.
RCxxx	M-17	700	834	RLxxx	M-23	1610	1782
	M-1	780			M-68	1710	
	M-29	840			M-79	1820	
	M-28	880			M-82	1870	
	M-18	970			M-136	1900	
RC	C-275	920	1150	RL	M-90	1950	2090
	C-277	1020			M-142	2000	
	M-51	1160			M-118	2080	
	C-284	1220			M-3	2190	
	C-281	1430			M-128	2230	

Table showing a sample of bars with different “R” codes

It is possible that these “R” stamps were affixed to the bars to reflect some sort of original sorting of the looted treasure that went into their creation. Many of these bars were later recalled for re-assaying and show two or even (in a few instances) three assays, with the previous assay markings defaced to cancel them out.

Other Markings



The last type of “tumbaga” bar markings may refer to ownership of the bars. Later ingots, such as bars from the 1622 *Atocha* wreck, bear similar markings composed of letters and symbols, each set unique to its owner. In *Spanish Treasure Bars from New World Shipwrecks*, the authors Alan K. Craig and Ernest J. Richards, Jr. conducted a detailed study of gold and silver treasure bars recovered from Spanish New World shipwrecks and, using the original *Atocha* manifest as a reference, they listed the owners of most of the 963 silver bars recovered from that shipwreck by matching the ownership mark on the

manifest to an ownership mark on the bar. Unfortunately there is no known manifest (yet) for the “Tumbaga Wreck,” so the idea that the markings shown above are ownership stamps, while most plausible, is only theoretical.

Conclusions

The rare silver “tumbaga” bars found by Marex in 1993 are now a step closer to full understanding. Through a study of contemporary accounts, archeological research and historical sources, I have shown that these strange ingots were manufactured by the Spanish using a unique copper-silver “alloy” forged by the Tarascans in Mexico as a source for their



ornaments and offerings, a particular type of metal the Spanish called "metal of Michoacán," seized by the conquistadors in a single episode within the vast story of the conquest of Mexico during the 1520s.

One could say these so-called "tumbaga" bars are the involuntary inheritance of the unprepared conquistadors, who never envisioned a smelting operation in the first phase of the conquest. Lacking an official foundry to properly smelt and refine this new-found metal, the Spanish had to resort to Mesoamerican techniques, and also ended up using cryptic and temporary markings to denote purity, ownership, manufacture and—above all—payment of the royal fifth. Several of these markings are now deciphered, and I have also prepared a list of people who could have been represented in some way by the rest of these mysterious monograms and punches.

While we may never know how the bars ended up on a shipwreck in the Bahamas, one thing is for sure: the specimens studied in this project are the only ones known to exist—all of them from the same wreck—and therefore they will always be of the utmost rarity and historical importance.

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M-117



Bar # M-117 "the key bar" with a 1st Ley Fineness visible of 1400. Ley Type MC, with two quinto marks visible and a code control, only one assay cut. Weight 5.32 pounds and size 9 x 27 x 1.2 cm. This interesting bar was hammered all the way probably to cancel prior ownership and markings, also this piece has cut markings on the sides, probably for testing the metal.

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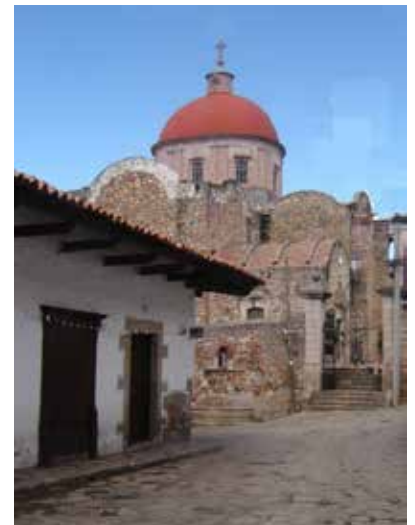
## A COUPLE OF “UNKNOWN” REVOLUTIONARY ISSUES

by Elmer Powell

Here are a couple of short-lived issues that we seem, so far, to know of only from documents.

**Sultepec:** In late 1915 General Brigadier José Cabrera, in his capacity as Jefe de Armas in the district of Sultepec, Estado de México, made an issue of \$5,500 in notes of 10c, 50c and \$1. He offered to exchange these as soon as the Pagaduría General sent funds, putting the seal of the Administración de Rentas del Estado on the notes to avoid counterfeits.

On 7 January 1916 the Governor and Comandante Militar of the state, General Pascual Morales y Molina, wrote to General Pablo González asking who would be responsible for retiring the notes, since the government had not authorised the issue, even though they carried the Administración de Rentas stamp. González passed the query onto General Alejo González, in Toluca, ordering him to withdraw the notes with immediate effect.



*The anticlerical Cabrera occupied the parish church as a stable*

**Palenque:** On 12 April 1915, C.G.Rieb, the manager of the American plantation “Lumija”, in the department of Palenque, called on the consul in Frontera, Tabasco, and reported that he had been fined \$500 in Mexican currency for issuing small denomination “due bills” in order to supply his laborers with change (which was unobtainable in that remote area), and that he would be imprisoned on the following day at 4 p.m., unless the fine was paid. Apparently the workers were perfectly willing to receive the notes as they enabled them to deal with the plantation store where they could buy cheaper supplies than from the stores in the adjoining villages. The notes were regularly redeemed every week, if they are not used by the laborers. In order to persuade the authorities they had appointed a committee to call on the Inspector of Plantations at Salto de Agua, Chiapas, about three miles from the plantation, to request him to allow the manager to continue the issue but the Inspector had refused to grant their request.

The Frontera consul added that “due bills” were issued by all the leading plantations in Chiapas. Unless they were permitted to do so they would be compelled to close down, which would be a severe blow and great loss to the American plantations in Chiapas.

John.R.Silliman, the American consul at Veracruz, took the matter up with the Secretary of Foreign Affairs who in turn raised the matter with the State Governor. On 21 April Rieb telegraphed that he had sorted out his difficulty with the authorities and no further action was required.



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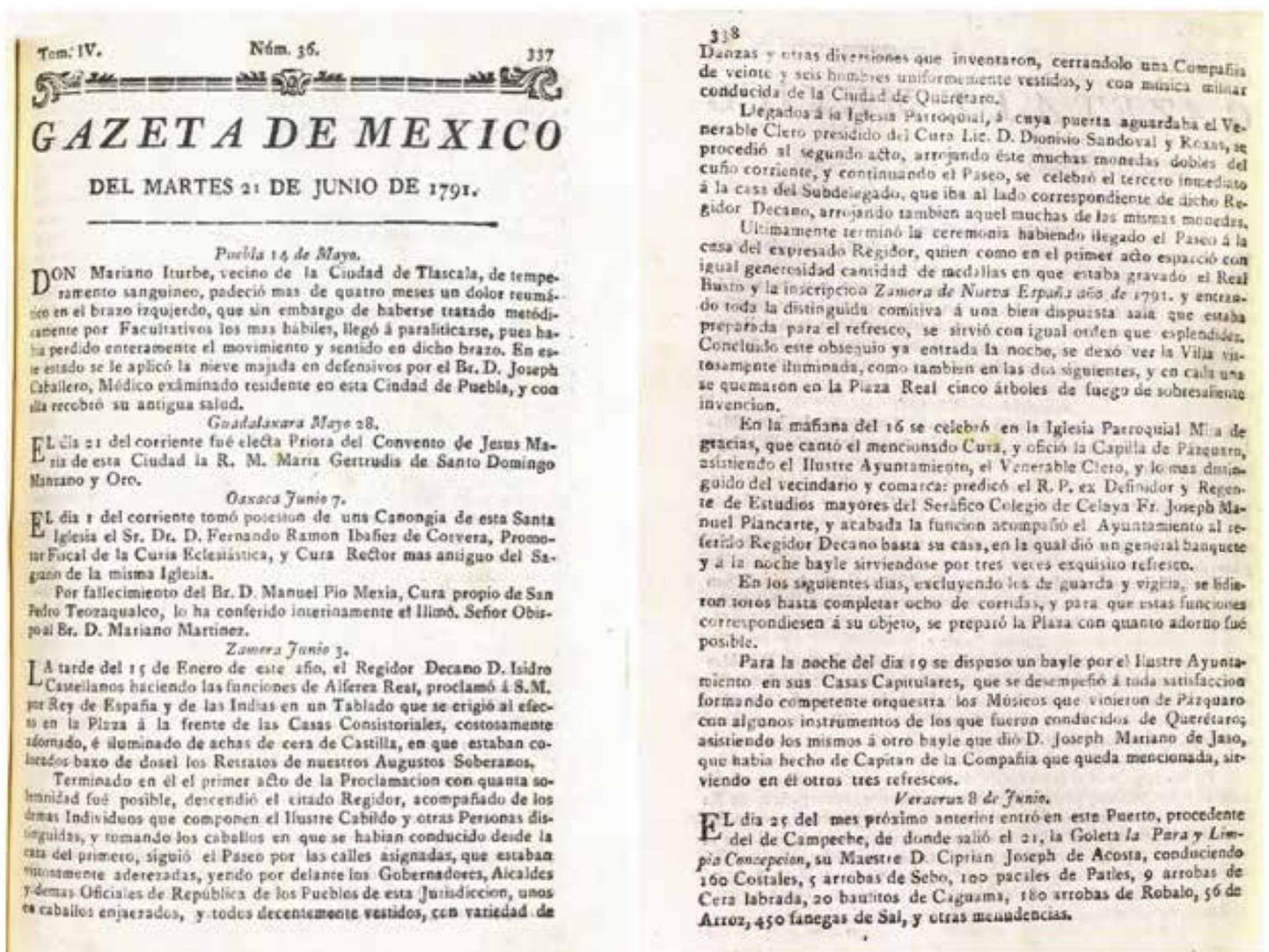
## REDISCOVERY OF TWO ZAMORA MUNICIPAL TOKENS

by Ricardo Vargas Verduzco

In the process of searching for numismatic pieces for our collections, we constantly find documents that talk about some of them but we do not have any image or photograph to see how they look like. These are numismatic pieces that remain "unknown" in design even though the author or the document itself gives us clues, or even better, they try to picture them in words.

There are many examples of pieces that remained many years in the darkness and later came to light; perhaps the most famous of all is the 8 real Charles and Johanna, known as "the first dollar of the Americas". This particular coin remained lost in the sea, with us knowing of its existence only through colonial documents until three pieces were rescued in the early 1990s from the *Golden Fleece* shipwreck, sunk ca. 1550.

Another example, closer to the subject of this article and from the same city, is the 1791 Charles IV Proclamation Medal of Zamora. This medal was presented on 15 January 1791 in the king's proclamation ceremony in the town, two years after his coronation. We knew of its existence through a notice published in the *Gazeta de México* on 21 June 1791 where the medal is described both in obverse and reverse. Fortunately, thanks to the collaboration of the Biblioteca Cervantina (Cervantes Library) of the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), I had access to the original document which I share on its original format so that you can read directly from the newspaper.



The medal remained in the dark for a very long time. It first appeared photographed in a publication in 1972 as an annex to Frank W. Grove book *Medals of Mexico Vol. II 1821 to 1971* in which he added information to his previous book *Medals of Mexico Vol. I Medals of the Spanish Kings* where it was mentioned. Grove attributed the ownership of this first presented medal to Dr. A. Barbero and so far this piece and two others are the only ones reported.



Charles IV - 1791 – Proclamation Medal – Zamora D.N.E (De Nueva España)  
Grove C-262 (Author's Collection)

Equally interesting for collectors of municipal coinage and tokens are the following two pieces. These coins were only known by their description in the work of Manuel Romero de Terreros, *Monedas de Necesidad de Michoacán*. The first one was listed by Romero de Terreros with the number 127 (MRDT 127) in his 1940 work and later referred as ZA. 14 in the annex to Bulletin #7 of the Sociedad Numismática de México in 1955. No reference to these coins has been made by other authors, including the most important ones on the subject: Mauricio Fernandez, Russel Rulau, Miguel L. Muñoz, Frank W. Grove, Francisco A. Pradeau and Claudio Verrey.

In both Romero de Terreros catalogs the coins appear without images. I knew that the Banco de México had acquired the numismatic collection of Manuel Romero de Terreros, and assuming that the coins described in his books now belonged to the collection of the institution, I made an exhaustive search in it without any luck: the MRDT 127 coin is not part of the collection of the Banco de México. Fortunately, in January 2015, one of these coins came to my hands and now I would like to share it with the numismatic community.



1/8 ZAMORA AÑO D 18(?). MRDT#127  
(Author's Collection)

**OBVERSE:** The inscription: ZAMORA AÑO D 18 ?? ("D" is shaped as a monogram together with the letter "E") surrounding a circle within which is located the Mexican national shield.

**REVERSE:** Inside two concentric circles a monogram with the letters "BNFRD" above a small circle which is generally assumed to be the letter "O". Below the monogram we can see a capital letter "R" backwards.

Romero de Terreros says the date is 1850. However, the evidence that is going to be presented on the next coin suggests that it rather be 1830, as does the existence of very similar designs during that decade. Other pieces of the same municipality as the MRDT 120 and 121, also listed by Mauricio Fernandez Garza in his book *Moneda Municipal y su Contexto Histórico* (2014) are dated 1833. Regarding the monogram on the back, although it is very clear, I cannot conclude on a word or a last name that could be formed with the letters BNFRD. That is why I believe that it is probably an acronym.



The second coin I present, also not shown so far, and not found in the Banco de México collection, was also cataloged by Romero de Terreros. This piece, unlike the former one, does not have the name of the town (Zamora) but Romero de Terreros included it in the book under the section 'Zamora' with the following number: MRDT 118 in 1940 and ZA.6 in the 1955 print.



*1/8 Zamora 1837 MRDT #118  
(Author's Collection)*

**OBVERSE:** Within two concentric circles with ornaments a monogram with the letters "CARD". Inside the letter "C" reading up from bottom to top the date 1837. Above the monogram is placed a small number "8".

**REVERSE:** Within two concentric circles is a monogram with the letters "BNFRD": above it has a small circle which is generally considered to be the letter "O" (The same reverse as MRDT 127).

Although the second piece is in a very low state of conservation, it is possible to make out that the reverse is exactly the same in both coins.

Romero de Terreros said that he could read on the MRDT 118 coin the letters "FRNADE". Those letters share "NFRD" with the MRDT 127: that is the reason why I believe that probably the coin that Romero de Terreros had could have deteriorated and so he could not conclude that the reverse was the same on both pieces. He also said that the date is 1839, but the design of the number "7" can be easily confused with a number "1" or a "9". That does not mean that the 1839 coin does not exist: both dates are possible.



*Comparison of monograms in both pieces*

In the most damaged coin I have highlighted in green elements to facilitate comparison. I consider this evidence helps us to conclude that the second coin also belongs to Zamora even though the name of the city does not appear on the coin. The reason why Romero de Terreros concluded its origin is unknown to us: however, he was right to say that the second also belonged to Zamora.



To sum up I would like to point out that these two coins should be considered as municipal coins of Zamora. Mauricio Fernandez follows a clear line in his definition of municipal coinage and although he did not include either of these coins (probably because he did not have any specimens) I believe that both of them should be included in that catalog, nowadays the best book on Mexican Municipal Coinage.

Ricardo Vargas Verduzco  
(rvargasv03@hotmail.com)

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## FERNANDO GUTIERREZ BARRIOS AND CARRANZA'S GOLD


by Joaquín Archivaldo Guzmán

Fernando Gutiérrez Barrios was to Mexico what J. Edgar Hoover was to the USA and Beria was to the USSR. As a captain, he personally arrested Fidel Castro, and then allowed him to depart from Tuxpan, Veracruz for Cuba in the cabin-cruiser *Granma*. He investigated Lee Harvey Oswald in Mexico City, and was the head of the Dirección Federal de Seguridad for many years, including during the "Dirty War".

Before he became Secretario de Gobernación (secretary of the Interior) for Salinas de Gortari in 1988 he was Governor of Veracruz from 1986. While Governor he sent heavy earth-moving equipment to the Veracruz border with San Luis Potosí to excavate in search of gold that Venustiano Carranza allegedly took with him during his futile and fatal flight from Mexico City to the port of Veracruz. Nothing was found but one can trust that Gutiérrez Barrios had some good inside information.

The numismatic importance of this might be that large mintages of some of the late dates of República de México decimal gold coins are recorded but comparatively few examples of these same dates are registered.

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# REVOLUTIONARY PAPER MONEY OF THE WEST COAST

## PART VI: BAJA CALIFORNIA

by William Lovett

At the time of the Mexican revolution the peninsula of Baja California was divided administratively into two territories, the northern one governed from Ensenada and the southern from La Paz. In the north, from 1915, the ex-Federal major Esteban Cantú ran a petty fiefdom efficiently with little reference to what was going on in the rest of Mexico until the major conflict was settled and (apart from a couple of private scrips in Ensenada and Tijuana), there was no recourse to any local issues. In the south the Huertista General Gregorio Osuna held out until he evacuated La Paz in March 1914 and the Constitutionalists moved in. There the need for currency to pay troops and facilitate commerce was greater and on 21 August 1914 the jefe político of southern Baja California, Miguel Cornejo, acting on an authorization that he had received on 30 April from General Alvaro Obregón, as chief of the Ejército del Noroeste, authorized an issue of three denominations (five, ten and twenty pesos). These bore the signature of either Miguel L. Cornejo or of Ignacio L. Cornejo.



The government also issued a series of *cartones*, supposedly redeemable in either Constitutionalist notes or banknotes, as the Treasury should decide. We know of the four values (5c, 10c, 20c and 50c) with a common design, like this:

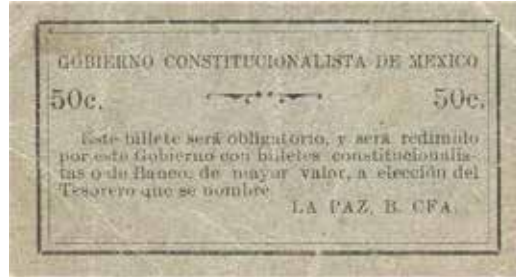




and also of a 50c *cartón*, with a slightly modified design.



Both these 50c *cartones* are known either in pink, as above, or in gray/ blue-gray,



so there might have been similarly modified designs for the other three denominations, and other colors. At some time a circular fixed that these *vales* should be accepted in payment for at least 20% of any amount due.

Notes from other states were also in circulation, and Monclova notes, Chihuahuan *dos caritas* and Estado de Sonora notes are known with a pair of local revalidations (*resellos*), namely “REPUBLICA MEXICANA - LA PAZ, B. C.” and “EJERCITO CONSTITUCIONALISTA - COMANDANCIA MILITAR - LA PAZ B. CFA.”

On 9 February 1915 General Brigadier Félix Ortega, the new jefe político, decreed (decree no. 1) that the Cornejo notes were null and worthless. Annuling the Cornejo notes caused upset in La Paz and the town council (which included the leading businessmen) told Ortega that his decree would be severely detrimental because the lack of funds would mean people could not buy necessities and small businesses would grind to a halt. Ortega replied that the decree was intended to avoid the economic isolation of the territory as the Cornejo notes were not accepted on the mainland opposite and that he was attempting to put into circulation a currency that would be accepted in Sonora, Sinaloa and Tepic. He added that holders of large quantities of Cornejo notes could exchange them over time for notes of general circulation (such as the *sábanas* and *dos caritas* of Chihuahua, and the issues of Sinaloa's Riveros (see part I) and the Estado de Sonora issue. Besides, the lower value *cartones* with the Jefatura's *resello* still remained in circulation to facilitate day-to-day transactions. Finally, troops and public employees were being paid with notes of general circulation, so these would be available.



At a meeting in La Paz on 22 March a junta of local businessmen agreed to the withdrawal of this currency, on conditions that would not affect them or their customers. They agreed that over the next two days (23-24 March) they would take in the notes at par and without restriction, and then hold them until the government could exchange them for paper money of general circulation. They also earmarked a reasonable amount in banknotes to be sent to Sonora to change for that state's fractional currency, to be use for day-to-day transactions. For its part, the Jefatura Política agreed to produce a new issue of paper currency to redeem the existing notes, and also redeem some such deposits with coins.

The next day, 23 March, in a decree (no. 6), Ortega acknowledged the junta's help but stated that as there was insufficient time to bring in the Sonora fractional notes he was repealing the circular that fixed the acceptance of the *cartones* at 20% in payments of any amount and decreed that the *vales* of the Jefatura Política (and any that it might issue in



future to replace deteriorated notes) were of forced circulation in the district, at par and without any limitation, without prejudice to the efforts being made to change the local paper currency for that of the rest of the country.

However, despite the threat of fines, some traders continued to refuse to accept the notes, so on 31 March Ortega and his secretary, Juan M. Nuño, met again with some forty-eight businessmen. Ortega stated that the period fixed by the earlier meeting for the withdrawal of the currency had proved too short and he saw himself obliged to decree its forced circulation but that he was aware of the great trouble that this money had caused and the even greater trouble that it would continue to cause if left in circulation. The meeting then approved that:

- (1) the Jefatura Política would issue notes (*bonos*) of five, ten and twenty pesos, to replace the existing notes;
- (2) these would be negotiable and that the tax offices (*Oficinas Recaudadores*) would accept 20% in payment of taxes and dues; and
- (3) in place of the existing *cartones* businesses (*casas de comercio*) would issue *vales* under their own responsibility, to facilitate small change.

As for the existing notes,

- (4) the Jefatura Política would order the *Oficinas Recaudadoras* to collect and hold the local currency, and local businesses would stop using it, and
- (5) every Saturday, from four to five in the evening, the Jefatura Política would exchange the local *vales*.

Finally,

- (6) the official paymasters and individuals would pay wages in money of general circulation in the country; and
- (7) the Jefatura Política would issue a decree ordering that only money in general circulation should be used in payments.

So the same day, in decree no. 7, Ortega decreed that the public offices would henceforth make payments only in currency that was in general circulation in the country and with *vales* issued, with the authorization of his Jefatura, by local merchants. The merchants would be obliged to accept the current *vales* from the public and, every Saturday between four and five in the afternoon, would present them to the Jefatura Política to be exchanged for *bonos*.

The new notes are dated 3 April. These carry the promise that the Jefatura Política would honor them as soon as economic conditions permitted and (as agreed) the statement that they were not only negotiable in commerce, but also acceptable by the *Oficinas Recaudadoras* in payment of 20% of any taxes due. They carry the signatures of Ortega, Secretario Juan M. Nuño as secretary, and customs administrator (*Administrador de la Aduana*) F. G. Rubio as interventor.





We know of just one example of a *vale* issued pursuant to the agreement of 31 March, namely a *cartón* for 10 centavos issued by Rocholl, Ruffo y Cia. (who were one of the signatories to the agreement) and valid until 31 August.

Although the town council went along with Ortega, some businesses refused to accept his notes, arguing that they had no value, and demanded Carrancista notes, banknotes or silver coins. Others accepted the notes as a discount, whilst others preferred to close up.



On 27 May, in decree no. 12, Ortega stated that the difference between banknotes and the revolutionary issues was growing daily, and leading to inflation and other troubles. However, banknotes were merely promises to pay, backed by deposits, yet those deposits had been used up in Huerta's time. When the time came, the government would honor the notes of the *jefes revolucionarios* before those of the banks. So to protect the public, he decreed that henceforth legal tender would consist of Mexican coins of gold or silver and the notes of general circulation in the states that submitted to the Convention, unless the Convention or Francisco Villa, Jefe de las Operaciones, decided otherwise. On 24 June the Presidente Municipal of La Paz decided that municipal taxes should be paid half in notes of the Gobierno Provisional (M1239-M1244) or the Brigada de Sinaloa (M3720-M3726: see Part IV) and half in the local issue and a circular of 8 July stated that Gobierno Provisional and Brigada de Sinaloa notes were of forced circulation.

When the Carrancista Urbano Angulo took over as jefe político on 7 July 1915, he ordered that the paper currency used in the district should be the Carrancista Ejército Constitucionalista de México issue (M933-M36). However, this caused difficulties as businesses and individuals mostly held other issues such as the Monclova, *dos caritas*, Brigada de Sinaloa, Estado de Sonora and Cornejo, so he decided to allow those that had been validated with the *resello* of the Jefatura Política or Presidente Municipal, with the exception of the Villista issues (i.e. the Estado de Sonora and the *dos caritas*). On 10 July it was decreed that notes revalidated by the Comandancia Militar were of obligatory acceptance in local transactions, but on 2 August a further decree suspended their circulation, leaving the Ejército Constitucionalista de México notes in circulation. So we might expect a selection of validations but in fact these are rare, with just two variants from the Jefatura Política del Distrito Norte, Ensenada and one with the legend "REPUBLICA MEXICANA, LA PAZ, B. C." on the Ejército Constitucionalista issue.

So to sum up, a simple progression, with the Villista/Convention notes being replaced by the victorious Carrancista issues, and a smattering of local color.

As a postscript, we can note that Thord-Grey, in his memoirs *Gringo Rebel*, recalls that a sergeant, sent to Rosario to recruit for the cavalry, raised 300 men, promoted himself to general, and began to issue 50 and 100 peso notes printed on lavatory paper. Military justice caught up with him in the middle of a fiesta, when he was dragged out and subjected to the *ley fuga*. What does this refer to?



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## NOTES ON THE MEXICAN GRANO ISSUES DATED 1769

by Carlos Jara

The two "Go" copper issues dated 1769 – and with denominations of "1/2" and "1" constitute a classic rarity in the Mexican Colonial series with Campaner y Fuertes, Vidal Quadras and Jose Toribio Medina included among their earlier references. They are obviously a genuine item of the Colonial era: apart from the noted early references, a recent article by L. Pezzano has pinpointed for example the punch link of the crowns between the "1/2 Go" and the pillar 1 Real coins and between the "1 Go" and the pillar 2 Reales respectively. In addition, their rarity is undisputed among the numismatic community.



1/2 Grano MS61 NGC  
(courtesy Mexican Coin Company)

However, some crucial questions remain: the Grano interpretation of the "Go" abbreviation on the obverse is still tentative and their traditionally acknowledged attribution as patterns is only speculative. The latter point was noted by Kent Ponterio in his article "Spanish Colonial Copper Coinage of the Mexico City Mint" in the March 2013 issue of this journal, who instead postulated that these rare coins are part of a regular issue intended for local use, based on the fact that most of the few known pieces bear obvious signs of circulation and/or corrosion which are normally not found in patterns.

I am quite pleased to confirm that these items were indeed officially authorized and aimed at a restricted local circulation. The key to this challenging puzzle lies in a document dated 24 December 1769 and housed in the Archivo General de la Nación in Mexico City (AGN, Correspondencia de Virreyes, Vol. 16). This is a letter from the Viceroy of New Spain (Mexico) informing of the remittance of six sample coins *minted in accordance with the Real Cedula (Royal Ordinance) of 27 October 1767 which authorized and instructed the introduction of copper coinage in the Viceroyalty in order to replace the coinage known as tlacos (locally and privately issued tokens) valued at 1/8 real per tlaco*. Most interestingly, the letter indicates that *the larger coins would be valued at 1 Grano or 1/12 Real each, that the coins' circulation would be limited to the four kingdoms of the Viceroyalty: namely Nueva España, Nueva Galicia, Nueva Viscaya and Nuevo León, that the coins carry on their obverse a shield representing said four kingdoms, with the letters "G" (and) "O" to the shield's right meaning Grano, and the numerals "1" and "1/2" for the larger and smaller coins respectively*.

The known pieces are a perfect match for this description: it must be first noted that the *heraldic* right of the shield on the obverse corresponds to the viewer's left. In addition, the Latin inscription INDIAR.(UM) REX on the obverse is correct for a coinage intended for circulation only in part of the Indies (and not mainland Spain) while the inscription on the reverse SINE ME REGNA FATISCUNT ("without me the kingdoms decay") can now safely be interpreted as a reference to the purported benefits of this new copper coinage for the aforementioned four kingdoms' benefit: the flying eagle on that same side is disseminating copper coins to the three globes or dominions, which probably represent respectively mainland Spain, its American possessions and its possessions in the Orient (another point indicated by Kent in his article).



1 Grano  
(courtesy Mexican Coin Company)

As for the unusual Grano denomination and its apparently odd 1/12 ratio to the silver real, this was undoubtedly inspired by the contemporary and allegedly successful circulating copper coins of 1 Grana issued by the kingdom of Naples and Sicily - which had been ruled until 1759 by none other than Charles III himself: the crown sized piaster issued by this Italian kingdom was equivalent to 120 Grana.

Reference:

Pezzano, Luciano: "Dos enigmáticas piezas coloniales mexicanas", *Revista del Círculo Filatélico y Numismático San Francisco* no. 49, 2011, Córdoba, Argentina

(a version of this article initially appeared in the Mexican Coin Company's Newsletter)



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