Chapter 5

SPANISH COLONIAL COIN PRODUCTION IN AMERICA & PANAMA

Kings and Coin Designs

On October 19, 1469, Isabella, heiress to the throne of Castile, married Ferdinand, King of Naples and Sicily since 1458, and heir to the throne of Aragon. In 1474 Isabella became the Queen of Castile and León and Ferdinand assumed the throne of Aragon in 1479, bringing these regions under the joint Crown and ultimately leading to a unified Spain that included all the Iberian Peninsula except Portugal.¹

Ferdinand and Isabella represent the beginning of modern Spanish coinage, as on June 13, 1497, at Medina del Campo, they issued a fundamental monetary decree that for the first time instituted one design for all coinage in the unified Spain. The private mints were banned and each of the first official mints was given an identifying mark or mintmark, as is known nowadays.² Also, weight and fineness were established and fractional components of the system called *Real*, implemented by Pedro I (Peter I), King of Castile and León, around the middle of the 14th century, were made.³

Isabella died in 1504, and Ferdinand continued to rule alone until his own death in 1516. Joanna, who married Philip "the Handsome" of the House of Hapsburg in 1496, was the only surviving offspring of the marriage of Isabella and Ferdinand at the moment of her father's death. At the time of her mother's death in 1504 she was proclaimed Queen of Castile, but by 1506, when her husband died, she had become completely insane. So in 1516, Charles, her eldest son, was effectively given the throne of Spain at the age of 16.⁴ Although he became Charles I of Spain he is better known as Charles V, as a consequence of being heir to the German throne. Two years later he assumed this throne as well. With it he brought an empire composed of many dominions, arranging in 1519 his election as Holy Roman Emperor.





1 *Real* coin minted in Segovia, assayer P, for use in Peninsular (mainland) Spain, showing the Coat of Arms and legend corresponding to the reign of Ferdinand and Isabella.

Image courtesy of Cayón Auctions.

During the reign of Ferdinand and Isabella, as was customary during the alliance of two kingdoms, the Coat of Arms of both these Monarchs were combined as one, with quadrants 1 and 4 representing the Arms of the queen and quadrants 2 and 3 the king. Later, the Coat of Arms was further divided into five parts with a small pomegranate being added to the bottom after the conquest of the Province of Granada, a prize too dear to keep silent.



During the reign of Ferdinand and Isabella, as was customary during the alliance of two kingdoms, the Coat of Arms of both these monarchs were combined as one. As can be seen above, quintants 1 and 4 represented the Arms of the queen and quintants 2 and 3 the arms of the king. As seen on quintant 5, a small pomegranate was added after 1492 with the conquest of the Province of Granada.

This Coat of Arms was used on Spanish coins minted during the reign of these Monarchs, both peninsular issues and the ones specially made and authorized for use in America by decree in 1505. Except for the one *Reales* from Granada minted between 1504 and 1516, when this shield appears, the legend of these coins always identifies Ferdinand and Isabella, even in cases when minted after the new king had taken the throne.⁵

When in 1535 the Crown of Spain authorized the first minting of coins in America to take place at Mexico, it was instituted that the shield with the Arms of Castile and León, as previously used on the Spanish coins between 1475 and 1497, would now be incorporated, with the addition of Granada, into the coin design for the new coins minted in the New World.



Left: Enlarged images of the obverse of: a 1 *Castellano* minted in Seville, Spain, between 1475 and 1497 (coin A) and a 4 *Reales* minted in Mexico around 1537 or 1538 (coin B). Although the shield on both coins is similar in appearance, the shield of image B also has the Arms of Granada included as part of its components. Source: Cayón Auctions (coin A) and Ponterio & Associates, Inc. (coin B).



The Columnar Device of King Charles V

Many have assumed that the motto of "Plus Ultra" or "PLVS VLTRA" (using V's as U's to give it a Latin appearance) is an adaptation from an ancient inscription. The motto is said to derive from a warning inscription of "Non Plus Ultra," meaning no more beyond, said to have been placed by the mythological hero Hercules on a set of memorial columns he placed in the farthest reaches of Africa and Europe, in the Strait of Gibraltar, to commemorate his journey there and the many labors performed along the way. Later, these same Columns were proclaimed boundary markers to indicate that there was nothing more beyond this point and that the end of the known world had been reached.⁶

Mr. Earl Rosenthal's research has provided proof that King Charles V's motto did not originate from the adaptation of any such ancient inscription.⁷ In fact, as Mr. Rosenthal documents from Paolo Giovio's writings⁸, King Charles' adopted the Columnar Device with its motto of "Plus Oultre," spelled in its French form (image A), as a result of advice received from his personal physician and counselor at the Burgundian court in Flanders, the Milanese Luigi Marliano, more than a year before his first trip to Spain in 1517. The motto of "Plus Oultre"



Above: 3 *Reales* coin. The coins known in this denomination were struck at the mint of Mexico only during 1536-1537. Although Santo Domingo was also given approval to strike 3 *Reales* coins, none is known to exist. (Picture courtesy of Superior Galleries Auctions)

The design of the first silver coins minted in the New World consisted of a crowned shield with the Arms of Castile, León, and Granada on one side and the Pillars of Hercules on the other. The Pillars of Hercules were a mythological reference to the straits of Gibraltar, recognized as boundary markers to indicate that there was nothing more beyond this point, and one of the personal devices adopted by King Charles V himself. The word *plus*, meaning "more," was placed between the pillars, representing that there was more beyond or *plus ultra* and its abbreviations, as it would later be spelled on these coins. The legend was written in Latin using both sides of the coin to complete its context.

The spellings vary but the translation always reads: Charles and Joanna, Rulers of Spain and the Indies. Since the motto begins on the shield side and ends on the pillars side, we will use the shield as the obverse, the front of the coin, and the pillars as the reverse, the back of the coin.

The above design, referred to as the early pillars design, was minted on silver coins at Mexico (1536-1542) and Santo Domingo (1543?-1552).¹¹ The only major change to this design consisted of waves added under the pillars. This change represents the second series from Mexico (1542-1571?).

Although not of major importance, it is convenient also to mention that some of the Santo Domingo coins from this issue show only a partial legend with the names of the Monarchs repeated on both sides (see illustration on page 13).

Charles V abdicated the Spanish throne in 1556 to his son Philip II. During his reign Spain would reach its peak in power. In 1565, by Royal decree, he established the mint at City of Kings (Lima). This, the first mint of South America, began minting coins in 1568, and until 1571 it used the pillars and waves design as in the second series of Mexico. The legend, always in Latin, reflected a major change. Unlike Mexico, which continued using the old legend after Philip II had assumed the throne, Lima's legend reads: Philip II, By the Grace of God, - King of Spain and the Indies.

> Right: Portrait of Philip II as seen on a uniface medal from Jacome Trezzo dated 1555. Philip II, who had been proclaimed King of Naples in 1554, became King of Spain in 1556 when his father, Charles V, abdicated the throne to him.

Image courtesy of Cayón Auctions.



On March 8, 1570, King Philip II mandated a new design for all coins. The new design was to bear on all 8, 4, 2, and 1 *Reales* a crowned Hapsburg Shield on one side to represent the Arms of the reigning monarch, and on the other side castles and lions, the symbols of the kingdoms whose union was considered the building blocks for what later became known as Spain, with a cross to represent the union between church and state. A tressure, as ornament,

composed of parentheses () and braces { } was placed around the cross. Where the shield would have been, the 1/2 Reales had the name of the king in the form of a monogram, crowned, with the same reverse as the other denominations, except that all Spanish Colonial mints, with exceptions at Mexico, omitted the tressure. As for the 1/4 Reales, they had a shield with a castle on one side and a shield with a lion on the other, both crowned.

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	A.	 A. Lima 8 <i>Reales</i>, Assayer R (Alonso de Rincón), 1569 King's Ordinal II INCLUDED. 	
		 B. Mexico 8 <i>Reales</i>, Assayer O (Bernardo de Oñate). circa 1575 King's Ordinal II INCLUDED. 	
		C. Santo Domingo 4 <i>Reales</i> , Assayer X (Cristóbal [Xpoval] de Medina), 1578 King's Ordinal II INCLUDED.	
	B.	D. Potosí 8 <i>Reales</i> , Assayer R (Alonso de Rincón), circa 1575 King's Ordinal II OMITTED.	
		E. Panama 2 <i>Reales</i> , Assayer X (Name	
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Panama's Dies and Punches

When the design of the coins was changed, Philip II ensured that there was no mistake in what he expected and ordered the new dies and punches needed to make these new coins to be sent, along with decrees and guidelines to follow for this new required design. Panama was no exception. As indicated by a decree of March 13, 1579, the dies, punches and other tools needed for making the *Reales* of 4, 2, 1 and ½, in Panama, as mandated, were sent.¹² Humberto Burzio writes that, from a document sent by Philip II to Santo Domingo dated December 13, 1573, for the minting of the coins with the new design, we can tell of the existence of 64 different punches in a complete kit for making dies.¹³

The punches included in the kit were numbered, helping the diesinker to select the correct ones to make the dies for each denomination. *Cuño* was the Spanish word used for a complete die. Using the sense of complete die, although not commonly practiced, is more appropriate, since it helps to clarify that when discussing the matter of the dies needed for making the coins, two components, the *troquel* (trussel, or upper die) and *pila* (pile, or lower die), had to be present. Only with these two components present could we say that a complete die was ready for striking the two sides of each individual coin, simultaneously, creating its obverse and reverse designs.

To facilitate the uninterrupted minting of coins, Spain had ruled an additional upper die was required to have a complete die; that is, there would be one lower and two upper dies. The reason for this requirement, of which the officials in Panama were informed when instruments for the making of coins were sent in 1579, deals with the manner in which the dies were positioned for the striking of coins. The lower die had a metal tongue at its base, so it could be sunk into an already prepared wooden block in an anvil making it a fixed piece, stationary, whereas the upper die would be cut into the end of a bar. Since the upper die was hand-held during the making of the coins, it could be more easily damaged by the frequent and direct hammer blows applied in striking these coins, which explains this need for an extra upper die. The most elaborate design of the coin, being the harder and more time consuming to manufacture, was thus reserved for the lower die, because of its longer life span.¹⁴

According to the document from March 13, 1579, the quantity of lower and upper dies required to be present per complete die and the numbered punches to be used for the designs and legend that were to be featured on the coins to be minted in Panama were the following:¹⁵

4 Reales:

1 lower die and 2 upper dies to make the complete die

3 thick punches, No. 3, for making these dies

- plus letters, No. 15 (for the legend)
- 9 punches for the Coat of Arms, No. 9
- 2 medium size punches of castles and lions, No. 2

2 Reales:

1 lower die and 2 upper dies to make the complete die

- 3 thick punches, No. 3, for making these dies
 - plus 15 letters, No. 15 (for the legend)
- 9 punches for the Coat of Arms, No. 9 medium size punches of castles and lions, No. 2

1 Real:

1 lower die and 2 upper dies to make the complete die

- 3 thick punches, No. 3, for making these dies
- plus 15 letters, No. 15 (for the legend)
- 9 punches for the Coat of Arms, No. 9
- 2 medium size punches of castles and lions, No. 2

1/2 Real:

- 1 lower die and 2 upper dies to make the complete die
- 3 thick punches, No. 3, for making these dies plus 15 letters, No. 15 (for the legend)
- 2 punches of a cross
- granadura (punch that makes a series of points or dots), No. 51 & No. 2
- 2 medium size punches of castles and lions, No. 2

Also included were four compasses for laying out the surface of each die. These could be used with any of the dies for the different denominations.

Since these dies were engraved by hand, element by element, placing each punch into the appropriate empty spaces on its surface, the above-mentioned compasses were included so that once the diesinker had determined the location of the center, a compass could be used for cutting into the die several circles as guides for the inner and outer beading (*granadura*). This beading, although decorative in nature, would then serve to separate the legend that was to be hammered into the outer circle from the inner design (shield or monogram of the king's name) and the appropriate lettering (assayer mark and mintmark) that were to be placed inside the inner circle using the various punches, features which depended upon the denomination that was being prepared.

Note that the legend of the coins (Philip By the Grace of God / King of Spain and the Indies), written in Latin, appears as: <u>PHILIPPVS D. G. HISPANIARVM ET</u> INDIARVM REX. Only 15 letters are used as indicated in the document above and as is confirmed by these coins. The 15 letters utilized were:

1) P	2) H	3) I	4) L	5) V
6) S	7) D	8) G	9) A	10) N
11) R	12) M	13) E	14) T	15) X

Components of the Design

Let's look in detail at some of the components that made up the design of the coins from Panama:¹⁶

The Cross: The cross represents the church and acknowledges its importance in matters of state. Two types of crosses were used On the coins from Panama: the Greek Cross, (a) on denominations of 1, 2 and 4 *Reales*; and the Cross Potent, (b) on the ½ *Real*.





The castle symbolized the Kingdom of Castile. There might be small differences in the appearance of the castles with respect to windows, shape, etc., but there is only one basic design. All the coins of Panama appear to have the same type of castles with respect to the shape of all its basic components.

The Lion: The lion, on the cross side, was the symbol of the Kingdom of León. The shield has lions as well for this kingdom, but it also has lions for the Kingdoms of Flanders and Brabant.

The only type of lion evident on the coins from Panama is the lion rampant, with trunk and forepaws raised. In some instances this lion also appears rotated counter-clockwise 45 degrees resembling a lion passant (with one front paw raised). These lions can be seen below:



Lion rampant in its proper position.



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Lion rampant rotated 45 degrees counter-clockwise resembling a lion passant.

Mr. Barry W. Stallard documented that the reverse lions (rampant) on the 2 *Reales* of assayer B from Panama might be identical to the ones on the 1 and 2 *Reales* of assayer M from Potosí.¹⁷

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from the similarity of assayers' initials, but a careful analysis of the initials' characteristics [later in this chapter] reveals differences).

Then, if the punches sent from Spain had been made by the same person, this might have been a coincidence in similarity; but we know that this is not the case, since between March 18 and June 28, 1570, the sculptor Juan Paulo Poxini received payments for the punches prepared for the mints of Lima and Mexico and on March 5, 1579, the sculptor Clemente Borago received the payment for the punches he made for the mint of Panama.¹⁸ I believe the answer might be found somewhere else.

In 1575 Viceroy Toledo ordered Alonso de Rincón, first assayer of Potosí, to cut several punches with royal markings to apply to the silver so that it could show that the King's "fifth" had been paid. Castles and lions were the most common royal marking used in the period, as seen on silver bars discovered. With the skill and experience of Rincón, these markings could have been done in the form of separate punches, as it was also Toledo who, when receiving the new punches for the Lima mint in 1572, answered the king that the new punches sent by him to stamp gold and silver and make coins had arrived.¹⁹ With this, he shows that the punches were interchangeable, tax stamp/coin design. Toledo said in 1573 that each province used a different mark for stamping silver and gold and he

tressure starting at the top of the cross with the double-line parenthesis, but at Panama it begins with the double-line brace.



4 *Reales* coin from Granada (coin A) and 2 *Reales* coin from Toledo (coin B), both, showing the tressure starting at the top with the double-line brace as is characteristic for Panama.

Source: Cayón Auctions (coin A), the Author (coin B).

The feature of the tressure starting at the top of the cross with the doubleline brace, as seen in Panama, can also be seen on some Spanish peninsular coins from the reign of Philip II at Granada and Philip II, Philip III, and Philip IV at Toledo. In America, the only other similar tressure designs can be seen on coins from Cartagena's assayer E (Echeverría), mintmarks $_{N}^{R}$, and C; and on 8 *Reales* "Star of Lima" coins, all minted in Lima, Peru, in 1660. The use of the tressure in this manner appears to be a design variation as it can be seen on coins in different denominations for Cartagena and on coins that although similar in denomination show differences in the dies used for Lima. The "Star of Lima" coins were an illegal issue minted in the city of Lima with no authorization from the king in 1659 and 1660 only.



The "Star of Lima" coins were minted in the city of the same name in 1659 and 1660 without authorization from the King.

Above: The two 8 *Reales* from 1660, coins B and C, were both minted using different dies. The reverse of all these coins also shows the tressure rotated 45 degrees. Other than some Cartagena coins of assayer E (1626-1634), this is the only other type of coins known minted in America with this feature, which is common on the Panama coins.

Images courtesy of Ponterio & Associates, Inc. (coin A) and UBS Auctions (coins B & C).

The Shield:



The shield is composed of the different kingdoms that made up the Spanish empire, as reflected by the Arms of Hapsburg during the period of the reigning monarch, which in this case is Philip II during the 1580s. The territories that this shield includes are: Castile, León, Naples/Sicily, Granada, Austria, Flanders, Tyrol, Brabant, Burgundy (*Borgoña Moderna*), and The Low Countries (*Borgoña Antigua*).

Philip II was also King of Portugal in the 1580s, but at this time it was only a personal union, with Portugal retaining its own laws and institutions. Later, the Arms of Portugal were also added to the Hapsburg Shield on the Spanish peninsular coins, but this addition was not included on the American coins, with the exception of the earliest coins of Colombia (1621-1622)²² and three known 8 *Reales* "Royals," (also referred to as presentation issues), from Mexico (1639, 1642 and 1646).



THE HAPSBURG COAT OF ARMS (AS IT APPEARS ON THE COINS)



- 1. Castile
- 2. León
- 3. Aragon
- 4. Naples/Sicily
- 5. Granada
- 6. Austria
- 7. Flanders
- 8. Tyrol
- 9. Burgundy (Borgoña Moderna)
- **10. The Low Countries** (Borgoña Antigua)
- 11. Brabant

ARMS OF THE KINGDOMS THAT COMPOSE THE HAPSBURG SHIELD



The Crown:



This represents the Crown of Spain, the king himself. The three types (with regard to the rear loop at the base of the crown) are the open ellipse, closed ellipse and no ellipse. All the known coins from Panama have the open ellipse.



Three coins from Potosi showing the evolution of the crown design. As seen above, these are: open ellipse (A), closed ellipse (B) and no ellipse (C).

Coins of Lima assayer X and early issues of assayer Ď, as well as some early issues of Potosí (assayers R, M, L and B), have the open ellipse. It appears that the punch for the open ellipse was sent from Spain. Also, complete or partially made dies might have been sent from Spain to the mints when the design was changed on the coins. It is important to note that Spanish peninsular coins minted during this period of the early Peruvian and Panama mints always show this feature, and since this new design had been ordered in 1570, the coins of this first decade could be considered transitional. (The only exception to this has been observed in the coinage of Santo Domingo, where the crown of the known shield-type coins shows no-ellipse).

As new dies and punches started being made in America in the face of increasing mintages, the problem of workmanship would have become apparent, forcing the evolution of the loop from open to closed, finally ending in no loop. Certainly it was more convenient to make a less elaborate crown. This evolution also occurred in Spain as the coins show.

The Lettering: I have decided to use the word lettering instead of legend since the coins show variations in the spelling of the legend as a by-product of the skill and the manner of placement of the punches on the dies by the diesinkers. As a sub-category of this, covered in a later chapter, we also have the mintmark and assayer marks, which consist of a letter or combination of letters also appearing on the coins.

Let's examine the legends as they are found on the different varieties associated with the coins that have been documented from the mint of Panama:

Variety HR.PM.1: Assayers P-M (P to the right and M below monogram)

Obverse:	G.PHILLIPVS.O.
Reverse:	+ ET . INCIARVM . REX

Variety HR.PM.1.1: Assayers P-M (P to the right and M below monogram)

Obverse:	G . PHILLIPPVS . OE
Reverse:	+ ET . IN IARVM . REX

Variety HR.X.1: Assayer $\overset{\circ}{X}$ ($\overset{\circ}{X}$ to the right of the monogram)

Obverse:	G . G . ISPANIARVM
Reverse:	+ ET . INCIARVM . REX

Variety HR.X.1.1: Assayer $\overset{\circ}{X}$ ($\overset{\circ}{X}$ to the right of the monogram)

Obverse:	O.G. ISPANIARVM
Reverse:	+ E INCIARVM . REX

<u>1 Real</u>

Variety 1R.X.1: Assayer $\overset{\circ}{X}$ ($\overset{\circ}{X}$ to the right of the shield)

Obverse:	PHLIIPPVS . O . G . HIS
Reverse:	+ ET . INCIARVM . REX

Variety 1R.B.1: Assayer B (B to the left of the shield, with Arms of Aragon present)

Obverse:	PHILIPPVS . D . G . HIS
Reverse:	+ ET . INDIARVM . REX

Variety 1R.B.2: Assayer $\overset{\circ}{B}$ ($\overset{\circ}{B}$ to the left of the shield, with Arms of Aragon omitted)

Obverse:	PHILIPPVS . D . G . HIS
Reverse:	+ E . T . IN IARVM . REX

Variety 1R.B.2.1: Assayer B (B to the left of the shield, with Arms of Aragon omitted) Obverse: PHILIPPVS . D . G . HIS Reverse: + ET . INDIARVM . REX

<u>2 Reales</u>

Variety 2R.X.	.1: Assa	yer X	$(\overset{0}{X}$ on the reverse - cross side)
	Obverse: Reverse:		LIPPVS . C. G. HISPANIA . INCIARVM . REX
Variety 2R.X.	.1.1: Assa	yer X	(X on the reverse - cross side)
	Obverse: Reverse:		LIPPVS . O . G . HISP . INOIARVM . REX
Variety 2R.B.	l: Assa	yer B	$(\overset{o}{B}$ to the right of the shield, with Arms of Aragon present)
	Obverse: Reverse:		PVS.D.G.HISPAN INDIARVM.REX
Variety 2R.B.	2: Assa	yer B	$(\overset{0}{B}$ to the left of the shield, with Arms of Aragon omitted)
	Obverse: Reverse:		IPPVS . D . G . HIS . INCIARVM . REX
Variety 2R.B.	2.1: Assa	yer B	$(\overset{o}{B}$ to the left of the shield, with Arms of Aragon omitted)
	Obverse: Reverse:		IPPVS . D . G . HIS . INDIARVM . REX
			<u>4 Reales</u>
Variety 4R.X.	.1: Assa	yer X	$(\stackrel{o}{X}$ to the right of the shield, denomination 4 upright- tressure starting at the top of the cross with the parentheses)
	Obverse: Reverse:		IPPVS . 🕘 . G . HISPANIARVM . . INઊIARVM . REX
Variety 4R.X.	.1.1: Assa	yer X	$(\stackrel{o}{X}$ to the right of the shield, denomination 4 upright)
	Obverse: Reverse:		IPPVS . 🛛 . G . HISPANIARVM . . IN①IARVM . REX
Variety 4R.X.	.2: Assa	yer X	$(\stackrel{o}{X}$ to the right of the shield, denomination backwards 4)
	Obverse: Reverse:		IIPVS . D . G . HISPANIARVM . R INDIARVM . REX . D . G .

4 Reales (Continued)

Variety 4R.X	C.1: Assay	ers X-C	$(\overset{0}{X}$ to the right of the shield, C to the left)
	Obverse: Reverse:		PVS. 0. G. HISPANIARVM. R NOIARVM. REX. 0. G.
Variety 4R.B.	l: Assay	er B	$(\overset{o}{B}$ to the left of the shield, denomination Roman IIII)
	Obverse: Reverse:		PPVS . D . G . HISPAN INDIARVM . REX
Variety 4R.B.	1.1: Assay	er B	$(\overset{o}{B}$ to the left of the shield, denomination Roman IIII)
	Obverse: Reverse:		PPVS . D . G . HISPAN INCIARVM . REX
Variety 4R.B.	2: Assay	er B	$(\overset{o}{B}$ to the left of the shield, denomination Roman III)
	Obverse: Reverse:		PPVS . D . G . HISPAN NDIARVM . REX
Variety 4R.B.	3: Assay	er B (B)	(B to the left of the shield under mintmark $_{P}^{A}$, denomination Arabic 4 to the right, under o)
	Obverse: Reverse:		PPVS . D . G . HIS INDIARVM . REX
Variety 4R.B.	4: Assay	er B	$(\overset{o}{B}$ to the left of the shield, denomination Arabic 4 under $\overset{A}{P}$ mintmark to the right)
	Obverse: Reverse:		PPVS.D.G.HIS INGIARVM.REX

A word of caution: The above legends should only be considered as guides, since the dies for these coins were hand-made and there may well still be coins showing new representations of the way the legend was used, just waiting to be discovered.
Also, these coins were struck by hand, one by one, which makes each unique in itself. In some cases only one coin is known and in others, even when more than one coin is known, parts of the legend are still not visible. So, even after careful examination, it is only possible to provide a guide, rather than a standard.

Legacy of the Diesinkers

Differences that can be found in these die varieties (designs and legend) are a great tool in the study of these coins. The high-quality steel that was required for making dies during the 16th century was expensive. To maximize its use, when errors were made in the engraving stage, these were ignored or punched over, even on dies that had been used by an earlier assayer. If these were still in good condition, the new assayer mark was added to utilize their remaining life, but even when care was taken, sometimes the steel had hidden flaws that caused dies to break prematurely, and new dies had to be made. This was a great problem then, but today is of benefit since the differences in die variations can be used to study the evolution of these coins or the change of diesinkers.²³

The legend and designs of the coins from Panama appear in different ways as a result of the difference in experience and ways of doing things by the diesinkers. There were at least two different periods of diesinkers in operation at this mint, demonstrated by the complete difference in the design between the coins of assayer initial $\stackrel{0}{B}$ and the ones of assayers P-M, $\stackrel{0}{X}$ and $\stackrel{0}{X}$ -C.

There are coins from assayer $\overset{o}{B}$, in denominations of 1, 2 and 4 *Reales*, that show a rotated D (**Q**), commonly seen on the coins from assayer $\overset{o}{X}$, as part of the legend, only on the reverse. This could represent that some of the reverse dies that had been prepared by the previous diesinker might have been carried over and were used concurrently with the newly prepared obverse dies for this assayer. However, no coins from any other assayer for this mint are known with a match for this corresponding reverse die, so error is still a possibility.

The diesinker associated with assayer $\stackrel{\circ}{B}$ might have worked, if not when assayer $\stackrel{\circ}{X}$ was still present, then at a later period, working concurrently with assayer $\stackrel{\circ}{B}$. Some similarities from the previous diesinker (first period) can be seen in the coins of this second period, but the most noticeable similarity between the two periods is the tressure, concerning which only one coin shows an exception. This exception can be seen on a single 4 *Reales* with the mark of assayer $\stackrel{\circ}{X}$ that apparently is an error for this mint as it has the tressure beginning with parentheses and not braces (the only such coin for Panama) - (see image of this coin on page 148).



A major difference does occur on some of the coins from assayer B, compared to others from any other operating mint of the 16th century. On these coins the Arms of Aragon are omitted from the shield. This occurs on different denominations from this assayer, showing that it was not done as an error, but an alteration in design. The source of the alteration might be incompetence, but it's still a variation in design.

It is also visible on some of the coins from assayer B that the punch used for the assayer mark was damaged, missing the upper portion of the loop on the letter B. It has been postulated in the past that this broken B could actually be an inverted, retrograde R.²⁴ This idea is attractive

in that the letter B was not among the standard 15 letters used to make the legend, and therefore would have to be specially made. Certainly it would have been easier to utilize an existing punch than to manufacture something new. However, it is important to note that punches could not be turned inside-out, which would have to be done in order to manifest a particular letter in retrograde! Most likely the B is simply broken at the top, possibly further indicating that these were among the last coins produced at the mint, at a time when it would not be prudent to go to the expense and trouble to make a new punch.



Barry W. Stallard documented that the unusual die details of the diesinker that operated for assayers P-M, X and X-C suggest that he might have come from Spain and might not have had any familiarity with the way that the designs were being carried out by the diesinkers of Peru. Furthermore, some of the first dies might have been partially stamped in Spain, giving the diesinkers in Panama extra guidelines. Some of these indications are:²⁵

- A rotated letter D (**Q**), an anomaly that occurred with some exceptions in the mint of Granada. The D appears rotated 180 degrees on all parts of the legend where it goes, so it is a diesinker's design alteration and not an error. One coin from assayer X shows only one retrograde D. This indicates that the D that was stamped straight is the actual error for the coins from this assayer.
- 2) The brace-parentheses combination is rotated 45 degrees so that all braces appear at the end of the arms of the cross, as explained earlier in this chapter. This design does not occur in 16th century America, but it does occur in Granada and Toledo.

3) Compared to the coins of Peru, most of these coins show the legend more spread out around the rim, and the crown always appears with open ellipse, raised over the shield.

Also, it can be said that the Arabic 4 of the denomination appears either backwards or rotated vertically 90 degrees, a possible design alteration from its normal form. This feature has been documented on two Panama 4 *Reales* of assayers: \hat{X} and \hat{X} -C (see images of these coins on pages 151 and 152). Both dies show characteristics of having been made within a short time, and error in the engraving process is still a possibility. Unlike the problem with the backwards-R theory on the preceding page, a retrograde 4 is not out of the question since it was not a standard punch anyway and had to be engraved on the die by hand.



Image to the left: Arabic 4 rotated vertically 90 degrees or retrograde (as it appears on some of the coins from Panama).

- (1) King Ferdinand is also known as Ferdinand V of Castile and León and Ferdinand II of Aragón and Sicily.
- (2) H. F. Burzio, Diccionario de la Moneda Hispanoamericana (Santiago de Chile, 1958), Vol. II, p. 376.
- (3) C. Castán, J. R. Cayón, Las Monedas Españolas Desde D. Pelayo (718) A Juan Carlos I (1980) (Madrid, Spain, 1980), pp. 17 & 86.
- (4) H. Thomas, *Rivers of Gold-The Rise of the Spanish Empire, from Columbus to Magellan* (New York, NY, 2003), pp. 361, 368-370 and 389-392. Charles was in Flanders in 1516 when he was proclaimed King of Spain. So, given the mental illness of his mother, Queen Joanna, the throne was held by Cardinal Francisco Jiménez de Cisneros as regent until his arrival in 1517. Cardinal Cisneros died on November 8, 1517, shortly after the arrival of King Charles in Spain.
- (5) F. Calicó, X. Calicó & J. Trigo, Numismática Española 1474 a 1994 (Barcelona, Spain, 1994), p. 91; F. Calicó, X. Calicó & J. Trigo, Numismatica Española 1474 a 1998 (Barcelona, Spain, 1998), p. 93 The only exception to this was carried out between 1504 and 1516 on the coins of 1 Real from the mint of Granada. Joanna, daughter of Ferdinand and Isabella, was proclaimed Queen of Castile upon her mother's death in 1504. Although there was no need to change the Coat of Arms as seen for the reign of Ferdinand and Isabella, the legend on these coins from Granada reads Ferdinand and Joanna.
- (6) E. Rosenthal, "Plus ultra, Non plus ultra, and the Columnar Device of Emperor Charles V," *Journal of the Warburg and Courtauld Institutes*, Vol. XXXIV, (London, England, 1971), pp. 204-228. This entire article is recommended reading for the complete origins of the Columnar Device adopted by King Charles V and its early history. The article looks at all sources that discuss this issue and eliminates any doubts as to the true origins of this device and its motto.
- (7) Ibid, pp. 210-213. Mr. Rosenthal traces the story of the Columns of Hercules from antiquity through the subsequent centuries. After conducting this very meticulous study which covered the ancient early Greek sources, the Roman period, references to the Columns during the Muslim occupation of Spain, the Middle Ages and the early Renaissance, Mr. Rosenthal indicates that no early reference could be found for the inscription placed on these columns as being that of *Non Plus Ultra*. Mr. Rosenthal later acknowledged that: "The earliest evidence found for the belief that *Non plus ultra* was the inscription on Hercules's Columns is provided by two Spaniards. Agustin de Horozco in his *Historia de la ciudad de Cadiz* of 1598 referred to 'those very celebrated words *Non plus ultra* on the Columns of Hercules'. The following year, in discussing the use of *Non plus ultra* as a motto by Hernando de Vega (who had 'governed' the Indies), Hernando de Soto presented the following lines of explanatory verse: 'If with valour second to none / Hercules placed a *Non plus ultra* on his Columns / you [Vega] with greater glory the New World from Heaven."
- (8) Ibid, p. 205, footnote 3. Mr. Rosenthal gives credit for the discovery of the source of Charles V's Columnar device with the motto of *Plus Oultre* (later *Plus Ultra*) to Paolo Giovio. Herein Mr. Rosenthal writes: "...Paolo Giovio's attribution of the device to Luigi Marliano (*Imprese*, II) will be supported by other early independent sources..."
- (9) Ibid, p. 222. Regarding the choosing of this device Mr. Rosenthal writes: "It is important to recognize that in 1516 Charles's motto was not a direct contradiction to the out-dated prohibitive significance of the Columns as symbols of prudence and moral restraint (though the earlier meanings were still remembered) because these associations had already been suspended by the modern attitude of Dante and Pulci, and of course, the spectacular success of (Christopher) Columbus. In choosing these symbols of the new Promethean spirit, Charles was not promising simply to extend his domain or to explore the antipodes out of curiosity but, rather, to carry Christianity 'to the ends of the earth,' as Pulci had envisioned. The idea was evoked by the motto itself because Plus Oultre (while apparently derived from the Dantesque tradition) also recalled a famous cry of medieval pilgrims on the way to the Holy Land." He also later writes: "...in this study limited to the origin of the motto, it is sufficient to note that *Oultre* brought to mind not only the old prohibitive and the new Promethean significance of the Columns but also the aggressive religious fervour of the Crusades."
- (10) Ibid, pp. 224.
- (11) All evidence appears to indicate that Santo Domingo began its coin production in 1542, with billon coins only. The production of silver coins must have not began until 1543; year when the unusual denomination of 10 *Reales* was minted. For more information on this see footnote 15 of Chapter 1 (page 19 of this book).

- (12) Archivo General de Indias (AGI), Panamá: 229, D. 70; Archivos Nacionales de Panamá (ANP), P. 27, D. 65. From original: "...Relacion de la Punzoneria y cuños que se embian a la Real Audiencia de Panama..." (Punches and dies sent to Panama).
- (13) Burzio (op. cit., n. 2), Vol. II, p. 281.
- (14) R. Nesmith, Numismatic Notes and Monographs of the American Numismatic Society, *The Coinage of the First Mint of the Americas at Mexico City* 1536-1572 (New York, NY, 1955), pp. 33-34.
- (15) AGI (op. cit., n. 11).
- (16) D. Sedwick and F. Sedwick, *The Practical Book of Cobs.* 3rd Edition, (Winter Park, FL, 1995), pp. 12-16. Good source of information on the components of the Spanish Colonial coins.
- (17) American Numismatic Society, Proceeding No. 5, Coinage of the Americas Conference (COAC), Editor W. L. Bischoff, *The Coinage of El Perú* (New York, NY, 1988), p. 115. Chapter titled, "The Enigmatic Sixteenth-Century AP Coins: Issue of a Peruvian Mint in Alto Peru?" by Barry W. Stallard.
- (18) AGI, Indiferente: 426, B. 25, D. 55 (March 18), D. 62 (May 20), D. 64 (June 7), and D. 68 (June 28). All four of these documents from the year 1570 include payments made to a Juan Paulo Poxini for the punches made for the mints of New Spain and the City of Kings; Nesmith (op. cit., n. 14), p. 39. Only the document dated June 28, 1570, was known when Nesmith documented this information, taking the name from José Toribio Medina's work as ROXINI, but he indicates that Adolfo Herrera in the book *El Duro*, Vol. 1, writes this name as PROXINI. The discovery of the other three documents helped to clarify the correct spelling of the name for this sculptor as POXINI.

AGI, Indiferente: 426, B. 26, D. 156. This is the location of the information on Borago; J. T. Medina, *Las Monedas Coloniales Hispano-Americanas* (Santiago de Chile, 1919), p. 252. In Medina's book, the reference to the sculptor Clemente Borago and the punches for the mint of Tierra Firme was included in the work on the Colombian mints. At the time this book was written, it was not known that the mint of Tierra Firme referred to the one ordered established in Panama.

- (19) COAC, op. cit., n. 16, p. 48. Chapter titled, "The Early Lima Mint," by Eduardo Dargent Chamot; J. T. Medina, Las Monedas Hispano-Americanas (Santiago de Chile, 1919), p. 155; H. F. Burzio, Diccionario de la Moneda Hispanoamericana (Santiago de Chile, 1958), Vol. I, p. 284. Both Medina and Burzio quote a section of this letter from March 1, 1572, as follows: "Las nuevas marcas que V. M. invió para que en este reino se marque la plata y oro y acuñe la moneda se recibieron en Lima y se usará dellos conforme a lo que V. M. manda."
- (20) Burzio (op. cit., n. 2), Vol. II, p. 24. Transcript from original located here. "En cada provincia a donde se marca oro y plata ay su marca diferente de que resultan muchos ynconvenientes y ocasiones de falsedades convernia a mi parecer que todas las marcas fuesen de una senal vuestra magestad proveera lo que mas servido fuere."
- (21) COAC, op. cit., n. 16, p. 62. Chapter titled, "Documentary Evidence for La Plata and Potosí," by Arnaldo J. Cunietti-Ferrando. Information here was taken from the Bibliotéca de la Universidad Mayor de San Andrés (La Paz, Bolivia): Manuscritos. Provisiones del Virrey Toledo. fol. 45.
- (22) R. D. Mathewson III, Treasure of the Atocha. 2nd Edition, (New York, NY, 1987), p. C-34; S. R. Zucker, Pivs Vitra Newsletter, "1621 Nuevo Reino de Granada 8 Reales Silver Cobs: First Coin Issue of Colombia," (West Palm Beach, FL, 2005), Vol. 23, No. 1, pp. 6-7. R. Duncan Mathewson III, Archeological Director of the Search for the Nuestra Señora de Atocha, reported as early as 1986 that there were Colombian coins (New Kingdom of Granada) dated 1621. But Dr. Mathewson's work did not present any image of a 1621 coin, which caused this date to later be dismissed in favor of the year 1622 as the earliest year for coins from this mint. However, recently Samuel Zucker and Daniel Sedwick have studied some of these coins and determined that in fact there are coins dated 1621 (see picture of Colombian 1621 coin on page 84).
- (23) D. R. Amstrong, Tumbaga Silver for Emperor Charles V of the Holy Roman Empire (Palm Bay, FL, 1993), pp. 24-27. Although this talks about the punches and dies used for stamping the silver bars of the early 16th century, the information is a good reference as it would also apply to the punches and dies for making coins.
- (24) Superior Galleries, 1992. The Paul Karon Collection of 8 Escudos and other Classic Latin American Coinage, Public Auction Sale, December 11. New York, NY, Lot. 152.
- (25) COAC, op. cit., n. 16, pp. 114-115.