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*THE GREGORIAN CALENDAR IN NEW SPAIN:
A PROBLEM IN SIXTEENTH-CENTURY CHRONOLOGY*

HARRY KELSEY

AFTER A YEAR-LONG JOURNEY TO NEW MEXICO, Antonio de Espejo arrived in Santa Bárbara, Nueva Vizcaya, in the fall of 1583, weary, confused, but full of information about the new country he had seen. Almost immediately he began to compose a report, signing and dating it "at the end of the month of October" 1583.¹ This dating may seem imprecise for a formal report, and the truth is that Espejo did not know how to write the date.

He seemed sure about the date of his return, 20 September, and he knew that he had been back for twenty-five days, more or less. He recorded all this very carefully in a covering letter. But Espejo was confused about the date. He could do no better in his calculations than to call it "the end of October."² The reason for his confusion is simple. In this Spanish colony in 1583, October had only twenty-one days. The Gregorian calendar correction made it so.

Another member of the Espejo expedition, Diego Pérez de Luxán, compiled a more detailed diary of the journey in which he said that the expedition returned on 10 September.³ Obviously one of the men was wrong. Most historians have concluded that it was Espejo, largely because the Luxán journal accounts for nearly every day in the trip, with no allowance for a ten-day discrepancy.⁴

But the real reason for Espejo's error—and it apparently was an error—lies in the nature of the Gregorian calendar correction and the way it became effective in the New World. Moreover, probably Luxán himself was just as confused about the true date as Espejo. The Gregorian calendar introduced similar problems wherever the change was made. Since the reasons are not well understood even

in this four-hundredth anniversary of its adoption here, the details merit a brief review.

At the beginning of the sixteenth century the Julian calendar was universally followed in the Christian world. The Leap Year observance in the Julian calendar made the normal year eleven minutes and fourteen seconds too long. This excess amounted to a full day every 128 years. By the late sixteenth century the calendar was ten days in advance of the true solar year, a matter of universal concern.⁵

Church officials and theologians worried that the date for the celebration of Easter no longer followed the dictates of the Council of Nicaea, which had set the vernal equinox at 21 March and computed Easter on that basis. In 1580 the vernal equinox came on 11 March, with the result that Easter and the other moveable feasts were celebrated at the wrong time.⁶

The lack of scientific accuracy made the calendar a matter of concern to scientists and mathematicians, but there were political problems as well, and some faltering steps had been taken to correct these. Prior to 1550 the beginning of the new year had been observed on dates that varied widely in different parts of Christendom. Spain, for example, observed a change in years on 25 December, and Spanish documents customarily noted the fact with a formulary similar to this one: "*año del nacimiento de nuestro Salvador Ihesu Christo*" ("the year of the birth of our Savior Jesus Christ").⁷

England began the year on the feast of the Annunciation, 25 March, a practice that the papacy also followed. Bulls and other official church documents used the phrase "*anno Incarnationis dominicae*" to note that fact.⁸ Still, the liturgical year began on the first Sunday of Advent, a scant three weeks before Christmas. On the other hand, calendars printed in the Roman Missal, the Breviary, and the Martyrology had for centuries shown 1 January as the beginning of the new year.⁹ This observance was never abandoned in Roman Christendom. In England, where the Annunciation style was observed until changed by Parliament in 1752, New Year's Day was always celebrated on 1 January.¹⁰

Even though the year began officially in Spain on 25 December, few documents were signed between that day and 1 January, which was often observed as the beginning of the year even before the

official change was made in 1556.¹¹ The same situation prevailed in France, where the official change was made in the mid-1560s.¹²

This legal change reflected a growing tendency toward the adoption of a uniform calendar throughout Europe, where for centuries the observance had differed from country to country, province to province, and even city to city. The change was often made without dropping the formularies used to indicate calendar style. By the middle sixteenth century such phrases were more a matter of tradition than an infallible indication of a dating method. Confusion about this point has led to considerable misunderstanding about dates, even in the papal bulls that initiated the Gregorian calendar reform.

Someone had to take the lead in reforming the calendar, and the Council of Trent had already urged the pope to do so. Consequently, Gregory XIII, who became pope in 1572, called together an international body of scholars and scientists to consider the problem and suggest a solution. Once he received their recommendations, along with the advance agreement of leading Catholic sovereigns, Gregory issued a formal proclamation or bull, *Inter Gravissimas*, specifying the details of the new calendar.¹³ The bull was dated "*anno Incarnationis dominicae millesimo quingentesimo octuagesimo secundo, sexto kalendas martii, pontificatus nostri anno x*" ("the year of the Lord's Incarnation one thousand five hundred and eighty-two, the sixth calend of March, the tenth year of our pontificate").¹⁴ The sixth calend of March is 24 February.

Assuming erroneously that the new year changed on 25 March for all papal bulls, some historians have concluded that the date of the bull corresponds to 24 February 1583, February being the eleventh month of the year in the Incarnation style of dating.¹⁵ Others, citing an early but erroneous printing of the bull, have the date as 24 February 1581.¹⁶ Both errors are incompatible with the regnal year, "the tenth year of our pontificate." Statements in the bull and many other contemporary documents amply illustrate the error of these viewpoints. In fact, a supplementary correction issued by the pope on 7 November 1582 would have preceded the bull, if the first of these erroneous views were followed.

In any case, *Inter Gravissimas* decreed that October 1582 should be shortened by ten days, 4 October being followed by 15 October.

OCTOBER.

Cui defunt decem dies pro correctione Anni Solaris.

Cyclus pa&. Anni correction. MDLXXXII.	E. Anni Do- mi- nic.	Lit. Do- mi- nic.	Dies Men- sis.	
xxii	A	Kal.	1	Remigii Episcopi & Confess.
xxi	b	vi	2	
xx	c	v	3	
xix	d	iiii. Non.	4	Francisci Confess. duplex.
viii	A	Idib.	15	Dionysii, Rustici, & Eleutherii martyrum. semiduplex. cum commemoratione S. Marci Papæ & Confessoris, & SS. Sergii, Bacchi, & Apuleii martyrum.
vii	b	xvii	16	Calixti Papæ, & mart. semiduplex.
vi	c	xvi	17	
v	d	xv	18	Lucæ Evangelistæ. dupl.
iiii	e	xiiii	19	
iii	f	xiii	20	
ii	g	xii	21	Hilarionis Abbatis. & comm. SS. Ursulæ & sociarum virg. & mart.
i	A	xi	22	
*	b	x	23	
xxix	c	ix	24	
xxviii	d	viii	25	Chrysanu, & Dariz marty.
xxvii	e	vii	26	Euaristi Papæ & marty.
xxvi	f	vi	27	Vigilia
25 xxv	g	v	28	Simonu & Iude Apostolorum. dup.
xxiiii	A	iiii	29	
xxiii	b	iii	30	
xxii	c	Pr. Kal.	31	Vigilia

The October 1582 calendar page from Christopher Clavius, *Operum Mathematicorum Tomus Quintus* (Maguncia: Antonius Hierat, 1612). Courtesy of author.

In this way the vernal equinox would occur again on 21 March. This change would solve the ecclesiastical problem, as Easter would again occur on the day decreed by the Council of Nicaea.¹⁷

The other problem was to devise a method to keep the civil year and the solar year in conjunction. This would be accomplished by revising the Leap Year rules for centesimal years (those divisible by 100). In the future only those centesimal years divisible by 400 (1600 and 2000, for example) would be Leap Years. In the other centesimal years (1700, 1800, 1900, 2100, etc.) February would have only 28 days.¹⁸

Partly to keep errors at a minimum, but also to reward the family of his late scientific adviser, Gregory decreed that only the papal printer, Antonio Giglio, could issue copies of the corrected calendar for the year 1582. Things might have gone well if the printer had done his job promptly, but he did not. Some printed copies of the correction, covering the months of October through December, were sent out to nuncios and government officials in May and June.¹⁹ But many governments did not receive copies until it was too late to put the calendar into effect for 1582.

The Spanish sovereign, Philip II, apparently received his copies of the corrected calendar in the late summer of 1582, as he told the archbishop of Toledo in a letter dated 4 September.²⁰ He immediately had manuscript copies made for distribution throughout Spain, and some printed copies were made at Madrid in early October.²¹

The distribution was accomplished with surprising speed, some copies leaving El Escorial on 12 September. The official journal of the royal monastery at El Escorial contains this note for the month of October:²²

The calendar reformed by Pope Gregory XIII began after October 4 of this year of 82, and the ten days that come first are eliminated in this way 1-2-3-4-15. In place of 5 we say 15, omitting ten days.

The monastic chronicler knew what he meant, even if he did not say it clearly.

The problem in France was similar to that in Spain. Copies did

not arrive in time, and the French had to print their own. As a result, they were not able to make the change in October, as *Inter Gravissimas* decreed. The pope had foreseen such a possibility and had ordered that where the change could not be made in October 1582, it should be done in October 1583.²³ Later he changed his mind about this order, saying that February 1583 would be a better time for the change.²⁴ The French king did not agree. Dropping ten days in February would mean no Feast of Carnival, the celebration that precedes the Lenten period of fast and penance.²⁵ Obviously, another date had to be selected.

Some members of religious communities suggested dropping ten days in December, which would shorten the period of fast during the Advent season. It was so ordered, and as a result the day after 9 December became 20 December in France or large parts thereof.²⁶

The initial confusion about the new calendar was repeated with local variations in every country, principality, and district, whether or not the new calendar was adopted. Catholic countries generally accepted the change and immediately put it into effect, while the Protestant countries generally did not.²⁷ In Madrid Antonio Cardinal Granvela wrote about this matter to a friend, saying:²⁸

In Germany it is certain that the Catholics will follow the others. In the areas in heresy there is more doubt, but political considerations will force them to accommodate themselves to what is done in other places.

The cardinal was right, as it turned out, but some "areas in heresy" took an unseemly time to make the accommodation. Great Britain, for example, did not adopt the calendar until 1752, and Russia waited until the twentieth century to do so. Problems were not confined to those areas that rejected papal leadership. In the Spanish colonies change came very slowly and with considerable confusion.

On 7 July 1582 Philip's secretary, Mateo Vázquez, sent a royal order to the Consejo de Indias, directing that body to consider the problem of changing the calendar in the Indies. After prolonged study and following consultation with the apostolic nuncio, the consejo prepared its consulta.²⁹ This report contained little that was

original, as the problems had already appeared elsewhere, and most had been considered to some extent by Gregory or the various civil authorities who had already issued decrees.³⁰

Briefly, the consejo suggested that contracts might have to be extended or adjusted, salaries and wages discounted, and considerable latitude given to local authorities in determining the date for making the calendar change. After noting and approving these suggestions, Philip ordered the consejo to prepare a document for his signature. This was done, and the king signed the *pragmática* at Aranjuez on 14 May 1583.³¹

First, the king decreed that in "the present year" of 1583 the fifth of October should be counted as the fifteenth, omitting the intervening ten days. He also ordered that whenever necessary ten days should be added to contracts and legal agreements made before publication of the calendar, "lest it cause some damage, doubt, or inconvenience." Similarly, rents, salaries, and other payments should be prorated to take into account the loss of ten days. Of those distant parts of the Indies that might not receive notice of the change in time to act upon it in 1583, the king said:³²

I order and command that it be done in the following year of eighty-four or in the first year in which notice of the foregoing might be received, and this might be publicized in the said kingdoms.

The royal *pragmática* seems to have arrived in New Spain before the end of summer, though the exact date of arrival is uncertain. Here are the few known facts. In the spring of 1583 the king signed an order appointing Archbishop Pedro Moya de Contreras to be visitador general of New Spain. On 26 October 1583 the archbishop reported to the king that he had just recently received this order, as well as the order of May 1583, announcing a new *audiencia* for the Philippines. He added that he had publicized his *visita* in the city of Mexico on 4 September and "within a few days" had done the same in all the principal towns of New Spain.³³

The royal *pragmática* concerning the calendar change probably arrived in New Spain on the same boat as these other dispatches, in late August or early September 1583. It can scarcely have arrived sooner, as the king did not sign it until 14 May. The dispatch

certainly did not arrive later, because it was made effective throughout New Spain in early October. Here is how the archbishop of Mexico described the order in a letter of 26 October 1583.³⁴

The new calendar of his holiness Gregory the Thirteenth was begun in Mexico and the suffragan churches on the fifth of this month, in accordance with the order from Spain. I trust it was done properly, even though the calendars reportedly being sent from San Lorenzo el Real have not come up from the port. Everyone was informed by means of a brief handwritten summary that I made to dispatch with your royal *cédula*, an extract from the calendar that Your Majesty sent.

Probably the copies of the royal *cédula* and the new calendar were sent from Spain in printed form, perhaps done in Madrid by the same man who printed copies of the original order making the change effective in peninsular Spain.³⁵

With the dispatches on the calendar, the *visita*, and the new *audiencia* all being signed by the king in late spring of 1583, with action on the first two being necessary at about the same time, and with all three being reported in letters of the same date, it is reasonable to assume that the calendar and the *visita* were publicized within days of one another, if not on the same date.

But how did this news affect Espejo and his men? They returned to Nueva Vizcaya probably on 10 September, as the Luxán diary makes clear. Almost immediately, and this point is clear in Obregón's contemporary history, Espejo and his men were arrested and his property was confiscated, including the original report of the expedition, doubtless Luxán's diary.³⁶

Refusing to submit willingly to this indignity, Espejo submitted an appeal to the *audiencia*. At the same time he wrote a direct report to his friend Archbishop Moya de Contreras, addressing him as "The Most Illustrious Archbishop of Mexico, Visitor General of New Spain, My Lord," showing that he already knew about the *visita*.³⁷ Since he was without the detailed notes Luxán made, Espejo had to make do with what he and the others could remember. For this reason his report contains very few dates, and the facts are at considerable variance with those Luxán recorded.

Espejo's knowledge of the calendar change was perhaps limited

to his having heard it "proclaimed in a loud voice" in the public square of Santa Bárbara, as the custom was in those days.³⁸ If he saw a copy of the calendar, it was doubtless an "extract" of the Spanish calendar for 1583, which would have been ten days in advance of the one used in New Spain. In any case, he seemingly decided that the proper way to record the date of his return was to use the date as it appeared in the new Spanish calendar, 20 September, rather than 10 September. Did he also have to omit another ten days, as the royal *pragmática* said? Espejo did not know. He was confused, so he simply dated his report and his covering letter at "the end of October" and trusted that Archbishop Moya could work out the correct date.

In fact, he probably signed the report on or shortly after 15 October, which would have been twenty-five days after 10 September, according to the new calendar that changed 5 October to the fifteenth. This supposition is confirmed to some extent by a statement in one of the archbishop's letters of 26 October, in which he said that while he was writing, he received news of the return of the explorers from New Mexico.³⁹

Confusion reigned everywhere with the calendar change. In Guatemala, for example, the new calendar became effective in January 1584 because the royal *pragmática* arrived too late for the change to be made earlier. For some strange reason, nearly a month elapsed before the news arrived in Sololá, only a short distance from the capital; so the change there was not made until 2 February, several days after the calendar became effective in Santiago.⁴⁰

The real problem, however, lay with the members of the *audiencia*, who refused to accept a reduction in salary for the ten days omitted from the month. Finally, the king had to issue a special order telling the men to return the excess payments they had collected. Why? "Because such is my will."⁴¹

In the Philippines, whose bishop was suffragan to the archbishop of Mexico, the change was observed in October 1584. Melchor Davalos, arriving at Manila late in the spring of 1584, reported this curious state of affairs:⁴²

While at sea we kept Ascension Day, Whitsunday, Trinity Sunday, and Corpus Christi Day; when we landed we kept and celebrated

the same feast days in Manila, because the new reckoning was not yet in force there, and does not come into effect until the fifth of October of the present year. It is a memorable event that according to the said new reckoning we arrived here on the twenty-sixth of May, and according to the old on the sixteenth of the same month.

The new calendar became effective in Peru in October 1584. This fact is clear from the well-publicized copy of the royal pragmática printed by Antonio Ricardo of Lima and regarded as one of the first items issued by that press.⁴³ In Córdoba de Tucumán, one of the most isolated provinces of South America, the new calendar did not become effective until early 1585.⁴⁴ Though it seems doubtful that other isolated areas adopted the calendar at a later date, it is entirely possible.

Clearly, New World dates in the sixteenth century need to be handled with caution. Manuscripts written in the early 1580s need particular care. The Gregorian Calendar—a monument of administrative reform—created mass confusion for a brief time. Historians who deal with the period must be prepared to investigate the circumstances surrounding the composition of each document, even when the writer seems to know about the new calendar. Most people simply did not know how to handle the change, as the case of Antonio de Espejo shows.

NOTES

1. "Relación del viaje que yo antonio de espejo andando de la ciudad de mex^{co} natural de la ciudad de cordova hize con catorce soldados y un religioso de la orden de San fran^{co} a las Provincias y poblaciones de nuevo mex^{co} a quien puse por nombre el a nueva andalucia a contemplacion de mi patria en fin del ano de mill y quinientos y ochenta y dos," Patronato 22, ramo 1, folios unnumbered, Archivo General de Indias (AGI), Seville, Spain. Two apparently different copies of Espejo's original report are printed in Joaquin F. Pacheco and Francisco de Cárdenas y Espejo, eds., *Colección de documentos inéditos relativos al descubrimiento, conquista y organización de las antiguas posesiones españolas en América y Oceanía*, 42 vols. (Madrid: Imprento de José María Perez, 1871), 15: 101–26, 163–89. The most recent translations made from original manuscript copies are those by George P. Hammond and Agapito Rey in *The Rediscovery of New Mexico, 1580–1594* (Albuquerque: University of New Mexico Press, 1966), pp. 213–31.

2. Espejo to the archbishop of Mexico, "a fin de Octubre de 1583 a^s," Patronato 22, ramo 1, folios unnumbered, AGI. A published copy may be found in *Colección de documentos inéditos*, 15: 162–63, translated in *Rediscovery of New Mexico*, pp. 232–33.
3. *Rediscovery of New Mexico*, pp. 153–212. The earlier edition of the Luxán journal contains a facsimile of the final page of the manuscript in which the date is easily legible. See Hammond and Rey, trans., *Expedition into New Mexico Made by Antonio de Espejo, 1582–1583, as Revealed in the Journal of Diego Pérez de Luxán, a Member of the Party* (Los Angeles: Quivira Society, 1929), opposite p. 128.
4. Of the several historians who have published extensive accounts of the journey, only Herbert E. Bolton accepted the date September 20. See his *Spanish Exploration in the Southwest, 1542–1706* (New York: Charles Scribner's Sons, 1916), p. 166. A minor discrepancy occurs in the accounts concerning the starting and ending points, either the mines of Santa Bárbara or the valley of San Bartolomé. Espejo seems to have used the names interchangeably, though they were about a day's journey apart. See his letter to Pedro Moya de Contreras, "at the end of October of 1583," in Patronato 22, ramo 1, folios unnumbered, AGI, reprinted in *Colección de documentos inéditos*, 15: 162–63; translated in *Rediscovery of New Mexico*, pp. 232–33.
5. Few reliable summaries exist of the calendar problem and the effects of the Gregorian reform. One of the best is by Ludwig von Pastor, *The History of the Popes from the Close of the Middle Ages*, 40 vols. (London: Kegan Paul, Trench, Trubner & Co., 1930), vol. 19, trans. Ralph Francis Kerr, 283–96.
6. Pastor, *History of the Popes*, 19: 283–96.
7. See the discussion in José Joaquín Real Díaz, *Estudio diplomático del documento indiano* (Sevilla: Escuela de Estudios Hispano-Americanos, 1970), pp. 283–85.
8. The best published collection of papal bulls is *Bullarum diplomatum et privilegiorum sanctorum romanorum pontificum Taurensis editio*, 27 vols. (Turin: Seb. Franco et Henrico Dalmazzo, 1857–1894). The bulls for Pope Gregory XIII are in vol. 8.
9. See, for example, Robert Lippe, ed., *Missale romanum Mediolani (1474)*, 2 vols. (London: Henry Bradshaw Society, 1899), 1: xiii–xxiv; *Missale ad usum ecclesie Sarisburiensis* (London: John Kingston and Henry Sutton, 1555); William Henry James Weale, "Clavicula missalis romani S. Pii V. iussu editi," *Analecta Liturgica* (Bruges: Desclee, De Brovwer et Soc., 1889), vol. 1.
10. Lewis A. Scott, *Act and Bull: or Fixed Anniversaries, a paper submitted to the Numismatic and Antiquarian Society of Philadelphia, November 4, 1880*, (Philadelphia: n.p., 1880).
11. Real Díaz, *Estudio diplomático*, pp. 283–85.
12. Reginald L. Poole, *Studies in Chronology and History*, coll. and ed. by Austin Lane Poole (Oxford: Clarendon Press, 1934), p. 27.
13. Pastor, *History of the Popes*, 19: 284–88.

14. *Bullarum diplomatum*, 8: 390.
15. Among the most recent is Pedro S. de Achútegui, who also asserts that the calendar was not changed anywhere in Europe until 1583. See his article "A Problem of Chronology: The Quadricentennial of Manila and the Gregorian Calendar," *Philippine Studies* 27 (Fall 1979): 417-31.
16. Poole, *Studies in Chronology*, p. 27. The error is explained by Nicolaus Nilles in his "Die Datierung des Liber Sextus Bonifaz VIII juncta glossa," *Zeitschrift für katholische Theologie* 25 (1901): 13-14; and in Pastor, *History of the Popes*, p. 288, which follows Nilles. In any case, the original error is contradicted in the more extensive information listed on the colophon on the same page. See Christopher Clavius, *Operum mathematicorum tomus quintus, continens romani calendarii a Gregorio XIII. p. m. restituti explicationem* (Maguncia: Antonius Hierat, 1612), p. 15.
17. *Bullarum diplomatum*, 8: 377-78.
18. *Bullarum diplomatum*, 8: 388.
19. Pastor, *History of the Popes*, 8: 289-90.
20. Cited in "Calendario," *Diccionario encyclopedico Hispano-Americano*, 28 vols. (Barcelona: Montaner y Simón, 1913), 4: 219.
21. José Toribio Medina, *La primera muestra tipográfica salida de las prensas de la América del Sur* (Santiago de Chile: Imprenta Elzeviriana, 1916), p. 1. Cristóbal Pérez Pastor, *Bibliografía madrileña ó descripción de las obras impresas en Madrid*, 3 vols. (Madrid: Tipografía de Los Huerfanos, 1891-1907), I: 83-84.
22. Juan de San Gerónimo, "Libro de memorias deste monasterio de Sant Lorenzo el Real," in *Colección de documentos inéditos para la historia de España*, ed. Miguel Salvá y Munar y Pedro Saínz de Baranda, 113 vols. (Madrid: Imprenta de la viuda de Calero, 1845), 7: 356-57.
23. *Bullarum diplomatum*, 8: 389.
24. This was announced in the bull *Cupientes*, *Bullarum diplomatum*, 8: 390.
25. Cardinal Granvela to Cristóbal de Salazar, 10 December 1582, *Colección de documentos inéditos para la historia de España*, 35: 354-56.
26. Cardinal Granvela to Cristóbal de Salazar, 10 December 1582, *Colección de documentos inéditos para la historia de España*, 35: 354-56. See also Pierre de L'Estoile, "Journal de Henri III, 1581-1586," *Mémoires-journaux de Pierre de L'Estoile*, 12 vols. (Paris: Libraire des bibliophiles, 1875-1895), 2: 96.
27. Pastor, *History of the Popes*, 8: 290-96. For an example of such problems see Landgrave Guillaume de Hesse to Comte Jean de Nassau, 22 February 1583, in G. Groen Van Prinsterer, *Archives ou correspondance inédite de la maison d'Orange-Nassau*, series I, 8 vols. (Leiden: S. et J. Luchtman, 1847), 8: 164-66.
28. Letter to Salazar, 10 December 1582, *Colección de documentos inéditos para la historia de España*, 35: 354-55.
29. Real Díaz, *Estudio diplomático*, p. 280.
30. Real Díaz, *Estudio diplomático*, p. 280. See also L'Estoile, *Mémoires-journaux*, 2: 96; and Pastor, *History of the Popes*, 8: 290-96.
31. Real Díaz, *Estudio diplomático*, p. 281, erroneously lists the date as 14

March. Printed versions are available in "Provision y calendario nuevamente hecho para la reformation del ano para que se guarden en las Indias," in *Libro primero de provisiones, cédulas, capítulos de ordenanzas, instrucciones, y cartas, libradas, y despachadas en diferentes tiempos por sus magestades*, comp. Diego de Encinas (original edition; Madrid: Imprenta Real, 1596), facsimile reprint entitled *Cedulario Indiano*, 4 vols. (Madrid: Ediciones Cultura Hispánica: 1945), 1: 269–71; and *Pragmática sobre los diez días del año*, facsimile reprint in Douglas C. McMurtrie, *The First Printing in South America* (Providence, R.I.: John Carter Brown Library, 1926). A facsimile of inferior quality appears in Medina, *La primera muestra*.

32. *Pragmática*, in McMurtrie, *First Printing*, pages unnumbered.

33. Letter of 26 October 1583, in Cristóbal Gutiérrez de Luna y Francisco Sosa, *Cinco cartas de Señor D. Pedro Moya de Contreras, Arzobispo-Virrey y Primer Inquisidor de la nueva España, precedidas de la historia de su vida* (Madrid: Porrúa Turanzas, 1962), pp. 158–60.

34. Letter to the king, 26 October 1583, Francisco del Paso y Troncoso, comp., *Epistolario de Nueva España, 1505–1818*, 16 vols. (México: Antigua librería Robredo, de J. Porrúa e hijos, 1939–42), 12: 85.

35. Medina, *La primera muestra*, pp. 1–2.

36. George P. Hammond and Agapito Rey, eds., trans., and comps., *Obregón's History of 16th Century Explorations in Western America* (Los Angeles: Wetzel Publishing Co., 1928), pp. 338–39.

37. Patronato 22, ramo 1, folios unnumbered, AGI. J. Lloyd Mecham, "Antonio de Espejo and His Journey to New Mexico," *Southwestern Historical Quarterly* 30 (October 1926): 135–36. A translation of his letter of October 1583 appears in Hammond and Rey, *Rediscovery of New Mexico*, pp. 232–33.

38. This is what happened in Lima, where "the Real Pragmatica of His Majesty was announced by Bartolomé Rodríguez, town crier, in a loud voice in the public plaza of this city," or so said Juan Gutiérrez de Molina in his certificate of 26 May 1584. Facsimile reprint in McMurtrie, *First Printing*, pages unnumbered.

39. Letter to the king in *Cinco cartas*, p. 164.

40. Adrián Recinos and Delia Goetz, *The Annal of the Cakchiquels* (Norman: University of Oklahoma Press, 1953), pp. 25, 153.

41. *Cedulario Indiano*, 3: 341. A Mexican scholar has written about the adoption of the Gregorian Calendar in the New World, using only this letter and the royal pragmática of 14 May 1583. He guessed correctly that the calendar was adopted in Mexico in October 1583, but erred in thinking that it became effective in Guatemala at the same time. See Juan Comas, "El Calendario Gregoriano en América," *Historia Mexicana* 7 (October 1957): 207–15.

42. Letter to the king, 3 July 1584, in *The Philippine Islands, 1493–1803*, ed. Emma Helen Blair and James Alexander Robertson, 55 vols. (Cleveland: Arthur H. Clark Co., 1903), vol. 2, 1576–1582, pp. 54–55.

43. McMurtrie, *First Printing*, pages unnumbered.

44. Real Díaz, *Estudio diplomático*, p. 282.