

## Pipe Organs in Viceregal Mexico (1530–1820): Shifting Significations and Styles

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On the tenth of July in the year 1520, the Spanish conquistadores suffered a setback in what had seemed an inexorable sweep through Mexico. Hernán Cortés and his troops were forced to retreat temporarily from México-Tenochtitlán, the Aztec, or Mexica, capital. Bernal Díaz del Castillo, an eyewitness, recounted the events in some detail. He says that the fleeing Spaniards and their many Amerindian allies were accosted not only by arrows and stones, but also by the sound of the Mexica's musical instruments, as well as by singing, shouting, and whistling.<sup>1</sup>

For both the Mexica and the Spaniards, music formed a more integral part of daily life than it does for us today. Earlier in his account of the experiences of the Spaniards in Mexico, for instance, Díaz del Castillo had described various instruments discovered in the Great Temple of the Mexica—including trumpets and horns that were fashioned from shells. He seemed particularly dismayed by a huge drum that could be heard for a great distance. He claims he was told that the membrane was made from the skins of very large snakes.<sup>2</sup> Although sounds, including music, are in and of themselves extra-linguistic (i.e., outside of, or prior to, language), both their purposeful production and their reception are not. Sounds are first mechanically perceived by the body but then are very quickly interpreted—given a meaning. They are, in other words, taken up into language and, therefore, into prevailing systems of signification and power. Del Castillo, for example, said that “when it [the large drum in the Great Temple] was played, the sound was so sad and of such a sort that it could be called hellish.” This, however, was certainly a matter of interpretation. Mexica sacred rites included a great deal of music<sup>3</sup> and the drum was an integral element of their worship. Its sound, therefore, would presumably have been comforting to the Mexica, since it implied that the rituals they felt insured the well-being of their community were being properly carried out.

A former Technical Secretary of Mexico's National Institute of Anthropology and History, Doctor Moisés Rosas Silva, once raised an interesting question.<sup>4</sup> He asked, “What was it like for the indigenous peoples of Latin America to hear a horse for the first time?” (There were of course none in the Americas before the Spanish arrived.) In fact, the power of the horse was one of the military, and psychological, advantages that the Spanish forces held over the indigenous peoples, and it is clear from the many depictions in early codices that the horse and the Spaniard became almost indistinguishable in the indigenous imaginary. The skull racks fashioned by the Mexica after battle, for example, featured the heads of both Spaniards and their horses. The sound of that animal must therefore have come to instill dread in local populations. On the other hand, the historical record also makes clear that the Spanish troops had an understanding of their reliance upon horses, and so went to great lengths to care for them. The sound of a horse must have carried quite different associations for the Spaniard.

During the first years of the occupation, both the local peoples and the Spanish newcomers were hearing many sounds for the first time. What effects did these have upon people, and what significations did the various groups assign to them? What did polyphony, for example, sound like to indigenous people? Indeed, what impression did Spanish music in general make on Amerindians? Unlike Mexica music, Spanish sacred music was performed without drums or dance, something that must have been quite perplexing to indigenous people. And what of the great bells that could be heard for miles around with which the Spanish outfitted their churches? Bells figure so prominently in most sixteenth-century New Spanish depictions of

churches that they must have made a great impression. Did they remind the Mexica of the great drum in the old Templo Mayor? Indeed, the bell, along with the organ, seems to have functioned as a symbol for the church itself for both the Spanish and the locals, as in a cloth painting depicting the transferal of the Michoacán capital from Tzintzuntzán to Pátzcuaro, an event that took place in 1539. The image shows four men carrying a portative organ followed by six men dragging a bell. In a synecdochal chain, the organ and bell represent the church, and the church represents the city.<sup>5</sup> The moving of the organ and bell represented the moving of the city.

In line with Doctor Rosas Silva's question, the clear implication of the question about the horse is, "What in the world did Amerindians make of the pipe organ?" In the 1520s in Europe, the organ, already in use in churches for two or three hundred years, was likely familiar to most people. There was, by contrast, no native tradition of organ building in the Americas before the arrival of the Spaniards. Although some of the early dictionaries include translations of the word organ from Castilian into local languages, we do not know that these really reflect the judgment of indigenous people. Spanish friars working in collaboration with native speakers likely produced the translations. Although certainly of interest, these nonetheless often consist of mere mechanical descriptions of the instrument, therefore not shedding much light on what indigenous people actually thought of the organ. Were they perhaps awed by its size, or its volume? Were they surprised that one instrument could make so many different sounds? Like most people today, they likely had little idea of how the organ actually worked. Did the organ perhaps even become a symbol of the magical powers of the Spanish, and of their new and powerful god? Or did the organ simply seem odd to them, and its music esoteric and strangely complicated? Perhaps it lacked for them the intensity of their ritual music. Was the intended "text" of the Spanish pipe organ, in other words, readable to indigenous people, or did it perhaps remain opaque and ineffectual? Surviving accounts from the period are written from the viewpoint of the dominant culture, and so it is unlikely that we will ever really know.

### **Of Misunderstandings and Coincidences**

Of course, factors other than the Spaniard's control of the discursive field also come into play. The French structuralist psychoanalyst, Jacques Lacan, once said that every communication is a successful miscommunication. By this he meant that, although we think that we understand each other when we talk, we really do not, or only just enough to maintain the illusion that we do. In such a situation as that which unfolded in New Spain in the sixteenth century, miscommunication was undoubtedly rampant. (So how difficult must it be for us today to analyze what people themselves at the time probably did not understand fully?) In any complicated situation such as that which unfolded in the Americas in the sixteenth century, communication—language—is necessarily a major issue. The study of indigenous languages and the production of dictionaries therefore became a fundamental concern in the early years. But, in spite of the best efforts of the Spanish to bridge the communication gap, I am afraid that most often it was, like the famous turtles, misunderstandings "all the way down."

At least one of the religious orders seems to have understood the intricacies of translation and to have found one small way around it. The Franciscans widely used theater to teach Catholic doctrine to reportedly large and rapt audiences. When, during the course of one favorite production, the agony of eternal damnation was to be represented on stage, the Franciscans adopted the strategy of throwing live rabbits into pots of boiling water. The screams of the poor

animals seem to have been quite effective in conveying the consequences of dying unrepentant. The Franciscans in this case had no need to worry about translating “suffering.” The rabbits did it for them.

One of my favorite stories concerning miscommunication is the following. The Franciscans had established a very important convent in Mexico City with a large chapel (San José de los Naturales) and an associated school for teaching indigenous people the skills that the Spanish thought they should have. One Christmas eve the Franciscans were surprised to see the locals carrying the trunk of a very tall tree and setting it up in the atrium in front of their chapel. A horizontal beam had been affixed in order to fashion a cross. The indigenous people kept vigil with candles in the courtyard, and the Franciscans were amazed and pleased with their devotion to the Christ child. What the Spaniards did not know, however, was that the date of Christmas coincided with a traditional indigenous holiday whose celebration involved cutting the tallest tree in the forest and raising it in the courtyard of the temple. The indigenous people, it seems, were following the ways of their old religion. This is not to say, and this is an important point, that they were not also worshipping the new, Spanish god. Owing to the long history of conquests of one indigenous group by another, conquered peoples were used to adopting the deities of the new ruling elite, usually while maintaining the old ones.<sup>6</sup>

The overlapping of holidays described here was one of the many coincidences that, along with misunderstandings, could be said to characterize the earliest periods. It is well known, for instance, that Moctezuma thought Cortés might be the returning god Quetzalcóatl. The Christian story of the sacrifice of Jesus implies both a human sacrifice and the autosacrifice of a god—neither idea being foreign to the Mexica. Indeed, drinking Christ’s blood and eating his body in the Mass must have seemed like a perfectly reasonable idea to them. Nor did these uncanny overlappings and coincidences go unnoticed by the early friars. The prolific Franciscan Bernardino de Sahagún mentions them, but dismisses the similarities as *engaño*, a deception perpetrated, of course, by the devil. (The poor devil got blamed for many similar occurrences in the sixteenth century!) Later, Sor Juana Inés de la Cruz, arguably Mexico’s greatest poet, was to touch on the topic, composing syncretist verses on the similarities of pre- and post-Spanish religious practices.<sup>7</sup> (She too would be demonized.)

### **A New-Spanish Style of Organ Building?**

Sooner or later, most analyses of viceregal culture get drawn back to one fundamental question: “How different was the culture of New Spain from that of Spain?” To date, very few differences, if any, between viceregal Mexican organs and those built in Iberia have been concretely identified. Indeed, the similarities are such that one is forced to ask whether an independent style of organ building ever developed in viceregal Mexico. In order to try to answer this question, we will first put forward two basic facts.

The first is that the most important axis of power/signification in the sixteenth century was “indigenous vs. Spanish.” Native peoples constituted a highly contested “site” in the early years, although always in one form or another as subject to the Spanish gaze. Sought after by the conquistadores and the Crown as sources of labor and tribute, and by the church as targets for conversion, indigenous peoples in the sixteenth century were extensively debated, ruthlessly exploited, and both obsessively villainized and idealized. By the end of the century, however, with the drastic decline of Amerindian populations owing to diseases introduced by the Spanish

immigrants, with the waning of both utopianism and millennialism, and with the decision that indigenous people were not suitable for the priesthood, Spanish interest in them declined drastically.

By the time the sixteenth century had ended, the culture wars in New Spain had largely transformed into a battle between two kinds of Spaniard: *criollos*—persons of pure Spanish ancestry born in the New World—and peninsular Spaniards—those born in Spain itself. If Thomas Gage can be believed, the struggle between creoles and peninsular Spaniards was very intense, indeed.<sup>8</sup> Creoles did not have the same rights as Spaniards born in Spain, although they certainly fared much better in the seventeenth-century culture wars than the indigenous people had in sixteenth-century ones. By then, creoles had even established a strong enough sense of identity that they found the Spaniards just off the boat to be “strange.”<sup>9</sup> Still, none of this changed the fact that all of the most important jobs in New Spain had by law to be held by Spaniards born in Spain. The second-class treatment of creoles caused a great deal of resentment, and, as Octavio Paz has pointed out, it was a principal cause of the eventual war for independence from Spain in the nineteenth century.<sup>10</sup>

And so, did non-peninsular-Spaniards (by far the majority in the caste system) ever play a significant role in organ building? Surviving documents repeat endlessly that indigenous peoples were extremely skilled in learning handicrafts. In particular, stories abound of how they learned to build musical instruments quickly and well, and this certainly may be true. But we have reason to be skeptical. Gabriel Saldívar, for instance, recounts a story that exaggerates the skills of an indigenous person who visited an organ-building workshop and asked to enter into an apprenticeship. The organ builder was busy and requested that his guest allow him a few days to finish up some work. By the time the organ builder had time to consider the request for apprenticeship, his indigenous visitor stated that he no longer needed to study organ building because he had already learned everything necessary just by observing the activities in the shop during the time he had spent waiting.<sup>11</sup> I am certain that those organ builders who have completed six years in official training in order to emerge as master builders will find this story a little hard to swallow. Many contemporary scholars wonder if these kinds of stories are not marked by a calculated exaggeration, and wonder in what sense, or to what degree, the promotion of indigenous capabilities is in fact just the expression of a dominant, official voice. Were the religious orders, for instance, just shining the most flattering light possible on their training programs for indigenous people in their accounts to the king?

Even if native craftsmen were adept at building European musical instruments—which, all exaggeration aside, they likely were—historic sources indicate that organs were one instrument that indigenous people did not build, or at least not on their own. A Spaniard seems to have been required to supervise and coordinate the work.<sup>12</sup> The reason given for this is that construction of an organ required equipment, a trained crew of workers, and, perhaps most tellingly, subcontracting. Other master builders were frequently entrusted with the construction of the organ’s case, bellows, or even pipes. As a result, only Spaniards had the resources necessary to construct one. Capitalism, or a prefiguration of the same, seems then to have kept indigenous builders at bay.

That said, there were at least two indigenous organ builders in viceregal times. Searching the documents of the Archivo General de la Nación in Mexico City, I came across one that concerns a certain Simon Cuirix, citizen and noble of Pátzcuaro, in Michoacán. The document requests

and grants him several licenses, or permissions. The list reads as follows: permission to dress like a Spaniard, permission to mount a horse (here again we see that equivalence of the Spaniard and the horse), permission to carry a sword, and permission to practice the trade of organ building.<sup>13</sup> Unfortunately, we do not yet have any record of organs built by Simon Cuirix, nor do we know how many more Simon Cuirixes there were. Another non-Spanish, non-creole (probably mestizo) builder was Juan Vidal de Moctezuma. He was a member (via his father) of the famous seventeenth-century family of New Spanish organ builders, the Vital (Vidal). He was also a legitimate descendent of the Mexica ruler, Moctezuma II (via his mother), and even received an annual payment from the royal treasury because of it. Only one of his instruments has been documented—that built in 1683 in San Juan Parangaricutiro in Michoacán. The organ no longer exists. In surviving documents, Juan Vidal de Moctezuma is listed as a “master of building organs and of casting lead.” In that second capacity he is known to have manufactured the lead sheets that were used to waterproof roofs.<sup>14</sup>

The records to date of only two indigenous (or part indigenous) organ builders in three hundred years does not, unfortunately, seem to support the idea that they ever had much of an influence on New Spanish organ building. Present-day writers, however, love to re-tell the prolific skills of indigenous builders as much as the historical record loves to tell them. Just as we need to be aware of possible distortions owing to historical ideologies, we also need to be cognizant of current ideological filters. Indeed, such stories are often told now with the intent of implying that indigenous peoples constituted a significant part of organ building efforts in New Spain, and therefore that an independent school of organ building influenced by indigenous tastes emerged there. We must be careful that our understandable desire to celebrate indigenous cultures does not cloud the historical record. The identification of a New Spanish organ-building style, in other words, must proceed from the physical record, and not from any desire—either historic or modern—to construct one.

By contrast, creoles in the seventeenth century—particularly the sons of organ builders who had emigrated from Spain—did indeed play a major role in organ building in the Viceroyalty of New Spain. Of the approximately ninety organ builders known to have worked there, only six are known to have emigrated from Spain; in addition, one builder was Bohemian<sup>15</sup> and another Portuguese.<sup>16</sup> That leaves eighty-two, and although more may certainly one day be identified as *gachupin*—a term indicating a Spaniard who immigrated to Mexico to work—the majority will surely be found to have been creoles. Still, many creole builders were likely to have been, as I have already mentioned, sons of builders who had emigrated from Spain. The question remains as to how independent a style of building was ever developed by the sons, or even grandsons, of builders who learned their trades in Spain, or indeed by anyone who worked in an atmosphere so dominated by the mother country. As of yet, resentment for Spanish builders working in New Spain on the part of creole builders has not been documented, although it surely existed. Was there ever an actual desire to break away from Spanish organ building tradition? Once again, this question must be answered by the painstaking examination of the documental record.

### **Orthodoxy and the Organ**

Although technical studies of the organ in all periods and countries abound, examination of the relation of pipe organs to the cultures which produced them, particularly to the ideologies which dominated historical moments and sites, is uncommon.<sup>17</sup> Many people may not even be clear how ideology can affect something like the pipe organ. In fact, the dominant ideas of a

culture can be shown to impose themselves upon the pipe organ in various ways. The most obvious is through the organ's case and its decoration. At first glance, an organ case is a piece of furniture built to protect the organ's internal mechanisms and to increase the blending and projection of the organ's sound. The case's surface, however, also provides a prime opportunity for an iconographic program. Spanish ones routinely included the expected symbols related to financial patrons, patron saints of the church, saints in general, musical figures from the Bible, and representations of the Annunciation. But the organ case also functioned as an excellent canvas for ideological expression. The clearest and most common example is the depiction of the victory of Christianity over Islam, a trope that served in turn as a symbol of the larger fight against heresy.<sup>18</sup> Even in a remote location like Yanhuitlán, Oaxaca (Mixteca Alta), an organ was built (in the early eighteenth century?) that incorporated "standard" anti-Muslim imagery, that is, a Moor's head forced to bear the weight of the largest façade tower.<sup>19</sup> Once horizontal trumpets became common—by the end of the seventeenth or beginning of the eighteenth century—Spanish organs more than ever resembled those allegorical carriages replete with trumpeters that were so common in representations of the Church Triumphant.<sup>20</sup>

Orthodoxy, of course, was seen as the key to preserving the purity of Christian doctrine in the face both of internal heresies and of the external heresies of Lutheranism, Islam, Judaism, or, in the case of New Spain, surviving pre-Hispanic religious beliefs. Indeed, Octavio Paz saw the drive to orthodoxy as being so prevalent in Spanish and New Spanish culture as to be a defining characteristic of them. Its counter-progressive effects explain why Mexico has, in his opinion, never achieved a truly modern state.<sup>21</sup> My own observation, not nearly as profound or sweeping as Paz's, is that orthodoxy affected the Spanish, and New Spanish, organ—and not just in terms of organ cases. Indeed, its effects threatened to penetrate to the very core of the sixteenth-century Spanish organ—to its tonal development, as well as to the music that was played on the instrument. It can even be said that the organ became, in the hands of both Charles V and Philip II, a pawn in the Counter-Reformation battle for doctrinal purity.<sup>22</sup>

In the Escorial, Philip's obsessively conceived and executed refuge, all music was given over to the members of the Jeronymite community—the order of monks who lived there—and so the king's many professional musicians were rarely utilized. Indeed, Philip, as a consequence of the predominant ideological atmosphere, greatly limited the performance of polyphony in the Escorial.<sup>23</sup> The idea was that simple music was more devout. And although Philip is reported to have believed that "the organ itself is a proper instrument for the church," he nevertheless did not want to hear in the Escorial "the many extra sounds and registers of the organ. . . [of] which salaried musicians [know how] to make [use]." The reason was "in order to avoid anything that could be a reason for distraction or hubbub."<sup>24</sup> In effect, then, Philip approved of the organ's principal chorus, but not registers that imitated other instruments, or at least he was afraid of what professional musicians could do with the latter.<sup>25</sup>

We also know that Philip's opinions on the matter were not applied only within the confines of the Escorial. When in 1576 he met his cousin, the king of Portugal, the location chosen was a Jeronymite monastery. Both monarchs left their professional keyboardists at home. These were not just any musicians: Philip left Hernando de Cabezón home, and Sebastián left Antonio de Carreira.<sup>26</sup> As a result the organ playing was left to a local Jeronymite monk. Later, when Philip annexed Portugal after the death of Sebastián, he expressed another opinion on organ performance, complaining that no one in Lisbon knew how to play the organ.<sup>27</sup> Given the number of fine organists in Portugal at the time, I take Philip's statement to be not a complaint

about a lack of skill but about a difference in orientation towards music making. Philip missed, in other words, the “pious” style of organ playing that he had encouraged the Cabezóns (Antonio and Hernando) to develop.<sup>28</sup>

After Philip II died, the situation at the Escorial lightened considerably.<sup>29</sup> None of Philip’s heirs exhibited his serious temperament, and his son, Philip III, was himself a musician. This is not to say that the project of orthodoxy was abandoned in either Spain or the viceroyalty, but simply that the organ and its music came under less scrutiny. Meanwhile, in New Spain the virtual end of the millennial and utopian projects of the sixteenth century, and the grand aspirations these implied for the indigenous populations, shifted the focus to the practical and mundane concerns of running a society in which the *criollo* population, with the help of the Jesuits, was gaining an ever more important role. As a result, orthodoxy there was not the same pressing problem that it had been, or at least not in the same way.

### **The Introduction of the Pipe Organ to Mexico**

Installing Catholicism was fundamental to the Spanish project of conquest, and since the organ was considered to be the ecclesiastical instrument, it appeared in New Spain almost immediately. In 1530, only nine years after the fall of the Mexica capital, authorities report the presence of an organ.<sup>30</sup> We do not know exactly when, or from where, that instrument was acquired.<sup>31</sup> A professional organist, Antonio Ramos, was brought from Spain in 1537 to play in the cathedral of Mexico City. Not surprisingly, several early documents deal with the organist’s salary (plus *ça change*. . . !). The organ, first used only on feast days, came to play an ever-increasing role in worship services. Puebla Cathedral is said to have had an organ by 1536, and authorities mention an organist by 1556.<sup>32</sup> Other reports of early organs are the following: 1544 in the cathedral of Oaxaca,<sup>33</sup> and 1545 in Chiapas,<sup>34</sup> and, of course, the cloth painting from Michoacán that I already mentioned from 1539. By 1569, the Oaxaca cathedral had two organs. Other organs, imported from Spain, are reported in Michoacán around 1562.<sup>35</sup> In short, we have ample reason to believe that organs were widely present during the sixteenth century in New Spain.

Sadly, however, it appears that no sixteenth-century organ has survived in Mexico, and we have to look to Spain in order to examine the characteristics of these very early instruments. The Spanish organ, like organs all across Europe, was very much in transition during the period. Instruments still basically in the medieval style (i.e., characterized by a Blockwerk—one giant sound with no, or very few, separately-playable registers) were still built there until well into the sixteenth century. At the same time, “progressive” builders working in Spain, many of whom were Flemish, were building more “modern” organs. In these, the principal chorus was separated out to varying degrees, and registers called *diferencias* in Spain—registers not included in the principal chorus—began to be included. These latter consisted mainly of flutes and reeds, but also some string imitations. Organs were also outfitted with the so-called “toy” stops, or accessories, devices that imitated things like birdsong, bagpipes or drums. Bells of various forms and tremulants rounded out the possibilities. This proliferation of flute and reed stops, and certainly the toys, can be seen as a kind of organ-related heresy that contradicted Philip II’s beliefs about the organ. It seems, however, that, except when heresy related directly to church doctrine, a great deal of flexibility existed in Spanish culture, especially, it seems, when Philip was not directly involved. Many rules, in other words, were easily broken. Luckily the organ heresy was not directly related to church doctrine, and the proliferation of non-

principal-scaled stops flourished. Even in the Escorial, Philip's holy of holies, organs were built with a large number of *diferencias*, and we can assume that the minute Philip II died they were put to very good use.

One of the traits often recognized today as "Spanish" is the divided register. In this practice—virtually universal in Iberian baroque organs—each slider is split into bass and treble halves. This characteristic, which makes possible the obtaining of two different sounds simultaneously on one manual, was first introduced into Spain around 1560. The innovation was instituted by French and Flemish builders working in the peninsula, and spread slowly but inexorably. A second question, in addition to asking how similar the viceroyalty was to the mother country, is, "How much of a time lag was there in introducing innovations from Spain?" Surviving records of organs exported from Spain to Guatemala and Peru in 1598 and 1599 show that these organs did indeed include divided registers. It seems safe to assume that if organs for Guatemala built at that time had divided registers, those for viceregal Mexico would also have had them. The lag, at least in this case, was thus not appreciable. Nevertheless, the earliest organs in New Spain, certainly those before 1570, would very likely not have had divided registers, and certainly not in the systematic configuration that characterized later organs.

The disposition of one organ destined for Guatemala (1598) is the following:<sup>36</sup>

Compass not specified

Left Hand	Right Hand
Stopped Flautado 5 1/3'	Stopped Flautado 5 1/3'
Octaves <i>Flautado and "flautas"</i>	Octaves <i>flautado and "flautas"</i>
	Fifteenths and twelfths
Small trumpets <i>At pitch of flautado</i>	Small trumpets <i>at pitch of flautado</i>
Trumpets <i>An octave below</i>	Trumpets <i>an octave below</i>

Tremulant, Ruyseñor [=Pájaro]

This organ was essentially a two-foot organ pitched low with a stopped flute base at four-foot pitch. The two-foot Flautado seems to have been doubled. One rank was a principal and the other a flute of some sort. The register called "Fifteenths and twelfths" probably functioned as a kind of mixture. The small trumpets seem to have been at the same pitch as the stopped flute (four foot), while the (large) trumpets sounded an octave lower, although this—as is the case with many details of early contracts—is unclear and subject to interpretation.

Early organs probably had just one manual. Even the reduced Spanish pedal (Contras) consisting



of short keys or buttons for eight or so notes of the lowest octave was likely absent. Many of the very earliest organs were imported from Spain, but gradually a local organ building infrastructure developed and dependence on Spain waned. Nevertheless, imports, such as the organ built by Jorge de Sesma from 1689 to 1690 in Madrid for Mexico City Cathedral, continued.<sup>39</sup> Indeed, Mexico City and Puebla cathedral authorities always demonstrated a preference for continental builders.

Not much is known about the tuning of New Spanish organs. The date of the earliest organs means they might still have displayed some form of modified Pythagorean tuning. Eventually, certainly by the seventeenth century, meantone would have been the norm. In 1730 in Guadalajara Cathedral we have one of the few specific New Spanish references to tuning. A Spanish builder working in Mexico, Joseph Nassarre, is reported to have used a tuning after Cerone.<sup>40</sup> Although Cerone presents Pietro Aaron's theoretically-correct 2/7-comma temperament, he also gives the temperament a second time—in a practical, tune-by-ear version. Thus saying that Nassarre followed Cerone does not provide us with a precise description of the tuning for the Guadalajara instrument. The Aaron tuning, furthermore, seems a strange choice. Belonging to a class of negative meantone temperaments, it is not known to have been widely used. Cerone, however, was broadly disseminated, and a highly venerated source. Perhaps Nassarre said that he followed Cerone while actually using something else. We will likely never know. Tuning is still a largely unexplored topic, even in Spain. Furthermore, the possibilities are wide open, since even equal temperament was known in the Royal Court in Madrid by 1675.<sup>41</sup>

Once the medieval blockwerk was superseded, reeds played an important part in Spanish organs. Short-length reeds like the Dulzayna were first placed horizontally in the façade of the organ. Full-length trumpets in the sixteenth century were always placed inside the organ. Early organ reeds were not likely of the brilliant sort that we associate with the Spanish organ, but generally “warmer” and “darker.”<sup>42</sup> Although some, like Renaissance reeds elsewhere, could be quite snarly, buzzy, or honky, they still conformed to the consort aesthetic of the late sixteenth and seventeenth centuries, and the practice of instrumental performances or doublings of the polychoral music as developed in Venice under the Gabrieli. Since polychoral writing was popular in New Spain right into the beginning of the eighteenth century, organ reed stops were likely still constructed and voiced for blending and polyphonic lines, and hence were more subdued than their later relatives. Indeed, the study of the evolution of Spanish reeds<sup>43</sup> is perhaps the best place to look for stylistic trends in the Spanish organ that disprove the common assertion that the Spanish organ was a single entity before the introduction of the Romantic organ there.

The second well-known characteristic of Spanish organs, trumpets mounted in the façade of the organ above the console, did not appear in Spain itself until the 1660s or 1670s, and in New Spain presumably a little later. *En chamade*, although commonly used, is a nineteenth-century term, and French. *Trompetería* or *lenguetería en . . . , en forma de . . . , a forma de . . . , or a modo de Artillería* (i.e., artillery) or *en batalla* are some of the Spanish ways (of which there are many) to express this characteristic. The military connotations of all of them are explicit and harken back to the idea of the Church Triumphant. It is not known which was the first New Spanish organ to include them, but certainly the famous organ built by Jorge de Sesma for the Cathedral of Mexico City about 1690 in Madrid, and erected in its new-world location from 1692 to 1695, did. In this stage of the development of the Spanish organ, principals likely became

milder and reeds became more brilliant in fulfillment of the baroque requirement for clear contrasts and strong melodic lines.

The Sesma organ still did not have pedals. (They were planned for by Sesma and installed in Mexico City, but the organist asked to have them removed! The Contrás instead were played by manual keys.<sup>44</sup>) The organ did have two divisions (on two keyboards)—*órgano mayor* and *cadereta* (Chair organ, *Rückpositiv*). From 1734 to 1735 Joseph Nassarre built a monumental organ for the Gospel side of the Mexico City Cathedral choir. Once finished, he then rebuilt—virtually completely—the Sesma Epistle organ from 1735 to 1736. He had been asked to bring the two into conformity, both visually and tonally. How much of the Sesma pipework was reused by Nassarre and still survives is a question for any future restoration to answer.

Nassarre's organs differed in significant ways from Sesma's old organ. Indeed, in the monumental instruments built by Nassarre organ building in Mexico finally exhibited the full-blown baroque style. Nassarre's compasses were larger (fifty notes in the Gospel organ—C,D-d3—and fifty-one—C-d3—in the Epistle organ as opposed to forty-five—C,D,E,F,G,A-C3—in Sesma's organ). In distinction to Sesma's *cadereta*, Nassarre's was a double division with the usual exterior chest plus an interior (or echo) chest. (Both of these sets of pipes were played from the same manual.) In addition to the *Flautado* chorus, Nassarre's instruments included full Nasardo, or wide-scaled flue, choruses—the Sesma organ had only three Nasardos. Nassarre's instruments also contained a greater variety of flute types, and more extensive horizontal façade reeds that, in addition, were mounted on both the choir and nave façades. The Gospel organ also had pedals to play the Contrás. (The Contrás of the Epistle organ, even after Nassarre's rebuilding, were played by manual keys until about 1800).

The presence of two façades (with both *Flautado* and horizontal reeds) and both interior (echo) and exterior *cadereta* divisions, as well as the presence of two organs facing each other across the choir enclosure, made it possible to establish layers and levels of sound and realize a fully baroque use of the acoustical space of the cathedral. Although individual Spanish organs rarely reached the complexity or size of their northern European counterparts, we should consider that, between the two organs in Mexico City Cathedral, eight virtual manual divisions (on four keyboards) were available for use. The later addition of a solo division brought the total to nine. Between the two organs as built by Nassarre, there were seventy-one bass registers and eighty-seven treble registers in the manuals.<sup>45</sup> Around 1800 the total increased to ninety-three in the right hand, and Pedal reeds were added. If both organs were played on the same occasion, the effect they produced in the hands of the well-trained cathedral organists must have been nothing short of stunning.

Most organs in New Spain did not reach these dimensions. The organs of the cathedrals of Morelia and Guadalajara, and Puebla to some degree, as well as that of the old *Basílica* of Guadalupe in Mexico City, came closest to doing so. Indeed, since the dispositions for the organs of the *Basílica* are still unknown, they may actually have been larger even than the Cathedral of Mexico City's organs. The remaining Mexican organs are much more modest. It is certainly true in Mexico, as elsewhere, that organs built for the countryside, where resources were far more limited and rituals were often less elaborate than in urban areas, were significantly restricted. Even most of the organs destined for cities were small to our eyes. Some—like the organ in San Antonio, Querétaro—are still eight-foot instruments, but with only twelve stops in the left hand and twelve in the right. This instrument also has a second division with its own keyboard, but it

has only one sound—a kind of four-foot *blockwerk*. Many are like the four-foot organ with eight-foot stopped flute in Santa Rosa, Querétaro (1759). It has five stops in the left hand and seven in the right hand. Others are four-foot organs with no eight-foot stops at all, like the country organ in San Andrés Zautla in Oaxaca (1729) with five stops in each hand, plus toy stops of Bird and Drum. There are also a large number of two-foot organs with four-foot stopped flutes like the organ in the village of Santa Anita Huiloac in the State of Tlaxcala (1714, Bernardo Rodríguez). It has four registers in each hand. The emphasis in such instruments is clearly not on the quantity of registers, but rather on the quality of each register's individual sound.

### **New Spanish Organ Repertoire**

Surprisingly little organ repertoire has survived in Mexico. Some suggest that this is because so much music was improvised. But improvisation was the rule in Spain as well, and a large amount of organ music of very high quality was written down there. Of the little organ music that has survived in Mexico, furthermore, most was not composed in Mexico, but is copies of European music made for use by New Spanish organists. The earliest collection of organ music known to have circulated in New Spain is a printed source—Cabezón's *Obras de Música* of 1578. A copy survives in the LaFragua Library in Puebla.<sup>46</sup> The other three sources are manuscripts. The earliest of these is a very fragmentary seventeenth-century source with interesting annotations that includes part of a *tiento* by Francisco Correa de Arauxo. The only other piece in it is by Antonio Cabrera—an organist who worked in Peru. The international character of the manuscript is in itself of great interest.<sup>47</sup> The second manuscript is the *Libro que contiene Onze Partidos del M. D.n Joseph de Torres*. The manuscript, which contains eleven pieces—mostly *tientos*, but also a fugue and a *batalla*—was encountered in a Pueblan Convent for Conceptionist nuns. It likely dates from the second third of the eighteenth century.<sup>48</sup> It is now generally agreed that the Joseph de Torres in question was organist at the Royal Chapel in Madrid. In spite of the title, only four of the pieces are actually attributed to Joseph de Torres in the manuscript.<sup>49</sup> Several of the pieces contained in the collection are of high quality. The only other surviving collection is one found in the archives of Oaxaca Cathedral, but also compiled by a nun—a Sor María Clara. It is a collection of *tono*, also for church use, which, judging from the key signatures, likely dates from later in the eighteenth century.<sup>50</sup> Unquestionably *Gebrauchsmusik*, these pieces are of more historic than artistic interest.

Interestingly, then, two of the three surviving organ manuscripts in Mexico are traceable to Mexican nuns. Even the British Jesuit turned Dominican turned Protestant, Thomas Gage, had to admit (in a typically backhanded compliment that reveals his anti-Catholic venom), that “citizens give their daughters to be brought up in . . . nunneries, where they are taught to make . . . all sorts of music, which is so exquisite in [Mexico City] that I dare be bold to say that the people are drawn to their churches more for the delight of the music than for any delight in the service of God.” Arguments even arose as to “which of these nunneries most excelled in music and in the training up of children.”<sup>51</sup> The full extent of the surviving resources from New Spanish convents is still unknown. What keyboard music may eventually surface in Mexico is still anyone's guess.

### **Surviving Historic Organs in Mexico**

Perhaps as many as a thousand historic organs exist today in Mexico. The count from the three states that have been catalogued is approximately: Puebla, 120,<sup>52</sup> Tlaxcala, 78,<sup>53</sup> Oaxaca, 68.<sup>54</sup>

That adds up to 260 organs in three states. Mexico has thirty-one states, although not all are as rich in organs as the three mentioned. As in other places with historic pipe organs, the majority, perhaps seventy percent, date from the nineteenth century. The rest, several hundred, date largely, or even exclusively, from the eighteenth century. To date, none has been confirmed as dating from the seventeenth century, much less from the sixteenth century.<sup>55</sup> Seventeenth-century organ cases do survive, and doubtless pipework survives as well (a set of trumpets in Oaxaca is thought to bear an inscription of 1666).

Most of this legacy of organs, however, is currently lifeless, which is to say, the instruments do not function. It does not seem an exaggeration to say that in Latin America the pipe organ came, made a spectacular showing, and left again. The State of Oaxaca, for instance, has many historic organs, but only one contemporary pipe organ, and no organ builders. Nevertheless, today in Mexico a group of very knowledgeable professionals exists, with a sincere interest in historic organs. A professional school of restoration with a workshop dedicated to musical instruments exists. At least three conservatories teach organ. A national guild of organists was formed recently.

Renewed interest in historic organs, however, always has a potential downside. Many past, and even recent, efforts (restorations, reconstructions, projects to make the instrument playable again) by Mexicans and foreigners alike have been both unprofessional and destructive. Too often in Mexico, as elsewhere, organs are treated more like trophies for personal gain and aggrandizement than national treasures. Access to them is jealously guarded. Certainly today, given the international character of world affairs, historic organs everywhere constitute international patrimony. There is no longer any reason (if indeed any ever existed) to exempt the Mexican instruments from prevailing international standards for conservation and restoration, and I know that many of my Mexican colleagues agree. A failure to do so will leave the organs to the whims of people who, in spite of their claims, really know nothing or little about them.

And, before anything else, one has to ask, for what reason would an organ be restored? For most Mexicans today the pipe organ is almost as foreign an object as it was to indigenous people at the time of the conquest. Interest in either playing or hearing the pipe organ is only now being actively cultivated outside of Mexico's cosmopolitan cities. Furthermore, the unplayable condition in which most of the instruments are found has its upside, at least for now: since restorations inevitably cause both changes to an instrument and a loss of the historic record, the existence of so many unrestored organs, and a lack of any real reason to restore them, offers a perhaps unparalleled opportunity for their careful documentation and study.

In summary, Mexico is an excellent place both to study the pipe organ's past and to contemplate its future. In Mexico questions arise that resonate for many of us, especially at a place like the Yale Institute of Sacred Music. It encourages us, for instance, to ask ourselves, "What is our own relationship to the pipe organ, and what is its relationship to us?"

## ENDNOTES

1. "Y estando en eso suenan las voces y cornetas y gritas y silbos de los mexicanos." Bernal Díaz del Castillo, *Historia verdadera de la conquista de la Nueva España* (Madrid: La Imprenta del Reyno, 1632; Mexico City: Editorial Porrúa, 1955), 256.

2. “Y allí tenían un atambor muy grande en demasía, que cuando le tañían el sonido de él era tan triste y de tal manera como dicen instrumento de los infiernos, y más de dos leguas de allí se oía; decían que los cueros de aquel atambor eran de sierpes muy grandes.” Díaz del Castillo, *Historia verdadera*, 174.

3. See Lourdes Turrent, *La conquista musical de México* (Mexico City: Fondo de Cultura Económica, 1993), 46–110.

4. Moisés Rosas Silva, lecture presented at the conference “La Restauración de órganos en Latinoamérica,” Oaxaca, November, 2001.

5. A late-eighteenth-century ink and watercolor copy of the original is housed in the Archivo General de la Nación in Mexico City. It is reproduced in Silvio Zavala, “La Utopía de Tomas Moro en la Nueva España,” in *La utopía mexicana del siglo XVI: lo bello, lo verdadero y lo bueno*, Arte novohispano 1 (Mexico City: Grupo Azabache, 1992), 91.

6. See Solange Alberro, “Los franciscanos y la tabula rasa en la Nueva España del siglo XVI: un cuestionamiento,” in *El teatro franciscano en la Nueva España*, ed. óscar Armando García and Alejandro Ortiz Bullé-Goyri (Mexico City: Universidad Nacional Autónoma de México, CONACULTA, 2000), 32–35.

7. Sor Juana’s syncretism was at least in part based on that of Athanasius Kircher; see Octavio Paz, *Sor Juana, or the Traps of Faith*, trans. Margaret Sayers Peden (Cambridge, Mass.: The Belknap Press, 1988), 175.

8. Thomas Gage, *The English-American: A New Survey of the West Indies*, (London: R. Cotes, 1648; London: George Routledge & Sons, 1928), 109–49. Gage was a Dominican turned Protestant.

9. See Fernando Benitez, “Catedral, resumen de la colonia,” in *Música y angeles, los órganos de la catedral de México* (Mexico City: Sociedad de Amigos del Centro Histórico de la Ciudad de México, A.C., 1983), 14.

10. Paz, *Sor Juana*, 16.

11. Gabriel Saldívar, *Bibliografía mexicana de musicología y musicografía* (Mexico City: Centro Nacional de Investigación, Documentación e Información Musical, 1991), 20.

12. Gabriel Saldívar, *Historia de la Música en México* (Mexico City: Secretaría de Educación Pública, 1934), 181–82.

13. Archivo General de la Nación, Ramo Indios, vol. 6, fol. 293.

14. Efraín Castro Morales, *Los órganos de la Nueva España y sus artífices* (Puebla: Gobierno del Estado, 1989), 19.

15. The builder in question is Diego de Sebaldo. See Edward Pepe, “Los órganos barrocos de la Catedral Metropolitana de México,” in 2. *Coloquio Musicat: Lo sonoro en el ritual catedralicio: Iberoamérica, siglos XVI–XIX*, ed. Patricia Díaz Cayeros (Guadalajara: Universidad Nacional Autónoma de México, Universidad de Guadalajara, 2007), 122–23.

16. The person in question is Gaspar Fernández. Eventually chapel master in Puebla Cathedral, he is said to have been both an organist and organ builder. See Robert Stevenson, "Puebla Chapelmasters and Organists: Sixteenth and Seventeenth Centuries," *Inter-American Music Review* 6:1 (1984), 29.
17. Some recent studies have begun to explore this relationship. See, for example, Kerala Snyder, ed., *The Organ as a Mirror of Its Time: North European Reflections, 1610–2000* (New York: Oxford University Press, 2002).
18. See Alfonso de Vicente, "La ostentación de la armonía: temática de la decoración de las cajas de órgano en España," in *Actas, simposio internacional: el órgano histórico en Castilla y León*, ed. Dámaso García Fraile and Alfonso de Civate (Zamora: Junta de Castilla y León, 1999), 79–80.
19. The struggle of Christianity against Islam would have been very well known throughout New Spain because it was repeatedly acted out in theater and dance. For more on the historic organs in the State of Oaxaca, Mexico see Edward Pepe, "Another Look at Oaxaca's Organs," *The Organ Yearbook* 33 (2004): 91–120.
20. Like the one painted by Balthasar Echave Rioja in 1675 ("El Triunfo de la Iglesia y de la Eucaristía") for the sacristy of Puebla Cathedral. See Marcus Burke, *Pintura y escultura en Nueva España: El Barroco*, *Arte Novohispano* 5 (Mexico City: Grupo Azabache, 1992), 63.
21. Paz, *Sor Juana*, 26.
22. The Council of Trent's only pronouncement concerning music expresses a similar drive towards orthodoxy when it says, "They shall also banish from churches all those kinds of music, in which, whether by the organ, or in the singing, there is mixed up any thing lascivious or impure [7 September 1562]." *The Canons and Decrees of the Sacred and Oecumenical Council of Trent*, ed. and trans. J. Waterworth (London: Dolman, 1848), <http://history.hanover.edu/texts/trent.html/> (accessed 5 July 2007). The organ, meanwhile, was suffering a more drastic fate in Protestant countries such as England (Nicholas Thistlewaite, "Organs and Arminians in Seventeenth-Century Cambridge," *Litterae Organi: Essays in Honor of Barbara Owen* [Richmond: OHS Press, 2005], 27–50) and the Netherlands (Gustav Fock, *Hamburg's Role in Northern European Organ Building*, trans. and ed. Lynn Edwards and Edward C. Pepe [Easthampton: The Westfield Center, 1997], 9).
23. Philip's Counter-Reformation ideology and its effect on music in the Escorial is discussed at length in Michael Noone, *Music and Musicians in the Escorial Liturgy under the Habsburgs, 1563–1700* (Rochester: University of Rochester Press, 1998). Polyphony was performed at the Escorial, but only on limited occasions and only by visiting musicians.
24. "No quiso [Felipe] . . . que supiese la mucha diferencia de órganos y sus mixturas, que también son propios instrumentos de iglesia, la que pudieran hacer ministriles asalariados, por evitar todo lo que puede ser razón de distracción y bullicio." J. Sigüenza, *Fundación del Monasterio de El Escorial* (repr., Madrid: 1963), 333, as quoted in Noone, *Escorial Liturgy*, 89. In his English translation Noone misunderstands both *diferencia* and *mixturas*, terms that mean registers. The word *diferencia* in Spain, however, is reserved for those registers of the organ not belonging to the principal chorus (see below). M. Santiago Kastner, "Ursprung und Sinn des 'Medio registro'," *Anuario Musical* 19 (1964): 1.

25. This is ironic given that Philip engaged the Brebos family to construct seven organs (two large and complicated organs, two medium-sized ones, and various other positives) for the Escorial. Apparently Philip did not completely understand the technical characteristics of these Flemish-style organs, which included many *diferencias*, before he ordered them.

26. M. Santiago Kastner, *Antonio de Cabezón*, trans. Antonio Baciero (Burgos: Editorial Dosssoles, 2000), 336.

27. Kastner, *Cabezón*, 339.

28. One can even imagine that the choice of pieces included by Hernando de Cabezón in his anthology of Antonio's works—a publication of course dedicated to Philip—was influenced by this same drive to orthodoxy: *Obras de música para tecla, harpa y vihuela de Antonio de Cabeçon, Musico de la camara y capilla del Rey Don Philippe nuestro Señor/ Recopilads y puestas en cifra por Hernando de Cabeçon su hijo . . .*, ed. Hernando de Cabezón (Madrid: Francisco Sánchez, 1578). Since only two main sources of Antonio's works have come down to us, the drive to orthodoxy may have shaped our understanding of Antonio's oeuvre and style.

29. See Noone, *Escorial Liturgy*, 116. Philip's opinion on organs did not have any lasting effect on their development in Spain. Indeed, the Flemish instruments he had built in the Escorial and the Royal Chapel in Madrid (Cristina Bordas, "Nuevos datos sobre los organeros Brebos," in *Livro de homenagem a Macario Santiago Kastner*, ed. Maria Fernanda Cidrais Rodrigues, Manuel Morais, and Rui Vieira Nery [Lisbon: F. C. Gulbenkian, 1992], 51–57) do not seem to have influenced organs elsewhere in Spain, and were eventually replaced with Spanish-style organs.

30. The date is so early in fact that Mexico City Cathedral was not yet officially established. In effect the organ in 1530 served the entity that would become Mexico City Cathedral in 1534.

31. Archivo del Cabildo Catedral Metropolitano de México (hereinafter ACCMM), Reales cédulas, Book 2, as transcribed in Alberto María Carreño, *Un desconocido cedulaario del siglo XVI perteneciente a la Catedral Metropolitana de México* (Mexico City: Ediciones Victoria, 1944), 63–64.

32. Castro Morales, *Los órganos*, 12.

33. Jorge Mejía, "órganos, organistas y organeros de la catedral de Oaxaca," privately distributed data, CD-ROM.

34. Daniel Guzmán, "Tradición organística mexicana," México desconocido, [http://www.mexicodesconocido.com/espanol/cultura\\_y\\_sociedad/arte/detalle.cfm?idcat=3&idpag=2014&idsec=14&idsub=53](http://www.mexicodesconocido.com/espanol/cultura_y_sociedad/arte/detalle.cfm?idcat=3&idpag=2014&idsec=14&idsub=53) (accessed 7 July 2007).

35. Castro Morales, *Los órganos*, 11.

36. Summarized and translated from Juan Ruiz Jiménez, *Organería en la diócesis de Granada* (Granada: Diputación Provincial, 1995), 157.

37. The contract says "a tono de nueve palmas" ("sounding at nine palms"). The organ should probably be seen as a four-foot instrument pitched low for ease of singing.

38. It is unclear from the contract whether the two octave stops, one a flautado and the other a “flauta,” were two registers or one; the syntax seems to indicate that they were two ranks of the same register.

39. Edward Pepe, “An Organ by Jorge de Sesma for Mexico City Cathedral,” *Revista de Musicología* 29/1 (2006): 127–62. For a history of the Sesma family, see Pedro Calahorra Martínez, “Un siglo de vida y trabajo de los organeros zaragozanos Sesma (1617–1721),” *Anuario Musical* 38 (1983): 15–60. Calahorra Martínez mentions the fact that Jorge de Sesma built an organ for Mexico City, but he had no access to the details of its construction or installation.

40. Juan Francisco Sahagún de Arévalo, *Gacetas de México, Testimonios mexicanos: historiadores* 4 (Mexico City: Secretaría de Educación Pública, 1950), 292 [December, 1730].

41. Cristina Bordas and Luis Robledo, José Zaragosá’s box: science and music in Charles II’s Spain, *Early Music* 26 (1998): 391–413.

42. Kastner, “Ursprung,” 62.

43. See, for instance, Elena Le Barbier Ramos, “La incorporación de la lengüetería en los órganos de la provincia de Palencia,” *Actas . . . simposio internacional*, 63–71.

44. ACCMM, Litigios, box 1, folder 6, fol. 40v.

45. For the dispositions and pipe scalings, see Dirk Flentrop, *The Organs of Mexico City Cathedral* (Washington D.C.: Smithsonian Institution Press, 1986).

46. *Obras de música para tecla, arpa y vihuela de Antonio de Cabezón . . . /recopiladas y puestas en cifra por Hernando de Cabezón su hijo*, ed. Hernando de Cabezón, facsimile edition. *Documentos para la historia de la música en México* 1 (Madrid: Francisco Sánchez, 1578; Puebla: Benemérita Universidad Autónoma de Puebla, 2001), CD-ROM.

47. Saldívar, *Bibliografía*, 81, 85–86.

48. *El libro que contiene onze obras para órgano de registros partidos del Dr. Dn. Joseph de Torres*, ed. Felipe Ramírez Ramírez (Mexico City: Centro Nacional de Investigación, Documentación, e Información Musical, 1993).

49. See Rubén Valenzuela, “El libro para órgano de Joseph de Torres,” *Heterofonía* 120–121 (1999):52.

50. *Cuaderno de Tonos de Maitines de Sor María Clara del Santísimo Sacramento*, ed. Calvert Johnson (Colfax: Wayne Leupold Editions, 2005).

51. Gage, *New Survey*, 90.

52. Josué Gastellou and Gustavo Mauleón, *Catálogo de órganos tubulares históricos del Estado de Puebla* (Puebla: Universidad Iberoamericana Golfo Central, 1997).

53. Josué Gastellou and Gustavo Mauleón, *Catálogo de órganos tubulares históricos del Estado*



*de Tlaxcala* (Puebla: Universidad Iberoamericana Golfo Central, 1999).

54. Gustavo Delgado Parra and Ofelia Gómez Castellanos, *órganos históricos de Oaxaca: estudio y catalogación* (Mexico City: Fomento Cultural Banamex, 1999).

55. This statement assumes that the Epistle organ of Mexico City Cathedral should properly be considered the work of Joseph Nassarre of 1736 and not, as it still is by some, the work of Jorge de Sesma of 1695.

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