



4 Coloquio Musicat

Harmonia Mundi: Los instrumentos sonoros en Iberoamérica, siglos XVI al XIX

IV COLOQUIO MUSICAT
HARMONIA MUNDI. LOS INSTRUMENTOS SONOROS
EN IBEROAMÉRICA, SIGLOS XVI AL XIX

MEMORIAS IV
SEMINARIO NACIONAL DE MÚSICA EN LA NUEVA ESPAÑA Y EL MÉXICO INDEPENDIENTE

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SONOROS EN IBEROAMÉRICA,
SIGLOS XVI AL XIX

Edición a cargo de Lucero Enríquez

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MUSICAL INSTRUMENTS IN CULTURAL CONTEXT

Laurence Libin

Sociedad Histórica de Órganos

Richmond

Historical musical instruments deserve to be studied from many viewpoints, not only from the modern musician's or listener's perspectives. Instruments have many functions and mean different things to different people, so if we want to encourage appreciation and preservation of historical instruments, we must explain their whole range of meanings and functions, not only their musical uses. It is true that music crosses cultural boundaries more easily than language. In every part of the world, people associate joy with fast tempo and high pitch, and connect sadness with slow tempo and low pitch. But the idea that low pitch is male and high pitch is female is not universal. In parts of Africa, for example, high, intense sound is considered masculine, while in East Asia, the deep, sustained tone of a large bell is feminine. Such attitudes influence peoples' responses to musical instruments in terms of feelings, gender signification, symbolism, and other attributes.

Of course, any object can be used to make sound in a musical context, so it can be hard to define what a musical instrument is, apart from its use. A Peruvian whistling jar is an aerophone and a container at the same time. In old Japan, the *shakuhachi* was both a flute and a weapon. Modern composers have scored for anvils, guns, sirens, typewriters, and many other unusual sound sources. The question whether a clarinet stops being an instrument if it is made into an electric lamp is a matter of definition, and not everyone will agree.

Archaeologists probably would not recognize mankind's earliest noise-makers. Most likely, these were multipurpose objects whose sounds were secondary to other functions, such as hunting and preparing food. Only slowly did tools, containers, weapons, and other implements become specialized to

produce particular tones and pitches, useful for signaling, courtship, status display, and magic rituals. Acoustical refinement of noisemakers for purposes of communication continued for millennia before instrumental music became an expressive art form. But in some parts of the world, the concept of music as a mainly aesthetic experience never emerged. Some peoples have no word for music, but they have instruments anyway. It would be interesting to know whether indigenous Americans five centuries ago ever played instruments simply for pleasure or not, because this use would have affected their reactions to the strange instruments introduced by Europeans.

Since long before the time of Plato, moral philosophers and religious leaders have regarded instrumental music with suspicion, as a potential threat to social and cosmic order. Even today, not everyone feels that instrumental music is a nice entertainment. Some religious fundamentalists such as the Taliban still think of instruments as tools of the devil that arouse people to sin. One reason why instruments might seem subversive is that their wordless messages can be disturbingly ambiguous. Ravel's *Bolero*, Astor Piazzolla's tangos, some movements of Mahler's symphonies, and many works of jazz are familiar examples of serious instrumental music with sexual, ironic, or political overtones.

When French revolutionaries played dance music on church organs in 1789, they were deliberately mocking Catholic beliefs. Playing popular tunes on church organs still makes some people uncomfortable because it sends a mixed message; it blurs the distinction between sacred and secular spaces. This can be dangerous, because for thousands of years, many highly civilized peoples, for example in India and China, have believed that sounding instruments inappropriately can upset the *harmonia mundi* and anger the gods. I suppose this fear was once widespread in the Americas, and maybe it still is among folk who preserve an ancient world view.

Even whether an instrument sounds in tune or not influences meaning, because out-of-tune instruments can make sweet music sound sour or

satirical. What it means to be in tune is a difficult question, because standards of precision vary with circumstances. Among street musicians, for example, acceptable tuning covers a generous range, because outdoor weather conditions can make precise intonation impossible. Also, most listeners willingly tolerate out-of-tune playing by children and by amateurs in village bands, at church celebrations and so on, because technical perfection is not the point of those performances. So, what would consider bad tuning in a concert hall might be acceptable and even expressive in other places. Personally, I enjoy hearing some kinds of jazz played on old, slightly out-of-tune upright pianos rather than on perfectly tempered concert grands, because to me this imperfect pitch fits the jazzy spirit of spontaneous improvisation.

Of course, if the concept of accurate, uniform pitch does not exist, then an instrument or voice can not be out of tune. I wonder whether pitch standards existed in this hemisphere before the sixteenth century. Achieving a precise pitch is difficult unless instruments are designed for this purpose, especially if they are played together in ensemble. On the other hand, matching pitches is easy for voices. But even if pitch standards did exist in the Americas before the sixteenth century, the notes would not have conformed to Western scales, so to Spanish ears, everything probably sounded ill-tuned, and therefore perhaps immoral.

Apart from their sounds, instruments carry meanings in their forms and materials and playing techniques. For example, the cello's playing position and the act of beating a drum were considered indecent for Victorian ladies. Because bagpipes physically resemble male genitals, they are used as phallic symbols in Breugel's paintings of peasant weddings—you do not have to hear the bagpipes to understand their sexual message—. The rounded back of a lute reminded Renaissance painters of a pregnant woman's belly. In *vanitas* paintings, a violin or lute with a broken string points to death and decay.

Some of these disturbing associations remain with us: many parents of teenagers in the 1960s and 1970s regarded electric guitars as symbols of

moral decay. In the hands of rock performers such as Jimi Hendrix, guitars became charged with sexuality, and that dangerous image reverberated even when the guitar was silent. It is interesting to see the guitar's metamorphosis from a feminine parlor instrument in the 1860s to a potent symbol of adolescent rebellion by the 1960s. Mexico's fascination with death also leads to satanic and satirical imagery of instruments in genres from folk art to Posada.

The power of musical instruments to amplify feelings and influence behavior explains why Islamic radicals fear them, and why Orthodox Jews and Byzantine-rite Christians do not allow them in worship, except for ritual implements such as bells and ram's horns. Englishmen tried to suppress Scottish bagpipes and Irish and Welsh harps because these had become symbols of Celtic nationalism, in other words, symbols of cultural otherness.

Spanish priests were more clever; they incorporated pagan instruments into colonial worship and so made them less threatening. I have been told that the *teponaztli* embodied a god who had power over life and death; but in some village churches, the *teponaztli* was used as a bell, to summon worshipers and punctuate the liturgy. Since Spaniards believed church bells to be sacred and protective, the difference in attitude toward these idiophones was perhaps not so great as we might expect.

Superstitious Christians still venerate church bells and name them after saints. This superstition goes back to ancient belief that certain materials taken from the Mother Earth —materials such as gold and copper, jade and turquoise, quartz, flint, and even clay and some kinds of wood— have protective powers. Similarly, instruments made of sea shells have supernatural powers because of their origin in the mysterious, living ocean; and instruments made of animal parts such as skin and bone, or shaped like animals, embody the qualities of those beasts —strength, courage, ferocity, fertility—. This magic power was reinforced when these materials were made to sound with the voices of spirits. In Mexico, such beliefs opened the door to complex imagery in which instruments sometimes dominate people.

So, instruments can be good or bad, depending on their cultural context, and making sound is only one way they project power. Some ritual instruments, such as drums in New Guinea and Tibetan trumpets and rattles, incorporate human bones and blood and are surrounded by strong taboos. Equally striking is the grotesque decoration of Mexican baroque organ pipes that are painted like faces. This decoration reminds us that when some Indians first heard a pipe organ, they thought it was inhabited by singing children or spirits. Mexican iconography is full of images of fearful instruments and of musicians in troubling situations. All of this points to deeply ambivalent perceptions of music, musicians, and instruments that persist today.

Conventional Iberian attitudes toward string instruments such as the vihuela and guitar stem from medieval Arabic culture, which valued chordophones as symbols of rational intellect and calm behavior. This tradition grew out of antiquity; Apollo, Orpheus, and biblical King David played the sweet lyre, while the satyr Marsyas and the cyclops Polyphemus played bagpipes or panpipes. These shrill wind instruments, like the Greek *aulos*, were Dionysiac symbols of bestial behavior. I wonder whether native Americans made similar distinctions among different types of instruments and their players and whether they transferred such beliefs to European instruments.

In order to comprehend the rich significance of Western instruments, at least since the sixteenth century, we must distinguish them from tools. Many people think of guitars, violins, trumpets, and so on simply as tools that musicians use in the way that wood-carvers use saws, knives, and chisels. But tools are used to move objects in space: a chisel removes a piece of wood, a hammer drives a nail, a file smoothes a surface. Instruments, however, are not meant primarily to change physical objects. Rather, instruments of all kinds, scientific and medical as well as musical ones, are used to extend human perception beyond the normal range of our senses in order to gain information and insight. Ultimately, the function of a telescope, a thermom-

eter, a shaman's rattle, or a piano is not to move something, but to enrich human understanding.

The word "instrument" comes from the same Latin root as the words "instruct", "construe", "structure", "construct", and "destruction", all words related to building. So, what do instruments build, if not physical objects? Scientific instruments build factual knowledge about the universe, from the sub-atomic level to the whole of outer space. Musical instruments, on the other hand, probe inner space, the interior psychic world of moods and feelings, and then help musicians express the results of these inner discoveries in ways that words alone cannot convey.

Musicians in different places and times have experimented with different kinds of instruments, depending on what areas of the psyche they have wanted to explore. Instrument innovation also depends on available resources and technologies. Materials and crafts—for example, the availability of animal parts for making bone whistles and skin-head drums, or the more advanced ability to bend and glue wood, or to cast metal or draw wire—these basic materials and technologies affect instruments' acoustic properties and playing methods, and thus affect tone color, loudness, pitch, and other expressive qualities. In these primary respects, instrument makers prepare the acoustic palette for musicians to employ and refine.

Aside from musicians, we must also consider the influence of priests, warriors, hunters, mothers, and other social groups on the development of instruments. All these groups have different practical and spiritual purposes for the instruments used in their domains. For example, hunters and warriors need loud, durable, easily portable types for use outdoors. On the other hand, until recently, European ladies typically preferred graceful, quiet instruments whose sweet sounds projected their own attractiveness. Because ideal young ladies of past times stayed mostly at home or in church or school, their preferred instruments, such as harps and harpsichords, did not have to be especially loud or portable; in fact, pianos kept young women at home to practice

and play, and thus they served as instruments of social control. Also, Victorian ladies were not expected to operate machinery, so harps and pianos hid their complex mechanisms in lovely-looking furniture that also projected a domestic image. We still think of parlor harps as graceful and delicate, although they are actually heavy and awkward to move—just the opposite of Mexican folk harps, which may look comparatively crude but are easy to carry and play, even in the work-place, where Europeans would not expect to find them—.

In bourgeois European society, the role of the ideal wife and mother was to create harmony in her family by uniting their diverse activities and behaviors. Because harmony within the family, like larger social harmony, was analogous to musical concord, women properly took up string instruments, especially those with keyboards, which were capable of playing chordal harmony. We rarely find pictures of macho men playing harps or harpsichords. Men were supposed to be independent, forceful leaders, so gentlemen amateurs tended to play solo instruments, mostly winds, which cannot sound chords or counterpoint. Of course, many non-Western peoples, including aboriginal Americans, Australians, Pacific islanders, and others, had no concept of chordal harmony and no chord-playing instruments or even any string instruments at all, until relatively recently. Chordophones emerged fairly late in prehistory, after humans had already migrated to Australia and the Western Hemisphere. Aerophones and idiophones are much older than chordophones and are more widespread, and more diverse in form and function.

The concept of fixed pitch might be even more recent, and seems to have developed first in East Asia than elsewhere. At least this is what the oldest obviously tuned instruments suggest—ancient Chinese bronze bells, for example—but the evidence for instrument chronology and dissemination is incomplete, especially in this hemisphere.

It is clear, though, that in any culture, musical style depends on the types of instruments available, so the introduction of a new type can open a

whole new idiom for musicians to explore. New types can arise from experiment and invention, or by accident, or by importation from somewhere else. Therefore we have to consider a society's attitude toward innovation, and the importance of population migration, trade, and social mobility for the transfer of novel instruments. The ancient Southeast Asian development of tuned bronze idiophones; the Central Asian invention of bowed strings sometime before the tenth century A.D.; the invention of the finger-operated keyboard in medieval Europe; and the European reception of East Asian free reeds, are all examples of how novel technologies travel around the world, giving birth to new instruments and idioms.

The process of transmission and adoption was especially striking in New Spain because the confrontation of indigenous and European peoples occurred so suddenly and with a great imbalance of power; yet both civilizations were intensely musical. Here, then, was an opportunity for common understanding, whereas the concepts behind things such as projectile weapons, wheeled vehicles, and the alphabet were wholly new to native Americans.

Instruments can travel together with their associated meanings or lose them in transit. I doubt that the native inhabitants of New Spain understood the cultural implications of Spanish harps and pipe organs, or later of African xylophones, but this did not stop them from adopting these novelties and making new music and myths for them. The subsequent development of Latin American music is unthinkable without plucked and bowed strings and African-derived percussion, including xylophones and Trinidadian piano pans.

But organs posed a greater problem. To serve the Catholic liturgy, pipe organs spread quickly in New Spain after the sixteenth century, even into remote village churches. Organs were first received with amazement, but later they were largely ignored because they were hard to maintain, not easily portable, and not practical for the kinds of music the people enjoyed. Just because an instrument is introduced in a new place does not mean it will

be accepted into musical life there; many types fail, because the technology does not exist to manufacture or maintain them in their new environment, or because they do not suit the prevailing taste.

Fairly quickly, the inhabitants of New Spain adjusted foreign instruments to sound the way they preferred. Sometimes they had little choice. Mexican folk fiddles, for example, presumably sounded unlike their European models, due to differences in materials and construction methods and playing techniques. For one thing, pitch was probably kept low to preserve strings from breaking, or else the strings were made quite heavy for the same reason. Use of woods other than European spruce and maple further affected tone. Folk fiddles also serve different functions from European violins; for example, homemade fiddles were not considered status symbols or vehicles for investment or objects of art in the way fine Italian violins were, even in the seventeenth and eighteenth centuries.

The relationship of player to instrument also differed in the Americas. I have heard that in some indigenous American villages, folk instruments traditionally were inseparable from their players, who were also often their makers. The instrument embodied the maker's personality, so when the player died his instrument was buried too, instead of being passed on to the next generation. I have heard of secret caves in Mexico where these dead instruments are hidden. Certainly in other parts of the world, instruments are sometimes found in graves along with other property of the dead person. Some of these instruments were ritually killed to prevent their power from falling into the wrong hands.

As we have observed, indigenous Americans reinterpreted European models according to their own belief systems and traditions, just the way they reinterpreted Catholicism. Pre-Christian habits possibly predisposed indigenous peoples to prefer some kinds of instruments and avoid others. European-style flutes and recorders seem not to have been very popular in New Spain, perhaps because they recalled the ominous sounds of magical

whistles, or they just were not loud enough for playing outdoors where so much music was performed. Also, the Spanish themselves apparently considered flutes and recorders less appropriate for ceremonial and church music than louder double-reed *chirimías* and dulcians. These reed instruments were easily heard outdoors and in large churches, and they lacked the sexual connotations of flutes and recorders. In Europe, these were phallic symbols associated with courtship and love. Here in Mexico, however, we find angels playing flutes embroidered on priests' vestments, no doubt as reminders of celestial harmony.

Brass instruments such as trumpets, horns, and trombones became very popular in nineteenth-century Mexican bands, but brasses were not typically manufactured locally. Their commercial production requires advanced sheet-metal fabrication. Making reliable valves and slides in particular demands great precision. The Mexican market for new brass instruments was not large enough to sustain the investment and training necessary to produce them here, since European brasses were readily available from urban importers beginning in the mid-nineteenth century.

For example, about 1855 the company of Wagner y Levien started selling imports manufactured in Markneukirchen at stores in Mexico City, Puebla, and Guadalajara. At least until World War I, Latin America and the United States both relied heavily on German factories for mass-produced instruments, and the tones of these German instruments, which sound quite different from French ones, subtly influenced tonal preferences in this hemisphere. Of course, so did the influx of German musicians during the nineteenth century. The characteristic sounds of German and Bohemian brass instruments colored the tonal palette first in cities where dealers such as Wagner y Levien were located, and later in rural villages as old, used instruments ended up there. Instruments also came from France, Belgium, Italy, and England, but I suppose these were less common; more study is needed to provide reliable data about commercial imports.

Although European-style wind instruments were not much manufactured in Mexico, Latin Americans have become famous for making and playing plucked string instruments, especially guitars but also *charangas* and related types, as well as harps. Woodworking skills were already highly developed here before Europeans arrived, so that was no problem. Also, in Mexico as in Iberia, plucked string instruments were not generally considered effeminate; men could play them without embarrassment, and in fact Mexicans developed a macho style of performance that emphasizes their rhythmic function, much as in flamenco. For instance, Mexican folk harpists sometimes drum on their harp, just as flamenco guitarists strike their instrument.

The confrontation between European models and Mexican imagination produced a fresh iconography and some novel designs, such as the odd-sized violins developed by Jesús Abitia. This spirit of innovation carries over today in the marvelous guitar schools of Michoacán and elsewhere, and in original instrument designs by Ruy Guerrero, Jonathan Santa Maria, and other young Mexican luthiers.

While guitars and harps became very popular in New Spain, little evidence survives of harpsichords. I know of only two images of harpsichords in eighteenth-century Mexican iconography, in which both instruments are played by angel musicians. Also, I know of only one or two old harpsichords of Mexican provenance. This seems odd considering that organs and clavichords, which share much of the harpsichord's repertoire, were common in churches and convents. Harpsichords might have been scarce because their mechanisms are so much harder to maintain and more sensitive to temperature and humidity. Also, wealthy people and institutions who could afford these expensive instruments could obtain them from Europe, so domestic production was never a high priority.

The same was true in the nineteenth century with pianos. When the emperor Agustín de Iturbide wanted a piano for his daughter, he bought one made by Emilius Scherr in Philadelphia (now in the Chicago Historical

Society collection). On the other hand, already in the late sixteenth century it became necessary to build organs here because it was impractical to import as many as were needed. The Spanish and German baroque organs that did arrive in Latin America provided fine models for ambitious local builders. But by the later nineteenth century, many churches were using European reed organs, which were relatively inexpensive, easily portable, and seldom in need of tuning.

Indigenous American reactions to certain types of instruments were predictable. For example, organs, brass instruments and *chirimías* were both terrifying and appealing because of their loudness. The same was true for large bells. It was easy to transfer to these amazing imports some of the supernatural qualities earlier attributed to native aerophones and idiophones. Even in Europe, large organs held a special status as civic monuments; we see this status reflected in the rich carvings and paintings that decorate baroque organs in Mexican churches. Today, these great organs function as tourist attractions, as often photographed as heard.

Of course, the technological sophistication of European instruments compelled respect in a land with limited metal resources and no machinery. Like clocks and guns, European musical instruments were vehicles of cultural imperialism. These instruments arrived in two overlapping phases: first, the conquerors brought loud but simple military and signal types, including drums; these projected power and dominance. Then, the colonists, who included wives and daughters of colonial administrators, brought more refined instruments for domestic use and entertainment. Gradually, all these types found their way into village life and ritual.

The Spanish and Portuguese, on the other hand, regarded indigenous instruments merely as primitive curiosities, and viewed them as evidence that native Americans were uncivilized heathens who had to be converted. At first, few Europeans showed interest in the deep cultural functions of native instruments or made any effort to preserve them. Much later, though, in the

twentieth century, Latin American traditional instruments such as the *teponaztli* and other idiophones and whistles gave distinctive tones to orchestral compositions of Ginastera and other nationalist composers. Most listeners today are unaware of the sacred and sexual implications of these ancient instruments.

Although the Europeans may have more complex kinds of instruments than those originating in the Americas, this difference does not indicate higher or lower intelligence or creativity. On the contrary, so-called primitive instruments can be played with great subtlety. So we must not confuse the medium with the message; a set of panpipes or a *jarana* ensemble can sound perfectly eloquent, especially if players and listeners are in a receptive mood. Enhancing mood with alcohol or drugs has long been normal in popular and ritual music performance, but this is one reason why some moralists are suspicious of musicians.

Since the very definition of beauty is culturally determined, we can not assume that any tonal ideal is universally valid. Perhaps only the perception of octave equivalence is universal; certainly the twelve-note chromatic scale and goal-directed harmonic progressions are not. Cultural particularity makes it all the more remarkable how readily indigenous Americans adopted foreign instruments. To native musicians, these strange devices opened previously inconceivable aural territory for exploration. While folk culture is supposed to be conservative and resistant to change, native Americans have been adventurous in developing fresh and unexpected idioms for European instruments.

Going in the other direction, maracas and bongos became popular in twentieth-century American dance bands, and piano pans, which evolved in Trinidad and Tobago in the 1930s and 1940s, have been incorporated into European scores, such as Roman Haubenstock-Ramati's opera, *Amerika*. Thus, instruments and idioms spread in all directions, not just from conquerors to conquered, or rich to poor.

Having said all this, let us review some other functions of musical instruments. We have already mentioned their use as signal devices, often outdoors to coordinate group activities such as warfare and communal labor, or to warn of danger or announce gatherings. Also, most cultures use simple instruments as toys to entertain and teach children.

Far removed functionally from toys and noisemakers, beautifully shaped instruments attract the eye. Decorative instruments are displayed by museums and antiques collectors who may have no interest in music. Indeed, some of the most ornamental instruments in museum collections were hardly meant to be heard, but rather to be admired as works of art. Or it may be that an old harp that was once valued for its tone has become even more appreciated now for its rarity and lovely appearance. Thus, an instrument's function and value can change over time. Or a type of instrument associated with a region's folk music might become a national emblem, such as the Irish harp, which appears now on coins and postage stamps.

As I have already said, in Europe, gentle-sounding plucked instruments such as harps, guitars, and harpsichords are generally considered feminine, partly because playing them takes little strength and does not distort the face or use up the breath the way winds do. Andrés Segovia affectionately regarded his own guitars as beautiful women, and he told me how he loved to stroke their smooth curves and sensitive strings. Many musicians have similar sentimental and sensual feelings toward their instruments, which are expressed for instance by giving them names and attributing personality to them.

Like harpsichords, eighteenth-century pianos were quiet, sweet-sounding instruments, generally personified as feminine. Only after the middle of the nineteenth century did pianos grow loud, brilliant, and forceful. It is no coincidence that the changing appearance of pianos, from delicate to massive, reflected their tonal development. This growth does not mean that women stopped playing pianos. Rather, all players found in the modern piano a broader range of dynamics and notes with which to express their inner

selves; maybe it was liberating for both male and female amateurs to leave behind the softer, sweeter pianos of earlier times. Anyway, although gender roles are sharply defined in Latin America, as also in Iberia, men have had no problem in approaching the piano, just as they easily took up the guitar.

By the way, I have noticed that Mexican music schools often own pianos made in several different countries. I was surprised to find in one major Mexican conservatory concert grand pianos from Germany, Austria, and Japan, but no Steinway; by contrast, almost all concert grands in U.S. conservatories are Steinways. In people's homes in Mexico, I have also seen beautiful old European pianos. I suspect that concert pianos other than Steinways are common all over Latin America. Also, many of Latin America's best pianists go to Europe for advanced study and come home with different sounds in their ears than do pianists who have played only American Steinways. Maybe this familiarity with different kinds of pianos helps explain the colorful appeal of much Latin American piano music.

Let me briefly mention a few other functions of instruments, for example in childhood education. Learning to play any instrument improves mental concentration, self-discipline, and physical coordination, and so this training is valuable even when a high level of skill is not the aim. Ensemble playing, for instance in a village band, also teaches tolerance, cooperation, and self-esteem —of course the same is true of choral singing—. One wonderful aspect of Mexican popular ensembles is their involvement of performers of all ages, all of whom learn together and strengthen their social bonds.

It is worth mentioning that poverty and distance might have limited the spread of large, heavy instruments (other than organs and bells), so I suspect that in rural Mexico before the nineteenth century the deep bass register was not much heard. The unfamiliarity of really low musical tones surely affected villagers' responses to church organs, because not many other instruments could sound so low. Imagine how exciting it was for musicians to explore the bass register for the first time.

Beyond this, instrument making transmits local folklore and knowledge of traditional crafts. Passing craft skills and secrets from father to son reinforces family solidarity and differentiates insiders from outsiders. Of course, folk instruments preserve much local variety, because these are not mass-produced, but often made to fit each individual player. Resourceful Mexican craftsmen have developed distinctive regional styles, of fiddles for example, and probably harps and organs too. It is very important to preserve these regional types together with their playing techniques and repertoire before too much more local variety is lost.

In summary, from the viewpoint of social development, musical instruments give important evidence about belief systems, traditional arts and crafts, patterns of social interaction, economics, communication, and other human behaviors. The evolution of instruments should therefore be studied not only in relation to purely musical trends, but from the broader perspective of cultural history. If we limit our view to the musician's alone, we will not learn all that instruments can teach us.

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