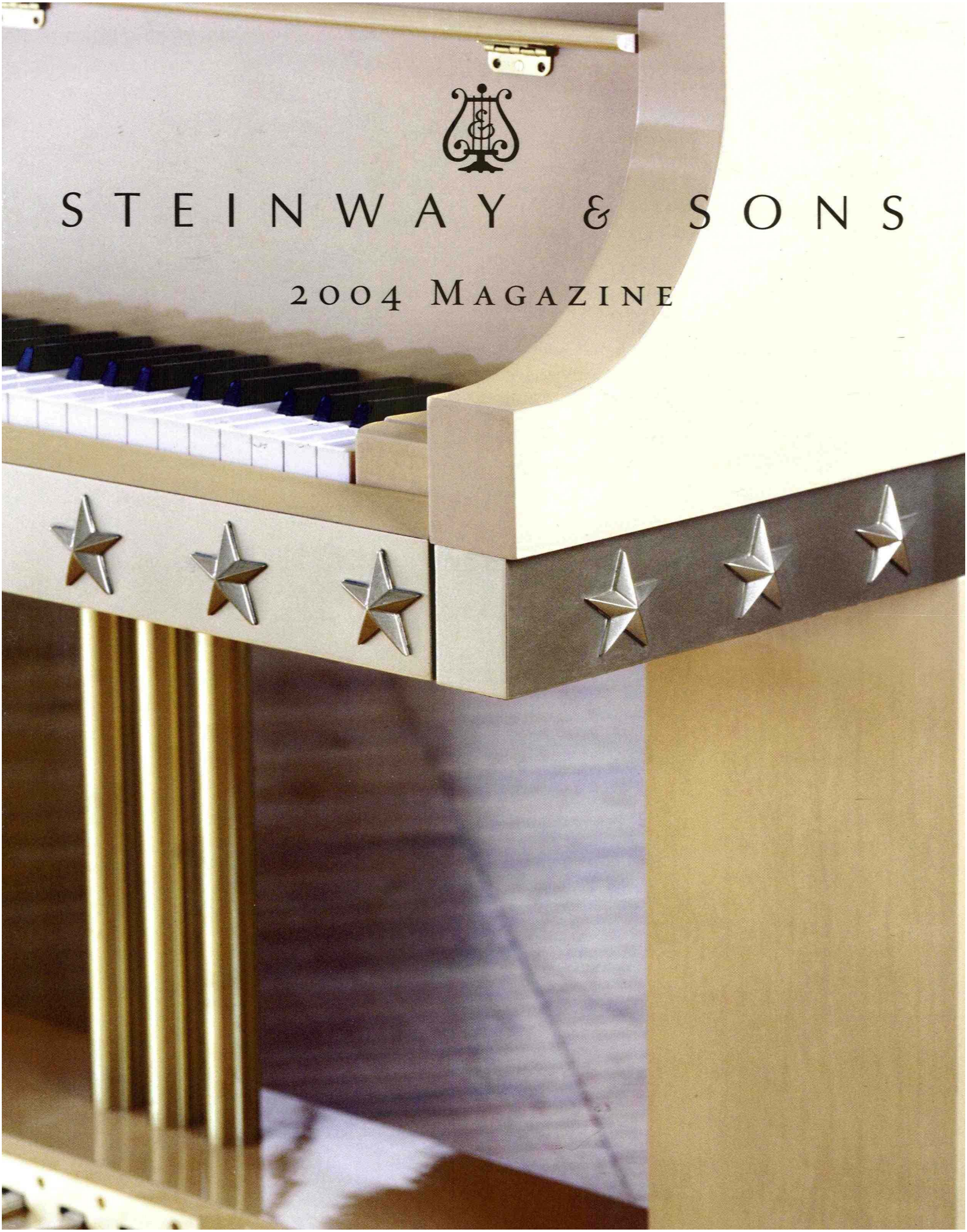
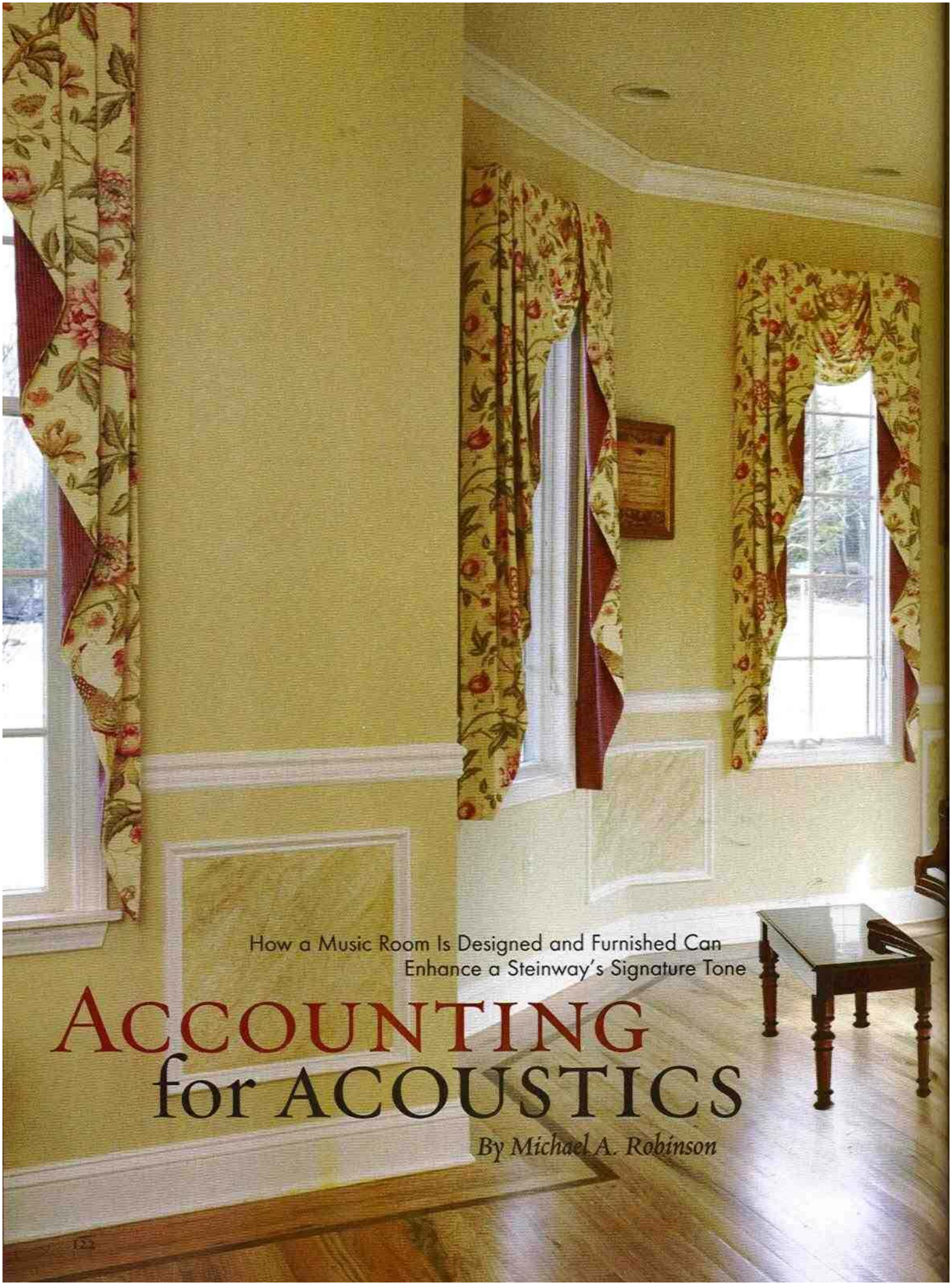


STEINWAY & SONS

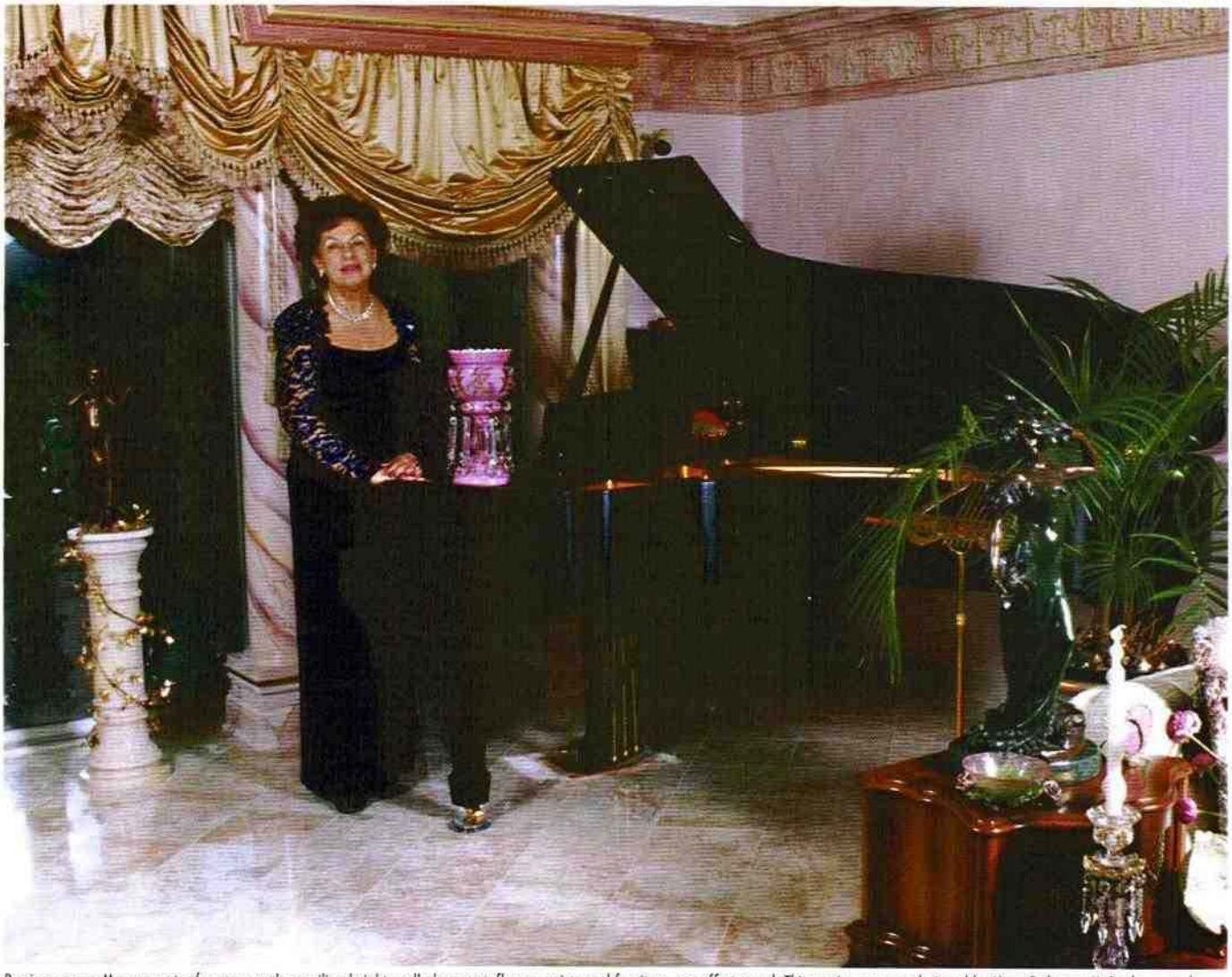
2004 MAGAZINE



How a Music Room Is Designed and Furnished Can Enhance a Steinway's Signature Tone

Accounting for Acoustics

By Michael A. Robinson



Previous pages: Many aspects of a room, such as ceiling height, wall placement, floor covering, and furniture, can affect sound. This music room was designed by Mary Catherine McCarthy, an independent interior designer, with these factors in mind to maximize the sound quality of the piano. Above: Joy Collins, photographed in her music room.

Joy Collins has always been a bit obsessed with beautiful sound. That's why she recently spent nearly $100,000 making sure her music rooms sound and look as good as major concert halls.

Ironically, the renovation was a long time in the making. Collins began playing piano at the age of 7, and by the time she was a teenager, this native of suburban Chicago was playing organ in her local church.

She always intended to get a college degree. But a stint as a secretary at a local dealer for the Allen Organ Co., a Pennsylvania-based firm that is the world's largest builder of church organs, led her into sales, a job for which she had a natural talent.

Collins remained in sales at the House of Organs for the next 20 years. When the original owner died in 1977, Collins purchased the company from the family estate. At the time, she also carried another line of pianos, but dropped those in favor of Steinway & Sons in 1988 when she renamed the company The Beautiful Sound, located on the cusp of upscale Lake Forest.

"We carry the two finest musical instruments in the world as far as keyboards are concerned," says Collins, who has Steinways at two stores and Allen Organs in a third. "This is a tremendous responsibility but also a great honor."

Now in her 60s, Collins says she has advised thousands of clients over the years on providing their music rooms with the best possible acoustics. In fact, she says learning about the acoustics of the room in which a Steinway piano will be placed is a critical early step in the sales process.

That's because she feels the acoustic principles of the room can play a major role in determining which model the buyer should choose.

"The Steinway is the best sounding piano under any environment," Collins observes. "That's just the way that it is. Thirteen hundred pianists worldwide who make their living on how they sound have attested to that as well as the symphony orchestras of the world.

"Having said that, we still want to know the dimensions and the physical properties of the customer's room. If we find the piano will be on thick carpeting and heavily draped walls and in a smallish room, then we know they are going to need a larger piano.

Knowing this piano was meant to be played as well as appreciated, Edward Strauss of Steinway Hall (above right) suggested that its owners, Dr. and Mrs. Sullivan, should design a room that would complement the "Autumn Leaves" Art Case piano acoustically and visually.

"Or we will suggest they cut out the piece of carpeting under the piano and make sure it has a place for the sound to reverberate rather than just be soaked up. But the bottom line is: The poorer the acoustical environment, the larger the instrument that is needed.

"If you put an organ into a church with low ceilings and acoustical tiles and cinder-block walls, you need twice as big an organ. That's why everyone thinks the organs in Europe sound so fabulous. It's because they're in cathedrals. If you drop a hymnal on the floor, it sounds like an orchestra. Everything depends upon acoustics."

After decades of advising others on how to improve their music rooms, Collins decided to take her own advice. That was about 18 months ago, when she began work on redesigning what she calls her home's great room. It took 14 months to complete the job.

Collins acknowledges she could have spent a lot less money, but she decided that with so many musical performances in her home, why cut corners? After all, she often hosts gospel music groups, piano recitals, and string ensembles in addition to the local Mozart Society.

So she upgraded two rooms, one for her Model B Steinway and the den next door where she plays organ. She had the carpeting torn up and replaced with marble and added acoustic reinforcement to the ceiling. A lot of architectural design focused on the pillars and superstructures involved.

Furthermore, Collins said she also hired an artist from Romania to paint frescoes on the ceiling. They all have musical themes including a depiction of a piano that says "Steinway" on it. Friends who had been to performances before the renovation were "just blown away" with the finished product, she says.

"It is quite incredible," she continues. "Even though the sound before was adequate, I wanted it to be exciting, to really bring out all the subtleties of the Steinway."

Observers say Collins may represent an extreme example of making a piano room perfect, but she is definitely part of a trend among homeowners who play Steinway pianos. They note that Steinway owners by definition have keen ears for the fine nuances of a musical instrument and naturally want a room to enhance that sound.

At the same time, new homes are often substantially larger than those built 25 years ago, real estate experts say. This means today's Steinway owner has the opportunity to dedicate an entire room or a substantial part of the living area for the primary purpose of playing one of the world's signature musical instruments.

Either way, acoustics play a major factor in the Steinway experience, says Tony Thomas, district sales manager at Sherman Clay & Co., which was founded in San Francisco in 1870 and remains one of the nation's largest Steinway dealerships.

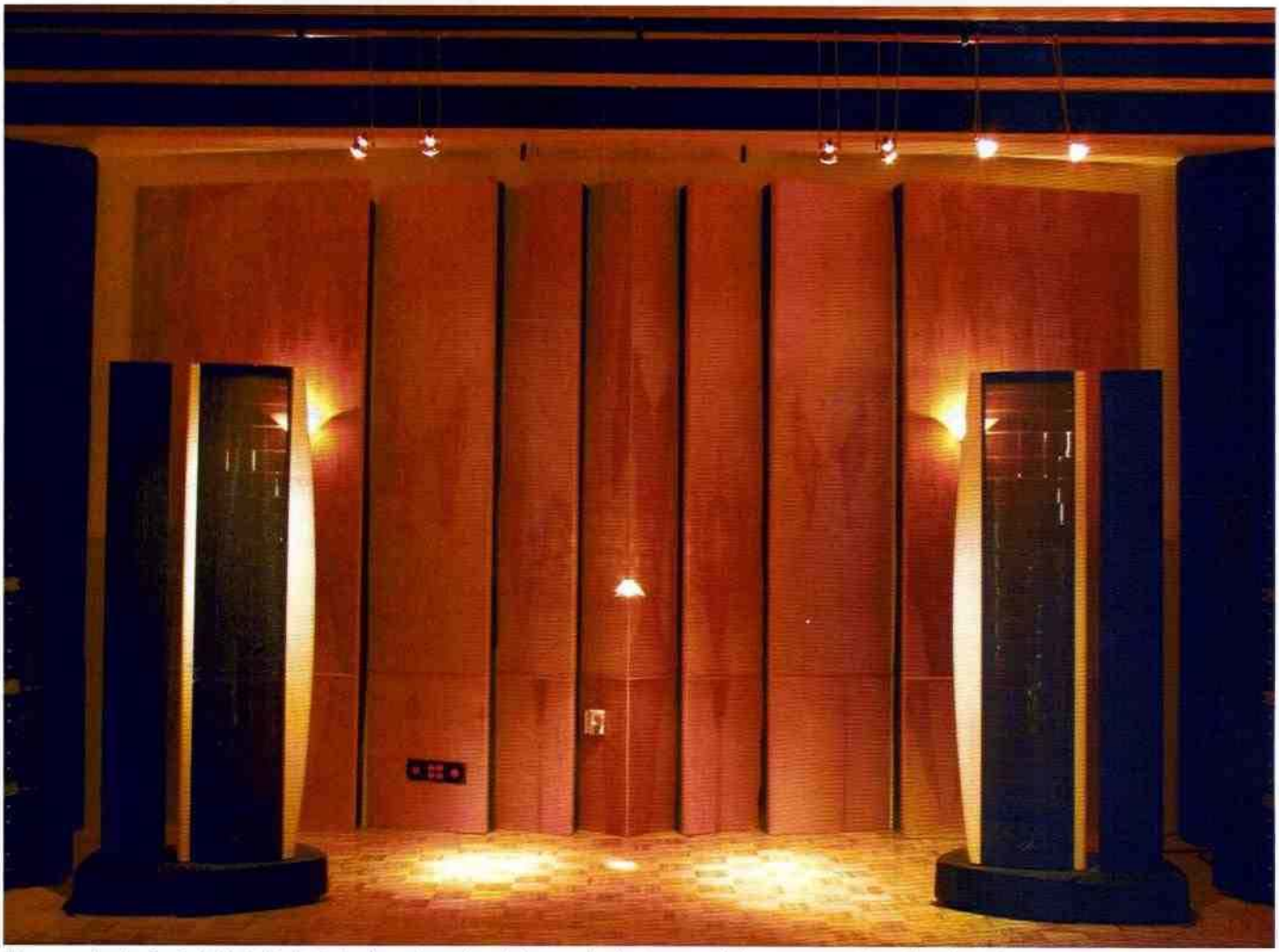
"Our job is to tell them how to best utilize the acoustics that they currently have in their room with the piano they are purchasing and what the effects of the room will be," he says. "So, acoustics come up in the conversation just about every time we sell a piano.

"We ask them some pretty specific questions about it and we try to tell them what the sound of the piano will be like under those acoustic conditions and where they should place the piano. We advise them to get a blend of tone and aesthetics.

"When you walk in the room you want it to have a nice look, but you also want a nice sound. The ideal room would be hardwood flooring, 12-foot-high ceilings, sloped, with the piano sitting in the far corner of the room so that when you walk in and as you are playing the piano the sound will bounce right off the walls next to it and the (piano) lid and bounce right back into the room."

Many piano owners will want to hire an interior designer to help them make key decisions in renovating or adding a music room. Others may feel more comfortable calling the shots. However, the experts agree that acoustics are complex, and for the do-it-your-selfer, hiring an acoustical engineer is strongly recommended.

This can sound simpler than it actually is, the experts say. While it may be easy to check references, you'll likely have to extrapolate from those comments as to how your room will turn out. That's because it's impossible to find a showroom that could change to accommodate such a wide range of factors that come into play in someone's home.



This room, a showpiece for Goodwin's High End in Los Angeles, is designed as a dual-purpose chamber. It serves as both a music room and a small recording studio.

Also, you may have to settle for less than perfection. A room that is acoustically alive may drive the neighbors crazy and lead to complaints or the need for double-pane windows. Furthermore, some lofts and luxury condos have strict rules about sound reinforcement that could limit acoustical possibilities.

Of course, big factors like room size, curved walls, and hardwood floors remain critically important, but little details in furnishings can matter as well, acoustical experts say. For instance, lots of plush furniture in a room can absorb a disproportionate amount of sound and may require replacing.

When designing a concert hall, acoustic engineers take into account how many seats the room will accommodate because not only the chairs, but also the clothes and the bodies of the people sitting in them, detract from natural reverberation.

The reverse can prove true for a room that is too bright acoustically. In such cases, the homeowner may need to put down area rugs and add heavy drapes so the sound doesn't distort in the high-frequency ranges.

And don't ignore the lighting, for how the Steinway is presented can have a dramatic impact on the overall listening experience, interior designers contend. So, if you like to entertain dinner guests with a musical performance, it's a good idea to be able to have control over the lighting with dimmers and the like so the piano can be properly highlighted while the audience sits in less light for a more subdued feel, much like at a live concert.

Meanwhile, recent heightened interest among homeowners in getting the best possible sound from quality instruments has ushered in a whole new wave of technology, Steinway executives note. They point to Steve Haas, owner of SH! Acoustics, a Connecticut company that is marketing Concertino, computer-enhanced concert hall acoustics for luxury homes and select commercial spaces. (See sidebar on Page 128.)

Even the mainstream media in Middle America is paying attention to the importance of placing a piano in the right environment, and not just because of the acoustics. Indeed, a recent feature story in *The Columbus Post-Dispatch* also pointed out that heat, humidity, sunlight and even decorating choices play prominent roles in making a music room just so.

"With the piano correctly settled in a room, some decorating can add pizzazz," the *Post-Dispatch* declared.

For instance, an antique piano scarf is a lovely accent for a baby grand that is closed. The scarf is like a shawl that is either fringed or embroidered. A pair of buffet lamps at either side of a baby grand — in place of candelabras that once adorned pianos — can make a dramatic statement.

New Concert Hall Acoustic Technology Improves the Sound of Luxury Homes

By Michael A. Robinson

For the Steinway owner who always wondered what it would sound like to perform in the rarefied world of Carnegie Hall or even the intimate atmosphere of a renowned jazz club like Birdland, Steve Haas has just the right technology for you.

Indeed, a highly regarded acoustical engineer who has worked on several recent high-profile projects throughout the United States, Haas has developed and is marketing breakthrough live-music technology: digitally enhanced, concert-hall acoustics for luxury homes and select commercial spaces.

Called Concertino, the product allows homeowners to make their music rooms sound like some of the world's most respected live venues with the press of a button. Although the system includes a staggering 30,000 preset room sounds, Haas says most customers would narrow their choices to a dozen or fewer.

Starting at $85,000 per installation, the Concertino experience isn't cheap, but offers several advantages over conventional acoustic upgrades, says Haas, president of SH! Acoustics of Milford, Conn. And flexibility offers a major advantage, adds Haas, whose Concertino technology led to a recent affiliation with sound perfectionists Steinway & Sons.

Consider that conventional acoustic remodeling projects can easily cost more than $25,000, with no guarantee the finished result will match the standards of world-class musicians who know exactly how a Steinway should sound when placed in a great room. Furthermore, conventional remodeling leaves the owner locked into one acoustic experience no matter what type of music he or she may want performed in the space later on.

With Concertino, says Haas, music aficionados can change the entire listening experience on the fly to best suit the performers, the audience, and the musical selection. Musicians who regularly play home concerts, a large and growing market in the United States, rave about Concertino the minute they experience it because of the incredible acoustics.

And as any live performer will tell you, bad sound can make for a poor performance: It's hard for even seasoned veterans to play to their peak abilities in a room that sounds awful. Suddenly, that expensive handcrafted instrument moans like a beginner's model that's just been dragged through the mud.

"I've gotten quite close to several students at the Juilliard School who play luxury home performances once a week," Haas says. "They tell me about their horrors of performing in luxury homes and how they're just thrown into a corner and the sound is terrible. That's really relegating these highly talented musicians to being second-class citizens, and it also mars the experience for the audience.

"My vision is to elevate the importance of live performance in the home through Concertino and the experience that it can give you. We want to allow not just the musicians to have a better concert experience, but the homeowners and their guests. The performance can really sound fantastic in a space that's equipped with this kind of experience.

"And since Concertino enhances the natural acoustics, you don't necessarily have to create symphony acoustics. We can create drama acoustics or lecture acoustics, where you can speak softly and be heard anywhere else in the room without any visible microphones or speakers."

In fact, the largely invisible nature of the technology remains a key selling point, especially when compared to public address systems, which are large and prone to feedback and distortion. It takes about a week to install all the Concertino microphones and speakers in the walls and ceilings, but once the project is complete most people won't see any of the equipment.

Some purists, however, might deride any sound enhanced through technology because to them, "natural" acoustics remain superior. But many of those individuals might not know that some concert rooms praised for their great acoustics actually employ electronics and amplification to improve the sound, says Haas.

And Haas should know. At 36, he is considered one of the industry's more versatile acoustic designers. He has worked on Carnegie Hall's new Zankel Recital Hall in New York, Jazz at Lincoln Center's new Rose Hall, also in New York, Orchestra Hall in Detroit, as well as the Country Music Hall of Fame in Nashville and the U.S. Holocaust Museum in Washington, D.C. Haas plays piano, saxophone, and electronic instruments.

Meantime, the trade press considers Concertino a major advance in home sound. Concertino and Haas made the cover last year of *Residential Systems*, a publication that covers custom electronics design and installation. *Robb Report*, the bible of home entertainment and design, gave Concertino a rave review in a five-page article with the headline "Command Performance." And in March 2003, Concertino received an "editor's pick" from *CE Pro Magazine*, which covers custom electronic installations.

Nevertheless, Haas says even some audiophiles will confuse Concertino with DVD-driven home theater systems that have taken the nation by storm with their blockbuster sound and sharp movie images. Though he can adapt Concertino for home theaters, Haas draws a sharp distinction between his technology and that employed in audio-video receivers with six-channel surround sound.

"One of the first things people always ask me is, 'oh yeah, isn't this what I have in my home theater tuner?" Haas explains. "I've got presets for the concert hall, I've got the cathedral, I've got all these different sounds.' Concertino is a very strong departure from that.

"A home theater tuner processes the audio signal before you ever hear it. There's no direct sound. It's only a blend of what's coming out of the speakers. With Concertino, whether it's a live musician or someone coughing in the middle of the audience, we don't alter the sound until it leaves its source, just the way a real room does.

"In a real room, when sound leaves someone's mouth or someone's instrument, it will then travel, hit surfaces – walls, floors, ceilings – and reverberate, create reflection patterns, and then come back to both the performers and the audience changed. Concertino takes all these factors into account to deliver the finest possible home concert experience."

"On a black piano, try a lamp with a red base and red shade," the article added. The room itself should be big enough so that the piano doesn't take up more than 25 percent of the space. Temperature changes cause the wood to expand and contract and affect the instrument's stability, the article noted, adding that pianos are most comfortable between 65 degrees and 75 degrees.

For those who live in the Snow Belt, a humidity level of about 30 percent in the winter is best. Faced with inordinately dry or wet conditions in the music room, owners may want to consider climate-control systems to keep heat and humidity at their proper levels year- round, the paper noted.

Interior designer Mary Catherine McCarthy says she takes the location of the heating and air conditioning vents into account when designing a music room. She says it's imperative that a piano not be placed close to climate control vents because of the negative impact they can have on the wood, which in turn affects not only the longevity of the instrument but its tone and playability as well.

Sunlight may make the room seem cheery but also can pose major concerns, says McCarthy, who recently completed two new music rooms near her company's location in Spring Lake, New Jersey.

"You don't want to put your piano on the southern exposure where the heat is just sitting on it all day long," McCarthy says. "If it has to be near a window, then it should be a tinted window, a window with an awning on the outside, or one where the sun won't hit the piano directly."

McCarthy likes to describe the ideal music room in contrast to something wildly popular with American consumers these days: the home theater environment. They're worlds apart, McCarthy says.

"Home theaters have a low ceiling with an acoustic tile that absorbs sound," she explains. "Usually there's carpet on the floor. There's ... some kind of fabric or acoustical kind of panel on the sides on the walls, and there's ... a low ceiling so that the sound is controlled by the speaker system and not from reverberation in a wall. You want every surface to have sound-absorbing material.

"The ideal music room is dramatically different in that you not only want natural reverberation, but the size of the room really depends more on how many people you intend to seat. Let's say you want to have small concerts; you can design the room with that in mind.

"Of course you have to control the reverberation just as you do in a concert hall, but you clearly don't need to make the room small so the projection center looks like a movie theater. You're not at all bound by the size of the viewing screen."

An independent designer for the past 20 years, McCarthy says she sees a growing demand for music rooms, even though home theaters get more attention because of the sheer volume of advertising dollars spent by consumer electronics companies. Before that, the focus was heavily on designing a listening room for audiophiles who were particularly concerned with absorbing sound and designing a room for perfect speaker placement.

McCarthy says she is only too happy to help Steinway owners design the right room for their instruments, and not just because she caters to upscale clients. It's actually her personal passion.

In the living room of her own home, McCarthy has a Steinway grand that is roughly 100 years old and still plays beautifully. The Steinway originally belonged to her grandfather and was passed down through McCarthy's mother, who sang and played piano. Actually, music remains a major family affair for McCarthy. Her sister is a music teacher, and her two daughters, ages 7 and 14, play the family heirloom regularly.

Meantime, the popularity of music rooms centers around a recent residential trend: the rise of the "mega home." In fact, though solid statistics remain elusive, new homes for affluent consumers are bigger than ever before, analysts say.

With many houses for that economic sector weighing in at more than 4,000 square feet, owners often demand custom-built homes with space for clearly defined purposes such as the family gym, home theater, stereo center, and music room.

"We're seeing the death of the old style multi-purpose room," McCarthy says. "Twenty or 30 years ago, it was fairly common for the family room to have a television, stereo, play area for the kids, even a space for musical instruments.

"Now people want each room to have a designated purpose and use it for that purpose only. This is particularly true in the larger homes being built today.

"People who can afford to build these homes pay careful attention to the details, and they are demanding that their music rooms ... be as good as they can possibly be. That's why pianos sound so good in these rooms. A lot of time and thought went into designing [the proper environment]."