The Buckeye Backcheck

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Newsletter of the Columbus Chapter of the Piano Technicians Guild

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From the Editor...

Many thanks to Ben Wiant and Jon Chandler for hosting our Chapter Christmas Party in January of '03. The food was excellent, the company equally so, and the music that David Berger provided was also marvelous! The tree was beautiful, too!

David Berger plays the Grotrian grand at the Wiant Household for our annual Christmas party, held January 4, 2003

Tips for Getting Business and Keeping it

Here are a few of the things we talked about during our discussion during the January meeting on getting business and keeping it.

1. Advertising. Cards are very important. Check out the business card magnets at office supply stores.
2. Phone Book. The big ads aren't really worth the money. Get a business line and the free two-line listing that goes with it.
3. Directory Ads (OMTA, etc). You don't get lots of calls, but you get a few and it shows support for the organizations which can translate into business later.
4. Car signs. The static signs are best, for they can easily be taken out or moved to another vehicle.
5. NPR and PBS business memberships. Again, showing support for the arts community is a good thing, and it does get you some airtime.
6. The Internet. Not to be underestimated; think about a website.
7. Customer Newsletter. Either as a one-time introductory handout, or if done once or twice a year, as a reminder to your customer base that you are out there.
8. Dealer Warranties. They don't pay a lot, but it's good PR with the dealers, and the warranties often turn into regular customers.
9. Pro Bono. The occasional local school or church gig can be good advertising.
10. PTG contacts. Never, ever underestimate the power of business contacts.
11. Consider your location. Moving may not be an option, but consider being willing to travel to out of the way places where busier tuners don't want to go.
12. Reminders for next appointments. Either set up for the next appointment while you are there (the down- side is cancellations, for who really knows where they'll be in 6 months), send cards or call. Get permission to call when you are with the customer, for some don't like extraneous evening solicitation.
13. Know your work. This kind of goes without saying, but remember tuning is only a small portion of what you need to know. Many if not most first time customers are only calling because something is not working on the piano- not because they think it needs

10 things customers want

1. Returning phone calls. They want to know their business matters with you, so don't keep them hanging. Even if you are unable to help them yourself, it's basic manners to return the call.
2. Be on time and allow time to do the job. The second part of this comes with experience)
3. Dress appropriately. This may sound obvious, but you'd be surprised.
4. Be up front, but be tactful. You are in somebody's home talking about their personal instrument.
5. Be respectful of property. Parking, shoes. placement of tools, putting things back again- it sounds obvious, but you never know.
6. Be patient, not only with the customer, but also with their children and pets.
7. Explain your work (cyb). You'll be sorry if you didn't explain what a pitch raise means to the stability of the tuning when the customer calls back next week complaining about how some of the notes sound funny. Be aware of the time, though, and use it wisely. Customers want to

know about their piano, not the history of the piano.
8. If there is a problem, fix it and make the customer happy. This is in regards to the return call; aka "it wasn't doing this before you worked on it." (see #7)
9. If you can't fix it, be honest about it. Better to admit it's beyond your experience, than to screw something up. This kind of goes back to business contacts who can help you out with advice or having the work farmed out to them.
10. Be firm when you perceive a problem, but don't lecture. It's their piano; don't be pushy.

Miscellaneous

1. Be prepared. Keep up to date on technology and techniques (read your PTG Journal; attend seminars)
2. Always educate yourself. Again, PTG seminars and meetings.
3. Don't hesitate to ask a colleague for advise. Butts & Flanges.
4. Learn from mistakes - don't repeat them.

For those who are relatively new to the business, I leave you with the advice Bob Schoppert, RPT, the head technician at the Aspen Music Festival. "Just always do the best you can and then leam to live with it." In other words, don't beat yourself up over your shortcomings.

A Piano That Runs Hot and Cold to Keep Itself in Tune

By Ian Austin 1/2/03

As the author of a book about piano technology and the co-curator of an exhibition at the Smithsonian Institution celebrating the 300th anniversary of the instrument's invention, Edwin M. Good has examined and played just about every kind of piano there is. They all share at least one trait, he said. "All pianos are always out of tune," said Dr. Good, a professor emeritus of religious studies at Stanford University. "A piano is by definition not in tune." That sweeping statement is true: the most common piano tuning, based on what is known as the equal-tempered scale, deliberately alters the pitch of some notes to improve the instrument's overall harmonics.

But if all pianos are indeed out of tune, some are more out of tune than others. With temperature and humidity changes, it does not take long for the 88 tones of an acoustic piano to get out of whack. "A very large part of the piano is wood, and wood expands and contracts with changes in humidity," Dr. Good said

While concert pianists can have their instruments tuned shortly before a performance, most pianists just put up with the problem. At best, they might have their pianos tuned once or twice a year. Don A. Gilmore, an amateur piano player and professional engineer from Kansas City, Mo., however, has developed an electronic system that he says could allow pianists to tune their own instruments at the touch of a button. Most other instruments can be tuned as needed by the person playing them. A violinist, for example, tunes the violin before playing and can even

compensate for tuning problems while playing by slightly repositioning the fingers on the strings. With a piano, however, Mr. Gilmore said. "you're at the mercy of the instrument when you play it." When he is not playing Chopin, Mr. Gilmore, 38, spends his time designing customized industrial equipment and factory systems. Early in his career, while developing a machine that used servomotors, which can be commanded to start and stop very precisely, Mr. Gilmore began considering ways that they might be used in a self-tuning piano. The 88 tones of a piano are created by about 250 strings. The lower notes use single strings, while the middle and higher notes use two or three strings each, which helps increase their volume. But multiple strings make tuning more difficult. With a high note, for example, "if any one of the three strings in a note is off a slight amount, it's obvious," Mr. Gilmore said.

While briefly unemployed about a decade ago, he developed and later patented his first tuning device. It could mechanically tune three strings simultaneously based on electronic analysis of their sound. That system had some major problems, he said. For one thing, because it used microphones to pick up the tones from the strings, the device could not distinguish very well between individual strings. It was certainly a long way from a self-tuning piano. Yet Mr. Gilmore resumed his efforts after he was informally contacted by QRS Music Technologies, a company that makes paper rolls for old-fashioned player pianos and systems that convert conventional pianos into electronic self-playing instruments. QRS also owns the piano maker Story & Clark. Mr. Gilmore's said his "epiphany" came when he tried using separate magnetic pickups, like those found on electric guitars, for each of the strings. Unlike microphones, the pickups are not affected by adjacent strings or extraneous noise.

The pickups, combined with a microprocessor, took care of figuring out how much tuning the piano required. But he still needed to devise some way to do the timing. "I knew anything mechanical was not going to be reliable." he said. Initially he considered making piano strings from Flexiaol, a nickel-titanium shape memory wire, which flexes in specific ways in response to temperature changes. But me final solution was simpler: Mr. Gilmore decided to use heat provided by electricity to expand or contract conventional piano strings and alter their tuning. Piano strings are relatively poor conductors of electricity, and their resistance will quickly generate heat when a current is passed through them. Increasing the current will raise a string's temperature and cause it to expand. The expansion decreases the tension of the string, lowering the pitch. Reducing the current makes the string cooler and causes it to contract, increasing tension and raising pitch.

Working with technicians at QRS, which has licensed the technology, Mr. Gilmore is developing a prototype of the self-tuning piano. He anticipates that once the pianos are in production, their strings will be heated to 95 degrees before being tuned at the factory. That reference tuning would then be stored in the piano's electronic memory. Once at its final destination, the piano will always have to warm up before play. To retune the piano, users will press a button and all of its notes will sound. The computer will compare the results to the reference tuning and raise or lower individual string temperatures as needed. Mr. Gilmore expects the process to take about 20 seconds. The self-tuning piano may still need manual retiming if it goes badly out of tune because of, say, a move from an extremely humid to an

extremely dry place. Users would also be able to store the work of their own tuners as the reference if they prefer.

Thomas A. Dolan, the president and chief executive of QRS, declined to predict when the first self-tuning piano would come to market or to estimate its price. He said the first product based on some of Mr. Gilmore's technology would probably be a portable tuning aid that will still require manual adjustments of the strings. Mr. Dolan said that when Story & Clark makes its first self-tuning pianos, they will be grand pianos rather than uprights. "You don't want the tuning system to cost twice the value of the piano," he said. Because the pianos are likely to be expensive, he said, he believes that at first they will be purchased mainly by schools and professional musicians. Dr. Good, for one, is unlikely to be interested. "Maybe it works," he said. "But if it works, I'm not sure I want it. Why bother with all this expense when you can just get the piano tuned every three months?"

A Music Camp for Those Afflicted but Gifted, Too

Brad Kaus, a piano teacher, watched in awe as Michael Ibbotson performed a sonata he had composed effort- lessly in a one-hour lesson at the Belvoir Terrace music camp here. Even more astounding than the speed of the composition was die musical score in front of him: a series of curly scribbles and drawings but not a single note. Like all of his fellow campers, Mr. Ibbotson, 24, of Hudson Falls, N.Y., has Williams syndrome, and like most, he is unusually musical but mentally disabled. Most of the campers still in school are in special education classes.

"These amazing kids seem to absorb music, and teaching them is a whole new experience every time," Mr. Kaus People who have Williams syndrome, a genetic condition, have severe learning disabilities, cannot perform common tasks like tying their shoelaces and are extremely uncoordinated. But besides having musical skills, they are very sociable and articulate. About 4,600 people in North America are known to have the condition, the Williams Syndrome Association said, though there may be 10,000 undiagnosed cases. Every August, dozens of people with die syndrome come to the camp here from across the United States and Canada. This week 53 people, ages 12 to 39, were at the camp, which has mn for nine years. Cheering and sing-alongs erupt from the camp buildings in the wooded hills as these unusually uninhibited and outgoing campers make music all day. "This is the land of high-fives," said Marc Dennis, an instructor. "The kids are constantly congratulating one another. I've never seen people react to each other's music with such warmth and abandon." In band practice, the instructor tried to hold the attention of his five band members as he explained the two-bar introduction to Eiton John's "Can You Feel the Love Tonight," a song none had ever played. Christian Lawson, the lead singer, quickly interrupted the instructor: "Yes, yes, yes, but the real question here is are your guitars really, really in tune? Are they?" He was worried that tiny deviations in tuning would Jar his keen perception of pitch.

Many campers are unsually sensitive to noise. Wrong notes and loud noises can upset those with the condition, called hyperacusis. "These kids have such good ears that they can hear many

things we can't," Nancy Goldberg, me camp director, said. "They can get frightened by noises we aren't even aware of." Many have an ability to identify isolated musical notes, which professional musicians covet. Several parents join their children at camp to enjoy the community. After the evening talent show, they gather over beer to exchange advice and share concerns.

Roberta French of Mississauga, Ontario, has brought her son, Jason Dennis, 31, to camp for several years. Mr. Dennis's condition was not diagnosed until he was almost a teenager, though he had long displayed some typical characteristics, including an unusual talent for drumming. His dmm performance that night brought compliments from other campers' parents. "I'd never seen another kid with Williams before he came to the camp," Mrs. French said. "And more importantly, neither had Jason." Terry Monkaba, director of the Williams Syndrome Association and die mother of a camper, said: "I think parents of many Williams kids have somewhat less grieving than parents of other kids with syndromes. We have it lucky. People are drawn to our kids because they are highly friendly and verbal. And the fact that so many of them have this great passion for music gives parents something to work with. Also, because they have such marked capabilities and challenges, which are innate or learned in unconventional ways, they are a geneticist's dream."

Everyday life for these children and their parents can be challenging because of the syndrome's physical manifestations, including a heart artery defect; faults in production of elastin, the basic constituent of elastic connective tissue; and curvature of the spine. When asked about his life. Alee Sweazy, 17, of Minnetonka, Minn., who plays accordion and piano and is the subject of a National Geographic profile being filmed this week, said, "I am so glad that I have Williams, 'cause I got the music in me, man!"

From Joel Reeves...

1/15/03

We had been waiting to hear from Dr. Friedman, at Duke University. We were expecting to leave immediately once we got the call. We finally heard from him yesterday (the 14th) and the soonest we could see him was January 29th. We were hoping to start treatment right away (if not sooner). We talked to our oncologist Dr. Sweeney and he talked to Dr. Friedman and worked it out so that we could start treatment this Friday and still keep our appointment on the 29th. We went from being disappointed by the delay to being thrilled that we could start the regimen that Dr. Friedman wanted, even though we wouldn't get to see him for a couple weeks- I know that this is the word that many of you have been waiting for, and I sure appreciate your continuing prayers and support. I'm feeling really good and will probably start resuming a lot of my regular activities soon.

(Again, we all wish Joel our best. -Ed)

In Conclusion...

Yehudi Menuhin after a Rolling Stones concert:

"If you took an electric drill or a pile driver, tuned it so that it sounded a note, amplified it a hundred times and then played it over a public square, it would sound to the people forced to live nearby much as this concert sounded to me."

(Apologies go to all those Stones fans out there...)

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