PIANO TECHNICIANS GUILD
COLUMBUS CHAPTER

The Buckeye Backcheck

Newsletter of the Columbus Chapter of the Piano Technicians Guild

Volume 32 Issue 7 October 2007

CHAPTER NEWS AND NOTES

An Invitation from the Dayton Chapter

From Doug Atkins:

Our October meeting, including a Bosendorfer presentation will be held at:

Hauer Music
120 S. Patterson Blvd.
Dayton Ohio 45402
(937) 222-2815 Contact: Jim Hauer

Please spread the message to your chapter. If you want to get together for dinner before hand please let me know a couple of days prior to the presentation and I'll make arrangements at a local restaurant.

Thanks,

Doug Atkins 937/266-5151
atkinsd @ cedarville . edu

Pianorama

OMTA has request our chapter to donate toward the expenses the OMTA incurs in putting on Pianorama this year. Graves Piano is not supporting it any longer and the expense is straining the OMTA treasury. I suggested a donation of $100.00 from the chapter in support of the event.

Pianorama is a concert featuring the students of OMTA members. It will be held on Saturday, October 27. For more information, see

http://www.ceomta.com/student-events/pianorama

The Next Chapter Meeting

The next Columbus chapter meeting will be Tuesday, 10/16/07.

It will be held at Henderson Music, formerly The Piano Gallery, 2829 Festival Lane, in Dublin, beginning at 7:30 P.M.

CLASSICAL MUSIC IN COLUMBUS

Here are a few events coming up in October:

Fri. Oct. 12
Columbus Symphony Orchestra and Chorus,
Junichi Hirokami, cond.
Beethoven Symphony #9
Ohio Theater, 7:00pm

Sun. Oct. 14
Promusica Chamber Orchestra,
featuring Conrad Tao, piano
Southern Theater, 7:30pm

Oct 17-21
Ballet Met - ***Dracula***
Capitol Theater

Sat. Oct. 20
Karen Eckenroth, Soprano
Battelle Fine Arts Center, Otterbein, 8:00pm

Mon. Oct. 22
Caroline Hong, piano
Weigel Hall, OSU, 8:00pm

Sat. Oct. 27
Pianorama
Graves Piano, 6:00pm and 8:00pm

Sun Oct 28
Carpe Diem Quartet
Huntington Hall, Capital University, 7:30pm

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FROM TOM TUNER a.k.a. Tom Harr

False Beats

I covered this briefly in a technical on pitch raising years ago, and referred to it in Tool Bending last April in The Backcheck. Since the topic has come up in another context it may be time to revisit it. Besides, I hate to waste words unnecessarily so this allows me to reuse some.

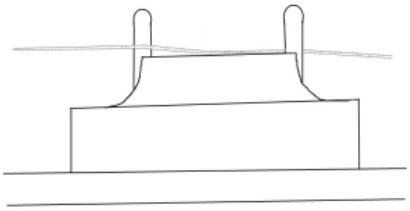
How do you compensate for false beats in the upper treble? Do you have any way to correct or eliminate them? Many (most?) tuners associate them with cheap pianos or spinets (this may turn out to be an entirely accidental association). Do you pick one beat and try to ignore the other one or compromise between them and try to finesse the difference (the "tuner's octave")? What are false beats and where do they come from? Does it make any difference? "The customer can't hear them." Your customers don't notice because they are used to it and probably think that's the way the piano is supposed to sound. (Did you ever have the experience of tuning a piano with really jangly unisons and have the customer complain afterwards that now the piano "doesn't sound right"?) What I really like about tuning Young Changs, besides the good feel to the pins, are those super clean unisons. Makes tuning the octaves a real pleasure. I can hear those sets of coincident partials as they line up and diverge.

False beats really are beats, just like the ones you tune with, and they arise the same way, by heterodyning. They are actually resultant or difference tones coming from two different pitches being sounded together. Instead of two different strings producing them they are both coming from the same string. How is this possible, you may well ask. Kinks or inhomogeneities in the wire, twists, or any other property of the wire do not do it. Because of a defect in a termination the string actually has two, slightly different, speaking lengths. This can hardly arise at an agraffe or a v-bar in most cases (it might with set-off pins, but you hardly ever see those in the treble). What happens is that the string creeps up the forward or upper bridge pin and in doing so no longer contacts the bridge right at the edge of the notch, but a short distance behind it on top of the bridge. The pin is still touching the string in the original place. As you doubtless know, strings do not vibrate just perpendicular to the soundboard and bridge, but at all angles, including parallel to the bridge (at right angles to the bridge pin). So now the string has two speaking lengths depending on which way it is vibrating.Lower down the scale this causes no discernible problem as the difference in length is an inconsequential fraction of the total. The shorter strings in the top 1 ½ – 2 octaves are another case as the difference falls within the range of altering the frequency by an audible amount.

Now that you know what they are you can (largely) in most cases reduce or eliminate them. What you need is Uncle Tom's Brazenly Effective False-beat Killer, which you can make for yourself. Go to the Chapter Home Page and click on Newsletter. I think the one you want is April '06. The picture doesn't show it but the length is about 8" (20 cm) or whatever is convenient and fits in your tool case. It does not go between dampers very well, but I have pulled vertical actions to get at the bridge where beats have been a bother below the E where dampers commonly stop. On grands, Norm Neblett, the voicing wizard from L.A., advocated placing a brass bar (cut from a grand lid stick) on the bridge behind the front pins and tapping all the strings down with a mallet to eliminate beats before voicing.. Omitting this step during stringing may be one reason why cheap pianos seem to show more false strings.

The next question is, how is it possible for strings to do this since on a vertical piano the hammer drives the string toward the bridge. In a grand it knocks it away from the bridge, so there ought not to be any string creepage on uprights and false beats should be endemic on grands, whereas the opposite appears to be the case. That's a good question. I'm glad you asked that.! And the answer is: I don't know, conclusively and for certain. What the hammer does in the treble is of no consequence because its mass is too small. Yes, hammers break strings in the treble, but the

mechanism there is metal fatigue due to work-hardening. Part of the cause could be loss of down bearing on the bridge due to the soundboard flattening out, or bridge rolling causing the leading edge to be pitched downward. At a guess I would say that the fact that the bridge is necessarily a compliant string termination allows, in its movement, the string to "ratchet" up the bridge pin, down bearing being insufficient to return it. It might be an interesting experiment to alter the normal practice of planing bridge caps flat and level and make a treble bridge with a slight back slope and see if false beats ever develop.



Bridge where a string has crept up on the pin

The "tuner's octave" has been defined as the one in which you hear the least amount of aural garbage between the conflicting upper partials of the two notes, regardless of whether any partials actually coincide.

The Beatkiller tip

Literary Notes

Through the Internet and 'I.L.L.' (inter-library loan) a number of books previously out-of-reach due to being no longer in print or priced beyond means by Amazon are now available at the amazingly affordable price of $0.00. Google's scheme of scanning entire libraries and putting them on line has bourne fruit in the form of free downloads of out-of copyright, public domain books. One of these is Daniel Spillane's *History of the American Pianoforte*. (1890). As a PDF this is a very compact file. The edition available is an original and lacks the informative introduction and index of the 1969 DaCapo Press reprint. However, if you read it on-line there is a handy finder which serves as an index. Bies's *A History of the Pianoforte and Pianoforte Playing* is also available this way. Note that if the book is still in print Google will try to sell you a copy. In that case you may resort to your local public library. If they happen not to have a copy in hand they can request it from any other library that has one and provide it for your use for two weeks (usually renewable) at no charge. One interesting fairly recent paperback that came my way by this means is *Piano Roles: A New History of the Piano* By James Parakilas et al. This is more an extention and updating of Arthur Loesser's classic than an actual history per se. Among the short articles is one on how the piano came to Japan and took root there. The bibliography is especially valuable in providing a number of titles that I will be pursuing. Also a copy of David Wainwright's *Broadwood by Appointment* for which I had been looking for for quite awhile ever since seeing the movie "The Piano" to find out whether that really was a Broadwood square piano.

- Tom

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FROM THE ARTS JOURNAL

Sour Note

Only certain fine woods can suffuse musical instruments with rich tonal quality. But now the best woods are becoming scarce.

By Bill Graham, McClatchy Newspapers

Orchestras, bands and parlor pickers for two centuries have enjoyed affordable instruments made from the finest tone woods cut from old-growth forests.

No more.

The best tone woods are becoming unavailable or prohibitively expensive as the world's forests succumb to overharvesting, illegal logging and pollution.

“Most people don't realize the situation with wood,” says Anton Krutz, a Merriam, Kan., violin-maker. “We give tours of our shop, and I find even advanced players are not cognizant of this.”

The instrument business will adapt with other woods or synthetics and survive, experts say. But as fine woods for clarinets, guitars and violin bows dwindle, price increases could make high-quality instruments unaffordable for many musicians.

With the depletion of South America's coastal forests, Brazilian rosewood has become endangered, and shipment of the wood between countries is restricted by the Convention on International Trade in Endangered Species (CITES). The problem is not limited to one continent or exotic woods. Commercial supplies of instrument-grade Sitka spruce from southeast Alaska - used for the sounding boards of pianos, guitars and bowed instruments - may be exhausted within a decade, according to the Music Wood Campaign organized by Greenpeace and major guitar manufacturers to save Sitka. Sitka spruce in general is not endangered. What's vanishing are the 6- to 8-foot-wide trees - 300 to 600 years old - that produce fine-grained boards for musical instruments.

“Because of tonal and structural properties, you can't make instruments out of just anything,” says Linda Davis-Wallen, who travels the globe buying wood for the C.F. Martin Guitar Co., a 174-year-old business in Nazareth, Pa.

Alternative guitar woods such as American cherry and black walnut are used, but have thus far not been embraced by customers, Davis-Wallen says. The future, she says, will be guitars made from more pieces and types of wood, as well as laminates and synthetics such as carbon fiber. But the sound is not the same. Certain premier tonal qualities will no longer be readily available to the average musician and, thus, listeners.

Among the problems:

Pernambuco, the best wood for violin and cello bows, was forbidden this year for export from Brazil as raw wood by CITES. Bow-makers are now working with stockpiled pernambuco.

On the Serengeti Plain of Africa, conservationists worry that African blackwood (grenadillo) used for woodwind instruments such as clarinets and oboes is threatened because large trees are overharvested.

Since the late 1960s, rosewood from India's jungles and tea plantations has substituted for Brazilian rosewood. But the most musically desirable logs are now difficult to find, Davis-Wallen says.

The trade in big-leaf mahogany from Central and South America is now restricted by CITES. Among the finest and most often used tone woods, it could become endangered if illegal logging is not halted, Davis-Wallen says.

Ebony from Africa and Asia, used for fingerboards and other parts on guitars and violin-family instruments, is also becoming scarce, and some species are endangered.

Read the complete article at:
www.philly.com/inquirer/magazine/20071001_Sour_note.html

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www.ptgcolumbus.org

Upcoming Events

Chapter Meeting

Tuesday Oct. 16, 7:30pm
Henderson's Music, 2829 Festival Lane, Dublin
(strip-mall near the SE corner of 161 & Sawmill)

Dayton Chapter Meeting

Thurs. Oct. 18
Hauer Music
120 S. Patterson Blvd, Dayton
The Dayton chapter has invited us to join them. They will be hosting a technical representative from Boesendorfer.

INTERNET NEWS

Be sure to keep checking in to the PTG National Website's Blog at: **http://ptg.org/blog**
It has up-to-the minute information about PTG happenings and all sorts of odd and interesting news about the piano world.

NOTE FROM THE EDITOR

Thank you, again, Tom Harr, for your contributions !!

This newsletter was created using the open-source program *Scribus* running on the Linux/Ubuntu operating system.

Comments, articles, and advertising requests may be sent to the editor.
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