without powering down the Pioneer, then turning it on again. (It turned out that I could.)

Although the DV-58AV is glossy black with blue indicators, its controls and connections are standard issue for a modern universal player. Front-panel touch buttons manage Standby/On, disc control, and menu/navigation (this last is better managed with the remote control). There are also two special buttons, each with a tiny LED indicator: One, the SACD setup control, sets priority among CD, two-channel SACD, and multichannel SACD. The other, labeled Pure Audio, turns off all digital and video outputs to optimize the analog output's performance. On the rear panel are the outputs: for audio, analog 5.1- and two-channel, digital coaxial, and TosLink; for video, composite, component, and S-video; and for both, HDMI. The DV-58AV worked faultlessly with all 5" discs

Connected to the Integra DTC-9.8 multichannel preamplifier/surround processor via HDMI cable, the DV-58AV played SACDs at a level about 3dB lower than the Oppo DV-983H universal player. It would have been nice to use the Oppo's trim control to match levels, but as this operates in the digital domain and is likely to be accompanied with some loss of resolution, for comparisons, I had to use the Integra's calibrated volume control to match the player's outputs. And, of course, this was also a comparison of the Pioneer's DSD output to the Oppo DV-983H's PCM-converted output.

The HDMI-based comparison of the DV-58AV and the DV-983H was a near standoff, the Pioneer pulling slightly ahead in bass definition and high-frequency sweetness. Recall from my May report that I preferred the Oppo DV-980H's PCM-converted output to its direct DSD output, but the Pioneer's DSD output was superior to the DV-980H in either mode. However, it took some quick A/B switching to hear *any* of these differences; extended listening to all three players was quite satisfying.

It was through its multichannel analog outputs that the Pioneer distanced itself from the Oppo DV-980H and, to a degree, from the DV-983H as well. The clarity and detail of the Pioneer's analog stages, as well as their bass slam, were outstanding. The DV-58AV was able to reveal layer on layer of musical meaning from such complex music as Tarik O'Regan's choral suite *Scat*- tered Rhymes, in the recording by Paul Hilliard and the Estonian Philharmonic Chamber Choir (SACD, Harmonia Mundi HMU 807469), while the Oppos' analog outputs were clean but obscured details. In that regard, the Pioneer was almost competitive with the Bel Canto PL-1A. It was very satisfying to find this level of pure audio enjoyment in such reasonably priced hardware. And there was still more to be gleaned from SACDs, DVD-As,

and even CDs by staying with the Pioneer's HDMI connection to the Integra DTC-9.8, or by using a modified 3xS/PDIF connection to the Meridian 861 surround controller, as I've done with the Oppo DV-980H.

With its more substantial construction, superior analog outputs, and reasonable price of \$499, the Pioneer DV-58AV is an outstanding candidate for a keeper legacy universal player. Others will have to comment definitively on the values of its video performance, but I found it no slouch in that department either.

### **Bag End E-Trap**

Although acoustically

treating your listening room may the most important thing you can do to make your system sound its best, everyone seems to have a reason not to do it. I understand. Décor and significant others usually stand in the way, but also imposing is the sheer bulk of effective treatments, especially those used to tame big problems in the bass. Low frequencies simply demand that effective treatments be several inches thick and cover wide areas. All of this is a lot easier if you're designing a listening room from the stude out, but retrofitting requires cunning and, often, careful negotiation with whoever shares your living space.

This is where electronic room equalization can be a great help. At best, however, room-EQ software is still imperfect. In practice, it works best only over small areas of the room. However, one significant philosophical and practical objection to the practice is that it manipulates the very musical signals whose purity we are trying to preserve.

The Bag End E-Trap (\$1500) uses active electronics similar to those in an equalizer to control an acoustic device that acts directly on room acoustics rather than imposing anything on the electronic signal path.<sup>2</sup> The E-Trap is actually rather cute. With its 10" driver, controls, and power amplifier in a



cutline

box measuring 18" (457mm) H by 13" (330mm) W by 9.5" (241mm) D and weighing 33 lbs (15kg), it looks like a small subwoofer without input terminals. Fore and aft are two small microphones; either one can supply the input to, effectively, two single-band parametric filters (range 20–65Hz) that add targeted resonance peaks to the feedback circuitry that powers the driver. As a result, the input signal at those peaks is amplified and output via the 10" driver but, cleverly, opposite in phase to that of the input. Place the E-Trap in a highpressure zone, such as the junction of two or three room boundaries, and its output will oppose and cancel the en-

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<sup>2</sup> Keith Howard examined the topic of active room mode cancellation in January 2008–see www.stereophile.com/reference/108tech–and Robert Harley reviewed the Phantom Acoustics Shadow, an early device to operate in the same manner in the E-Trap, in December 1989–see www.stereophile.com/ roomtreatments/1289phantom.–Ed.

ergy in the room modes.

Shaping the filters to match one or two major room modes and adjusting the feedback in the filters-effectively adjusting the Q and magnitude of the E-Trap's response-reduces the total energy in the room at those frequencies. Moreover, a significant advantage of acoustical treatment (active or passive) is that even the decreasing energy of a decaying signal is subject to this attenuation, leading to a steeper decay to innocuous levels. These effects also apply to the harmonics generated by these fundamental modes. Thus, while staying out of the reproduction chain and leaving unchanged the signals emitted by the speakers, the E-Trap attempts to remove the room's low-frequency colorations-sort of like a narrowband bass trap with gain.

You'll find more information at www.bagend.com, but you won't find, there or in the E-Trap's shipping carton, a step-by-step guide to how to set it up. Hasn't everyone got an FFT spectrum analyzer with 1/2Hz resolution in their closet? Bag End recommends SMAART analyzer (www.eaw. the com/products/software/index.html), but I used what I had on hand. These tools included: TEF (www.gold-line. com/tef/tef.htm), which is accurate, calibrated, and not cheap; TrueRTA (www.trueaudio.com/rta\_abt1.htm), which is inexpensive and easy to use; and RoomEQ Wizard (www.hometheatershack.com/roomeq/), which is free and has just added spectrum and RTA displays to its array of tools. Nonetheless, after spending half an hour on the phone with Jim Wischmeyer, president of Bag End, I still was at loose ends about how to start.

First, I turned off the room correction built into the Meridian 861, but left operative the single-band EQ in my JL Audio Fathom f113 subwoofer. I then began surveying the listening room, using TEF's low-frequency spectral display with a bass pink-noise signal from the TEF disc. As I walked around the room with the microphone, peaks grew and shrank, troughs deepened and filled-but one big peak grew even bigger, especially when the mike approached the floor, ceiling, or a wall. At a floor corner, a 47Hz peak loomed like a 20dB Mt. Everest over the pinknoise floor. It had started out at about half that level, but grew as I maintained the signal. What was curious was that I hadn't expected to find such a peak; 47Hz corresponds to a room dimen-

by 26' by 8', with large openings into other spaces.

I preset one of the E-Trap's filters to about 47Hz and put the E-Trap on the floor close to a sidewall in a corner creat-

## **RECORDINGS IN THE**

### COWBOY JUNKIES: Trinity Revisited Plus: A Film by Pierre & Francois Lamoureux With: Ryan Adams, Jeff Bird, Vic Chesnutt, Natalie Merchant

sion of 12', but my room measures 14.5'

- Rounder Zoe 01143-1121-2 (DVD, CD) The Cowboy Junkies' second album, *The Trinity* Session (CD, RCA 8568-2-R), has become an iconic release for many of us. On the one hand, it is a warm and moving dozen songs, half covers, half originals, offered in spare but satisfying arrangements. On the other, it is a spectacular demonstration of what intimate communication can be achieved with a simple microphone arrangement (in this case, a single Calrec Ambisonic mike) in an acoustically supportive and satisfying venue. This recording holds a special place in the col-lections of many of us.
- For this new recording, the original Junkies reas-sembled, along with some notable guests, at the original recording venue, Toronto's Church of the Holy Trinity, to re-experience and celebrate the 20th anniversary of that event— though not to repeat it, even though the same 12 songs are performed in the same order as on The Trinity Session. Like the original record-ing, Trinity Revisited derives from a single session dictated by the need to fit all setup, sound checks, and performances around the church's primary activities. Thus, this recording enjoys many of the original's ad hoc liberties, which can be experienced in some of the prepara-tions documented in the "Making of" video on the accompanying DVD.



- At first, I was bothered by the differences from the original recording; I will never prefer Natalie Merchant's somewhat nasal voice to Margo Timmins' frail directness, nor have I acquired a taste for Vic Chesnutt. I did immediately take to the contributions of Ryan Adams, both in performance and in the preparations. With repeated listening, it became possible to hold memory at arm's length and appreciate this new and different session on its own terms. There's a bit less world-weariness in the voices, and the beat is less slack. Overall, the arrangements, though similar to those used in the original, are more conventional. Nonetheless, I found Trinity Revisited engrossing and addictive. Sonically, it's new. Multiple microphones provide
- greater clarity and more individuation of the performers, aided greatly by the video, and the bass is better defined. The multichanthe bass is better defined. The multichan-nel soundstage (Dolby 5.1) is circular and enveloping, but the ambience is less pervasive than on the original, particularly if one uses an Ambisonic decoder with the latter. Listening to *Trinity Revisited*, I'm very aware of every performer listening to the *Trainity Section* I'm performer; listening to The Trinity Session. I'm more aware of my own perspective. Trinity

Revisited is, indeed, the best title for this recording. It's like meeting an old friend after a long interval: the differences are both appreciated and lamented.

- Fire Burning in the Snow: Baroque Music from Latin America 3
- Jeffrey Skidmore, Ex Cathedra Consort and Baroque Ensemble Hyperion SACDA67600 (SACD)
- This lovely disc is filled with charming, simple music and delightful sounds. The collection begins with, is interspersed with, and concludes with drum-paced processionals from the anonymous verses of Hanacpachap cussisuinin. In between are lots of melodious and foot-tap-inducing songs for voices accompa-nied by colorful instrumental forces. Some pieces are liturgical, some private and per-



sonal. Hyperion's surround does not envelop so much as transport, and the clarity of the voices and instruments is very satisfying.

# HAYDN: String Quartets Op.20 No.3, Op.74 No.1, Op.76 No.1

Amsterdam String Quartet Channel Classics CCS SA 25907 (SACD) From the first notes of this disc, one hears a sound different from most other string quartets-the Amsterdam Quartet uses historical instruments, original or re-created, that wrap Haydn in rich, burnished tones. The upper strings are bit thin-sounding, but the players balance them well and take every advantage of Haydn's dynamic range and plasticity of



tempo. With Channel's careful balancing, one can hear the individual voice and character of each of these 16 strings, and, despite the evi-dently warm ambience of the Doopsgezinde Kerk of Deventer, a church, they have great immediacy and presence. An important addition to the library.-Kalman Rubinson

ed by a large credenza. Then I placed my measurement mike at the listening position, and turned the laptop to face me so that I could monitor how my settings of the E-Trap's Feedback and Contour controls affected the response. I got optimal results with these set near their midpoints, but the E-Trap's Fine Frequency control, with its range of  $\pm 1$ Hz, seemed to have no effect. Adding a second filter with a slightly lower Q made only an incremental improvement. Perhaps the second filter would have been more useful had I had another significant peak in the 20–65Hz tuning range.

What did have a big effect was the choice of microphone: Activating the one on the front of the E-Trap (about 15" from the walls) gave a tiny reduction in the peak on the RTA, but activating the mike on the back (only 4" from the wall) caused a drop of about 10dB. Not only that, but a smaller peak at about 98Hz-probably the first harmonic of the 47Hz fundamental-almost disappeared into the roiling surface of the RTA display. Now, the smaller 98Hz peak is probably much more audible, as the threshold of audibility at 47Hz is, for most people, about 20dB higher than at 100Hz. Nonetheless, compared to its measured effects, the E-Trap's audible effects seemed subtle. And with that, I turned my attentions to other things and didn't think about the E-Trap for about a week.

In the interim, my system sounded great. The ripeness around 100Hz that had long plagued my room seemed to have disappeared, an improvement I at first attributed to my having switched from the Bel Canto Pre6 to the Meridian 861 and inserting the Ayre V-6xe amp to power my B&W 802D speakers. In fact, I had assumed that I'd

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**Pioneer Electronics USA**, P.O. Box 1540, Long Beach, CA 90810. Tel: (800) 746-6337. Web: www. pioneerelectronics.com. turned the E-Trap off.

But no. The E-trap was on the whole time and, when I when I discovered the fact and bypassed the filter, the old, familiar 100Hz ripeness reinfected the sound. This thing worked. won't do anything for nulls or reflections, nor will it provide a complete EQ or acoustic treatment for an otherwise boomy or lively room. It lacks the tools and instructions needed for setup; it would be nice if it came accompanied

THE INSERTION OF THE **E-TRAP** IMPRESSIVELY REMOVED THE **SUPERIMPOSITION** OF MY OWN ROOM'S MODES, AND LET THE LOW BRASS AND THE ORGAN'S LOW BASS **CUT THROUGH** THE AMBIENCE.

I tried some organ recordings, and they sounded wonderful. Ajoutez la trompette! French Romantic Organ Music for Organ & Brass Quintet, a new SACD by organist Elmar Lehnen and the International Brass (Audite 92.556), is recorded somewhat distantly in a highly reverberant basilica. The insertion of the E-Trap impressively removed the superimposition of my own room's modes, and let the low brass and the organ's low bass cut through the ambience, as they probably did in that venue. Other telling tests were: the infamous "Cosmic Hippo," from Béla Fleck's Flight of the Cosmic Hippo (CD, Warner Bros. 26562), in which the descent into the deep bass was no longer accompanied by tonal woolliness; and the delightful plucked bass strings in the opening of Boccherini's La Musica Notturna delle strade di Madrid, from the Stuttgart Chamber Orchestra's Die Röhre-The Tube (SACD, Tacet 074), which now were tight as rim shots on a snare.

Because the E-Trap was working the entire room, it had a similar effect whether I used the speakers full-range, with the LFE fed to the JL Audio Fathom f113 sub, or used bass management. It was also equally effective whether I listened to two or many channels. Perhaps most remarkable was that the E-Trap even reduced the effects of some ambient noises that had bugged me for years. I live 11 stories above Manhattan's Third Avenue, and have learned to tolerate or wait out the noise of City Transit buses idling below. As soon as I heard the offending bus noise, I jumped up and turned the E-Trap offand found that it had been substantially reducing that pernicious hum. Will wonders never cease . . .

The Bag End E-Trap is a small but effective way to remove one or two frequency peaks in the 20–65Hz range. It

by a simple acoustical measurement tool, such as the XTZ Room Analyzer. On the other hand, it can be concealed in places where it will minimally affect room décor, and where it will effectively complement reflection-control and broadband bass traps without offending the visual sensibilities of significant others. In fact, while the appearance of the E-Trap is generally not noted, its effect on room acoustics is substantial.

#### Next Time in the Round

I'm giving up trying to predict what's next. Often, an anticipated device fails to arrive in time for a decent assessment. Often, I'm distracted by another product (or real life) and can't get to something I've promised. What I can tell you is what I have in-house right now, so you'll know my options; all will be dealt with in due course.

The multichannel amp promised last time, the Ayre Acoustics V-6xe, is cooking in the big system right now. I received the Rives sub-PARC bass equalizer and power amplifier, which came with a Talon Audio ROC subwoofer. I've also just taken delivery of the Anthem D-2 preamplifier-processor, which includes ARC, Anthem's new EQ system (briefly described in my May column). Both the Rives and the Anthem are going into the weekend system as soon as time permits. Finally, at the 2008 Consumer Electronics Show, I discovered the neat and inexpensive W1 Premium Wireless Audio Adapter from Audioengine, and have already been playing with it in my office and den setups. I've held off writing the report because the column seems to fill so quickly, and because a competitive product, the WPA24 Digital Wireless Transmitter/Receiver System from Acoustic Research, is on its way; I'll take the opportunity to compare and contrast them.