## A TALE OF THREE TRANSPORTS

Jonathan Scull

C.E.C. TL 1: Belt-drive CD transport with remote control. Outputs: two coaxial (one RCA jack, one BNC jack), one TosLink optical, one AT&T ST-type optical. Power consumption; 20W. Dimensions: 14.2" W by 5.5" H by 16.5" D. Weight: 37.4 lbs (17kg). Price: \$4950. Approximate number of dealers: 26. Manufacturer: Chuo Denki Co., Ltd., 1919 Nagayatsu Yoshimi-Mach i Hiki-gun, Saitama-Ken, Japan. US distributor: Parasound Products, Inc., 950 Battery St., San Francisco, CA 94111. Tel: (415) 397-7100. Fax: (415) 397-0144.

Esoteric/TEAC P-2S: CD transport incorporating Esoteric's VRDS (Vibration-Free Rigid Disc-Clamping System). Outputs: two coaxial (one BNC jack, one RCA jack), one TosLink optical, one AT&T ST-type optical, one AES/EBU XLR jack. Dimensions:

 W by 5.25" H by 19.25" D. Weight: 30.9 lbs (14kg). Price: \$7000. Approximate number of dealers: 40. Manufacturer: TEAC America, 7733 Telegraph Rd., Montebello, CA 90640. Tel: (213) 726-0303. Fax: (213) 727-7656.

Forsell Air Bearing CD transport. Outputs: one coaxial (BNC jack with RCA adaptor), one ST-type optical (screw type), and one AES/EBU XLR jack. Dimensions: don't ask. Price: \$6900. Approximate number of dealers: 20. Manufacturer: Forsell Mediphon Scandinavia AB, Gotalandsv. 108, S-12535 Alvsjo, Sweden. Tel: (468) 647-0800. Fax: (468) 647-0078. US Distributor: Audio Imports, 49 Fairview Avenue, Nashua, NH 03060. Tel: (603) 883-1982. Fax: (603) 880-4533.

s I mentioned in last month's Timbre Technology TT-1 DAC review (Vol.17 No.4, p.183), I had the unalloyed pleasure and ridiculous audiophile privilege of listening to three of the world's finest CD transports during the evaluation period. (Even Inspector Morse would be impressed, analog and Wagner nut that he is. "Lunch time, Lewis... never *mind* the Bangers and Mash, this looks like a nice pub for a liquid lunch!") I say, a reviewer's life is hell, what?

Following are my experiences with these three world-class machines, one of which has become Kathleen's and my reference. Unless otherwise noted, and for the purpose of this article, assume the Timbre TT-1 DAC as the processor of record, the Avalon Ascents driven by Jadis JA 200s the speakers of record, and the CAT SL-1 Signature the astonishingly musical preamplifier of record.

C.E.C. TL I, OR, ROBBIE THE ROBOT, PLEASE COME HOME

Since the \$4950 C.E.C. belt-drive wonder deck has already been thoroughly covered by Robert Harley in *Stereophile*! I'll refer you to his right-on-the-money review for the lowdown on construction and sound. Meanwhile, I'll concentrate on its care and feeding, referring to its sound as required.

The C.E.C.'s slightly pagoda-like shape reminded Kathleen of nothing so much as a gold Japanese robot—in fact, she insisted on calling it that. As RH pointed out in his review, the unit is a real pleasure to use: The lucky user slides open a smoky-glass top section, lifts a one-pound weight, and places the CD on a spindle for play. It takes a moment for the transport to get up to speed, and a bit longer than the Esoteric P-2S to

change tracks, but its solid construction and analog-like control layout give me a feeling of solid, old-fashioned super-lux.

The TL 1 has two electrical connections, a BNC and an RCA, and two optical connections, AT&T and TosLink. It has no AES/EBU output, so you have to choose between glass and coax. I found that XLO and Marigo Gen. 2 power cords sounded best on this unit.

As for mounting, the Shun Mook Super Passive Diamond Resonators worked their usual magic under the TL 1. I received a detailed letter from the Mad Monks of the Shun Mook Planet on how to best arrange their footers under the C.E.C. Since this arrangement turned out to be slightly different from that recommended for other equipment, I'll detail it for those who'd like to try the (directional) Shun Mooks, or any other footers for that matter:

I placed two Super Passive Diamond Resonators "cross-eyed" at the rear corners, pointing at 5 o'clock left side, and 7 o'clock right side (opposite from the usual positions), pointing at the drive spindle. I placed the front Resonator under the C.E.C.'s drive spindle, pointing it at 12 o'clock (back toward the rear) rather than the more usual 6 o'clock position. As Goldmund feet are known for tightening up the bass and being a little lean in the highs, you'd think they'd be required under the C.E.C., which tends mightily toward the romantic. But the Super Passive Diamond Resonators did the trick-their ability to tune-in the audio band and drain the out-of-band nasties gave them the best overall sound of all the various footers I tried.

But it depended. [Sigh]

When I used glass with the TL 1, the Shun Mooks worked best; but with any kind of coax, the Goldmunds were required. This turned out to be less of a problem than you might imagine, as I consider glass to be mandatory with the

super-luscious C.E.C., to clean up its warm, soft, sweet, and romantic presentation—so we used AudioQuest's Opti-Link Pro 2 most of the time. With this cable, the bass was characteristically punchy, and relatively clean and deep. With glass, the transport threw out the most focused and distinct soundstage—the glass "leaned out" the presentation while still allowing the smoothness and liquidity of the TL 1 to come through. The AQ clearly allowed for greater detail resolution and transparency.

When switching to coax, only XLO Type 4 digital was anywhere near acceptable, firming up the focus and sounding somewhat more ambient than the softer-focusing Mapleshade, TARA Labs Digital Master, or Pure Logic, although each had its charm. The XLO was also a little "hotter" on top, but its incisive and immediate presentation helped to lift the C.E.C. out of its permanent romantic swoon. In any event, the C.E.C.'s presentation always conveyed the emotion and human warmth of a performance.

Whatever the cable, the C.E.C. had a sweet, liquid, musical, "I-could-livewith-this-forever (maybe)," seductively luscious presentation; it might be just the thing for a system that sounds slightly lean. In an all-tube, "full-bodied" system (like ours), the C.E.C. may prove to be a bit like dating a woman who's too beautiful all the time—the Claudia Shiffer of transports. The questions are: Can she cook? And does she look that way in the morning? The C.E.C. was no slouch through the Timbre TT-1 DAC, and it mated supremely with the Sonic Frontiers SFD-2, producing a wonderful, rich, ambient, punchy-in-the-bass, and seductive sound.

"YOU CAN NEVER BE
TOO THIN OR TOO RICH":
THE ESOTERIC P-2S
At the opposite end of the acoustic spec-

1 Vol.16 No.7, p.91.



Esoteric P-2S CD transport

trum sits the supremely hyper-focused and finely detailed, "Levinson-sounding" Esoteric P-2S—TEAC's replacement for the venerable P-2, which is now getting a bit long in the digital tooth. Since this \$7000 transport hasn't yet been reviewed in the hallowed pages of Stereophile, I'll spill a little ink on it.

The P-2S employs the latest version of Esoteric's Vibration-Free Rigid Disc-Clamping System (VRDS), which consists of a full-size turntable of "double-layer" construction (brass and aluminum, to eliminate undesirable resonances) to damp the entire disc, rather than just the center, as in other designs. The "helicoid" clamp is slightly concave; when the disc is pressed into place, warps—and thus vibration—are eliminated.

The unit is beautifully built and very solid: A heavy, die-cast base, 1.6mm sheet-steel chassis, and an aluminum front panel with a maximum thickness of 16mm all contribute to its heft. The P-2S also has PC-OCC internal connection wire, a gold-plated glass-epoxy printed circuit board, and van den Hul mono-crystal OFC coax digital connecting cable. It's a super-slick package, distinctively styled, and the Mercedes-like click of the clamping mechanism when you close the drawer, gives it that extra-rich feeling. Pass the Grey Poupon!

The P-2S offers a plethora of connection possibilities (you didn't know connections came in "plethoras," did you?). I found glass and AES/EBU to be the most satisfying musically, with coax lagging somewhat behind. It was a pleasure to be able to connect this unit to the Timbre with all three output choices and switch back and forth for fast comparisons. The C.E.C. and the P-2S alter-

2 Reviewed for Stereophile by RH in Vol.13 No.7 and AB in Vol.14 No.4.

nately sat atop an Arcici SuperStructure/Isolation Platform, the stand itself spiked into Philips-head screws wound down into our massive subfloor. When I was listening to only one of these transports, the other remained turned on, for instant swapping. (Can you say "retentive"?) When the Esoteric was out of the system, I had to shut off the display so Kathleen wouldn't get upset—European audio frugality, of course.

Sonically, using both Cardas and Marigo Gen. 2 power cords to best effect, the P-2S pushed images so far back behind the speakers that we thought we'd have to apologize to our neighbors for the intrusion! (Nawww, we can't stand 'em-crank it!) I sat the P-2S on a trio of Shun Mook Super Passive Diamond Resonators arranged similarly to those under the C.E.C., and for this unit, they were undoubtedly the only choice -the super-detailed presentation was supremely unforgiving of any mistakes in the program material. The Super Passive Diamond Resonators could be tuned to give a slight softening effect which was very consonant with the overall sound of the P-2S. I'm not calling the P-2S "bright"—its presentation was much more sophisticated than that. Rather, the unit was amazingly hyper-revealing and focused, warts and all.

When I was listening to Michel Jonasz's Le Fabuleuse Histoire de Mister Swing (MJM 2292-42338-2) through the P-2S/Timbre-TT-1/CAT combo, the P-2S's ability to place the images way back in the sound-field was remarkable—the best of the three transports. It's amazingly enjoyable to have the big Avalons disappear, listening to sonic images forming that far back.

Since the P-2S is of the Levinson-Filigreed Upper-Octave Detail School,

it's important to carefully choose your cable (to which this transport was very sensitive) to achieve best results. When I hooked up XLO Signature Type 4 digital coax, images seemed to be more forward and noticeably wider than those with the balanced connection. There was also that as-expected XLO sense of immediacy and those lightning-quick, leading-edge transients—hallmarks of Roger Skoff's cables.

The XLO Signature is an exciting cable, avoiding many of the tipped-towardthe-highs "hi-fi" problems noted in the previous Reference interconnects (and, to a much lesser extent, XLO's Type 5 speaker cable). But it may not be the best choice here, as it seemed to over-accentuate the already enormous amount of information available from the transport, creating what might be considered a slightly over-detailed presentation highly focused, but a bit thin and digital for my tastes. The bass, too, was less deep and tight than it was with the other connections, and the already clangy piano on track 2 of Mister Swing became a bit too noticeable.

With the ever-musical Purist Audio Digital Link,<sup>3</sup> the image moved back somewhat and the Esoteric delivered a very "Purist" sound: mid-hall-ish, natural, excelling with vocal reproduction, very wide, and an overall excellent complement to the powerful detailing of the Esoteric unit. These cables are emphatically not "colored" in the audiophile sense, and they have an enjoyable, musical sound—the antithesis of the more hyper-detailed, super-focused XLO.

Next I tried another coax, Mapleshade Omega Mikro Digital cable. Some designers march to their own beats, and Pierre Sprey sure hears a different drummer in his head. You have to "puff up" the dielectric covering this thinner-thanthin cable by grasping it between thumb and forefinger and pushing the covering together between your fingers through the entire length of the cable. (At least I won't vacuum up his digital cable like I do the speaker cables!) The Mapleshade is another good coax choice: Its full and harmonically rich midrange works with the detailed P-2S to deliver an appealing, balanced overall sound. Although I found it a little too unfocused and a bit sizzly in the highs, it still offered a palpable and musical presentation.

When I switched to AudioQuest Opti-Link Pro 2, the presentation improved immediately. The glass was definitely quieter, with sounds emerging from a

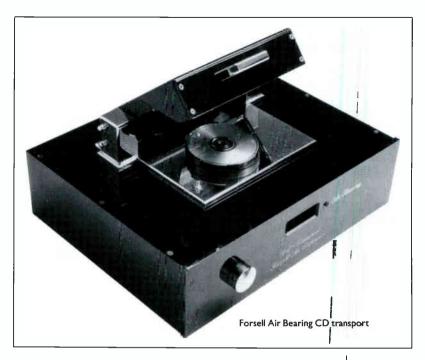
<sup>3</sup> Since superseded by Revision A, which I'll be trying sometime soon, and which is rumored to "fix" some users' previous quibbles with its sound.

blacker background. The soundstage of track 2 of the Jonasz CD was the very widest it got with this transport with this cable—the bass was satisfyingly deep, tight, and controlled, and the piano sounded less clangy than it did via coax. Michel's voice was nicely balanced between sounding spotlighted and sizzly, though, to be fair, this recording sounds a bit hot to begin with, especially tracks 2 and 4—"Le Temps Passé" and "Si Si Si Le Ciel"—on "disque deux," to which we listen most. Zuh hen-jen-ear 'ave 'ees glass of plonk during launch and poot ees fhoot on zuh mixage board durreeng record-eeng 'an allez-oop, zhair go zee treble, no? Ahem.

The presentation with the AES/EBU connection via the hot, new AudioQuest Diamond x3 was richer, more fullbodied, and more harmonically fleshedout than it was with the glass, from which the P-2S benefited. The image, set deep behind the speakers, was slightly less wide than it was with the glass, but it emerged more dynamically from an even quieter background. Interestingly, Michel's voice sounded a touch more "real" with the glass, but it also sounded less ambient than it did through the balanced connection. It's hard to pick favorites with these two inputs-they're both so good on the P-2S-but they're superior to the coax in significant ways. It was close, but I preferred the super-quiet, dynamic presentation of the AES/EBU. The AudioQuest Diamond x3 was a touch more ambient than any coax, and it handled the nuance of voice better as well. Overall, balanced was my first choice, glass my second.

# The forsell air bearing CD transport, or "I'd like my pants back in one hour, please, and watch the pleats"

Last, but hardly least, was our favorite compromise between the two extremes of the C.E.C. TL 1 and the Esoteric P-2S: the \$6900 unusual (to say the least), innovative, beautifully musical, and involving Forsell Air Bearing CD transport. Egads, does it look weird! When most people first see this device's topmounted gas-strut-supported cover which lifts to reveal the CDM9-Pro laser-in-the-roof pickup on its underside, they come up with what's become the ubiquitous Forsell pants-pressing joke. Too easy. I think it looks more like a 1920s autoclave that might be used by a Swedish surgeon to sterilize instruments. I suppose it's no wonder Dr. Forsell moonlights as a surgeon—or is it the other way around?



Nevertheless, the sound isn't sterile: The Air Bearing CD transport is much easier to live with in day-to-day use than is the Air Force One LP turntable—just turn it on,4 place your CD upside down on the air-bearing turntable, and lower the lid. It has only one pump, no surge tank, and an easy-to-change filter hanging off the rear panel. I've used a Grace power cord exclusively with this transport, and have found that it offers the best sound of all the cords hanging around here.

My favorite connection in singleended mode was Forsell's own Digital Air Reference coax—it's not even goldplated—with the AudioQuest AES/EBU connection doing a good job when running into an AES/EBU-equipped processor. Glass pulled up the rear on the Forsell-it sounded less human. Special glass is needed for this transport, as it uses the Altis-type screw mount at the transport end, and the ubiquitous bayonet at the processor. Interesting Forsell tidbit: Never plug in more than one output cable at a time, or you'll kill the sound. I couldn't understand why the AES/EBU sounded so dreadful the first time I used it, until I pulled the coax out of its BNC adaptor. Stop laughing—I know it sounds incredible. You also have to open the Forsell and move a jumper to enable the glass output (disabling the coax connection).

The Forsell's computer interface with the CDM9-Pro laser is a bit weak, so don't get upset if it gets a tad confused.

4 An amusing Forsell usage tidbit: When turning the machine on or off, the user is advised to open the lid and have the display on. Don't ask—I just work here.

Sometimes you have to "reseat" a CD (upside down) on the platter before the laser will read its Table of Contents. If that happens, the display, which should definitely be Off for best sound (unlike the Esoteric, where this didn't seem to make much difference), will sometimes read Open when the transport is Closed, and so on. Forget about that (and programming, which is not available), and enjoy the beautiful music it makes.

When it was finally "tuned-in" (see below), the Forsell, in comparison to the other two transports, delivered up a huge soundstage: unbounded, and limited only by the source material. Separation, layering, focus, delineation of individual images, overall tonal colors, dynamics, and "palp factor" were all of the highest order yet experienced in our system. The Forsell proved to be the favorite unit through which to listen to the Timbre.

### My feet are killing me!

A cautionary tale: When I first dropped the Forsell into my system, I had a problem that I just couldn't fathom. Compared with the C.E.C. TL 1 (to which I had been listening for a while), the Forsell was easily deeper, wider, much more layered, dynamic, vivid, differentiated, and had greater separation. But I felt detached from it. I felt as though I was standing on the edge of a fjord on a bitingly cold, clear day-I could see forever, but I just didn't care. I wanted to get inside and have some hot schnapps and a good laugh. Although I acknowledged that the Forsell was "better," it still didn't have the power of the C.E.C. to make me care deeply about the music. What to do?

I "tuned" the Super Passive Diamond Resonators that were under the Forsell: I changed them out for regular Goldmund cones: I tried squidgy feet: I used it footerless—all to no avail. Make me cry, C.E.C. Forsell to New York: Drop Dead. (Jerry Ford joke.) [ZOT] Brainstorm. I'm a reviewer. I'll take the credit for the idea, but it wasn't mine. I had originally mounted the Forsell on a very thick plexiglass slab, itself atop a light, hollow, but very stiff metal stand, à la Linn, with points top and bottom. I even set the bottom points into Philips-head screw tops which were wound down through our Softy Boy plywood top layer of flooring into the super-massive subfloor. Out came the stand, in went a fat 13/4"thick maple butcher-block slab set right on top of the leveled screw heads.

The only problem was the squatting (and knee-popping) involved when changing CDs. But now the Forsell had an extended, tight bass line, a super midrange, open, airy highs, and a gigantic soundstage. With the larger threaded Goldmunds... magic—my emotions soared! I was once again in love with Holly Cole (Don't Smoke In Bed, Manhattan CDP 0777 7 81198 2 1): Not only were the basic elements in place, but the all-important emotion also came through. She's so hot... [sizzle]

In our system then, what's under the transport of the moment, and even what the whole construct is mounted upon, made a striking difference in the sound.

## And just when you thought it was safe to go into the water again . . .

Toward the end of the review period, Steve Klein of Sounds of Silence<sup>5</sup> in New Hamp-sha called me about his new product: the Vibraplane Model 2212. This 24" by 20" self-leveling air table is manufactured in larger sizes for use under electron microscopes; its robust, well-engineered design filters out all disturbances from 3Hz upward. It's also available in a 24" by 30" size. The Vibraplane is available as either the 2212 Active Model, which has an additional-cost, low-noise pump manufactured in Denmark, or as the 2210 Passive Model, which you pump up with a high-quality bicycle pump, level, and let be.

The only difference between the two is that you can press down on the Active Model's tabletop, impressing your nerdy friends as the table pumps up to compensate for the additional weight. It's a howl to watch the table re-level itself when

you take your foot off of it. Don't forget the Dramamine, okay? Eighty-six the furshluginner pump and get the \$1695 Passive unit—the pump is a hassle.

The table's raison d'être is for use under record players—it makes a lot of sense to super-isolate the vibes under there. How ever, it's a little tricky to isolate the vibes using a Forsell Air Force One with the flywheel drive unit, so I'm shipping the unit to Santa Fe, where it will be installed under a sprung turntable or two for further consideration. In the meantime, and with a lot of help, I grunted the enormously heavy unit under the Forsell CD transport to see if it would make a difference in the presentation.

Of course, I wouldn't be spilling ink here if it didn't. Using Ray Bryant's *Blue Moods* (Japanese EmArcy EJD-5), we performed three tests: with the table pumped up; with the table air-less; and with the Forsell sitting only on the butcher block/screw heads. The worst result came from the test where the table was in place but had no air, as the Vibraplane tabletop is somewhat compliant when not pumped up—the sound was thick as a brick and completely closed-in.

But with the air cushion, the imaging became noticeably more spacious, separation was enhanced, and there was a greater sense of layering. The Ray Bryant CD can sound a bit dark and closed-in to begin with, but the highs seemed to open up even more than they had on the butcher block, presenting a cleaner, airier, more enjoyable upper midrange/treble. The bass was also more tight and deep. The butcher block wasn't far behind in Ultimate Audiophile TweakLand, Interestingly, while both the C.E.C. TL 1 and the Esoteric P-2S were clearly affected by the various footers placed under them, the Vibraplane's overall effect on these two transports was much less evident than it was on the Forsell. I suppose we'll have to chalk that up to their heavy-duty chassis construction.

### BUT, CHEF OF DA FUTURE, WILL IT CORE A APPLE?

In general, considering the imaging of all three units while listening to track 4 of the Clifford Jordan Quartet's *Live at Ethell's* CD (Mapleshade MHS 512629A), the overall dimensions of the stage depended largely on which transport was driving the TT-1: The Forsell provided by far the most limitless expanse; the TL 1 threw an ever-liquid, musical, wide, but much less transparent sound-stage (even with glass); and, when balanced, the P-2S's depth was positively killer, the unit was very transparent, its left-to-right spread was narrower, and

though it didn't sound as liquid as the C.E.C., it layered better than the latter.

Although the P-2S threw the deepest image behind the speakers—the entire image moved back—it didn't actually create more front-to-back layering than the Forsell. Even given the astounding layering abilities of the CAT Signature preamp, I'd describe the P-2S's layering abilities as only adequate; in that department, the Forsell is the hands-down winner.

With the Holly Cole disc, the C.E.C. delivered up a slightly less focused Holly than the other two units, but the quality of her voice was truly compelling, beautiful, and wonderfully human. Nevertheless, as enjoyably liquid as this transport is, it was unable to match either the Forsell's or the P-2S's abilities to separate the various elements of this (reverse-polarity) recording. Although the C.E.C.'s bass was chunky and round, it was less defined, and didn't start and stop as quickly as it did with the other two transports.

We preferred the Swedish Pants Presser over the P-2S for its startlingly immense, airy soundstage, its separation of vocals and instruments, and its sheer overall musicality. While the P-2S also registered fabulous depth, good separation, and a powerful and delineated bass line, its more "technical" sound was less compelling than that of the Forsell's unique blend of strengths.

#### AND THE WINNAH IS. . .

If you're a well-heeled audiophile looking for a sophisticated transport to complement one of today's topflight processors, you could do much worse than any one of these three elegant transports.

If you have a solid-state system that tends toward the lean, a somewhat forward or aggressive processor, or you're a Jadis JP 80/JA 80/Koetsu Type B personality and like your coffee sweet and your music lush and lovely, then you'll fall in love with the C.E.C. TL 1, if it's coupled with the right processor.

If you're a nail-it-down, Type-A personality who never delegates authority, if you love scads of detail, have owned a Spectral or a Carnegie, or covet your neighbor's Mark Levinson No.30/31 but already own a top-rank processor you love, you may find happiness with the Esoteric P-2S.

Or, if you're like us, if your system is full-bodied and neutral, or if you want an almost perfect compromise between detail, musicality, transparency, and the lush life, with unbeaten imaging and separation, think about a Forsell. Just pay attention to what you drop it on.