

Fono Acustica Virtuoso Interconnects, Speaker Cables and Power Cords

by Roy Gregory, April 26, 2016

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Broadly speaking, audio cables can be divided into three distinct categories. At the top of the tree are *proprietary designs*: those cables manufactured solely for audio applications and in which materials, technology and construction are dedicated solely to furthering sonic and musical performance. Such cables are inherently expensive to produce, with large up-front costs and significant minimum manufacturing quantities all adding to the final price. A company (Crystal Cable, for example) can ameliorate that cost burden by producing a single conductor that can then be wound into finished cable and terminated to perform different functions. Even so, producing a kilometer -- the standard minimum run -- of conductor for a cable like Absolute Dream isn't for the faint-hearted. A company like Nordost, on the other hand, is faced with a minimum production length on each and every different conductor/cable that it uses. If you think the prices charged for top-tier audio cables are excessive, just start with the process of producing them, do the sums and it soon becomes pretty clear just how daunting the up-front costs are -- and why the products end up costing so much.

Which helps explain why so many audio cables belong to the second tier, typified by *found technology*. These products employ existing cable manufactured for quite different industries and repurposed for audio applications. A popular source at present is the microwave-communications cable manufactured for cellular networks. There's no reason that cables such as these cannot sound excellent, while the fact that the raw materials are already being produced in vast lengths for a highly competitive market means that they are comparatively cheap to buy, especially when compared to proprietary designs. In theory, that should make the final products considerably more affordable -- although in practice that seldom seems to be the case. Of course, the fact that these cables employ existing conductors means that companies offering them for sale in the audio market will generally go to great lengths to disguise their identity and intended function, preventing others from mining the same seam or appreciating the true nature of their products. Ever wondered why so many audio cables employ nylon sleeves? Now you know.



Finally -- and increasingly -- there's a third group of cable providers, a group I'd describe as *artisan producers*. These companies produce products in small numbers, often quite literally hand-building them to achieve their desired results. This approach completely changes the available range of technologies and materials, as well as the cost structure of the enterprise, with such products often combining some proprietary elements (often the conductors) with other, off-the-shelf components. Rather than dies and tooling, setup and line time, suddenly the principle cost becomes man hours. But hand-building cables also opens up a whole new range of material and construction options, topologies that are not available or do not lend themselves to automation. Within the realm of DIY construction, it is possible to produce remarkable results for very affordable prices -- precisely because you are ignoring the cost of your own labor. But building for sale, by hand in small quantities, even on a cottage-industrial scale, gets expensive, especially if you start talking about complex constructions and fancy materials, meaning that the prices commanded by artisan designs are fast catching up with products from the two more dominant categories.

Although each approach offers its own theoretical advantages, none is a guarantee of success -- and each also comes with its own set of associated costs and disadvantages. The simple truth is that there are world-beating designs in each category -- as well as real stinkers. In addition, many manufacturers may well start in one category, perhaps working with a repurposed cable, before moving on to producing their own designs -- or even mixing found and proprietary technology within a single range. So, knowing from which category a cable originates won't tell you whether it is good or bad -- although it can certainly help sort the technobabble and marketing hype from the genuinely novel approaches and technology, often making sense of the materials and construction employed.

A case in point is the Virtuoso family of cables from Fono Acustica, a proudly artisan outfit whose products are as

distinctive in sound as they are in construction. Refreshingly devoid of technical claims and pseudo-science, the Fono Acustica mantra is simplicity itself: If it sounds better, it is better. As we shall see, "better" may well be in the ear of the beholder, but in this instance the Virtuoso cables certainly present a strong case.

Building by hand doesn't mean ignoring proven practice or materials. Run down the specs on the Virtuoso and you'll find that they use solid-core conductors drawn from silver-gold alloy and combined with Teflon insulation -- all well-established elements in audio-cable construction. But

there's more to the Virtuoso cables than a simple bill of materials. With a little practice you can tell a lot about how a cable will sound simply from how it feels -- except that the Virtuosos don't feel like any other audio cable I've ever used. For starters they're lighter and more flexible than most cables -- particularly most cables that match their significant girth. They're wrapped in cotton and actually slightly squashy. Yes, you read that right -- squashy.

Which brings me back to what's inside. Let's start with a simple analog interconnect. Fono Acustica uses its own specific variation on the silver-gold-alloy theme, first popularized by Siltech, sourced in Canada. As already noted, the conductors are drawn as straight-gauge, solid-core conductors which are then passed down larger-diameter Teflon tubes, a time-consuming but effective way of producing a less-than-intimate contact between conductor and insulation, thus minimizing dielectric absorption. The enclosed conductors are then bunched and fed in turn down a screen and a soft, polyethylene outer tube, which contains them without constricting, a mechanical arrangement that allows damping/dissipation of internal vibrational energy without allowing the intrusion of external energy. The whole kit and caboodle is then wrapped in





a cotton sleeve that helps prevent static build up from surface contact and terminated with Fono Acustica's connectors, based on Oyaide contact surfaces and internals, mated to large-diameter, silver-plated-copper sleeves that help give the cables their distinctive appearance. Produced by a local artist in the Spanish city of Sevilla, the plug bodies, which might at first glance seem gaudy and ostentatious, are actually quite beautiful, while their increased diameter and low-mass construction deliver their own sonic and musical benefits. With dedicated tonearm, digital, interconnect, speaker and power leads in the range, the number and gauge of the conductors in the cable bundle varies according to application. In addition, the power cord and speaker-cable conductors are hand-wrapped in a carbon-fiber filament, a step that helps them dissipate the mechanical energy that's fed back into them by the national grid, speaker driver units and crossovers. It's another unusual step but, again, Fono Acustica justify it with the *It simply sounds better that way* mantra -- a response which leaves me wondering just how much development time is expended on unsuccessful experiments.

More visible than the carbon wrap on its conductors are the pivoted spades fitted to the speaker cables. These are milled from the same silver-gold alloy used in the cables and incorporate a beautifully executed hinge that allows dressing of the cable irrespective of the placement and angle of the terminals. Tiny Phillips screws allow you to lock the hinge once the cable is installed, although Fono Acustica says this isn't necessary. They also say that this is one aspect of the cable's performance that you can't hear, the mating surfaces in the hinge being large enough and accurately machined enough that there is no audible difference between this and a solid spade, something they worked very hard to achieve. I'm in no position to comment as I haven't made that comparison,

but the sound I'll describe here is heard through the hinged spades and the flexibility they offered when it came to cable dressing was certainly welcome. The Virtuoso cables might be flexible, but they are still thick and possess a springy resilience that makes them form gentle but large-diameter curves. Combined with the spades, that makes them easy to dress neatly -- which otherwise wouldn't be the case.



The other element of the Fono Acustica system that I used for the review was the Sinfo AC distribution unit, an expensive but sonically and visually impressive extension block previously covered. I won't dwell on that here, other than to note just how similar the cables and distribution block were when it came to their sonic character. The Sinfo impressed with its big, bold, substantial sound, wide dynamics and focussed sense of presence -- and so did the Virtuoso cables. Warm, rich and devoid of edge or glare, the Fono

Acustica wires succeeded in sounding both natural and detailed, avoiding the rounded, clogged and congested cloak that many "warmer" cables throw over the musical proceedings. But the other thing that the Virtuosos shared with the Sinfo -- and the thing that really makes the combination worthwhile -- is the easy, expressive flow, the sense of rhythmic shape and energy they bring to recordings.

Sit down and listen to the Virtuosos and the first thing you'll realize is that, almost irrespective of the incumbent cabling, you are going to need to shift your speakers once the Virtuoso loom is installed. I say "loom" because as with all great cables, you only really hear what the Virtuoso brings to the system once you are using it from the wall socket to the speaker terminals -- preferably with the Sinfo in between. Drop a single set of the Fono Acustica interconnects into a system and they won't prove disruptive (like a Nordost cable can), but their benefits will be severely diluted, simply because their nature demands that they be used throughout the system if it is to survive intact.



With the system set up around the cables, what you'll notice first is just how substantial, rich and powerful the instruments sound and how dimensionally coherent the recording becomes, stepping away from the speakers and inward to create a single spatial whole. What's also obvious is the quality I've already mentioned: just how easily the music breathes and flows, how expressive, recognizable and articulate vocals become -- and just how apparent it makes the internal relationships between the instruments in a band or orchestra. Listen longer and it should become apparent just how beautifully balanced this cable is, which is why speaker positioning becomes so critical. The Fono Acustica Virtuoso has an uncanny ability to make almost every other cable sound either thick or thin in comparison, so effortlessly does it tread the middle ground of tonal and harmonic rightness. If your existing cables lean to the leaner end of the spectrum, chances are you'll have positioned your speakers accordingly, using room gain to fill out the system's sense of weight and body. Insert the Virtuosos and that extra bass will be immediately apparent, as will any lightness designed to cover the opposite effect.

The Fono Acustica cables aren't unique in this regard. In fact, you should rebalance your speakers for any cable or major component change. But what is unique about the Virtuoso cables is just how obvious they make this. When they're right, they're oh, so right, but when they're wrong, you hear it immediately -- and believe me, the music screams "fix it," not because it sounds terrible or unpleasant, but just because it is so obviously awry. Like looking at a car that is parallel parked with its rear end hanging out, it just jars.

This tells you a lot about the Virtuoso -- and it's all good. Fortunately for reviewers, there are tracks that have the happy knack of throwing a spotlight on system performance, encapsulating strengths and weakness, perspectives and oversights, in a matter of musical moments. They don't provide anything like all the answers, but they do shine a light on the path you need to follow.

One such is the Bob Schneider cover of "Running On Empty" from the Jackson Browne tribute album, *Looking Into You* [Music Road Records MRR CD 018]. It opens with a slow, steady drumbeat that sets both the pace and tone

for the whole song. But what makes it so interesting from a reviewer's (or setup) point of view is not just how musically critical it is, but how difficult it is to get right. It's clearly a big drum and it's also slightly detuned, slackening the skin. The majority of systems will leave it sounding turgid, rounded and thuddy, with no sense of strike and decay, so it slows the song, making it drag and turning it into one of the few tracks on the album that might be considered a failure, a cover that leaves you asking, "Why?" rather than proclaiming, "Well, I never realized that!" Then there are the systems that let you hear the skin, the texture it generates and just how wide the head is. The problem with those is that they make the drum sound like a Celtic bodhrán, wide and shallow, almost like a giant tambourine, giving it a more insistent, propulsive quality, but losing weight and the musical grounding it should provide.

Few -- very few -- manage to capture both the pitch and texture of the skin and the depth *and* volume of the body. This is a big instrument, wide and very deep. It should provide both the rhythmic push and anchor for the track, establishing the measured tempo that underpins the weary vocal but also keeping it moving forward. So few systems get it right, but when one does, the sense of the song just falls into place and you realize just what a masterful interpretation it really is, one viewed through the eyes of long experience rather than the shock of the new. Play it with the Virtuoso cables and the character, purpose and presence of that instrument are unequivocal. Its dimensions are explicit, its authority in establishing the direction and progress of what follows





absolute -- all from a slow measure on a detuned drum. Now, obviously, I've had other systems and other cables that have performed this trick, but none has done it quite so effortlessly or with such an easy sense of musical and spatial rightness as the Virtuosos. In this case, that one track might not tell the whole story, but it tells an awful lot.

Whether by art or by design -- but probably a bit of both -- Felix Avalos of Fono Acustica has managed to balance his flagship cables to be nearly perfect, positioning them between the conflicting demands of temporal placement and harmonic development. Or to put it another way, they get the notes right and get them in the right place. The music also has a natural sense of perspective and musical organization that grows out of that timing and tonal accuracy -- hence the unforced ease with which the Virtuosos capture the acoustic space and allow the music to ebb and flow. Solid, warm and inviting, they are devoid of edge or glare, sheen or glaze, those common intrusions that smack of artifice and artificiality. These cables are naturally and emphatically expressive, making for captivating and extremely rewarding listening, whether it's to Lisa Batiashvili's gorgeously heartfelt rendering of the Passacaglia from the Shostakovich Violin Concerto No.1 (Esa-Pekka Salonen and the SO Bayerischen Rundfunks [Deutsche Grammophon Gesellschaft B0015203-02]) or the Sine Qua Non *Midem* EP [Coup D'Archet CP45PR01]. Ella is, well, Ella, and Billie? Simply sensational. These cables seem to cut straight to the sense and sensibilities in a performance, laying them bare with an unintrusive ease that's genuinely beguiling, allowing you to engage with the music and forget the system in a way that few but the very best can manage. Whether it's big or small and intimate, acoustic or amplified and synthesized, the Virtuosos lack of edge and the sheer substance and shape it brings to both instruments and musical phrases stand it (and you) in good stead. I've heard few cables that are as immediately impressive and as immediately relaxing.



Does all that make the Fono Acustica Virtuosos the perfect cables? No, because for all of their strengths, they do also have weaknesses. The most significant of these is microdynamic discrimination. With a cable that sounds as big and solid as this, macrodynamics are never in doubt -- one of the things that makes music so purposeful when delivered through the Virtuosos. But at the other end of the dynamic scale, things are not resolved to the same degree, with tiny shifts in bow pressure or diction glossed over and smoothed out. The sound is undeniably listenable, but it does rob playing or singing of some bite, obscuring technique and robbing performances of that sheer immediacy that can make stereo a reach-out-and-touch experience.

You can also quibble about soundstage proportions, with the cable delivering tremendous depth but nothing like the same expansive width. To some that will be a weakness ("No real width beyond the speakers"), while others will view it as a strength ("But just listen to that enormous depth"). That's in the ear of the beholder, but what it is also is consistent across all the systems I've played the cables in, which is a few now. Height and dimensionality, on the other hand, are both excellent. I could ask for slightly more air and extension, while focus and transparency are in the *very good* as opposed to *exceptional* category.

Add those things together and you have cables that absolutely *nail* what used to be called *musicality*. They're vivid and expressive, warm, rich and engaging, solid and dynamic and bring a serious sense of physical presence to performers and instruments. They're neither forward nor overblown, but have a natural sense of communication and perspective that mines a rich and rewarding seam of musical intent and purpose.

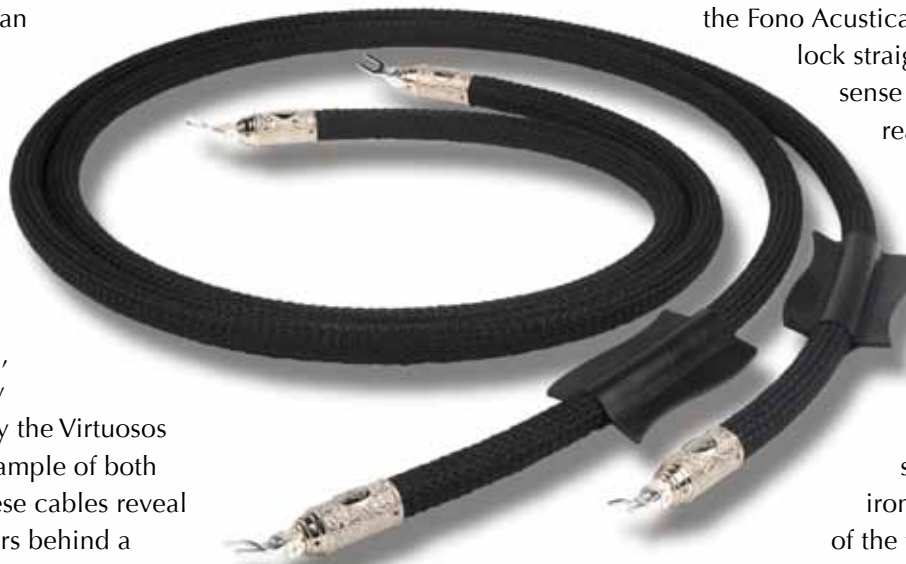
Let's return to the Batiashvili's Shostakovich for a moment, and the opening of the third movement: the Virtuosos deliver the opening fanfare, percussion and murmuring strings with a near-perfect balance of space, weight, color



and pace, establishing just the right mood, one that combines drama and reflection and that slowly evolves into hushed expectation, perfectly paving the way for the solo-violin entry. And what an entrance: the haunting violin part is sparse and desolate, a sense underpinned by the minor key and muted orchestral underpinnings, yet the suggestions of hope and redemption, a contrast so characteristic of Shostakovich, are clearly apparent in the rising lines and brighter tonal palette of the solo instrument. In an orchestral canon rich with such moments, this is one of the most affecting -- and no cable that I've used has managed to capture the breadth, nature and intensity of the piece the way the Virtuosos do. It's a perfect example of both just how vividly these cables reveal the emotional drivers behind a

performance and how central that is to the cables' presentation as a whole.

All of which adds up to sensational vocal performances. The more gut-wrenchingly heartfelt the singing, the more up front the attitude, the rawest of raw emotions, the more these cables revel in the performance. Whether it's the delicate agony of Janis Ian singing "At Seventeen" or Nouvelle Vague's spaced-out cover of the Dead Kennedy's "Too Drunk . . .," the Fono Acustica cables help the system lock straight into the mood and sense of the music. But for real insight just spin the MoFi CD of Billie Holiday's *Body and Soul* [Mobile Fidelity MFSL UDCD 658]. Never has the dark shadow looking over the singer's shoulder been so apparent, the cruel irony and vulnerability of the title track, the



Cable sound up and down, front to back

Cable sound is a contentious issue to say the least, but if we ignore those who question its very existence -- if they're sensible they'll be ignoring this anyway -- then it's possible to place different cables on a single performance continuum that stretches from one extreme to the other on a continuous horizontal axis, an axis that mirrors the length of a musical note, from its initial impulse to its final decay.

As we place cables on that axis, those that favor the note's leading edge will be to the left, and those that rest on its harmonics will be to the right. Those that favor the leading edge will tend to sound quick, clean and transparent; those that rest on its tail will be slower, more rounded and warmer. The problem is that those quick and clean cables can also sound disjointed and mechanical, bleached and lacking in energy, while their counterparts generally sound thick, sluggish and robbed of musical momentum or purpose. And that's before you start considering variations within the model and the performance of an individual cable. For starters, the cable's position on the continuum may well (in fact,

probably will) vary with frequency, while there are always oddities in terms of design or performance that escape the continuum altogether, or break it into separate, disconnected pieces.

Designing a cable is just like designing any other audio product, in that you are trying to retain the strengths of your chosen approach and ameliorate its weaknesses. What's interesting is that once you start thinking about cables as a system in themselves, with additive and subtractive characteristics, it soon becomes apparent why the paint-by-numbers or mix-'n'-match approaches to cabling simply don't work. If each cable in the system is a gate that adds to or subtracts from the signal, then even if a subsequent gate strips out the previous gate's additions, there's no way it can correct its subtractions. More critically, the fact that each cable sits at a different point in the note's energy envelope (a point which, as noted above, will almost certainly vary with pitch) just means that mixing them introduces random time and phase errors to the signal, destroying the inter-instrumental relationships and ensemble accord that creates the performance.

-Roy Gregory



hopelessness lurking behind a song like “Comes Love.” But perhaps the most telling example is the Gershwin’s “Let’s Call the Whole Thing Off”: such a standard for Ella, with its jokey wordplay and jaunty melody, Billie’s version switches the emphasis completely from verse to bridge, from puns and playful sparring to an outcome that’s suddenly dark and threatening. The Virtuoso cables deliver her voice, her performance and her demons too, which pretty much tells you what these cables do and whether they will do it for you.

Where does that leave these cables in the wider context of other, more established high-end offerings? Fono Acustica’s Virtuoso lays

a strong claim to a seat at high-end’s top cable table, not because it raises the performance bar, but because it offers a different take on what matters.

It doesn’t broaden the horizon in terms of resolution or detail, the things that audiophiles so often latch on to, but it does offer its own particular perspective and balance of musical and communicative virtues, its own way of combining the available musical information to capture the power of the performance. In so doing, it offers a real and potentially attractive alternative to the current crop of cables, matching the flow and phrasing of Crystal Cable’s Absolute Dream, while delivering the sheer weight, dimensionality and dynamic wallop of Transparent. It matches the likes of Cardas for neutrality, harmonic development and soundstaging and offers a stark contrast to the transparency and immediacy of the latest Nordost offerings, where it sits neatly between Valhalla 2 and Odin 2. It may not match the dynamic intimacy or sheer energy and speed of the latter, or the air and absolute delicacy of the Absolute Dream, but that’s more a question of flavor than absolute quality, firmly placing Fono Acustica’s flagship shoulder to shoulder with this exalted company. Mind you, one area where it definitely does match those cables is price, especially when you take the (essential) Sinfo distribution block into account.

Rather than being a new benchmark, therefore, Virtuoso represents a welcome and valuable addition to the range of serious cable solutions available. Its fluid, engaging and intensely listenable presentation is entirely its own.

It could also offer just the set of qualities you’d need to round out a top-flight system, especially one that needs a healthy dose of humanity to counter any *uber*-resolution tendencies it might have developed. A cable that costs as much as the Virtuoso, eschews technological or scientific justification for that asking price and also dresses to kill is easy to dismiss -- but that would be a serious mistake. This is a product that wears its heart on its sleeve, both aesthetically and in musical terms. It majors on neither transparency nor resolution, but instead cuts right to the emotional core of the music, which I’d argue is pretty much the whole point and purpose of high-end audio.



That’s not something you can measure and you can’t express it in numbers, which will doubtless disturb all the scientific reductionists and cable naysayers out there -- but then I’m not sure it’s what they’re looking for from a system anyway.

For those of a more artistic bent, who want to engage with music rather than analyze it, Fono Acustica’s Virtuoso cables’ combination of musical and emotional drama, weight, warmth and natural tonality, their sense of physical presence and expressive purpose, offer an enticing, rewarding and quite possibly winning proposition



Price: Interconnects, €14,000 per meter pair with RCAs, €15,500 per meter pair with XLRs; speaker cables, €43,900 per two-meter pair; power cords, €12,000 per one-meter length.

Warranty: Five years parts and labor

Fono Acustica
Sevilla, Spain
www.fono-acustica.com

Associated Equipment

Analog: Kuzma Stabi M turntable with 4Point tonearm; Allnic Puritas, Lyra Etna and Fuuga cartridges; Stillpoints Ultra LP Isolator record weight; Connoisseur 4.2 PLE, Audio Research Reference 2 SE and Tom Evans Audio Designs Master Groove phono stages.

Digital: Wadia S7i and 861 GNSC CD players, dCS Vivaldi and Paganini transport, DAC and Clock; CEC TL-3N CD transport; Naim NAC-N272 DAC/preamp.

Preamps: Audio Research Reference 10 and Connoisseur 4.2 LE.

Power amps: Berning Quadrature Z monoblocks, Audio Research Reference 150 SE and Naim NAP-300DR stereo amps.

Speakers: Wilson Audio Sasha W/P Series 2, Coincident Pure Reference Extreme, Wilson Benesch Square Five, Vienna Acoustics Liszt.

Cables: Complete looms of Nordost Odin or Valhalla 2, or Crystal Cable Absolute Dream from AC socket to speaker terminals. Power distribution was via Quantum QB8s or Crystal Cable Power Strip Diamonds, with a mix of Quantum Qx2 and Qx4 power purifiers and Qv2 AC harmonizers.

Supports: Harmonic Resolution Systems RXR, Hutter Racktime or Quadraspire SVT Bamboo racks. These are used with Nordost SortKone or HRS Nimbus equipment couplers and damping plates throughout. Cables are elevated on HECC Panda Feet.

Acoustic treatment: As well as the broadband absorption placed behind the listening seat, I employ a combination of RPG Skyline and LeadingEdge D Panel and Flat Panel micro-perforated acoustic devices.

Accessories: Essential accessories include the SmarTractor protractor, a USB microscope and Aesthetix cartridge demagnetizer, a precision spirit level and laser, a really long tape measure and plenty of masking tape. I also make extensive use of the Furutech anti-static and demagnetizing devices and the VPI Typhoon record-cleaning machine. The Dr. Feikert PlatterSpeed app has to be the best ever case of digital aiding analog.