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ERICK LICHTE

Marten Django XL

LOUDSPEAKER

If it's rare to go to an audio show and hear most of a company's products set up properly in multiple rooms, it's rarer still to hear those products also sounding terrific in each and every room. Such was my introduction to Marten's loudspeakers at the 2010 Consumer Electronics Show. In each of the systems in which the Swedish company's speakers were set up, and no matter what gear was upstream of them, I heard distinctly neutral, open, musical sound. After having the very same experience with Marten's speakers at the 2011 CES, I concluded that they must know what they're doing, and that their speakers are the real deal. I wanted to review some.

However, most of the speakers in Marten's Heritage and Coltrane lines are quite pricey, and the other models trade off bass extension for lower prices. Though I believe I have the ears to appreciate speakers that cost $50,000/pair, I'm not sure I have the means to properly contextualize such costly gear for a review. Maybe, someday, I'll feel more comfortable recommending such high-ticket gear; for now, I'm not sure I can comment on the value of anything costing much more than $20,000.

But when I heard that Marten was about to release the Django XL, a full-range floorstander that uses the same midrange driver as their more expensive models but costs

SPECIFICATIONS

Description Three-way, reflex-loaded, floorstanding loudspeaker. Drive-units: 1" ceramic-diaphragm tweeter, 6" ceramic-diaphragm midrange unit, three 8" aluminum-cone woofers. Crossover: second-order, 250Hz & 3kHz. Frequency response: 26Hz–30kHz, ±3dB. Sensitivity: 89dB/2.83V/m. Impedance: 6 ohms nominal, 4 ohms minimum. Power rating: 250W. Terminals: single-wired, WBT. Internal wiring: Jorma Design. Supplied accessories: anodized aluminum outriggers with Marten cones. **Dimensions** 49.2" (1250mm) H by 10.6" (270mm) W by 19.7" (500mm) D. Weight: 104 lbs (47kg). **Finishes** Silver Grey, Piano Black. **Serial Numbers of Units Reviewed** S-11112201-H & V. **Price** $15,000/pair. Approximate number of dealers: 8. **Manufacturer** Marten, Chalmersgatan 24, 411 35 Gothenburg, Sweden. Tel: (46) 31-20-72-00. Fax: (46) 31-20-72-70. www.marten.se. US distributor: E.A.R. USA, 1087 E. Ridgewood Street, Long Beach, CA 90807. Tel: (562) 422-4747. www.ear-usa.com.

$15,000/pair, I knew I wanted to review them. I contacted Dan Meinwald of E.A.R. USA, Marten's North American distributor, and was able to get the very pair that had impressed John Atkinson and others at CES 2012.

Djescription

On the face of it, the Django XL is a straightforward three-way loudspeaker. On top is a ceramic tweeter, designed to Marten's specifications by German driver maker Accuton (known as Thiel and Partners outside the US), that's similar to the diamond tweeter used in Marten's top line of Coltrane models. The ceramic midrange driver, also made by Accuton, is found in Marten's Heritage line. New with the Django are its three aluminum-cone woofers, made for Marten by SEAS. These are reflex loaded, with two ports that fire down through the speaker's base. The cabinet, made of 25mm-thick MDF, is an oblique rectangular prism; the driver-bearing front baffle gently slopes up and away from the listener. All edges are nicely rounded, to reduce diffraction and to soften the Django's appearance. Although a large loudspeaker, the Django's elegant proportions make it seem far smaller.

The Django is available in Piano Black gloss (as were my review samples), or Silver Grey. As I've said before, I'm no big fan of piano-black speakers. But while I prefer the Marten Coltrane's woody surfboard looks to the Django's Darth Vader vibe, the latter's fit'n'finish was superb—if you *like* your speakers in black-gloss lacquer, you'll love the Django's looks. Even if you don't, they could get you to lay your prejudice aside, as I did mine.

The Django's three SEAS woofers use aluminum cones.

Each driver is protected by a robust black metal cage. Accuton's ceramic drivers are notoriously fragile; the cages should keep any wayward fingers or paws off the delicate

MEASUREMENTS

I used DRA Labs' MLSSA system and a calibrated DPA 4006 microphone to measure the Marten Django XL's frequency response in the farfield, and an Earthworks QTC-40 mike for the nearfield responses. Because the Django XL is a large, heavy speaker, I could not raise it very high off the ground for the acoustic measurements. As a result, the measured responses have less resolution in the midrange than I would have liked.

My estimate of the Django's voltage sensitivity was 84.1dB(B)/2.83V/m, which is much lower than the specified 89dB/2.83V/m. Offsetting that, the speaker's plot of electrical impedance with its woofer control set to "+" (fig.1) indicates that it is not a difficult load for the partnering amplifier to drive. Although there is a minimum impedance of 3.8 ohms between 70 and 100Hz and a dip to 5.1 ohms in the high treble, for much of the audioband the impedance remains above 6 ohms, and with a generally low phase angle.

All things being equal, it is more difficult to control panel resonances in a large speaker than a small, and resonances in the former tend to be lower in frequency, hence potentially more deleterious to music. The top section of the Django XL's enclosure was relatively inert, with a single, low-level mode present at 320Hz on the sidewalls level with the midrange drive-unit (not shown). But the bottom section was more lively, as shown by fig.2, a cumulative spectral-decay plot calculated from the output of a plastic-tape accelerometer fastened to the center of one of the sidewalls level with the top woofer. A strong mode can be seen at 484Hz, as well as some lower-level resonances to its sides. It's difficult to predict the audibility of this behavior, as it depends on the frequency, the Q (Quality factor) of the resonance, the radiating area of the panel affected, and the acoustic phase of the panel's output. I note, however, Erick Lichte's comment that "the Djangos were remarkably free of boxy cabinet colorations in both the midrange and the bass."

The saddle centered on 27Hz in the impedance-magnitude trace (fig.1) suggests that this is the tuning frequency of the twin downward-firing ports. (The Django XL was supported on its outrigger bases fitted with cones for all measurements, to give the appropriate ground clearance for

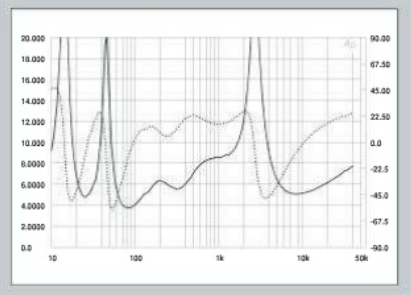

Fig.1 Marten Django XL, electrical impedance (solid) and phase (dashed) with LF control set to "+" (2 ohms/vertical div.).

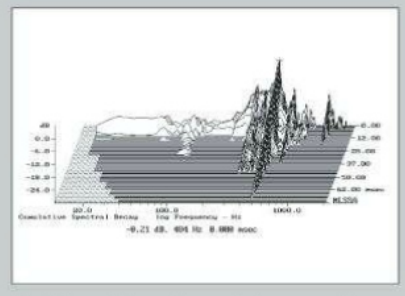

Fig.2 Marten Django XL, cumulative spectral-decay plot calculated from output of accelerometer fastened to center of side panel level with top woofer (MLS driving voltage to speaker, 7.55V; measurement bandwidth, 2kHz).

cones without adding any deleterious comb filtering to the sound. However, the cages *look* a bit brutal, reminding me of the chicken wire that separates the Blues Brothers from their angry audience as they sing the *Rawhide* theme. I got used to the cages, but perhaps Marten can come up with a more elegant solution for the Django's next edition.

The Django XL meets the floor via metal outriggers that widen its stance to increase its stability. The outriggers' four adjustable cone feet allow for easy leveling of the speaker. I'm a big fan of using spikes with speakers that sit on carpets; the Django's thick, blunt cones would likely leave it slightly floating above the floor. This wasn't a problem in my studio, where the Djangos sat directly on the concrete floor in front of my area rug, but if you have thick, shaggy carpet and like to spike your speakers, you might want to try another type of foot on the Django's outrigger.

On the rear panel is a single pair of WBT binding posts, and a knob for the Django's three-position bass-level control, which offers uncalibrated settings from "–" to "+." The Django's claimed sensitivity is 89dB and its nominal impedance is 6 ohms; the internal wiring is by Jorma Design.

Djialing in the Djangos

Setting up and positioning the Django XLs was easier than with any other speaker I've had. I first attached the outrigger and cone feet to each speaker using a supplied Allen wrench surprisingly similar to the one included with every piece of IKEA furniture I've assembled—Sweden's streets must be choked with these things. I placed the Djangos in the spots normally occupied by my Revel Performa F30s, toed in so that their drivers were aimed directly at my ears. Then I hooked them up to my Rogue M-180 monoblocks (with KT120 tubes) with Kimber Kable BiFocal X speaker cables doubled up at the speaker's terminals, and had a listen. From what I heard from the Djangos straight out of the box, it was clear we were in for some good times together.

However, in ensuing weeks I experimented with placement and toe-in. Typically, I prefer speakers not to be toed in directly to the listening position but arranged so that their tweeter axes converge at a point some distance behind my head. That way, I hear greater stereo separation and better front-to-back layering.

Setting up and positioning the Django XLs was easier than with any other speaker I've had.

As I adjust the speakers' angles, I listen for a few specific things. First, I want to make sure that a gentler toe-in actually does improve the stereo image: Does the image widen, deepen, and give more separation between images, or does it diffuse and confuse the soundstage? Second, does it deleteriously affect the speakers' voicing and balance? The dispersion pattern of each speaker is different at every frequency, and adjustments of toe-in angle can dramatically change the voicing of the speaker, especially at and around the crossover frequency(ies). Third, I weigh the benefits and

measurements, continued

the ports.) The green trace in fig.3 shows the sum of the nearfield responses of the three woofers. (The top woofer actually rolls off a little more slowly than the other two.) The expected minimum-motion notch in the woofers' output, which is where the back pressure from the port resonance holds the cones stationary, lies at the same 27Hz, which suggests superb low-frequency extension. The output of the ports (fig.3, red trace) peaks between 20 and 40Hz, but its upper-frequency rolloff is disturbed by a series of resonant peaks. Fortunately, the fact that the ports fire downward, perhaps into a carpet, will minimize the audibility of this behavior. The woofers cross over to the midrange around the specified 250Hz, but with shallow filter slopes.

Fig.4 shows how the individual responses sum in the farfield on the tweeter axis. Below 300Hz, the trace shows the complex sum of the midrange, woofer, and port nearfield outputs, taking into account both acoustic phase and the different distances of each diaphragm from a nominal farfield microphone position. Despite the nearfield-measurement technique, there is only a slight rise in the midbass, suggesting that the Django's woofer alignment is somewhat overdamped. This is sensible, given the usual "room gain" that occurs at low frequencies. There is useful bass extension down to 30Hz or so, while the low-frequency control offers a maximum boost or cut in the level of the woofers of approximately 2dB.

Higher in frequency in fig.4, the Django offers a superbly flat midrange, but there is a peculiar peak at 1200Hz (this coincident with a wrinkle at the same frequency in the impedance traces), and above that a broad lack of presence-region energy. This will undoubtedly have a negative

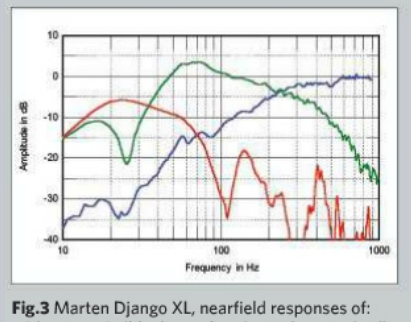

Fig.3 Marten Django XL, nearfield responses of: midrange unit (blue), woofers (green), ports (red), plotted below 1kHz.

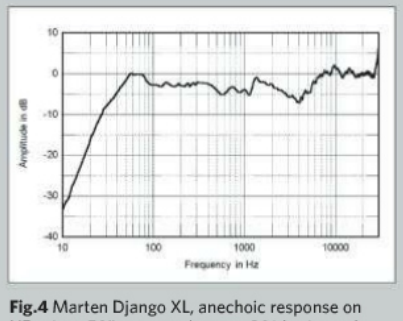

Fig.4 Marten Django XL, anechoic response on HF axis at 50", averaged across 30° horizontal window and corrected for microphone response, with complex sum of nearfield responses plotted below 300Hz.

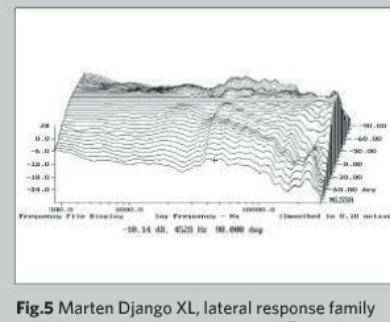

Fig.5 Marten Django XL, lateral response family at 50", normalized to response on HF axis, from back to front: differences in response 90–5° off axis, reference response, differences in response 5–90° off axis.

costs: balancing the possible greater immersion in the soundstage that less toe-in can provide, while maintaining precise imaging and ensuring that there's no hole in the middle of the stereo image.

As I played with their toe-in, the Django XLs proved to be textbook examples of why I do all this. As I reduced their toe-in angle, the Djangos' stereo image did indeed seem to widen, with more separation, to provide a more immersive soundstage than when the drivers were pointed straight at my ears. However, there were tiny losses of inner detail, immediacy, and transient snap, which I had to balance with the improvements in stereo imaging. I ended up with the Djangos toed out about 10° past pointing straight at my head—I could just see the inner sidewall of each cabinet. The results were a very wide, deep, precisely defined soundstage, stable center imaging (as confirmed by playing the "Dual-Mono Pink Noise" track on JA's *Editor's Choice* CD, Stereophile STPH016-2), and excellent tonal balance from the midrange up. Throughout this process the tonal balance remained very constant, indicating that Django had nice, wide, even dispersion.

Throughout this process the tonal balance remained very constant, indicating that Django had nice, wide, even dispersion.

Finding the best spots in my room for the Django XLs was also relatively easy. As I settled on spots only an inch or so from where my Revel F30s give me the best bass, the Audio Research Reference 150 stereo amplifier arrived. This amp took the performance of the Martens to levels I hadn't thought possible.

Rereading my rave review of the Ref150 in the July 2012 issue, I'm now not sure I gushed quite hard *enough* for how good this game-changing amplifier is. Y'all need to own one, or at least hear one! With the ARC and the Rogues, the Djangos exhibited a wonderfully full, textured midbass and great low-bass extension, but also sounded slightly loose in the 50–60Hz range. Part of this sound can be attributed to my room, part to the Ref150, and part to the Djangos—I don't think any single element of the combination was at fault for this minor problem, but together they added up to a sound just shy of neutral that no amount of repositioning could make *entirely* neutral.

However, setting the Django's bass level control to "–" did a very good job of taming this bass bump without robbing the rest of the bass of its weight and fullness. With most speakers that have bass-level controls, I find the choices a bit too extreme—they rob too much bass at the "–" setting and add too much at "+". The Django's control proved tastefully useful, and helped me get the speakers sounding just right. Interestingly, when I listened to the Djangos via Simaudio's massive Moon Evolution M880 monoblocks, I switched the bass selectors to the "+" position, to help the Martens compensate for this amp's lean sound.

Djescribing and Djudging

The Django XL's tweeter is one of the finer ones I've heard. It sounded far more extended and airy than the tweeter in my Revel Performa F30s ($3500/pair when last available), and exhibited all the signs of being wide in dispersion and low in

measurements, continued

effect on the estimated sensitivity. The tweeter appears to be balanced between 3 and 5dB too high in level—EL noted that he "wouldn't be surprised if JA's measurements reveal that the Django's tweeter is dialed in a bit hot"—though this will tend to be compensated for in a typical room by the tweeter's increasing directivity in the same region (fig.5). This graph also reveals a slight flare at the base of the tweeter's passband, which will tend to compensate for the lack of on-axis energy in that region. In the vertical plane (fig.6), the Django's balance hardly changes up to 10° below the tweeter axis, which is a high 43" from the floor. A suckout at 3kHz develops more than 5° above the tweeter axis—don't listen to this speaker while standing or it will sound hollow.

The Django XL's step response on the tweeter axis (fig.7) shows that its tweeter and midrange unit are connected in inverted acoustic polarity, the three woofers in positive polarity, this confirmed by looking at the step responses of the individual units (not shown). The decay of each unit's step blends smoothly with the start of the next unit's, suggesting optimal crossover design. The cumulative spectral-decay plot on the tweeter axis (fig.8) is clean, especially in the region covered by the ceramic-dome tweeter, but that shallow peak in the upper midrange can be seen to be accompanied by a small amount of delayed energy.

Although there are some anomalies in the Django XL's measured performance, it looks as if Marten has carefully balanced things so that the overall sound in the room will be close to neutral.—**John Atkinson**

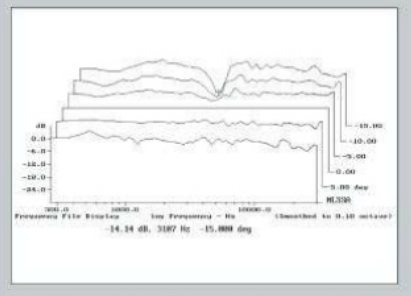

Fig.6 Marten Django XL, vertical response family at 50", normalized to response on HF axis, from back to front: differences in response 15–5° above axis, reference response, differences in response 5–10° below axis.

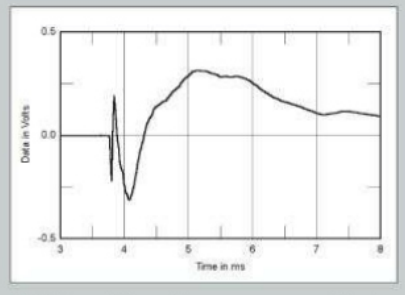

Fig.7 Marten Django XL, step response on HF axis at 50" (5ms time window, 30kHz bandwidth).

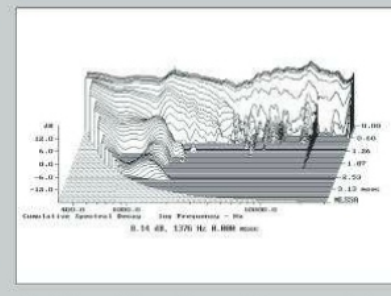

Fig.8 Marten Django XL, cumulative spectral-decay plot on HF axis at 50" (0.15ms risetime)

distortion, grain, and hardness. With naturally recorded music, the Djangos presented one of the most revealing, open, and uncolored trebles especially with the Audio Research Ref150 in the mix. When I listened to Trio Mediaeval's *Folk Songs* (CD, ECM New Series 2003), each of the singers' sibilants and upper formants were in perfect balance with the core of her tone. The Djangos presented the music with an extra amount of air around each voice, as well as rendering the full shimmer of the surrounding acoustic. Sibilants lacked any hint of the grain or hardness that many tweeters add, while still presenting an honest window on the recorded event. On *Ferndorf*, Hauschka's prepared piano tinkled all over the stereo soundfield with frightening immediacy and extension (CD, Fat Cat CD1308). I wouldn't be surprised if JA's measurements reveal that the Django's tweeter is dialed in a bit hot. However, the tweeter's lack of grain and hardness, coupled with the rest of the speaker's neutral voicing, never made the Django sound bright or fatiguing.

The Django's drive-units are protected by wire mesh "cages."

On a recent guest-conducting trip to Vancouver, British Columbia, my wife and I rented a car and spent most of our days driving around that incredible city. I hadn't brought any CDs along, so we listened to the radio and quickly fell under the spell of "Somebody That I Used to Know," from Gotye's *Making Mirrors* (CD, Samples 'N' Seconds B0016449)—a song whose content, performance, and production made me believe in pop music again. Of course, when I got home I bought the CD and listened to it on the big rig through the Django XLs. Most pop music isn't recorded very well; usually, too much compression ruins any real chance of its sounding great through a revealing hi-fi. Gotye's song sounds better than most, but the telltale sound of compression and slightly hashy treble are still vaguely present. But through the Djangos, overcompressed, grainy, aggressive-sounding recordings were far more listenable than through any other speaker I've lived with.

Javelin's superfun *No Más* (CD, Luaka Bop 8089 90074 2) ranges from 8-bit pop to layered sampling to cinematic moodiness. Through the Djangos I couldn't get enough of this record, which I normally play only in the car because of its lack of an audiophile pedigree. I believe that the combo of the Bel Canto DAC 3.5 VB D/A converter, Audio Research Ref150, Sain Line Systems cables, and Marten Django XLs was so free of grain, hash, and hardness that recordings such as *No Más* didn't make me cringe, as I usually do when listening to badly recorded music on a good system. It's a rare thing to hear treble this revealing *and* this forgiving.

The Django's midrange was superb, marked by an openness, speed, and evenness rarely heard even in a $15,000/pair speaker. In fact, the only other speaker that has offered my ears as open and neutral a midrange is the Revel Ultima Salon2 ($22,000/pair), which I find unparalleled in neutrality and coherence. The Django wasn't as coherent as the Salon2, but it was pretty darn close. The sound of pianist Robert Silverman playing works by Brahms and Schumann, from the high-resolution, 24/88.2k files of my final edits of his forthcoming album, for *Stereophile*, had all the tonal color, dynamic impact, and solidity you could want from a recording of a concert grand. The Djangos were remarkably free of boxy cabinet colorations in both the midrange and the bass. If the Django's cabinet was vibrating, then the folks at Marten have done a fine job of controlling and dissipating those vibrations to ensure that they don't mess with the music.

In fact, the Django's bass was excellent, striking the right balance of fullness, clarity, speed, weight, and texture. I got good bass extension in my room well down into the 20Hz decade. As noted above, there was a slight fullness when the Djangos were driven by the tubed Rogue M-180s and the ARC Ref150, this centered around the 60Hz region. Sounds containing those frequencies were both a little too prominent and lasted a little too long compared to the rest of the audioband. This was merely a characteristic of these speakers with these electronics in my room, and rarely got in the way of the music. Again, with the Simaudio 880Ms, I had to turn the bass level control up to "+" to get the same degrees of musical fullness and weight as I'd heard with the tube amps. Recordings of pipe organ, such as Robert Shaw and the Atlanta Symphony Orchestra and Chorus's disc of Duruflé's *Requiem* (CD, Telarc CD-80135), sounded so right via the Djangos, the pedal notes locking to my room acoustic with authority. The bass in Kraftwerk's *The Man-Machine* (LP, Astralwerks STUMM 306) was propulsive and finely nuanced—each drum or bass note on this album had a completely different attack, texture, and timbre, all of which really humanized this incredible music. Pantha du Prince's bass workout, *This Bliss* (CD, Dial CD09), was as good as I've ever heard it, the bass providing enormous scale and weight while still sounding tuneful and controlled.

The Djangos presented the music with an extra amount of air around each voice, as well as rendering the full shimmer of the surrounding acoustic.

ASSOCIATED EQUIPMENT

Analog Sources Clearaudio Concept turntable & tonearm, with Concept moving-magnet cartridge; Clearaudio Ovation turntable & tonearm, Clearaudio Talisman V2 cartridge.
Digital Sources Benchmark DAC1 HDR D/A converter/preamplifier, Sony Vaio laptop computer; Bel Canto Design CD 2 CD player & DAC 3.5 VB Mk.II D/A converter & VB-1 power supply.
Preamplification Clearaudio Nano phono preamplifier.
Power Amplifiers Audio Research Reference 150, Rogue Audio M-180 monoblocks, Simaudio Moon Evolution 880M monoblocks.
Loudspeakers Revel Performa F30.
Cables Digital: Stereovox HDVX coaxial, Silver Sonic D-110 AES/EBU, Cardas Clear USB. Interconnect: Sain Line Systems Pure, balanced & single-ended. Speaker: Kimber Kable BiFocal X. AC: Sain Line Systems Reference.
Accessories Shunyata Research Hydra 8 power conditioner; Ready Acoustics, ASC Tube Trap room treatments; Butcher Block audio table.—**Erick Lichte**

If I have a criticism of some models in Marten's Coltrane and Heritage lines, it might be that their bass, while accurate, could be described as quick, lean, and slightly overdamped. Some folks find speakers with that kind of bass a little too cool and calculated. The Django XL retained much of the speed, accuracy, and extension of those other Martens, but to my ear had slightly warmer, more full-bodied bass. The Django's generous yet well-controlled upper and midbass gave great solidity, soul, and satisfaction to my listening.

The Djangos were soundstage champions, and, as JA noted in his review of the Lansche Audio 5.1 speaker in July, the ARC Ref150 is an imaging machine. Driving the Djangos, it produced stereo images that were darned close to lifelike. The depth I heard from the Beach Boys' *Smile Sessions* (CD, Capitol T2580), in glorious mono, was engaging and varied. The Djangos also threw a wide image that was remarkable in its stability and accuracy. The xylophone in Gotye's "Somebody That I Used to Know" was an unmistakable point source, even as the rest of the mix swirled around Gotye's voice (which sounds to me like a cross between those of Peter Gabriel and Sting). The made-up soundscapes of the Javelin and Pantha du Prince albums were tangible, of the sort I wish I could visit in real life. Recordings of music for chorus and orchestra, such as Eriks Esenvalds's *Passion and Resurrection*, with Stephen Layton conducting Polyphony and the Britten Sinfonia (CD, Hyperion CDA67796), were about as three-dimensional as electronically reproduced music gets.

A Djem

$15,000 is a lot of money for a pair of speakers, but it's a sane amount—especially when you consider the Django XL's build quality. The Django actually represents a very good value in today's audio world—most speakers don't sound this good no matter *what* they cost. Paired with the electronics I had on hand, Marten's Django XLs gave me the best sound I have ever heard in my room. Highly recommended. ■