



yg acoustics

Anat Reference II Studio loudspeakers

as reviewed by Adam Goldfine



They were pretty hard to ignore, those ads touting YG Acoustics' loudspeakers as "The best loudspeaker on Earth. Period." A bold statement to be sure, but over the top hyperbole? That would of course all depend on what they sounded like. But if the point was to get attention, and isn't that the point of all advertising, then it was working, on me at least. After months of seeing the ads, the urge to hear what speakers that someone had the stones to call the best on Earth actually sounded like was pretty irresistible. So when I arrived at Rocky Mountain Audio Fest 2007, I made a beeline for the YGA room where I first met Dick Diamond director of sales and marketing and Yoav Geva, president and head designer of YGA.

ADAM GOLDFINE'S SYSTEM

LOUDSPEAKERS
Wilson Benesch A.C.T.
loudspeakers.

ELECTRONICS

Music Reference RM-4+ phono stage, Primare Pre30 line level preamplifier, Reference Line Preeminence One Series II (passive) preamplifier, Music Reference RM-200 amplifier, Dynaco ST-70 (with Welborne Labs mod) amplifier.

SOURCES

DIGITAL: Vacuum State Level 6 modified Sony DVP-S9000ES DVD/CD/SACD Player, Musical Fidelity CR324 up sampling DAC.

ANALOG: Music Hall MMF-7 turntable, Pro-ject 9 tonearm, Pro-ject Speed Box Mk. II, Benz Micro ACE H cartridge, Magnum Dynalab FT-101A Tuner.

CABLES

Vacuum State Electronics Silver Wire interconnects (balanced) Music Reference Pegasus and Majestic interconnects (single ended), Vacuum State Electronics Copper Foil speaker cables (bi-wire), DH Labs Silver Sonic power cord (amplifier).

ACCESSORIES

Gingko Audio Cloud 11 Isolation Platform, Ringmat 330 MKII XLR Anniversary, Radio Shack FM antenna, VPI 16.5 record cleaning machine, Record Research Labs Power Cleaner, Record Research Labs Everyday Cleaner, various LAST record cleaning products, Hunt E.D.A. Mark6 brush, miscellaneous wet cleaning brushes, Zero Dust Stylus Cleaner, DB Systems alignment protractor, PS Audio Noise Harvester, Tone Cones, Tip Toes, RPG BAD Arc diffusers, HiFi News & Record Review Test LP, Cardas Test LP, XLO Test CD, Stereophile Test CD, Chesky Test CD vols. I & II, Craftsman True RMS Multi-Meter, Philips PM3211 Oscilloscope, Panamax Max 5100 Power Center, Stabilant 22, Caig ProGold contact enhancer.

Looking back at my show report my impressions were good, very good. I made comments like "goose bump inducing realism" and "sounds seemed to materialize out of thin air to startling effect". High praise indeed. Thinking my chances of getting a review pair would be slim due to demand I asked Dick anyway and much to my surprise he asked which model I wanted to review. Cut to the chase: This past February, nearly 18 months later, a palette stacked with four unusually shaped red aluminum flight cases containing the Anat Reference II Studio loudspeakers arrived at my door. It seems the speakers have been in such high demand by customers that it took that long for my review pair to become available.

Now you may already be getting the sense that I like these speakers and if so, you are right. I do like them; really like them, love them, a lot. They do so much right and so little wrong that, along with a small handful of other speakers, they set the bar at a new height for what's possible in music reproduction. And while I think it's impossible to declare any pair of speakers the best for all listeners in all rooms and with all electronics, in my opinion the YGAs are among the very best and in many ways exceed the performance of some of the top contenders.

In one sense you could say this review is not so much about these speakers as it is about what was upstream of them. They imparted so little character of their own, opening such a clear window into the original recording that until I hear something that performs at an even higher level I'm hard pressed to even tell you what that character is. On the other hand, to say that what I heard was solely a function of the upstream components and the recording itself is complete fantasy as there is no listening to anything without the speakers which, of course, leave some sonic imprint. That being said, even the smallest upstream changes were clearly and distinctly audible. But I'm getting way ahead of myself.

Standing just under 48" tall without spikes, the Anat Reference II Studio speakers are a sealed, floor standing three-way design consisting of a main module and a powered sub. (The sub is also available passive though there is no price difference.) Arrayed in a D'Appalito Configuration, the main module features a 1" soft dome tweeter and two 6" mid-woofer drivers. The tweeter was designed by YGA in close cooperation with Scan-Speak and uses a magnet system known as the Illuminator. The mid-woofers are modified 6" Scan-Speak Revelators.

The cabinet, measuring only 8" wide and nearly 20" deep and 20" tall consists of an inner shell and an outer shell both made from slabs of aircraft-grade aluminum. The front baffle is made from ballistic aluminum, a titanium/aluminum alloy. The panels of the enclosure are fastened together using internal connecting bars of varying geometries and are assembled under pressure, a practice common in the aircraft industry to maximize rigidity and hold the assembled parts under tension. The panels are milled on a Portatec CNC milling machine, and the outer ones finished on a Knopp precision grinding machine and Kuhlmeier CNC polishing robot and assembled in house.

To say the fit and finish are top notch is an understatement in the extreme. Both the precision and methodology of the assembly contribute not only to a clean and precise look, reminiscent of a piece of aerospace technology, but a performance level that has few rivals. Two sets of 5 way binding posts allow for bi-wiring and each main module weighs 107 pounds feeling more like a class A amplifier than a speaker.

Each sub cabinet contains a single 10" driver, a proprietary YGA design with a magnet system based on Scan-Speak's Revelator technology. Also CNC machined of the same aircraft-grade aluminum, each cabinet houses a proprietary switching amplifier producing 400 watts RMS into the woofer. The amps are made for YGA by Hypex in the Netherlands and have been designed to work with the impedance curve of the woofer, thereby greatly reducing the amount of negative feedback needed to keep the amp operating in a completely linear fashion. YGA claims they produce superior results to an outboard amp designed for general use. The fact that the passive sub costs the same as the active sub is a clear indication of YGA's preference that its customers use the amp designed specifically for the speaker.

The amplifiers accept both single ended and balanced connectors, and feature controls for level, EQ point, EQ level, crossover point and a phase switch. The tops of the subs sport rails which mate with rails on the bottom of the main module allowing them to be rigidly bolted together. Three substantial (something close to a

pound each) spikes screw into the bottom of the cabinets allowing for height and tilt adjustment and coupling to the floor. Bolted together each speaker tips the scales at roughly 280 lbs.

During the manufacturing process, each speaker's crossover is individually optimized for its specific drivers, matching every pair to the factory reference and giving the speakers a claimed frequency response of +/- 1 dB within the audible band and channel matching of +/- .2 dB. Critical capacitors are custom made Mundorf MCap Supreme Silver/Golds and resistors are Mundorf MResist Supremes. Internal wiring is custom made by Kimber Kable and unusually the cabinets contain no stuffing.

Though it was still a two person job, unpacking and assembling the speakers was easier than one would imagine due to YGA's simple but well thought out shipping containers. Once assembled Dick Diamond took some room measurements and after some calculations placed the speakers very close to where I found my Wilson Benesch A.C.T. speakers to work best. I wired them to the Spectron Musician III Mk. 2 Monoblocks using the Remote Sense cables made by JPS Labs' with their Superconductor 3 wire. Though they are not a compact speaker by any stretch of the imagination, with their narrow baffles and sloping lines, the speakers were not nearly as imposing in my smallish room as I had imagined they would be. My three year old son calls them robots and I can see his point.

Finally ready to go, we put some music on and at first play everything sounded a bit closed in and congested. On a hunch I ran the demagnetizing track on *The Sheffield/XLO Test & Burn-in CD* (CD, Sheffield Lab 10041-2-T) and as soon as we played the next cut of music Dick and I looked at each other in astonishment at the difference it had made. I have always found the disc to keep my system at its best by running it every couple of weeks but I have never heard it make that kind of difference. The Anats were so revealing that the effects of magnetization on the system would become audible after just a few days requiring frequent use of the disc to keep things in top shape.

Questions about how well other tweaks work were resolved beyond the shadow of a doubt as the Anats could reveal what might otherwise be subtle differences as stark contrasts. The L'Art du Son CD & DVD Cleaner for example; excellent stuff and with the Anats the improvement just seemed magnified. The perceived difference in recording quality from disc to disc was enormous and the difference between LP and digital was never so clear, both the good and the bad. In other words, everything matters with the Anats. They aren't finicky in the least, they just aren't a limiting factor and will reward careful setup and top notch upstream components in a way that few speakers can. As good as my reference Wilson Benesch speakers are, the YGAs are in another league.

I found that it took a little while to calibrate myself to listening to the Anats. Forget what you've heard at shows, hearing them dialed in, in a well designed room is about as much like hearing them at a show as cheese is like chalk. Without the usual colorations and distortions heard from most speakers, what you may first think is forwardness is simply astonishing clarity and veracity to the real thing. What you may first think is a lack of depth is simply the speakers resolving the back of the hall as well as the front giving you a crystal clear and vivid view of the original recorded space. It takes a little while to get used to that kind of front to back focus and clarity. In fact, I've come to the conclusion that many speakers actually exaggerate depth. Much in the same way a camera lens with shallow depth of field blurs distant objects when focused on a close object, most speakers have a similar effect on instruments within the soundstage blurring back of hall details which results in an enhanced but artificial sense of depth. The YGA's were analogous to a deep focus lens ala Citizen Kane and to be clear, did not lack for depth.

Their ability to resolve fine nuances of low level detail and ambience gave them the ability to recreate acoustic space like nothing I've heard and was nothing short of astounding. Small, intimate spaces sounded, well, small and intimate. But large cavernous spaces were mind-blowing. I have a drop down screen and projector in my room where I watch movies in two channel sound. The opening scene of Clint Eastwood's *Gran Torino* takes place in a very large Catholic Church. Watching the movie I had no sense of my room as the YGAs convincingly recreated the Church's cavernous acoustic. Late one night on cable I caught a few minutes of *Blue Crush*. I nearly freaked out during one surfing scene when it sounded like I was surrounded by water and pounding surf. In large hall recordings, when the track would fade in

before the music began you could hear the ambience of the venue replace my room in anticipation of the start of the performance. It was kind of like an audio holo-deck for the Star Trek nerds among us.

Freedom from strain and compression is one of the more engaging qualities found in the best high end speakers. In fact, aside from gross colorations, there is no more conspicuous way for a speaker to impose its signature on music than when it begins to compress the signal. I found the Anats to be transcendent in this aspect of performance. Music flowed effortlessly with no apparent constraint on dynamic expression, seemingly unimpeded by any mechanical means. On well recorded material, this freedom from strain coupled with the speakers' absolute lack of any discernable tonal character conspired to create music, plain and simple. Even with poorly recorded material, performances were reproduced with a freedom from the equipment not heard on lesser gear.

The Anats revealed the Turtle Creek Chorale performing Randall Thompson's "Testament of Freedom", Reference Recordings' *HD CD Sampler* (CD, Reference Recordings RR-S3CD), to have a far greater number of singers than I originally thought. Each singer was rendering more specifically while the group as a whole was both more defined and more distinct from the acoustic of the Meyerson Symphony Center in Dallas, TX. They accomplished this precision and focus without the overly crisp, hyper realistic and exaggerated leading edge detail that plagues some designs and adds excitement at the expense of realism and musicality. At the same time there was no blunting of the attack; it was as sharp and dynamic as any I've heard, but with detail, resolution and body in the attack itself. The transient response of the Anats, seemed instantaneous, but the flesh in that attack gave music both the sense of immediacy and the rich harmonic texture heard from the real thing.

Instruments were fleshed out, true to themselves, nothing missing, nothing added. "Cowgirl in the Sand" from Neil Young's *Live at Massey Hall* (CD, Reprise 43328-2) conveyed the warmth and slightly soft quality of the recording. Young's acoustic guitar was warm and woody, clearly defined in space but never edge enhanced or unrealistically sharply focused. It had the body and texture of a guitar. Likewise the piano was a bit on the warm side, slightly soft but not overly so, emotionally engaging, the beauty and simplicity of the music flowing freely, reaching the listener with very little in the way, I can safely assume, just the way it was recorded.

The difference between the richer, more somber tones of the Bösendorfer piano and the golden hued tones of the Yamaha CFIIS were evident on Mike Garson's *Jazz Hat*. (CD, Reference Recordings RR-114). The familiar tone of a hollow bodied electric was likewise unmistakable on Martin Taylor's acoustic rendition of "Georgia on my Mind", *Linn Selektions SACD*, (SACD, Linn Records AKP 245).

As an aside, as I listened to Taylor for the first time I found it remarkable how two guitarists could play in such synchronicity. One would begin a melodic riff in the treble range and the other would complete it in the bass range with such intuition that it seemed impossible, even if they had rehearsed it a million times. I was even more shocked to find out it was all Martin Taylor playing solo, no overdubs. He performs on a custom made guitar that separates the upper and lower three strings into separate channels. He is able to accompany his own melodies with chords and bass lines in a way that seems impossible without two guitarists. The separation of the channels only heightens this effect. It reminded me of a ventriloquist I once saw where it almost seemed that he and the dummy were both speaking at the same time.

One of my favorite albums is *The New York Rock & Soul Review - Live at the Beacon* (CD, Giant 9 24423-2) featuring Donald Fagen, Phoebe Snow, Michael McDonald, Boz Scaggs and many other greats. I've heard it dozens of times, if not more. For years I was convinced that the lyrics on Fagen's "Green Flower Street" from his solo debut, *The Nightfly* were "Uptown, it's mud out in the streets". Turns out, it's murder, not mud, no mistaking it on the Anats.

At the end of "Lime House Blues" from Bucky Pizzarelli's *Swing Live*, (SACD, Chesky Records SACD223), the tape rolls for several minutes capturing numerous conversations taking place simultaneously at the tables around the club where the album was recorded. By focusing on individual tables and groups of people distinct conversations are intelligible even though there are dozens of people talking at the

same time. Needless to say, the realism of the music on this finely recorded album is stunning.

I found myself paying no attention whatsoever to the equipment as I listened to Arturo Sandoval's "Eastern Blues" and "Blues for Diz" on his *Sandoval Live at the Blue Note* (CD & DVD, Half Note 4522). I was fully engaged by his charismatic presence as he scatted and canoodled with the audience. The sense that I was interacting with a living human being was disarming even though there was a slight dryness to the recording, not unlike what you hear from the PA systems in many clubs. I was reminded only of the electrifying performance he gave at the Chandler Center of the Arts a few years back.

Listening to the Living Stereo SACD of Arthur Fiedler and the Boston Pops' 1954 performance of Offenbach's "Gaité Parisienne" (SACD, RCA Red Seal 82876-66419-2) was equally spectacular, like being transported to the past in a time machine to sit among giants. Even though the warmth of the vintage gear used for the recording was evident, the presence of the original performers; of something recorded before I was born was eerie in its verisimilitude.

Multi-tracked recordings sounded just like what they are, separate pieces assembled into a whole with greater or lesser success depending upon the skill of the engineer. "Daniel" from Elton John's *Greatest Hits* (CD, Polydor 314 512 532-2) sounded like parts, not analytical or sterile, just parts, made separately then joined together. On the other hand "Rocket Man", from the same disc though recorded at a different time and place was mesmerizingly organic and cohesive. John's performance had me singing along at full tilt completely engaged in the story of this rock 'n roll astronaut. Again, it never came back to the equipment, only to the music.

Towards the end of the audition period I tried the speakers with my Music Reference RM-200 amplifier, a 100 watt per channel KT88 tube amp. Though the bass was a bit looser sounding the result was not terrible. Instruments seemed to gain some warmth and body while losing some of the leading edge detail and excitement of the attack, especially in bass instruments. Bass drums had more of a sense of skin; I got more of the hall and less of the instrument, a greater sense of ambience with instrumental outlines a bit blurred. Performers didn't separate from the hall and stand in three-dimensional relief in the same way as with the Spectrons. All in all everything tilted a touch to the warm, syrupy side and the combination couldn't match the sense of slam and impact or sheer dynamic range and contrast of the 2000 watt per channel Spectrons. Though I ultimately preferred the less colored sound of the Spectrons, the RM-200 produced a rather pleasing if not altogether accurate effect but it wouldn't be among my top choices for these speakers.

With every pair of speakers I have auditioned I quickly remove the grills after a brief audition as most speakers perform better with them off. So organic and natural was the sound from the YGAs that I didn't even bother taking them off (though the impact is said to be minimal) for months. I was so satisfied with the results I was getting it never even occurred to me. When I finally did get around to removing the grills I found the difference to be subtle at best with the sound ever so slightly more coherent with them on. It was subtle enough that on another day I might have preferred them the other way. I replaced the grills and never gave it another thought.

Playing just the monitors with the subs turned off, I found the speakers to still be quite authoritative playing as deep as many floor standers, I'm guessing somewhere into the mid 40s. And though I preferred the added impact and authority offered by the Studio subs, I could easily see a pair of Main Modules being my primary speakers. Though still a considerable sum, \$33,000/pair plus stands certainly puts them within the reach of more audiophiles than \$70,000 though they are still out of reach for most. There is no monetary penalty for purchasing the monitors then adding subs later as the cost is identical to buying the entire system at once.

In addition, the speakers are fully field upgradeable. The original Anat References can be turned into Anat Reference IIs including upgraded cabinet elements due to the construction and assembly methods employed. The cost of the upgrades is identical to the price difference between the original Anats and the Anat IIs. One could argue that it should be this way at this price point, but more often it's not. I really respect companies that allow customers to jump in at any point and stay current with features and upgrades with no financial penalty.

The word that kept coming to mind as I struggled with how to best describe these speakers is veracity. More than any speaker I've heard, I felt I could rely on them to tell the truth with no editorializing, almost a Zen sense of bringing nothing to the music. And nothing is hard to describe so I found myself mostly talking about the music, the performance and the performers. Listening to them, any thoughts of equipment quickly dissolved into sheer musical enjoyment.

I have heard criticisms, exclusively from show goers, of the speakers being overly analytical, tilted up, bright, etc. Not in my room and not with this gear. Night after night I sat before my own live or nearly live performance and listened in as musicians did what they do best, make music. No artifice, nothing between me and the moment in time when the event was originally captured. Am I gushing? Yes. Is there reason to? Yes. This is the truth being told, in as much as it is possible given the current state of technology. Will something better come along eventually? I'm sure it will and given the lofty level to which the state of the art has been advanced by Yoav Geva and his team at YGA, I can only imagine it will be another step closer to the truth. **Adam Goldfine**

Main Modules

Retail: \$33,000/pair

Frequency Response: +/- 1dB from below 20Hz to above 40kHz (including subs)

Sensitivity: 92dB 2.83V @ 1M

Impedance: 4 ohms nominal, 3 ohms minimum

Dimensions: 20" x 8" x 20" HxWxD

Weight: 107 lbs each net

Subwoofers

Retail: \$37,000/pair

Amplifier: 400 watts per channel (impedance not given)

Dimensions: 48" x 13" x 24" HxWxD

Weight: 173 lbs each net

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Manufacturer's Comments

We first off would like to thank Adam Goldfine for his hard work, enthusiasm, and very thorough review. Setting up a high end system, and speakers in particular, is not a trivial task. It is evident that Adam really put forth the effort to cover the salient aspects of a complete evaluation. It goes without saying that the results of his evaluation are very gratifying to the team here at YG Acoustics.

Adam's comment that he was "hard pressed to even tell you what that character is" is so satisfying to a manufacturer. The ultimate goal of a loudspeaker, in our view, is to not impart its own voice or interpretation of the music upon the recipient, but rather to let music's own soul and substance reveal itself. We are certainly not the first manufacturer to have this view but in reading Adam's comments we feel that we have accomplished this goal. You'll definitely want to listen for yourself.

The upgradability and modularity of YG Acoustics' speakers mentioned in the review is also a key of our design. We are happy that Mr. Goldfine acknowledged this as well, commenting that he found when the Main Modules were playing alone "I could easily see a pair... being my primary speakers." This modularity allows customers to get YG Acoustics performance in stages if they prefer with no sacrifice to obtaining the level of sound quality mentioned in the review. Also, the ability to upgrade to current or future versions is as Adam inferred—the way it should be.

Mention was made of the qualities of different amplifiers as revealed through the Anat Reference II speakers. While well designed and executed solid state designs are most often paired with our speakers we have found a significant number of stable tube designs that produce wonderful results on our speakers. You could give

us a call to ask about any such combinations.

Adam, again we would like to express our deepest appreciation for your efforts and for the staff at *Positive Feedback Online*.

Dick Diamond, Director of Sales & Marketing
YG Acoustics



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