

MEETING NOTICE - Sunday, November 21st, 2 PM - 5 PM

**Arlington Heights Historical Society
Arlington Room, 110 W. Fremont
Arlington Heights, IL For directions go to:
<http://www.chicagoaudio.org/directions.htm>**

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NOVEMBER MEETING--JACK CALDWELL from HOLISTIC AUDIO ARTS

Holistic Audio Arts is a new audio company (the website is due to be up soon) that created quite a buzz with their first appearance at last month's Rocky Mountain Audio Fest. Jack Caldwell, the owner and designer will present their two current speaker designs driven by Virtue Audio electronics (www.virtueaudio.com).

Here is a write-up (with photos) from Stereo Mojo describing the Holistic Audio speakers and the Virtue Audio products (scroll past our April guest Legacy Audio to read the rest of the page!):

<http://stereomojo.com/RMAF%202010/RockyMountainAudioFest2010pt4.htm>

Stereo Times was also impressed (scroll about halfway down):

<http://stereotimes.com/RMAF2010h.shtml>

Finally, Stereo Mojo presented both Holistic Audio and Virtue Audio with Best of Show awards (scroll about a third down):

<http://www.stereomojo.com/RMAF%202010/RockyMountainAudioFest2010BestofShowAwards.htm>

Hopefully, the above links have more than piqued your interest for what should be a great meeting.

Both the large Holistic H3 and the small (in size) Holistic H1 will be demonstrated with the Virtue Models Two.2, Sensation M451, and Sensation M901. Jack will be using a Mac laptop as a source using both i-tunes and PureMusic. Jack has a structured presentation with plenty of music to demonstrate both versions of the Model H1 and the Model H3. Do bring your favorite track for later on, but the program will be pretty full.

To conclude here are Jack Caldwell's comments on the technical details and the presentation:

As you saw at Rocky Mountain Audio Fest, Holistic Audio Arts specializes in developing loudspeakers which enable the human auditory system to properly recover and decode the audio/spatial holograms that are found in many, if not most 2 channel stereo recordings. This creates a highly believable spatially and size correct acoustic image of what was recorded, and the effect is quite amazing in its realism. Of course, we also pay attention to the tonal qualities, because we want something that truly sounds like the real thing.

How do we do this?

There are 6 main technologies that we use in combination to achieve our goals. We will outline them here and go into more detail during the presentation.

1. [Omni-Radial Time Coherence.](#)

The speakers are time and frequency correct on a 360 degree circle in the horizontal plane. This ensures very good coherence between direct and reflected signals and greatly reduces the need for room treatments, providing much more placement flexibility while still getting great results.

2. [Omni-Radial Timbre Coherence.](#)

Conventional speakers have vastly different timbre and frequency response at points well off axis, creating a multiplicity of timbral “voices” in the room. This creates significant confusion in our subliminal localization mechanism, as well as colorations of the sound. In contrast, the Holistic Audio speakers keep the off axis timbre identical to the on-axis, and the room reflections become significantly more coherent with the original signal. This enables our hearing mechanism to relax and subtract the “room sound”. It often sounds like the speakers and the listening room have disappeared, leaving only the original recorded acoustic space. Warning: this can be quite astonishing upon first exposure. Then it becomes quickly addictive.

3. [NearZero cabinet noise and internal damping system.](#)

We have gone to great lengths to knock out any form of extraneous parasitic enclosure noise, and have devised some extremely ingenious and effective ways to attain this goal. For example, the internal damping array almost completely absorbs the back wave, greatly reducing acoustically re-radiated reflections from the enclosure. More info at the presentation!

4. [Reduced Higher Order Modulation \(HOM\)](#)

Because of the cone geometries of the drive units, most conventional loudspeakers create a significant level of Higher Order Modulation. The cone on the drivers acts like a horn and significantly “colors” the sound, because there is a pressure wave that travels back and forth across the cone. It is not the cone that is coloring the sound, it is the behavior of the air near the pressure boundary created by the shape of the cone.

This form of distortion is difficult to quantify with existing measurements, but it creates a significant masking of low level detail and spatial information. This affects the sound over several octaves. It is essentially non-correctable and requires a completely different cone geometry to eliminate it.

By using carefully chosen drivers in a decidedly non conventional configuration, we have almost completely eliminated H.O.M. The difference in clarity and retrieval of detail is very obvious to most listeners.

5. [Special Mechanical Assemblies.](#)

On our entry level model, we use a special assembly which mechanically “shorts out” most of the basket and magnet noise. On our top of the line systems, we use wide-band force cancellation where we very closely match the drivers in pairs and tightly couple their mechanical assemblies via a force canceling bridge with a highly specialized clamp-damping system which acts all the way up to 5KHz +.

These measures ensure that there will be almost no transmission of transverse parasitic waves, and therefore the walls of the enclosure have almost zero sound coming from them.

6. Last, but not least are our Holographic Conjugate Filters.

We have been studying the auditory system and identified certain frequency groupings where the effect of time-smear and signal phase distortion is very important (to the subliminal hearing system, and usually not to the conscious hearing). When there is any time smear in these bands, it really messes up our ability to decode the spatial information. With our filters, we have been able to remove much of the time-smear the drivers/enclosure combo would contribute, and the result is one of extraordinary clarity, natural sized soundstaging, increased musicality and vastly reduced colorations.

We will be bringing two models of speakers to demonstrate these principles, the H1 entry level model, and the H3 which is our top-of-the-line system. We will be demonstrating them with the Virtue Audio amplifiers as they are absolutely phenomenal at retrieving the low level detail and creating a highly natural holographic representation of the music. They are second to none at revealing the holographic core of the music.

In addition, we will be using a MacBook Pro with built-in Solid State Drive as a signal source, alternating between i-tunes and PureMusic as the music player engines.

Because there is quite a lot to cover, we plan to present a fairly structured demonstration to show the various qualities of the system. This means that we may not have time to play special requests, but of course, if we have any people who are actively considering a purchase of the systems, we may be able to arrange for an in home demo during the days that follow.

OK, we hope this gives you an idea of what to expect at the presentation, and we are really looking forward to our time with the Chicago Audio Society.

We look forward to seeing all of you this Sunday!
