



## What Audiophiles Listen For: An Informal Guide

A few words about our title: ideally, an audiophile is a music lover / discophile who expends a great deal of care and attention in assembling a sound system that elevates good recordings to vibrant life. As to standards and requirements, we hope this brief guide helps you understand what high-end audio is about. Obviously we're here to promote NuForce. We believe that our products offer nonpareil performance at better than competitive prices. Even so, this tutorial applies to what you should listen for with respect to all high-end audio systems and their component parts.

**Resolution and Transparency.** These closely related qualities serve as the keystone to top-flight sound. On hearing an orchestral recording in this reporter's listening room, a newcomer to high-end audio actually declared, "I can almost hear them breathing!" Were it not for the system's resolution and transparency, he'd not have been quite so astonished. "Hi-rez" components put the listener in touch with the music and its performers. The hardware would seem to have disappeared.

Given a good, well produced recording, the rather uncanny sense of reality a high-end audio system creates is, of course, an illusion. A professional illusionist will never reveal his secrets. To the contrary, the designer-manufacturer of superior audio gear is eager to explain what he does to create great sound. He will tell you, for example, that resolution and transparency are functions of an audio system's low noise floor and low distortion. Indeed, were low noise and low distortion commonplace qualities, high-end audio would have no reason to exist. Even the crudest automotive audio system can produce ear-splitting sounds. That's what they're best at. At the other end of the spectrum, high-end audio recreates those subtleties and cues that tell us we're there, where the music's taking place.

In random order — they're all important aspects of good sound — these are among the qualities the audiophile listens for.

**Frequency balance and distribution.** The listener's sense of the musical presentation's coherence from topmost treble to deepest bass is an aspect of linearity and phase. One's perception of a soundstage's width, depth and height, are, again, aspects of phase at various frequencies. Many tube-amp designs produce a wide soundstage at depth's expense. Conversely, many solid-state designs produce a deep soundstage, albeit oddly proportioned. Soundstage irregularities frequently relate to an audio system's non-linear characteristics. An accurate system produces a soundstage peculiar to a given recording, no more, no less.

**Layering.** This term describes the listener's perception of localization within the soundstage. Layering is more readily detected in recordings of musicians performing simultaneously in a common space — often referred to as the venue or site — as compared, for example, with studio-type recordings in which tracks are "laid down," i.e., where performers play or sing in isolation one from the other or, indeed, at different times. When this style of recording is less than well done, a revealing audio system permits you to remark the vocalist's occupation of a space seemingly unrelated to where the backup players perform. To be fair, a well produced studio recording is certainly capable of creating an impression of distance and dimension by time-tested, albeit artificial, means.

**Texture.** Does the listener have the sense of the vocalist's presence in the room, or is it more a matter of business as usual emitting from your speakers? The perception of texture, like all else we mention here, is a function of resolution and transparency. An audio system in full command of texture conveys every shade and nuance of a vocalist's presentation, or that of a piano, or of anything else you enjoy listening to.

Note: However good the audio system, it cannot produce silk purses on a diet of sows' ears. That old computer refrain, "garbage in, garbage out," applies. The audiophile music lover values his or her collection of well engineered recordings, whatever the medium. Often as a pleasant surprise, a good high-end audio system extracts every drop of juice from a recording the listener may have judged merely mediocre when played on lesser gear. In short, for better or worse, a top-quality audio system reveals everything the software has to say for itself.

**Color** is an aspect of texture (timbre is the musician's term). Color addresses a good audio system's ability to convey sonic complexities as clearly drawn shades of difference. All else being equal, components that provide exceptionally even frequency and power responses will reproduce all the color (texture, timbre) a good recording has to offer. Confusion and controversy arises when we speak of a sound system's colorations. Designers of audio components with a pronounced sonic signature, i.e., coloration, are at pains to apply a euphonious veneer to whatever's being played. Certain cult amplifiers with high levels of even-order harmonic distortion have been specifically designed to impose their sonic signature. Enthusiasts for this kind of inaccuracy will speak approvingly of "exceptional midrange

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liquidity," etc. Conversely, a good, clean, uncolored audio system conveys an accurate picture of a recording's sonic character. Systems with pronounced colorations will tend to homogenize these otherwise obvious differences.

**Density.** The term is synonymous with harmonic complexity. With less than excellent playback equipment, the listener finds it difficult to distinguish between a well-recorded Amati, Strad, or pawn-shop fiddle. A great violin produces a harmonically dense, peculiarly complex sound. For the audiophile, the pleasure resides in its palpable presence in the listening room. Components with exceptionally low distortion convey these differences.

**Weight.** The term refers to an audio system's low end. Clean, well defined bass is among high-end audio's visceral pleasures. Undistorted weight stands worlds apart from wildly flapping woofer cones and their hugely distorted, ill-defined assaults on the ear.

**Dynamics and microdynamics.** Dynamics is another often misunderstood term. The Listener sometimes applies it to an audio system's ability to rattle the listener's molars. It's true that there's little in music as gratifying as a huge forte in all its glory. We all admire the audio system that conveys *fff* *tutti*s without compressing the sound, i.e., squeezing its dynamic range. However, dynamics more correctly describes a system's ability to reproduce sounds from audibility's threshold to thunderous roars. Microdynamics addresses subtle dynamic gradations at any level of volume. Triple fortes are wonderful, but so is an audio system's projection of *ppp* differences.

**Vividness.** Among other qualities, the term addresses accurate transients, i.e., brisk, clearly delineated attacks, as well as long decays. A crisp attack is of course a delight, and decays provide their own satisfactions. A first-rate system permits the listener to enjoy a sound — that of a pipe organ, say, recorded in a large cathedral — as it fades into its venue's deepest recesses. Speed is often used to describe an audio system's superior abilities at conveying attacks. The same system's low distortion and transparency are likewise responsible for the listener's perception of a lengthy decay's barely audible tail.

**Imaging.** The soundstage is sometimes referred to as the stereo image. They're one and the same.

**Air.** The audiophile will often speak glowingly of a perception of air, which is to say, a sense of the music's occupation of a nicely defined, unfettered space. However, as an aspect of coloration, excessive air often has to do with exaggerated highs and — surprisingly — distortion. An accurate audio system portrays ambiance as a property of the recording rather than of itself, dealing forthrightly with what the software sends its way.