

Effect of color on sound perception
(in the light of home theater design)
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Sound and color are wave processes described in physics by practically the same formulas. Light (color) is an electromagnetic wave, and sound is mechanical vibrations (plane wave) that propagate in an elastic medium (in air, for example, this is an alternation of compressed and discharged states).

"In the world of subtle energies, sound gives rise to color, and each color is correspondingly associated with sound" [1], and, in addition, there is a color that is invisible and a sound that is inaudible.

While creating the interior, we simultaneously form a wave environment around us, which, day after day, has a direct impact not only on our emotional, mental and mental state, but directly on the physiology of the body's life, or, more simply,
- to our health.

Therefore, it is necessary to thoughtfully and responsibly make artistic and stylistic decisions, not forgetting that in a room, in addition to color, architectural forms and geometric proportions, a person is influenced by sounds, aromas, and tactile sensations obtained, for example, from direct contact with interior items.

As we said earlier, throughout the history of mankind, energy-informational exchange in a team was carried out in a closed circular system, with a center in the middle (initially around a fire), and

energy-information flows in a closed loop had a natural equality. However, with the advent of radio, and to a greater extent TV, the information chain was opened, and today we see a different picture of the redistribution of energy-information flows and the rupture of energy-informational connections of equal importance, when the main place of the owner is occupied by the source of information - the "teacher", around which "students", spectators and listeners [2].

In the changed system of exchange of energy and information flows and as a result of the development of scientific and technological progress in the home interior, some time ago, premises appeared that carry a new functional load, namely, "home theaters" (DK).

In fact, DK are modern rooms for meditation and self-immersion in the illusory world created by audio and video equipment, where there is a great need to concentrate as much as possible.
(concentrate) on the "teacher".

The more sense organs are involved in the creation of "objective reality", the less stressful it becomes, otherwise, if some organ does not participate in the creation of an image, then for it the image of sensations is additionally modeled by the brain, as a result of which the brain is in a state of stress and he cannot completely "plunge" into the illusion, since he is forced to introduce various mechanisms for replacing missing sensations.

It is possible to distinguish between two fundamentally different options for arranging recreation centers: achromatic, for people of intellectual work, and the second option

design, bright and colorful, with installations - for those who want to get additional emotions.

Viewing video in a completely dark room can severely damage your eyesight, as there is a large difference in contrast. It is better to view it in a dim, diffused light, and here it becomes necessary to competently "colorize" the premises of the recreation center.

Reds, terracotta, oranges and yellows are on one side of the classic chromatic circle, and represent the so-called. "Warm" tones with a wavelength from 760 to 585 nm, under the direct influence of which time intervals are overestimated, the size and weight of objects seem to be greater, and attention switches from internal to external.

These shades exacerbate the organs of perception, including the organs of hearing and smell (orange and yellow), and also activate blood circulation and bowel function, that is, pressure may rise and appetite may increase (red), and, accordingly, fans of active cinema should enter these colors carefully and in portions, in small groups against a general achromatic background, or compensate for the activity of the "warm" range with opposed "cold" colors.

It must be borne in mind that usually very active and active people, who have been in a state of some stress for a long time, give preference to the red scale, rejecting the "cold" shades, because they are afraid that otherwise their pace of life will decrease, and the desired results are obtained will not.

Blue and green colors have a well-known sanitizing, harmonizing and calming effect, they promote relaxation and relaxation, reduce attention, and, accordingly, the acuity of perception, including hearing. The design of a recreation center in this range can be advised for regular viewing of materials about the culture and the world of animals.

A common recommended combination, for example, might be "orange-turquoise (blue)", since these are the colors used in the treatment of possible diseases associated with the hearing organs, reduce brain overload (turquoise), stimulate the pineal gland (blue) and normalize respiration (orange).

And also it should be borne in mind that visual neurons are most sensitive to intersections of straight lines (to crosses and corners [3]), therefore, the design of DCs using curves and circles will automatically reduce the level of attention, and, conversely, simple geometric shapes, subconsciously readable with peripheral vision during a film screening, will allow viewers to concentrate as much as possible on the material being demonstrated and immerse themselves in the world of their own feelings and illusions.

Therefore, the interior design of a home theater should always be approached very individually, taking into account the characteristics of each family member and the priorities for viewing video products, and best of all, professional measurements should be made using devices manufactured by the IMEDIS Center.

Literature

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