

What do **you** want to hear?

A good sound environment cannot be measured only in decibels. Just like with everything else around us, it's a matter of the overall perception and the total experience. In the acoustic landscape, the subjective sound quality is therefore as important as the objective sound level.

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"This is what acoustic design is all about," says Björn Hellström, Acoustic Designer at ÅF-Ingemansson. "And just like with visual design, acoustic design can be both emotive and functional. The aim may be to create a pleasant, attractive sound profile or to provide information or guidance."

Acoustic design has thus far been most common in the commercial context. Take the car industry for example: the sound made when the driver's door opens or shuts is not left to chance, nor is the exhaust note – at least, not if the manufacturer wants to place the car in the premium segment.

Or take retail trade as another example: it's been a long time since the department store was a neutral sound environment that aimed to suit everyone. Specify what sort of customers you want and what you want them to buy, and you'll get specially tailored music designed to persuade them to open their wallets. Or the other way round – you can use music to shut out those you don't really want in your shop. After all, if you're a pensioner you most certainly won't enter a trendy boutique when the loud, harsh music that greets you at the door tells you clearly that this is one shop that doesn't cater for your age group!

"The people who've made the most progress in this area are probably electronic games designers," says Björn Hellström. In a computer game, noise and sound effects are at least as important to the overall experience as the graphics are.

Offensive or defensive

This perception is gradually gaining traction among city planners and architects.

"Acoustic design is an offensive way of dealing with sound," explains Björn Hellström. "Instead of combating noise only with defensive methods such as noise-damping fencing, the aim is to harness positive sounds and to create an acoustic panorama that reflects the rest of the environment."

The way we perceive sound depends entirely on the context and our relation to the noise source. We are disturbed by things that do not belong, things whose origins we cannot quite place and against which we cannot protect ourselves.

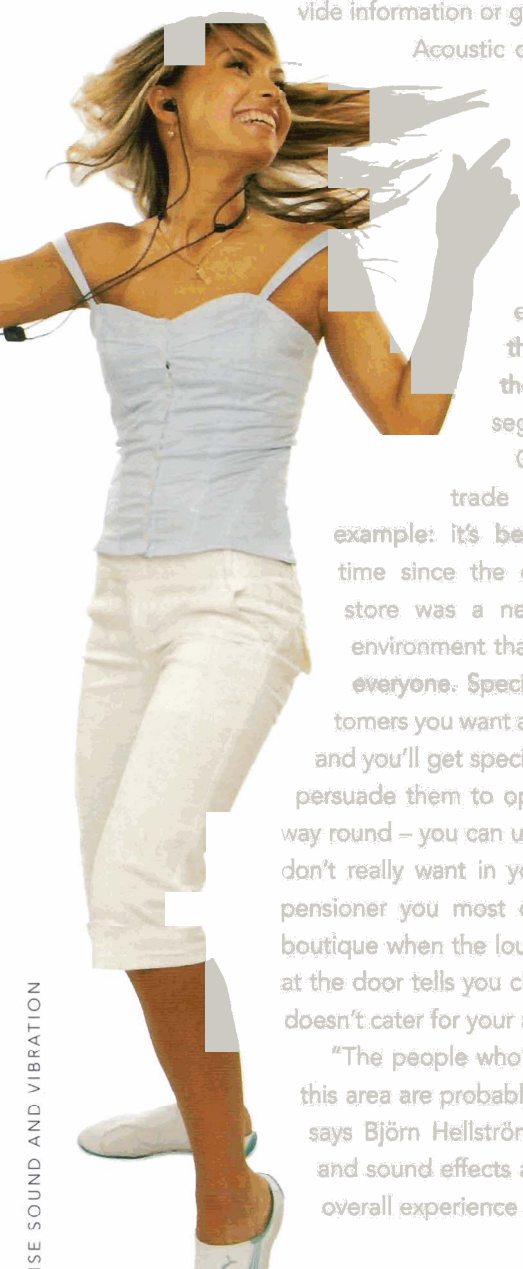
Identity and guidance

"Sound also forges a clear identity with the environment – total silence isn't necessarily the best at all times," continues Björn Hellström. "A town square with lots of outdoor cafés but without any sound coming from them is totally wrong, as is a railway station in a city centre without any background noise from people, trains and public announcements. The sound is needed to attract, to confirm that we are in the correct environment and to reinforce the experience, for example the sense of expectation ahead of a journey. What is important is to be able to ignore the sounds we do not want to hear – to find an acoustic oasis or a quiet counterbalance."

According to Björn Hellström, railway, commuter and metro stations are particularly interesting from this viewpoint. A lot of people pass through these hubs and many are in

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Björn Hellström, Acoustic Designer



a hurry to make their departures on time, at the same time as they don't always know exactly where they are headed. Since the spatial environment is limited and the operation is predictable, it is possible to make considerable improvements with the help of acoustic design.

"Today there are obvious shortcomings in this type of location," explains Björn Hellström. "The loudspeaker announcements are not always very clear, sometimes they are even impossible to distinguish, it is difficult to find one's way and to understand where the trains are arriving and departing, for example. This causes stress but it also represents a safety hazard, since it is not unusual for people with impaired vision to fall onto tracks because the sounds they are hearing send them the wrong signals, leading them in the wrong direction."

A lot has happened in ten years

Insight into how we are influenced by sound has increased considerably over the past ten years or so. We are inundated with visual impressions – commercial and others – and although the sounds surrounding us are increasing in number, the acoustic media are still under-utilised.

"On the other hand, an awful lot of people probably feel that the acoustic environment has become much more stressful," cautions Björn Hellström. "All the gadgets that surround us – mobile phones, computers, microwave ovens, washing machines – produce sounds to confirm activation, indicate that they are ready or alert us if something is wrong. The intention is good but the sounds do not harmonise or there are so many sounds that they counteract one another so what we end up with is the sort of acoustic confusion that belongs in an oriental bazaar. Each one has to shout louder to be heard above the others."

Acoustic design takes an over-riding grip of the acoustic environment, making sure that the individual sounds each have a function that suits the context yet integrates into an acoustic landscape that harmonises with the environment. In short emphasising what one wants to hear. †

A FEW SOUND TYPES

Aural sound – creates a special aura or atmosphere. Shop and restaurant music, the background hum of conversation.

Verification sound – notifies you that you have done something correctly or incorrectly. The keys on your mobile phone, alarm displays, the sound of water in the washing-machine.

Identity-verification sound – indicates who we are or want to be. Advertising jingles, mobile phone ring tones, engine sounds, music.

Navigation sound – leads us in the right direction by producing the appropriate sounds. Where is the bus station, where are the trains, where is the waterfall?