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SOUND

INTERIOR DESIGN FOR ACOUSTICS ~ CASE STUDIES

*Two very different practical examples of
how design can improve acoustics*

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I believe that we design for all of our senses, and while sight often dominates interior design, these recent projects highlight how careful attention to acoustics can dramatically transform our spaces and the wellbeing of those who use them.

Auditory sensations can profoundly affect mental wellbeing, and managing sound is a vital component of biophilic design. Although often overlooked in favour of visual elements, a calm and balanced acoustic environment promotes relaxation, reduces anxiety, and can

lower heart rate and blood pressure.

Nature isn't silent though – it's filled with subtle sounds and gentle rhythms. Incorporating acoustic elements into our designs involves creating harmonious environments, while specifically addressing harsh or intrusive noises.

These two very different projects demonstrate how a carefully considered auditory environment significantly enhances the quality of spaces: the reception of a busy dental practice and the dining room of a private residence.



In these projects we incorporated acoustic design alongside other elements of biophilic design. And not forgetting how sight-dominated we remain, the acoustic solutions were incorporated subtly and harmoniously into these spaces.

A Country Home

Designing a space to entertain and enjoy conversation

In the dining room of a beautiful country home, a combination of hard surfaces and a relatively low ceiling created an acoustic challenge. Over dinner parties, guests struggled to hear each other, raising their voices and escalating noise levels.

The goal here was to create a comfortable, intimate space where guests could relax and converse effortlessly.

Strategic acoustic improvements:

- A large rug beneath the dining table significantly reduces echo from the limestone flooring.
- Timber furniture and fabric-upholstered chairs enhance sound absorption.
- Heavy, interlined curtains in the bay window absorb sound whether open or drawn.
- The ceiling design with recessed features aids sound diffusion.
- Custom cabinetry integrating upholstered panels and open shelving further diffuses sound.

Most significantly, an entire wall conceals a sculpted, sound-absorbing

foam installation – the kind often used in recording studios – hidden behind acoustically transparent horsehair fabric panels. This dramatically reduces reverberation and improved acoustic clarity, making quiet conversation comfortable and natural.

Additional biophilic touches:

- Natural materials and textures – stone, timber, horsehair – enrich sensory experiences.
- Warm, ambient lighting and soft, organic shapes reinforce the welcoming atmosphere.

Transformative results of acoustic design. Both projects benefitted greatly from thoughtful acoustic design. Patients at the dental practice now experience a calmer, more relaxing welcome, positively influencing their overall treatment experience. The residential dining space has become inviting and comfortable, and conducive to extended, enjoyable conversations.

Importantly, I hope these projects illustrate that carefully considering acoustics as part of biophilic design significantly enhances our experiences in the spaces we create. By designing with all senses in mind, we not only address our natural preference for visual harmony but also deeply align our environments with our inherent connection to the natural world through sound. Designing for sound – subtly and elegantly – creates genuinely comfortable spaces where we can relax, thrive, and connect.



Dental Practice

Shaping the patient journey through sound

For this dental practice, our brief was to create a welcoming, premium environment with a Scandinavian-inspired feel. Located in a converted Victorian villa, the original layout was challenging acoustically – with noise from multiple floors, busy reception activity, and constant client traffic. I believed that improving the auditory experience in the reception could also play a key role in reducing patient anxiety and creating a calming atmosphere at the beginning of their treatment journey.

Acoustic solutions thoughtfully integrated:

Separation

- A broken-plan layout acoustically separates reception staff from behind-the-scenes activity, minimising distractions without isolating the space visually.

Diffusion

- Timber slatted surface treatments effectively diffuse sound, creating acoustic clarity and balance.
- Plants were positioned to naturally diffuse and soften sound – the larger the leaves the better the diffusion effect.

Absorption

- Acoustic felt hidden behind timber slats absorbs excessive noise, reducing overall sound levels.
- Above the reception desk, a sculptural light installation by Swedish acoustic specialists Abstracta features spherical acoustic absorbers interspersed with the light sources, significantly diminishing reverberation in this high-ceilinged area.

Insulation

- Dense underlay beneath flooring and stairs softens impact and footfall noise, enhancing acoustic comfort throughout.

Enhancing acoustics with other biophilic elements:

- The layout maintains natural light, creating a bright, welcoming space.
- Greenery provides visual calm and a natural backdrop at eye-level.
- Natural materials, warm tones, and soft shapes subtly foster comfort and visual harmony.
- Warm, indirect lighting complements the acoustic and visual design, reinforcing a calm atmosphere.

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Photo credits:

Dining Room – Rob Sanderson
Dental practice – Residence Interior Design

