URBAN SOUNDSCAPE DESIGN
A SOUNDSCAPE IS DEFINED AS

THE PERCEPTION OF A SOUND ENVIRONMENT IN CONTEXT, AND THE INHERENT PHYSICAL AND EMOTIONAL RESPONSE.

Essentially, soundscapes are one aspect of our everyday environment that is critical to the health and wellbeing of our communities. Without considering soundscape design during urban planning we are risking the sustainability and liveability of our cities.
WHY

A traditional approach to acoustics within planning dictates that complying with guideline noise levels creates a ‘good habitable environment’. Should we be striving towards a ‘good habitable environment’? Most people understand that this is an oversimplification and that being subjected to annoying sounds, even at low levels, can be just as stressful. Decibels are not proportional to wellbeing. This is why a holistic approach must be adopted, where focus is directed towards the quality of the sound environment.

WITH SOUNDSCAPE DESIGN AS A KEY ASPECT IN THE MASTER PLANNING PROCESS, WE CAN ENGINEER OUR FUTURE TOWARDS MAXIMISING WELLBEING AND CREATING SUSTAINABLE URBAN ENVIRONMENTS THAT WILL SERVE OUR COMMUNITIES WELL INTO THE FUTURE.

DECIBELS ARE NOT PROPORTIONAL TO WELLBEING.

DESIGN

Soundscape design necessitates an interdisciplinary approach to the master planning process of the urban sound environment, including aspects such as traffic planning, landscaping, architectural design and ecology – effectively everyone involved in shaping our visual and aural environments.

FUNCTIONALITY

Who is the space intended for? What is the function of community public open space? How can the soundscape be supportive or disruptive to the intended function? Which new spaces are compatible with, or complimentary to, existing acoustic features?
NURTURING URBAN WILDLIFE
A focus on wildlife, natural greenery and waterways. Consideration of biotopes can attract birds and other animals into urban environments. Celebrate local wildlife while creating relaxing and stimulating environments for the community.

VIBRANT PUBLIC SQUARES
A focus on art and culture can be used to create multi-functional public squares, and a destination for the wider community. Sounds from local independent businesses, bars and coffee shops can be positive in the right context, helping create an atmosphere. Exhibition and performance spaces are an important asset to local communities.

CONNECTIVITY
Creating walkways and travel routes with appealing and engaging soundscapes can increase the interconnectivity of different urban districts.

MENTAL RELAXATION
Providing relaxing outdoor space is vital in boosting the liveability of urban areas in order to reduce the stress and anxiety that comes with urban life.

Creating an appropriate balanced soundscape is key in harnessing the potential restorative qualities of urban greenspace rather than a simple change of scenery, creating a true wellbeing advantage; resulting in happier and more productive communities.
CHANGING THE BALANCE

Designing soundscapes involves changing the balance between background and foreground sounds and exploring how interventions can be used to divert attention towards positive sound environments.

BUILDING SCREENING

Strategically located buildings can be used effectively as acoustic and visual screens from unwanted noise sources. Harnessing wind tunnel effects created by buildings can emphasise the sound of wind flowing through vegetation.

MASKING

Introduction of auditory masking allows focus to be shifted towards wanted and pleasant sound features. This concept can be used to completely override unwanted sounds, grab the attention of the listener or subtly divert focus.
VARIATION

Strategic use of contrasting soundscapes can be used to enhance their respective differences and emphasise their qualities, such as making relatively quiet areas seem incredibly tranquil when adjacent to high density urban areas.

LANDSCAPING

The shaping of the landscape topography can be used to form hills, berms, strategically shielded valleys or areas which naturally enhance the sounds within. The use of vegetation and appropriate materials can have substantial effects.
REFLECTION AND RESONANCE

Geometric design and material selection can be used to enhance the soundscape. Implementation around watercourses, meeting places and walking paths can enhance the character and function. In some applications, reflections can also constitute an experience of their own, offering a way to interact with the landscape.

ATMOSPHERIC DESIGN

Introduction of loudspeakers can be used to design and enhance the atmosphere of urban spaces. The addition of low-level noise can divert attention from unwanted sounds or the use of music can help define the purpose of urban space.

SOUND SCULPTURES

Sound sculptures are installations that include sound as an important and obvious feature. They can be used to create interactive and educational urban spaces.
EXAMPLE OF CONCEPT APPLICATION

A unique combination of acoustic screening and water feature simultaneously reduces noise from the outside of the park while introducing the pleasant sound of constant running water, masking road traffic noise and distracting visitors from the bustling city streets a stones throw away. The complete visual screening and interesting features provided by the installation further reinforces this concept, emphasising the contrasting soundscape to the outside environment.

Use of gravel pathways inside the park provides sensory feedback to people walking through, instantly distracting visitors from typical urban sounds, drawing attention to the greenspace in front of them.

A central area is landscaped to be reminiscent of an amphitheatre which provides multiple functions, such as shared public performance space for community theatre and music groups, a setting for local seasonal and cultural celebrations, and an opportunity for the local community to relax on a day to day basis. As well as creating a visual impact, the geometrical design of the performance area is purposefully used to help project sounds from within during performances, creating a sense of spaciousness.