



Viewpoint

House music



Time: 15 mins

Region: North West England

Landscape: urban



Location:

Beetham Tower, 301 Deansgate,
Manchester M3 4LQ

Grid reference:

SJ 83467 97658

Keep an ear out for:

The Tower's strange sounds!

Did you know?

The Beetham Tower's loud noises have disrupted filming of Coronation Street

At 554 feet (169 metres), the Beetham Tower is Britain's tallest building outside London. On clear days it's visible from 10 counties, while apartments inside offer views over the Pennines, Peak District and Snowdonia.

The building's looks divide opinion. For some people it's an exciting symbol of modern Manchester, for others an overpowering blot on the city's heritage. But the Tower is also infamous for another reason. In strong winds the building makes a startling noise. Locals have compared it to alien spaceships landing or a giant baby having a tantrum.

Why is the Beetham Tower so noisy - and what do its sounds tell us?



Humming. Howling. Whistling. Shrieking. All these words and more have described the Beetham Tower's eerie signature tune. Although the noise comes and goes, it can carry for up to 2 miles and irritates countless people within earshot.

Experts have analysed the noise being 245-260 hertz, about the same frequency as a Middle C note on a piano. Look up to the roof and we can see the source. The building is topped by a large fin-like sculpture made of glass panels. The noise happens when high winds make this sculpture vibrate.

Sound is caused by objects vibrating in air. You can try this at home by blowing across the top of a glass bottle or running a wet finger around the rim of a wine glass. In each case, sounds come from air pressure making the glass vibrate.

At the Beetham Tower this happens when winds reach around 30mph. Then the roof sculpture creates 'turbulence', violent or unsteady air movement. The turbulent air vibrates rapidly between the glass panes, which act like an amplifier. Musical instruments like flutes and chimes work in a similar way.

Sound affects

The Beetham Tower's song may seem quirky but it raises serious issues. One is noise pollution. Many people find the sounds disruptive, especially at night. The troublesome roof sculpture remains as it doubles as a lightning conductor. Failed attempts to stop the noise include fitting it with foam pads to reduce vibration.

Besides noise, skyscrapers pose other problems. Some are specific - like the curved glass in London's 'Walkie Talkie' tower which pointed the sun's rays towards the street, damaging parked cars. Others are commoner issues - including urban light pollution and challenges of emergency evacuation.

There are social effects too. Buildings like the Beetham Tower and the Shard are symbols of luxury. Yet other towers signify poverty and deprivation. When Britain's bomb-damaged cities were rebuilt after the Second World War, many people were rehoused in tower block estates. Communities were broken up and places fell into decline.

Some fear Britain's new skyscrapers may create similar divisions. Do such buildings illustrate wealth or a wealth gap? Demand for housing or a desperate shortage? The Beetham Tower was built for £150 million but its windy wail could be a wake-up call of greater costs.



Towers of the now-demolished red Road Estate, Glasgow / The Shard reaches the moon in London

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