LESSON 12 – LISTENING SECTION 4

TAPESCRIPT

This lecture will be about the _____, the study of sound, _____ urban environments such as cities. As an _____ myself, I think this is an area where we're likely to see great changes. In the past, researching _____ was simple. We measured levels of sound in _____, so I used to take my _____ and I measured the noise somewhere, and then I might ask _____ people to say at what level the sound became annoying.

With data like this, acoustic engineers have been able to _____ what we call _____, maps of the _____. But actually these aren't a lot of use. What they _____ is that the highest noise levels are generally _____ – well, that's not really very surprising. But there's _____ _____ that these maps don't show, because they can't _____ way that sound varies over time. So they ignored _____ such as the noise someone might hear from the open windows or gardens or their neighbours and this _____ can be quite significant in summer. We don't have any _____ this sort of information. As well as that, these _____ sounds levels _____ the fact that people vary in their _____ noise – so someone like me with years of working in acoustics might be very different from you _____.

But anyway, even though these noise maps are _____, they've been useful in providing information and _____ that noise matters, we need to deal with it and so it's a _____. And that's important – we need rules and _____ because noise can cause all sorts of problems.

Those of you who are _____ know that things go on 24 hours a day, so city-dwellers often _____ interrupted sleep. It's also known that noise can lead to _____ levels of stress, due to _____ in the body affecting the _____ the blood. And there are other problems as well, for instance if schoolchildren don't have a quiet place to study, their work _____.

Now, one problem with _____ is that it doesn't _____ _____ different types of noise. Some types of sounds that most people would probably think of as nice and relaxing _____ quite highly in decibel levels – think of the sound made by a fountain in a _____, for example. That's not _____ that we'd want to control or reduce. So maybe researchers should consider these sorts of sounds in _____. This is going to be tricky because just measuring decibel levels isn't going to help us here. Instead many researchers are using _____, studying people's _____ _____ to sound by using _____ and so on.

So what exactly do people want to hear in an _____? Some recent _____ of activity, so it needs to be lively, with sounds like the _____ high heels on a _____ or the hiss of a _____, but these mustn't be too _____ because at the same time we need to be able to relax.

One of the _____ in achieving this will be getting architects and _____ the research. Apart from studying _____ acoustics, these people receive very little training in this area. But in fact they should be regarding sound as an _____ to add to the experience of urban living, whereas at present they _____ see it as something to be avoided or reduced as far as possible or something that's just a job for engineers like the _____ _____.

What's needed is for noise in cities _____ as an _____, as something that has the qualities of an _____. If we _____ this, then we urgently need to know what _____ it and how designers can work with it. We need to develop a _____ of many factors. What is the relationship between sound and culture? What can we learn from _____ such as psychology about the way that sound _____ human development and _____, and the way that sound affects our thought and feelings? Can we learn anything from physics about the _____ itself?

Today's powerful technologies can also help us. To show us their ideas and help us to imagine the effect their buildings will have, architects and town planners already use _____ – but these programs are silent. In the future such programs could use _____, meaning that soundscape could be explored before being built. So hopefully, using the best technology we can _____, the city of the future will be a _____ the ears as well as the eyes.

VOCABULARY

Translate these following expressions into Vietnamese.

1. science of acoustics
2. an acoustic engineer
3. urban soundscapes
4. decibels
5. sound meter
6. capture the complex way
7. databases on
8. take no account of
9. in their perceptions of
10. in that regard
11. fairly crude
12. raising awareness
13. political matter
14. regulations
15. city-dwellers
16. the composition of the blood
17. decibel measurement
18. differentiate between
19. town square
20. social science techniques
21. studying people's emotional response
22. questionnaires
23. interdisciplinary research
24. the clack of high heels
25. on a pavement
26. intrusive
27. the basics of acoustics
28. the street drainage system
29. to be regarded as
30. an aesthetic quality
31. an art form
32. virtual reality (VR)
33. lay our hands on
34. a pleasure to