

Relationships among satisfaction, noise perception, and use of urban green spaces

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Nowadays, urban design without green spaces is inconceivable. Environmental, social, and economic benefits generated by green spaces are essential to maintain the health and quality of life of the population and to control pollution. Therefore, urban planners and city leaders should know the interactions between the features of green spaces, the sociodemographic characteristics of users, and the type of use. In addition, in some studies, noise was found to be an essential factor in the perception of these green spaces. For this purpose, surveys and sound measurements were carried out simultaneously in different locations of the main green spaces of Cáceres city. The results of this study show that noise satisfaction has the greatest significant relationship with overall satisfaction with green spaces. Different features, including satisfaction with the absence of noise, can explain 71.4% of the overall satisfaction. Road traffic is the most annoying sound source, but the degree of noise annoyance is lower than that estimated for other urban environments with similar sound levels. Walking and talking activities, emotions of fear and irritability, and interruptions to conversation are most often affected by noise in these urban environments. Another conclusion obtained is that the highest significant correlation coefficients are between noise perception by users and both the equivalent continuous linear weighted sound level and sharpness. Lastly, the green-space use determines differences and significant relationships with the sociodemographic characteristics. Also, the places in green spaces where people frequently perform walking and relaxation activities have the lowest sound levels. Therefore, noise is a statistically relevant factor to be considered in the design of green spaces. © 2017

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Noise annoyance

Noise effects

Noise perception

Urban green spaces

Urban planning

Acoustics

Architectural acoustics

Noise pollution

Pollution control

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Noise annoyance

Noise effects

Noise perception

Urban green spaces

Acoustic noise

greenspace

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noise

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fear

female

green space

human

irritability

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satisfaction

sound intensity

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traffic noise

urban area

walking

acoustics

environmental exposure

noise

perception

satisfaction

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Extremadura

Spain

Ceres

Acoustics

Environmental Exposure

Humans

Noise

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Personal Satisfaction