Noise of urban places varies not only with regard to its physical parameters, but also it is perceived and assessed differently because of cultural, sociological, historical and economic influences. The physical description of a soundscape does not cover the complexity of human perception in a specific environmental setting. Therefore, the task of soundscape researchers has to consider more aspects than the measurement and interpretation of the acoustical differences caused by location-specific noise sources. Moreover, semantic and cognitive aspects relating to culture, tradition and economy must be extensively analyzed. Cultural and sociological conditions influence the people’s evaluations of their surroundings. A deeper understanding is necessary to adequately analyze soundscapes, especially where specific noise phenomena - e.g. temporal and spectral effects - are of more importance to the listeners’ well-being than an averaged SPL value. The presented paper compares and analyses environmental sounds of different cities scattered all over the world by means of conventional and advanced acoustical analyses. The results could provide reliable data for further investigations covering sociological and cultural issues.