Sounds of our places

Awareness and participation for a better acoustic quality of life

The sound of the world is not what it used to be. Urbanization has transformed living spaces into crowded and congested outdoor areas, disagreeable homes, and uncomfortable workplaces. Noise is one of the main factors that influences the perception of the quality of life in urban areas and in built environments where landscapes and soundscapes are perceived as "the world around us", thus modifying their nature from objects of contemplation, essentially made of natural views and sounds, to physical spaces inhabited by observers and listeners.

In landscapes and soundscapes of our time, machines and vehicles with the sounds they generate, play a decisive and discriminating role in the scenarios of everyday life. The noise in buildings and infrastructures need to be mitigated, and quiet areas need to be created and protected. Perception is multisensory and sound components become very important elements of landscape use, landscape design, and landscape control and preservation.

In some urban outdoor areas and built environments, where the perceived surroundings of the observer are often identified as very uncomfortable, and where noise control and soundscape design represent crucial issues, new holistic approaches for preserving and increasing the quality of life, have been proposed and applied. These new approaches are focused on increasing the pleasantness of places and global satisfaction of people. They consider sustainability to reduce the planet's degradation and improve the comfort of its inhabitants. According to the global comfort theory applied to urban development, a set of variables representing smartness and pleasantness can be defined for both planning strategies and designing solutions. These represent comfort level categories in terms of acoustical comfort as well as visual, thermal, safety, energetic, cultural, social, welfare, etc. In the global comfort approach to noise control and noise mitigation, costs and benefits of single and complex actions are calculated as weighted sums that take into account social and induced costs and benefits and consider the values of different variables. This allows one to achieve the primary objective of the design with one or more free secondary pleasant added benefits. Awareness campaigns and participatory designs are significant parts of the method and are decisive in the definition and implementation of the action plan where planners of strategies and designers of solutions collect the opinions of stakeholders and users. Awareness and participation are two of the most important new keywords in urban planning and noise control: their influence should be properly evaluated in every policy regarding noise mitigation, considering also the inter-relationships among noise and other factors of global environmental comfort. Policy makers should start considering acoustics and noise control to measure smartness in cities. Public participation contributes to make better decisions: decision-makers have more complete information—in the form of additional facts, values, and perspectives obtained through public input—to bear on the decision process. They can incorporate the best information from groups of public opinion makers and from the expertise of stakeholders. Decisions become more implementable and sustainable as

they consider the real needs and the real interests of stakeholders and final users.

The European Noise Directive 2002/49/EC (END) provides indications and recommendations about communication and dissemination towards citizens of information regarding noise mapping, action planning, and quiet areas. In the smart cities approach, investments in infrastructures and communication are oriented to improve sustainable economic development and quality of life in cities, through participatory actions and stakeholder involvement. This approach is similar to the END requirement in terms of information to the public and participation. In many urban agglomerates, noise awareness campaigns have been set as integral part of the action plans: informative materials on noise and its effects have been produced and distributed with specific attention to situations where the presence of high level of exposure to both environmental and occupational noise has given to noise the entity of a true public health problem. Some ideas for original solutions have been derived from feedback to awareness campaigns.

The International Noise Awareness Day (INAD), suggested in 1996 by the U.S. Center for Hearing and Communication is celebrated every year all over the world. It addresses a series of events with special regard for young people, as the most sensitive parts of our society. In 2017, a wide awareness campaign was initiated in order to raise the interest of the European citizens towards noise and its effects on the quality of life and health, by the European Acoustics Association (EAA) in collaboration with the DG Environment of the European Commission. A programme of initiatives was promoted and coordinated by EAA during the whole year. EAA member societies, European and National authorities, acoustic societies, schools, museums, etc. were involved in the implementation of the programme. This made it possible for the public to receive the most accurate and scientifically correct information on noise effects on health and the environment. Among the many initiatives, one of the most successful has been the organization of two pan-European competitions for students of primary and secondary schools. More than 4,500 participants produced texts, drawings and recorded audio/video files related to typical noise and sounds of their localities and countries. The "Noisella in Sound Space" cartoon was produced by the EAA and distributed among young people across Europe, aiming to raise awareness about sounds and noises that characterize landscapes and define the identities and soundtracks of different places.

The sound of the world is not what it used to be. But new sounds in the urbanized world are not necessarily noise. Developers of urban noise maps and urban noise action plans, acoustical planners, and designers of actions and solutions for pleasant urban areas and buildings should make possible the listening to good sounds in their vicinities. This can be achieved by applying holistic approaches to noise mitigation and reduction of annoyance, creating new comfortable soundscapes in urban spaces, and protecting new ones.

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