

SONIC AND MUSICAL CITIZENSHIP IN CONTEMPORARY SOCIETIES

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Abstract

Music holds significant potential as a tool to address contemporary civil, social, intercultural, digital, and environmental challenges. Building on a theoretical framework that traces the historical evolution of civic rights and duties through a multi-dimensional model of citizenship, the study explores how sound management and musical practice contribute to the development of cognitive, socio-emotional, and behavioural competencies essential for critical and engaged civic participation. Employing a grounded theory methodology, based on the analysis of case studies and supranational reports, the research adopts a transdisciplinary perspective to highlight the importance of integrating participatory acoustic design and sound and music literacy into urban planning, educational processes, and public policies. This approach promotes a model of active, inclusive, and sustainable citizenship, where sound and music function as catalysts for social transformation.

Keywords: citizenship, music, sound, sustainability, contemporary society

Introduction

The growing global interconnectivity and the complexity of contemporary challenges—such as climate change, socioeconomic inequalities, and geopolitical conflicts—have led to a reconfiguration of the concept of citizenship. The United Nations has emphasized the need to promote international cooperation and intercultural understanding as fundamental pillars for sustainability and global stability, highlighting culture and social practices as key elements in the development of a citizenship committed

to social justice and human rights.¹ Within this framework, UNESCO has advanced the concept of global citizenship, understood as a model that transcends national borders and situates individuals within a network of interdependencies, involving shared responsibilities and the need for specific competencies to operate in an increasingly complex and interconnected world, both in physical and digital environments.²

From a theoretical perspective, the concept of citizenship has undergone a historical evolution, transitioning from a narrowly defined notion focused on political participation in the classical polis to a more expansive model that integrates social, economic, and cultural dimensions. The notion of social citizenship, articulated by Marshall,³ expanded the traditional framework by including fundamental rights such as education and economic security. Later, the rise of multicultural citizenship in the 20th century introduced the recognition of diversity as a central axis of civic identity.⁴ Today, the development of global citizenship responds to the need to integrate new dimensions—such as ecological awareness, transnational ethics, and global cooperation—which reflect the interdependence of societies, and the shared challenges faced at the global level. This transformation has been accelerated by digitalization and the proliferation of new technologies, which have reshaped the ways in which civic rights and responsibilities are exercised, enabling novel forms of participation, education, and activism within digital spaces.⁵

In this context, global citizenship is not limited to legal or political dimensions but encompasses cognitive, socio-emotional, and behavioural competencies that enable individuals to interact critically and reflectively in diverse settings.⁶ The cognitive dimension relates to knowledge of global structures, international systems, and the interdependence of social

¹ ORGANIZZAZIONE DELLE NAZIONI UNITE, *Trasformare il nostro mondo: l'Agenda 2030 per lo sviluppo sostenibile*, Nazioni Unite, New York 2015, pp. 5 ss.

² UNESCO, *Global Citizenship Education: Preparing Learners for the Challenges of the Twenty-first Century*, UNESCO, Paris 2014, pp. 12-18.

³ T.H. Marshall, *Citizenship and Social Class*, Cambridge University Press, Cambridge 1950, pp. 10 ss.

⁴ W. Kymlicka, *Multicultural Citizenship: A Liberal Theory of Minority Rights*, Oxford University Press, Oxford 1995, pp. 1-5.

⁵ UNESCO, *Education for Sustainable Development Goals: Learning Objectives*, UNESCO, Paris 2017, pp. 7 ss.

⁶ F. Reimers, *Empowering Students to Improve the World in Sixty Lessons: Version 1.0*, CreateSpace Independent Publishing Platform, Boston 2017, pp. 15 ss.

phenomena; the socio-emotional dimension involves empathy, awareness of diversity, and respect for human rights; while the behavioural dimension refers to the capacity for active participation and commitment to sustainability, equity, and conflict resolution.⁷ Moreover, in the digital age, these dimensions extend into virtual environments, where social networks, educational platforms, and global communication tools have enhanced new forms of civic interaction, facilitating access to knowledge and enabling real-time coordination of social change movements.⁸

Within this framework, music emerges as an effective tool for the development of competencies associated with global citizenship. As a socio-cultural phenomenon, it serves as a transnational means of communication that transcends linguistic barriers and facilitates intercultural dialogue.⁹ Its impact extends beyond the aesthetic domain, influencing the cognitive dimension through the exploration of diverse musical traditions, the socio-emotional dimension through collective experience and identity expression, and the behavioural dimension through its connection to processes of social transformation and activism.¹⁰

Closely linked to these processes, the development of the digital environment has granted music renewed centrality in the construction of global networks of cooperation, enabling the immediate dissemination of cultural and political messages through streaming platforms, social media, and collaborative online spaces. The digitalization of music has not only broadened access to cultural expressions from various regions of the world but has also fostered the emergence of a transnational artistic space that reinforces a sense of interconnectedness and global belonging. In this context, the digital sphere does not merely amplify the reach of music; it transforms it into an interactive and participatory resource for civic engagement, cultural exchange, and the collective construction of inclusive and sustainable futures.¹¹

⁷ UNESCO, *Global Citizenship Education: Topics and Learning Objectives*, UNESCO, Paris 2015.

⁸ H. Rheingold, *Smart Mobs: The Next Social Revolution*, Perseus, Cambridge MA 2002, pp. 109-124.

⁹ C. SMALL, *Musicking: The Meanings of Performing and Listening*, Wesleyan University Press, Middletown 1998, pp. 9 ss.

¹⁰ L. HIGGINS, *Community Music: In Theory and in Practice*, Oxford University Press, Oxford 2012, pp. 45-63.

¹¹ M. CASTELLS, *Communication Power*, Oxford University Press, Oxford 2009, pp. 387 ss.

1. *Multidimensional citizenship*

In response to the need for a model of multidimensional citizenship that aligns with the dynamics of an ever-evolving world, this approach—structured around five interrelated dimensions and developed to foster a global culture in educational contexts—has been adopted.¹² This model is grounded in an evolutionary perspective, examining the historical progression of rights and responsibilities as they have been shaped and expanded over time.

Table 1. - *Dimensions of Global Citizenship*

Dimensions of Citizenship	Responsible civil citizenship
	Social and equity-based citizenship
	Intercultural citizenship
	Digital citizenship
	Sustainable citizenship

Source: Own elaboration based on Navarro Lalanda, 2022

First, we refer to responsible civil citizenship, which emerges from the recognition and exercise of fundamental individual rights and duties within society. This dimension evolves into social and equity-based citizenship, which ensures access to and protection of essential rights in areas such as health, education, employment, housing, and leisure. The third level of development corresponds to intercultural citizenship, which emphasizes interaction and recognition of others in multicultural contexts, promoting coexistence in diverse societies. In recent decades, this interaction has acquired a new dimension through the development of Information and Communication Technologies (ICTs), giving rise to digital citizenship, which expands spaces for participation and redefines access to knowledge, communication, and global activism. Finally, in response to the emerging challenges of contemporary society, the international community adopted the 2030 Agenda for

¹² S. NAVARRO LALANDA, *Educando ciudadanos del mundo. Estudio comparado de la formación, prácticas y percepciones en España e Italia para la construcción de un modelo en educación global*, PhD thesis, Universidad Autónoma de Madrid, Madrid 2022.

Sustainable Development in 2015, with the aim of promoting an inclusive development model that is environmentally respectful and balanced both economically and socially. This perspective is integrated into the proposed model through sustainable citizenship, which acknowledges the interdependence of human actions and their global impact, fostering collective responsibility in the construction of a more equitable and sustainable future.

These dimensions not only support adaptation to contemporary challenges but also enhance citizens’ capacity to act ethically, critically, and responsibly within their communities and on a global scale. In this sense, the model seeks to promote, through education, a form of citizenship that is responsible on a personal, social, and environmental level—across both physical and digital environments.

Table 2. - Dimensions of Global Citizenship and Education

Responsible Civil Citizenship	
• Education in rights, duties, and freedoms	
Citizenship of Well-being, Social Justice, and Equity	
• Education for health, well-being, equality, and social justice	
Intercultural Citizenship	
• Intercultural education and culture of peace	
Digital, Critical, and Participatory Citizenship	
• Digital citizenship education and critical literacy	
Sustainable Citizenship	
• Environmental education and sustainable development	

Source: Own elaboration based on Navarro Lalanda, 2022

As a result, responsible civil citizens form the foundation of this model, ensuring the full exercise of fundamental rights, duties, and freedoms across all spheres of social life. This level of citizenship is expressed through democratic participation, respect for the legal framework, and commitment to the common good.

Building upon this foundation, citizens who advocate for social justice and equity promote a model of well-being that is both personal and col-

lective. Their actions are oriented toward the fair redistribution of wealth and equitable access to fundamental social rights, with the aim of fostering a more inclusive and cohesive society.

In the realm of cultural diversity, intercultural citizens play a key role in promoting dialogue and interaction with others, cultivating sensitivity and respect for differences. This form of citizenship is essential for fostering a global culture of peace, as the recognition and appreciation of diversity are fundamental to harmonious coexistence.

With the advancement of technology and the digitalization of everyday life, critical digital citizens emerge—those who use digital information and communication platforms in an ethical, reflective, and responsible manner. This form of citizenship involves the capacity to critically evaluate information, interpret global transformations, and actively participate in decision-making through digital environments.

Finally, world citizens committed to sustainability represent the ecological and ethical evolution of global citizenship. These individuals are aware of their role within the community and the world, understanding the interdependence of their actions in relation to the environment, social justice, and global and economic well-being. Their commitment is focused on making responsible decisions based on principles of sustainability and intergenerational equity.

2. *Music as a Catalyst for the Development of Citizenship Dimensions*

The concept of global citizenship has evolved in recent decades as a response to the growing interdependence among societies, the globalization of human rights, and the need to promote values such as cooperation, sustainability, and social justice.¹³ In this context, music has emerged as a powerful tool for fostering key competencies of global citizenship, directly contributing to the development of the five dimensions outlined in the previous section. These dimensions not only embody an ethical and participatory vision of citizenship but also highlight the transformative role of music in shaping values, constructing identities, and enabling collective action.¹⁴

¹³ F. REIMERS, *op. cit.*, pp. 19 ss.

¹⁴ L. HIGGINS, *op. cit.*, pp. 52 ss.

In the following sections, we will explore the different dimensions of citizenship, considering the key aspects related to sonic and musical citizenship, as well as the opportunities that education can offer in each of these areas.¹⁵

2.1 Sound, Music, and the Construction of Responsible Civil Citizenship

Civil citizenship involves the conscious exercise of rights and duties within the community, promoting democratic participation and a commitment to social justice.¹⁶ From this perspective, the construction of responsible civil citizenship requires not only knowledge of legal and institutional frameworks, but also the development of an ethical and social awareness oriented toward justice, equity, and solidarity.

Within this framework, sound acquires a fundamental civic dimension in everyday life, particularly in densely populated urban environments. The tension between the freedom of sonic expression and the right to rest highlights how citizenship is constantly negotiated in relation to the soundscape, the use of space, and shared time. Sound management—understood as the set of practices, regulations, and behaviours related to the production, control, and coexistence with sound in public and private spaces—is closely linked to civil citizenship, as it articulates individual rights with collective responsibilities. This management calls for awareness of the impact of the acoustic environment on health, coexistence, and urban equity, making sound a key element in contemporary civic experience.

Alongside this, music emerges as a specific form of sonic expression with strong symbolic, identity-building, and transformative potential. Throughout contemporary history, music has played a prominent role in social mobilization and in the construction of critical subjectivities. Iconic examples such as

¹⁵ S. NAVARRO LALANDA, Competences in Global Citizenship Education: From the Indications of the Italian National Curriculum to the Initial Teacher Training of Pre-school and Primary Education, in *Proceedings of the 2nd International Conference of the Journal Scuola Democratica Reinventing education, Volume I. Citizenship, Work and The Global Age*, vol. I, Associazione “Per Scuola Democratica”, 2021, pp. 549-563; S. NAVARRO LALANDA, Creatividad y educación para el desarrollo y ciudadanía global en los currículos españoles de educación obligatoria, in «Creatividad y sociedad: revista de la Asociación para la Creatividad», n. 34, 2021, pp. 81-110; S. NAVARRO LALANDA, *Global Competencies and Music Education: Contributions to an Integral Learning Development*, in *Conference Proceedings CIVAE 2025: 7th Interdisciplinary and Virtual Conference on Arts in Education*, MusicoGuía, 2025, pp. 16-21.

¹⁶ T.H. MARSHALL, *op. cit.*, pp. 10 ss.

We Shall Overcome, adopted as an anthem by the U.S. civil rights movement, or *Give Peace a Chance*, by John Lennon, which became a transnational symbol of pacifism during the Vietnam War, illustrate how music can convey demands for social change and strengthen civic awareness.¹⁷ Beyond its aesthetic dimension, music articulates collective emotions, identity narratives, and forms of symbolic resistance. It can be a powerful tool to foster community cohesion and expression, although it may also generate tensions when it emerges in shared spaces without consensus.

From an educational standpoint, both sound and music offer valuable opportunities for the development of critical and participatory civil citizenship. Various studies have highlighted that reflecting on the urban soundscape can promote respect for the diversity of spatial uses and foster democratic consensus in the face of sound-related conflicts. At the same time, musical practice in collective contexts fosters critical thinking, social sensitivity, and democratic deliberation. Participating in musical experiences, both formal and informal, allows individuals to explore social issues, express themselves individually in dialogue with others, and reflect on values such as justice, equality, and peaceful coexistence.¹⁸

Ultimately, an educational approach to sound and music not only enriches the aesthetic or technical experience but also contributes to the formation of a mature civil citizenship, aware of the boundaries between the private and the public, between individual rights and collective well-being. In this sense, the sonic environment and musical creation become pedagogical and political tools for promoting democratic, inclusive, and solidaristic coexistence.

2.2 Sound and Musical Practices in the Promotion of Social Justice and Community Well-being

Inadequate sound management, such as continuous exposure to urban noise, can seriously impact physical and mental health, raising significant concerns in terms of social justice and environmental well-being. The World Health Organization guidelines on environmental noise emphasize

¹⁷ R. EYERMAN - A. JAMISON, *Music and Social Movements: Mobilizing Traditions in the Twentieth Century*, Cambridge University Press, Cambridge 1998, pp. 41-63; J. LENNON, *Give Peace a Chance* [canzone], Apple Records, London 1969.

¹⁸ J. O'FLYNN, *Music education and social capital: An exploration*, in *Sociology and Music Education*, a cura di R. Wright, Routledge, London 2010, pp. 17-38.

that long-term exposure leading to annoyance and sleep disturbance are critical public health indicators.¹⁹ According to the WHO, health is not merely defined as the absence of disease, but as a complete state of physical, mental, and social well-being.²⁰ In this regard, the absence of noise-related disturbances—both during the day and at night—is essential for ensuring quality of life and the protection of human health.

Daytime disturbances, such as the interruption of everyday activities, reduced concentration capacity, or chronic stress, produce harmful effects that add to those associated with insufficient rest. These annoyances have also been linked to cardiovascular and metabolic disorders.²¹ Data collected by the European Environment Agency,²² summarized in the table below, reflect the impact of noise pollution on public health across Europe, with over 12,000 premature deaths annually and millions of people affected by high levels of annoyance or sleep disruption.

Table 3. - *Impact of Environmental Noise on Health in Europe*

Indicator	Affected individuals (approx.)
Premature deaths	12,100 annually
New cases of ischemic heart disease	48,000 annually
People experiencing high chronic annoyance (daytime)	21,868,500
People experiencing high sleep disturbance (nighttime)	6,476,600
Children with learning difficulties due to aircraft noise	12,400

Source: *Own elaboration based on EEA Report, 2020: 51.*

¹⁹ WORLD HEALTH ORGANIZATION, *Environmental Noise Guidelines for the European Region*, WHO Regional Office for Europe, Copenhagen 2018, pp. 14 ss.

²⁰ WORLD HEALTH ORGANIZATION (International Health Conference), *Constitution of the World Health Organization*, WHO, New York 2002 (adopted 22 July 1946, entered into force 7 April 1948), art. 1.

²¹ C. ERIKSSON, G. PERSHAGEN & M. NILSSON, Biological mechanisms related to cardiovascular and metabolic effects by environmental noise, in *Noise and Health*, vol. XX, 2018, pp. 123-129.

²² EUROPEAN ENVIRONMENT AGENCY, *Environmental noise in Europe – 2020*, EEA Report No. 22/2019, Publications Office of the European Union, Luxembourg 2020, pp. 51 ss.

Legislation and public policy play a fundamental role in the regulation of urban noise. Directive 2002/49/EC of the European Parliament and of the Council establishes a common framework for assessing and managing environmental noise levels in the Member States of the European Union. It mandates the creation of noise maps and specific action plans aimed at reducing exposure in critical areas. The WHO guidelines (Table 4) provide differentiated reference values for road, rail, air, and recreational noise, setting thresholds that should not be exceeded to prevent health risks. Reducing exposure is particularly critical in vulnerable environments such as hospitals, schools, and residential areas.

Table 4. - WHO Guidelines on Environmental Noise

Noise source	Guideline value (Lden*)	Night value (Lnight**)
Road traffic	53 dB	45 dB
Railway traffic	54 dB	44 dB
Aircraft noise	45 dB	40 dB
Wind turbine noise	45 dB	—
Recreational noise	70 dB (peak level)	—

Source: Own elaboration based on WHO (2018). Note: Lden*: Day-evening-night average sound level. Lnight**: Average sound level during the night.

In this context, sound is not merely a technical or public health issue—it is also a civic matter. The way individuals produce and experience sound in shared spaces reflects relationships of power, coexistence, and responsibility. This became especially evident during the COVID-19 pandemic, when music played from balconies, terraces, or windows became a symbolically charged act aimed at reinforcing neighbourhood solidarity in the face of isolation.²³ However, in everyday situations, these same practices may be perceived as intrusive or disruptive, prompting regulatory interventions intended to balance personal enjoyment with collective well-being.

From this perspective, there is a growing need to develop a notion of acoustic citizenship (Labelle, 2010),²⁴ understood as the capacity of indi-

²³ P. ALVAREZ-CUEVA, *Music to face the lockdown: An analysis of Covid 19 music narratives on individual and social well-being*, in «Social Inclusion», 10(2), 2022, pp. 6-18.

²⁴ B. LABELLE, *Acoustic Territories: Sound Culture and Everyday Life*, Continuum, London–New York 2010, pp. 18 ss.

viduals to engage in and regulate their sonic practices with social responsibility. This approach promotes respect for the shared auditory environment, encourages active listening, and supports conscious participation in shaping the urban soundscape. Within this framework, acoustic literacy seeks to raise public awareness of the effects of sound and noise on health, social life, and overall well-being.

In parallel, music has proven to be an effective tool for promoting social justice and enhancing community well-being. Programs such as *El Sistema* in Venezuela have demonstrated the potential of music education to reduce poverty, foster inclusion, and provide young people in vulnerable situations with tools for personal and collective development.²⁵ Initiatives like *Musicians Without Borders* have used music as a means of healing and social cohesion in communities affected by conflict, facilitating resilience and emotional reconstruction.²⁶

These cases illustrate how music education not only strengthens creativity and personal expression but also acts as a mechanism for social transformation, building connections, rebuilding community networks, and creating spaces for dialogue. As a result, both sound and music—viewed from a critical educational perspective—offer valuable opportunities for fostering a form of citizenship committed to environmental care, equity, and democratic life.

2.3 Interculturality, Sound, and Music: A Bridge for Global Dialogue

Intercultural citizenship entails the recognition, appreciation, and respect for cultural diversity, promoting an attitude of openness toward other identities and traditions in an increasingly plural global context.²⁷ This conception requires policies, practices, and perspectives that are sensitive to cultural plurality, including in relation to the sound environment and the collective uses of public space.

In contemporary urban contexts, the soundscape reflects and expresses the cultural diversity of those who inhabit the city. Public music, cultural

²⁵ T. TUNSTALL, *Changing Lives: Gustavo Dudamel, El Sistema, and the Transformative Power of Music*, W. W. Norton, New York 2012, pp. 45 ss.

²⁶ M. PAVLICEVIC - G. ANSDELL (Ed.), *Community Music Therapy*, Jessica Kingsley Publishers, London 2004, pp. 79 ss.

²⁷ J.A. BANKS (Ed.), *Diversity and Citizenship Education: Global Perspectives*, Jossey-Bass, San Francisco 2008, pp. 11 ss.

celebrations, marketplaces, religious practices, and artistic sound expressions shape a dynamic and multicultural acoustic environment. Managing this soundscape without excluding minority expressions requires an intercultural perspective—one that values diversity without imposing uniformity in the sound.

From a more strategic perspective, the soundscape also has the potential to differentiate a city in terms of branding and global competitiveness. Cities that effectively manage their sonic identities can strengthen their position in the global economy by creating a unique brand that attracts both visitors and residents.²⁸ Initiatives such as the creation of “sound zones,” where natural sounds are preserved or amplified, or the implementation of creative sound policies in culturally distinctive neighbourhoods, can contribute to making a city stand out by reinforcing its uniqueness and appeal.

Within this same framework, music emerges as a privileged tool for intercultural encounter. As a symbolic and affective language, music facilitates dialogue between communities, fostering mutual understanding, recognition of otherness, and intercultural learning.²⁹ A prominent example is the *West-Eastern Divan Orchestra*, founded by Daniel Barenboim and Edward Said, which brings together Israeli and Palestinian musicians in an artistic project that seeks reconciliation and mutual respect through collective creation.³⁰

In the field of education, the inclusion of musical repertoires from various cultures in curricula enables students to develop a deeper awareness of the richness of sound traditions, their connection to collective identity, and their potential to generate forms of plural coexistence. This practice not only enriches the artistic experience but also strengthens essential intercultural competencies in socially diverse contexts.

Together, urban sound and music represent key dimensions in the development of active intercultural citizenship, capable of embracing difference, promoting mutual respect, and building bridges of dialogue in a global and interconnected world.

²⁸ G. BLOUSTIEN, M. PETERS & S. LUCKMAN (a cura di), *Sonic synergies: Music, technology, community, identity*, Routledge, 2017.

²⁹ H. SCHIPPERS, *Facing the Music: Shaping Music Education from a Global Perspective*, Oxford University Press, Oxford-New York 2010, pp. 63 ss.

³⁰ D. BARENBOIM–E. SAID, *Parallels and Paradoxes: Explorations in Music and Society*, Pantheon Books, New York 2002, pp. 86 ss.

2.4 Critical Digital Citizenship in the Technological Era: Between Urban Sound and Global Music

Technological transformations are currently reshaping both the acoustic experience of cities and the ways in which cultural participation is enacted. In urban contexts, numerous initiatives have incorporated innovative technologies to address the challenges associated with noise pollution and quality of life. Across Europe, several cities have begun using real-time acoustic sensors to monitor noise levels and tailor sound policies to the specific social dynamics of each territory. This system enables the creation of detailed acoustic maps that identify critical areas and inform targeted interventions.

A complementary strategy is acoustic modelling, which simulates sound propagation in various urban environments. Through tools such as CADNA or Sound PLAN, planners can anticipate the effects of noise and evaluate the effectiveness of mitigation measures such as acoustic barriers or infrastructure redesign.³¹ The use of innovative acoustic materials, such as sound-absorbing panels and noise-insulating solutions, is also contributing to the enhancement of the sonic environment in buildings, parks, and public spaces.³²

Urban noise control further involves structural interventions. Acoustic zoning, which allocates human activities according to their sonic impact, is an effective measure to protect sensitive residential areas. Additionally, the promotion of public transportation, the adoption of electric vehicles, and the use of sound-absorbing pavements significantly reduce traffic-related noise pollution.³³

Within this framework, some cities have developed tranquillity zones, such as the “quiet areas” in London’s urban parks, which aim to provide

³¹ A.M. PETROVICI, J. L. CUETO, R. GEY, F. NEDEFF, R. HERNANDEZ, C. TOMOZEI & E. MOSNEGUTU, *Optimization of Some Alternatives to Noise Barriers as Noise Mitigation Measures on Major Roads in Europe. Case Study of a Highway in Spain*, in «Environmental Engineering & Management Journal» (EEMJ), 15(7), 2016, pp. 1617-1628.

³² M. PEDROSO, J. DE BRITO & J. D. SILVESTRE, *Characterization of eco-efficient acoustic insulation materials (traditional and innovative)*, in «Construction and Building Materials», 140, 2017, pp. 221-228.

³³ L. F. OW - S. GHOSH, *Urban cities and road traffic noise: Reduction through vegetation*, in «Applied Acoustics», 120, 2017, pp. 15-20.

peaceful spaces amid metropolitan noise.³⁴ Similarly, policies such as traffic restrictions in historic centres, implemented in cities like Amsterdam, have proven effective both in enhancing quality of life and in managing the urban soundscape responsibly.³⁵ Building on these efforts to rethink the urban acoustic environment, the integration of natural sounds and ambient music into public spaces—whether through algorithms or curated recordings—represents an emerging dimension of urban acoustic design. These practices, aligned with the concept of the *smart city*, seek to enrich citizens' everyday experiences by balancing the functional demands of the city with the sonic well-being of its inhabitants.

In parallel, digital technologies are redefining the ways in which music is accessed, produced, and disseminated, creating a new environment for cultural participation and the exercise of critical digital citizenship. Digitalization has transformed musical experience by expanding access to global repertoires, facilitating collaborative creation, and empowering identity expression.³⁶ Initiatives such as *Playing for Change* exemplify how technological platforms can connect artists from different countries to promote values of cooperation, justice, and cultural diversity.³⁷

However, this expansion of access also entails new challenges. Overexposure to musical content demands media literacy, as well as the development of critical thinking to discern authenticity, implicit discourses, and the sociocultural impact of digital messages.³⁸ In this regard, music education in digital environments should not be limited to technical dimensions; rather, it should aim to form ethically aware citizens capable of using technology to foster positive societal transformations.³⁹

³⁴ DEFRA, *Noise Action Plan: Agglomerations*, Department for Environment, Food and Rural Affairs, London 2019.

³⁵ J. GEHL, *Cities for People*, Island Press, Washington D.C. 2010, pp. 112 ss.

³⁶ M. CASTELLS, *Communication Power*, Oxford University Press, Oxford–New York 2009, pp. 54 ss.

³⁷ PLAYING FOR CHANGE FOUNDATION, available at <<https://www.playingforchange.com/>> (accessed April 8, 2025).

³⁸ H. JENKINS - S. FORD & J. GREEN, *Spreadable Media: Creating Value and Meaning in a Networked Culture*, New York University Press, New York–London 2013, pp. 123 ss.

³⁹ UNESCO, *Global Citizenship Education*, cit., pp. 34 ss.

2.5 Sustainability and Ecological Awareness through Sound and Music

Sustainable development constitutes a fundamental pillar of global citizenship, emphasizing the need to adopt responsible practices that reduce environmental impact and promote intergenerational equity.⁴⁰ Within this framework, both sound and music acquire particular relevance as mediums for rethinking the relationship between human beings and their environment.

From an urban design perspective, numerous studies have demonstrated that the integration of natural sounds into cities not only improves environmental quality but also has a positive effect on public well-being. R. Murray Schafer advocated for the creation of “soundscapes” in which environmental sounds – such as wind, water, or birdsong – could coexist harmoniously with human activities.⁴¹ In this line, Wang et al. point out that trees and vegetation not only act as natural sound barriers but also enrich the urban soundscape by introducing pleasant and ecologically meaningful auditory elements.⁴²

Spaces such as parks, gardens, and urban forests function as natural acoustic buffers, reducing noise pollution and offering environments of tranquillity. Studies such as that by Radicchi et al. have shown that acoustic biodiversity – the simultaneous presence of diverse natural sounds – is associated with greater perceptions of well-being and relaxation among urban residents. In addition to their acoustic benefits, these green spaces enhance biodiversity and promote physical and emotional health by offering sonic refuges from urban noise.⁴³

In parallel, music has proven to be an effective instrument for raising ecological awareness. Over the past decades, various artists and movements have used music as a medium for drawing attention to environmental issues and encouraging concrete action. A pioneering example was the *Concert for Bangladesh* (1971), organized by George Harrison and Ravi Shankar,

⁴⁰ UNESCO, *Education for Sustainable Development Goals*, cit., pp. 7 ss.

⁴¹ R.M. SCHAFER, *The Soundscape: Our Sonic Environment and the Tuning of the World*, Destiny Books, Rochester 1977, pp. 25 ss.

⁴² J. WANG, Z. WANG, C. LI, Z. YAO, S. CUI, Q. HUANG, Y. LIU, & T. WANG, An exploratory framework for mapping, mechanism, and management of urban soundscape quality: From quietness to naturalness, in «Environment International», 187, 2024, pp. 1-14.

⁴³ A. RADICCHI, P. CEVIKAYAK YELMI, A. CHUNG, P. JORDAN, S. STEWART, A. TSALIGOPoulos, L. MCCUNN & M. GRANT, *Sound and the healthy city*, in «Cities & Health», 5(1-2), 2021, pp. 1-13

which combined humanitarian aid with the publicization of ecological and social crises.⁴⁴ More recently, works such as *Become Ocean* by John Luther Adams explore the climate crisis through sound, inviting reflection on planetary fragility by evoking the vastness of marine ecosystems.⁴⁵

In addition, many festivals have begun incorporating sustainable practices into their organizational structures – from the use of renewable energy sources to waste reduction and the promotion of green mobility – thus linking musical creation to values of ecological responsibility. These initiatives contribute to rethinking both artistic production methods and cultural consumption habits, articulating art with environmental commitment.

Taken together, urban sound design, the integration of natural sounds, and environmentally engaged music creation offer complementary paths for fostering critical ecological awareness. In a global context marked by the climate emergency, soundscapes and music emerge as powerful tools for reimagining the relationships between humanity, nature, and sustainability.

Final Reflections and Future Challenges

Sound and music are increasingly recognized as fundamental tools for the development of a global citizenship committed to civil participation, social justice, intercultural understanding, digital transformation, and sustainability. From this perspective, the urban sound environment should not be understood merely as a collection of auditory stimuli, but rather as an active civic dimension that reflects relations of power, coexistence, and belonging. Conscious management of the soundscape not only enhances the environmental quality of cities but also strengthens social bonds and a shared sense of community.

Despite growing recognition of the role of sound and music in fostering critical global citizenship, several pressing challenges remain, requiring an interdisciplinary response. First, in the civil domain, there is a need to reinforce regulatory frameworks and participatory mechanisms that allow citizens to actively influence the management of the urban acoustic environment. This involves democratizing decisions regarding the use of

⁴⁴ G. HARRISON, *I Me Mine*, Simon & Schuster, New York 1971, pp. 133-136.

⁴⁵ J.L. ADAMS, *Become Ocean* [Score], Boosey & Hawkes, New York 2013.

acoustic space, ensuring equitable access to healthy sonic environments, and promoting co-design processes for soundscapes.

In terms of social justice, a key challenge lies in addressing acoustic inequalities that disproportionately affect vulnerable populations. Prolonged exposure to noise in neighbourhoods with limited green infrastructure, high traffic density, or poor acoustic planning constitutes a form of environmental injustice. These issues must be tackled through redistributive policies, targeted acoustic interventions, and educational strategies that recognize sound as a civic right.

From an intercultural perspective, it is urgent to systematically integrate sonic and musical diversity into cultural and urban policies. The marginalization of certain acoustic expressions—particularly those associated with ethnic minorities or migrant communities—undermines the potential of the soundscape as a space for encounter. Fostering intercultural citizenship requires making diverse sonic practices visible, legitimate, and protected in public spaces.

In the digital sphere, the challenge is twofold: on the one hand, ensuring inclusive access to technological resources for the creation and dissemination of music; on the other, cultivating critical competencies that enable citizens to engage ethically and reflectively with digital environments. Digital and sonic literacy should encompass the ability to interpret musical narratives and their sociocultural implications, as well as the development of responsible practices for online music production and consumption.

Finally, within the sustainability dimension, there is a pressing need to advance comprehensive policies for acoustic sustainability. This includes promoting research into sound-absorbing materials, green technologies applied to sound design, and low-impact models of music production. Greater coordination among the education, urban planning, technology, and cultural sectors is essential for creating resilient sound environments that promote collective well-being.

In conclusion, the challenges of the future demand a cross-cutting approach that places sound and music at the centre of educational, cultural, and urban agendas, recognizing their potential to transform not only aesthetic experiences, but also social structures, community relations, and the conditions of life in an increasingly interdependent world.