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Sonic Art: Exploring the Relationship between Sound and Visual Arts

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ABSTRACT

This paper investigates the intersection of sound and visual arts within the domain of sonic arts, highlighting contemporary practices that illustrate these relationships. Through a survey of recent artistic works, this study showcases various approaches, technical solutions, and outcomes that underscore the importance of exploring the confluence of sound and visual arts. Emphasis is placed on the properties and behaviors of sound, light, and audiovisual systems to generate meaning, potentially identifying a new genre referred to as the "audiovisual turning" of the arts. The discussion spans historical contexts, theoretical frameworks, and current practices, emphasizing the role of digital technologies and synesthesia in shaping modern sonic art.

Keywords: Sonic art, Visual arts, Audiovisual systems, Synesthesia, Digital technologies.

INTRODUCTION

This work discusses the creative practices that belong to the field of sonic arts and are interested in investigating a particular set of sound and visual arts relationships. It presents the results of a brief survey on recent artistic practices that exemplify these relationships, providing an overview of different kinds of artistic works that, in recent years, have shown the relevance of investigating this territory from a current perspective. The analysis highlights the different approaches of the artists, the variety of the technical solutions adopted, and the various outcomes formulated. In conclusion, this paper reflects on the specific question of how the properties and behaviors of sound, light, and audiovisual systems can be used to generate meanings, going deeper into the question and considering the possibility of identifying a new genre, the "audiovisual turning" of the arts [1, 2]. The term sonic arts refer to a set of interdisciplinary practices located at the crossroads of the instances of new technologies and the expressive potential of sound. It expresses a particular line of listening, the result of an acquired awareness of the whole sound phenomenon, sound attitudes, and a personal idea of sound in relation to different fields of practice. Since the seventies, sonic arts have been mainly associated with musical practices that open up to intermedia experimentation, that is practices of contamination with other languages able to experiment with the innovative potential of technology and its use for different realization purposes [3].

DEFINITION OF SONIC ART

Considering differences of experience in visual arts and the exploration of perceptions concerned with sound, it would be seen that different methods of investigation first seek the definition of terms. In the case of visual arts, although the term "Diccionario de la lengua española" offers around two hundred concepts, it can usually be considered that throughout the history of humanity, the visual arts are, in some way, the result of the activity of painting, drawing, sculpting, sculpture, engraving or any other which displays peculiar characteristics resulting from the experimentation and/or imagination of the human being, in order to satisfy the need to communicate ideas, emotions or sensations [4, 5]. For what concerns exploring the sonic senses, tackled by the sonic art – an activity in full expansion at the present time – it is important to undertake an intense and clear definition of these categories concerning their perception, considering different levels and intervals of variation. This area of knowledge is usually divided into Music, with an object of study associated with sound arranged in a temporal organization

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where the result concerns an aesthetic reception, and Science, which focuses more especially on ultrasound applications and experimental improvement of extended hearing. The term "sound art" encompasses a wide and diverse range of practices in music and sound that diverge from conventional aesthetics, being characterized by a creative process whose final result has some characteristic other than melody and harmony of music. The main distinction lies in the fact that music is understood as a time-form organization that offers a different result from permanent plastic arts [6].

HISTORICAL CONTEXT

Although sound and visual arts have long been closely connected at the practical level, general trends in Western arts often led to different conceptual, critical, and institutional concerns, creating a need to justify and clarify sonic art's place. Since the start of the 20th century, sonic arts have interrelated with the fine arts at a growing number of points. Art music, in the broad sense, has shared various aesthetic norms with visual arts. Sound has been used by visual artists in Dada works and Futurist intonarumori, surrealist pieces, Bauhaus experimental and animation movies, kinetic art, performance art, or recently, digital art, as well as in environments. Furthermore, music notation has helped to transcribe or convey some features of pictorial artworks with musical or phonetic codes. Since the early 1950s, it has been given more independence in the so-called "acousmatic" field. Additionally, one must not overlook recent and not-so-recent musical forms such as Musical Theater, nowadays often combined with light effects or treated as "performer's musical art." Finally, we can refer to sonically-inspired works [7, 8]. Sound has been specifically considered in theoretical contexts of artistic research, especially since the 16th century. Humanist treatises have often been organized collaterally with the oldest music theories and included the notion of "sound knowledge tree" as a component of "ars inventionis" with the aim of treating sound, under the perspective of concept, discourse, or practice. This model has had lasting effects and variations through a large amount of technical treatises, including visual art treatises, the sons or daughters of a perfect characterization demonstrating a common artistic origin. Besides this, an acoustical and musical "mimetic turn," coupled with the rediscovered Pythagorean thematic, can be observed. Furthermore, some experimental research and artistic multi-activity could be of special interest because they anticipated, in a way, late post-modern curiosities. With the second part of the 20th-century avant-garde came the necessity of sound and visual arts to take note of sonorous and musical phenomena in their own individual domains, starting an actual study of the audible and a vital "sound world." Other authors specifically dealing with text/sound have tried to identify some aesthetic benchmarks in order to create an autonomous discipline with its own identity relying on phonic matter [9].

EARLY EXAMPLES OF SOUND AND VISUAL ART INTEGRATION

Even though this interdisciplinary relationship is now commonly associated with modern media arts, examples of sound and visual art integration can be found in many distinct periods, including examples in sacred art from the prehistoric era, the Middle Ages, and the Renaissance, and in the use of musical instruments as visual art objects. The relationship between sound and visual art is rooted in a shared historical and cultural understanding of the origins of these two forms of artistic expression. Both are understood to share a common historical and philosophical origin, mainly because both contribute to human development in a collective and tribal dimension. Recent archaeological findings at prehistoric sites, such as those at Chauvet and Altamira, have discovered prehistoric examples of site-specific cave paintings that are found where resonating chambers amplify sound effects [10, 11]. At that time, music was as much a part of the Painted Caves visual experience. The archaeological evidence could reinforce, then, academic findings. These sites present the evidence that artistic expression integrated both sound and visual perception. This integration can now be experienced in virtual reproduction. Another important fact is related to the geographical and temporal proximity between these two forms of human expression which, although using different techniques and symbols, establish links with the same fundamental inherent concerns [12].

THEORETICAL FRAMEWORKS

This question of perspective grounds the conceptualization of space-time in Einstein's relativity theory and, by extension, in the special reconstruction of the world in early-twentieth-century art. Just as a picture's fragmented, overlapping perspective suggests the re-orientation of the world from an absolute to a relative point of view, employing a relational or processual framework replaces a static positioning between the theorist and object of study, prompting a rejection of the quest for origins. In the case of sonic art, addressing sound's relational and processual nature obviates the necessity of 'finding' originative compositions or encounters with sound. As we experience space as the shape of our lived bodies, so we hear relationships that realize a field of sound [13, 14].

SYNESTHESIA IN SONIC ART

By instinct, we interpret sound in terms of the visual. We can imagine pitch, volume, direction as being translated into visual terms. Sound is also frequently used in terms of visual appearance. For example, we describe a wrestler punching another wrestler as "hitting" him when in fact the adjectives "slapping" or "slamming" would be more appropriate. Musical notes are borrowed to describe the different shades of colors or flavors of tastes. At one level, we can express one of our senses in terms of the other. In a synesthetic experience, our perception of sound becomes closely linked to an optical impression. Many terms in the English language support this dual interpretation. From phrases like "sound and vision" and "rhythm in art" to "color of sound," it demonstrates an intense dialogue between these two disciplines. Synesthesia creates a sense of an expanded space where art or sense flows between different disciplines. Each of the senses merges with consciousness, connecting with feelings and emotions. In art, Kandinsky turned to synesthesia to translate these visual experiences into three-dimensional paintings. With the idea of "color hearing," Kandinsky identified red, green, yellow, blue, and other sounds. Through these analogies, the artist aimed to telegraph a sense of listening to the viewer. Kandinsky's research on synesthesia stimulated other creative people to experience hearing sound and then turn it into color. Today, sound is often conceived of as a constant instinctive form of consciousness. Music often serves almost completely upon itself, such that there is no need for reference to specific parts of the installation process, remaining strictly within the realm of sound [15].

CONTEMPORARY PRACTICES

In her book *Sonic Art*, Anne Thurmann-Jajes writes about the work of Paul DeMarina, a sound artist who creates auditory telescopes and microscopes in the form of household objects. She describes his work as an example for a contemporary practice of using direct sound representation in a visual context. Anne Thurmann-Jajes explains that sound pictures provide an idiosyncratic look through the eyes and personal experiences of the sound artist. She states that: "The interpreter's body and knowledge that dealt with soundscapes on an essential level also shape the making of sound receptacles." Sonic pictures do not allow just visual representations of specific sounds, but they also depict emotional spaces. Thus, direct sound representation represents the "lowest level of visualization and expression on a speed scale and the utmost level of sound art expression" [16]. Another important contemporary practice that allows the observer to participate in sound art through visualization is mapping. Sonic maps visualize sounds that come from a specific place. The criterion here is always the background of the sound and not its form or its timbre. Thurmann-Jajes writes about the work of Simon Scrutton, who recorded complex sound scores from various parts of the city. Simon Scrutton then asked himself, how he could transcribe the graphic interpretation of these sound scores into the physical reality of the city? He modeled an installation with urban architecture suitable for ten existing sound scores. The installation was later realized in Derby's city center [17, 18, 19]. Another well-known example of such a sonic map is Christina Kubisch's *Verräumlichung* sound project. Simply moving through a specific room with headphones makes the existing sound mappable. These examples show that although the concept of sound may first derive from visual forms, sound art still remains within a context of sound and can be regarded as "epitomization" of sound. Overall, it is very important to mention that the Sound Art movement, in spite of its historical context, also contains contemporary and digital activities and can be taken into account in a new perspective. The focus of Thurmann-Jajes, on the other hand, deals with sound art, which functions within a visual context, and with the main purpose of his tool-like approach.

DIGITAL TECHNOLOGIES IN SONIC ART

One of the most distinctive features of sonic art practice, which has become particularly significant during the 1990s, is the use of new digital technologies. While technical developments such as digital music synthesis and computer-based interactivity account in part for the pre-eminence sonic art has achieved in music, *El lienzo de la música* (the canvas of music), the field of sonic art is much broader, integrating, as it does, sound within Visual Arts. It is no longer uncommon to find, for example, computer-generated special effects facilitating complex presentations in performative work, or interactive galleries where sound objects and sound environments may be explored. Digital technologies assist increasingly in the realization of many more traditional forms of sonic art too. In sound installations, for instance, pre-recorded and generated sound material may be manipulated through a variety of visual screen-based techniques and stored in file format for later use at installation sites [20, 21, 22].

Just as digital technologies have opened up a wide range of new possibilities, so their immense proliferation has generated a need for a growing discipline in capturing and interpreting the effects these technologies are having in practice, reflecting upon how sonic artworks of the past are being re-interpreted, repositioned and re-contextualized, and speculating upon their subtle potentials and

otherwise de-terrestrialized propositions for the future. As a result of this complexity, what counts as the criteria for discussing sonic art is an ever-expanding debate. Precedents will continue to figure large in heuristic strategies, of course. After all, the transmutation of existing art paradigms into new forms and activities has always been a resourceful mode for precipitating discussion. But as the practices they inform or embody proliferate and grow ever more diverse, the delicate question becomes: how are we to describe sonic art? [23, 24].

CONCLUSION

The investigation into sonic art reveals a dynamic and evolving field that bridges sound and visual arts through innovative and interdisciplinary practices. From early historical examples to contemporary digital installations, the integration of sound and visual elements continues to expand the boundaries of artistic expression. By exploring various technical solutions and artistic approaches, this paper underscores the significance of sound as a critical component in the visual arts and highlights the potential for defining a new genre within this intersection. The concept of the "audiovisual turning" emphasizes the ongoing evolution and relevance of sonic art in contemporary artistic practices, fostering a deeper understanding of how sound and visual arts can collaboratively generate profound and multifaceted meanings.

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