Resounding Memory

Aural Augmented Reality and the Retelling of History

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ABSTRACT

This text discusses sound art projects in which artists have used augmented reality along with recordings or data of public spaces. All the works mentioned here were carried out in Spain from 2010 to 2016. In them, memories become tied to the physical space through social interactions facilitated by communication technologies; listeners get involved through the use of mobile devices. These practices consider the role of sound in the display of memories in the public space, thus configuring a subjective memory that contrasts with the institutional narrations of the history of a place.

Exploring the spatial characteristics of a place has always been an essential task of sound art. In doing so, memories play a fundamental role, because they can present a counter-narrative to the official history of that place. When a work of art focuses on places whose historical meaning has been erased by larger narratives or eroded by time, it acquires a political and emotional significance. Gathering identifying sounds and testimonies of those places constitutes an effort to restore that significative dimension, which becomes both personal and social, and both complements and contrasts with the common perception of that place.

After a brief discussion of works articulating sound and history, this text will focus mainly on three sound art projects that originated in Spain from approximately 2010 to 2016 and the critical implications that derive from them, through the interaction among social agents, the revision of history based on memories and testimonies, and the analysis of spatial relationships.

SPACE AND MEMORY

Sound art has contributed greatly to the recuperation of the sounds and memories of a place, opening the door to a dialogic reflection about history, public spaces and the role of public places in sustaining relationships of power and dominance. Bill Fontana's pioneering *Entfernte Züge* [1] relocated the sounds from the busiest train station in Germany in the 1980s into the empty field that had hosted the busiest station in Berlin before World War II. More recently, place and history elicited geographic awareness and introspection in Susan Phillipsz's sound installations. Her work *Lowlands* [2], which was awarded the Turner Prize in 2010, recreated a sixteenth-century ballad and located it under three bridges in Glasgow.

Similarly, soundwalks have some provenance in merging the attention to spatial concepts with the act of walking. The term was first used by the members of the World Soundscape Project [3]. This practice, exhaustively investigated by Hildegard Westerkamp [4], strongly resonates with the work of the Situationists and psychogeography, which emphasized studying urban spaces by drifting around within them (*dérive*). Technologies have contributed to the proliferation of soundwalks in diverse ways. For instance, Christina Kubisch's electrical walks [5] use specially built headphones as devices that detect electromagnetic fields and then play them as live urban compositions.

The use of augmented reality (AR) and mixed reality has furthered this dialogue. As an example of the latter, Janet Cardiff's walks incorporate historical and fictional elements with recorded sounds of the space, using a binaural technique that generates a 3D effect, contributing to a seamless integration of the real and the virtual [6]. In Blast Theory's *Rider Spoke* [7], audiences participate in mixed reality by riding on a bike that has been outfitted with a handheld computer.

Edu Comelles's 2014 work *Walk & Talk. Huesca* [8] makes use of AR to present the recordings of people's narrations of their experiences in the town's spaces, contributing to a shared memory of them. The listener can download the recordings to any mobile device by scanning QR codes distributed in postcards; later the listener reproduces the walks by walking along the narrated routes. The recordings become "the laying of dynamic and context-specific information over the visual field of a user" [9], thus adding "information that is directly related to the user's immediate physical space" [10],

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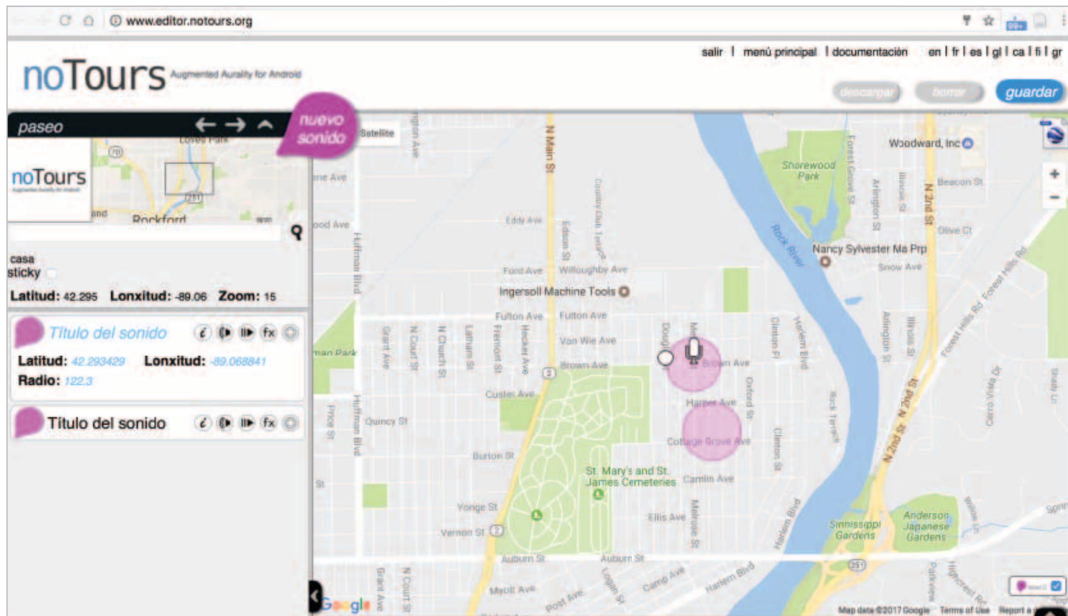

Fig. 1. escoitar.org, *NoTours*, 2010–2016. Screenshot of online editor. (© noTours @ <escoitar.org>)

without pretending an illusion of integration. In doing so, the recordings render together the three areas that Henri Lefebvre called for in the study of space.

Lefebvre, whose work on the critique of everyday life greatly influenced the Situationists, advocated a theory of space that unites the physical, the mental and the social, in order to study the "logico-epistemological space, the space of social practice, the space occupied by sensory phenomena, including products of the imagination such as projects and projections, symbols and utopias" [11]. This becomes necessary in order to produce a "kind of knowing which refuses to acknowledge power" [12] and defies the active role of space, which is operational and instrumental [13], in sustaining the socioeconomic system and its logic.

In *Walk & Talk. Huesca*, the physical space is examined through the direct experience of the walks; the mental aspect connects with the reflection on history through the participants' narratives and the produced perceptions of place; and the social aspect is embodied in both the making and the listening of these narrations. The testimonies attest to the changes that occur in a place and how those changes in turn bring about changes in social and power relationships. For instance, Luis Antonio explains that "there used to be a swarm of kids, this was a village that is not to be seen nowadays, now there's nothing but machines, here, breaking it all . . . everybody has to build stuff, so that . . . money keeps on going and ends up where it has to go" [14]. This carries social significance and a not-so-veiled critique of local authorities, contributing to a construction of knowledge that contrasts with the way cities usually portray their history and progress.

CONNECTIVITY AND SPACE

The contrast between the way institutions advertise a place and the shared production of knowledge about that same space takes form in the project *NoTours*, which was initiated by the collective escoitar.org around 2010 and continued until 2016. At a time when audio guides were a common resource for institutions to promote tourism in cities, *NoTours* worked as a tool for individuals to create their own alternative routes with recordings of their choice. This, together with workshops and collective soundwalks organized by the group, created experiences of the sites that resulted in critical reflections. The group coined the concept of *augmented aurality* to refer to the use of AR in the realm of sound. In this case, they used locative audio, or audio bound to a specific place, by way of geolocalization.

NoTours was a long-term project consisting of an online editor and an Android app. Users could design their soundwalks ahead of time by uploading their recordings to the online editor (Fig. 1), assigning a place to each recording and creating an itinerary, as in an audio guide. Later, during the walk, the GPS system in the mobile device detects the listener's exact location and the app launches the sounds previously determined on the editor. Since its inception, numerous projects were created by members of the collective, as well as by other individuals, nationally and internationally, which resulted in a registry of memories of the places featured in the walks. For instance, "Cimadevilla" [15] features sounds of this neighborhood, located in the oldest part of the northern city of Gijón (Asturias), such as motorcycles, sea waves, distant chatter, traditional songs and Pepe Bajamar, a popular neighbor who sings an ancient song and talks about the history of the neighborhood.

The subversive aspect of this work resides in its projection of new "universes of reference" [16], tangible in the audio walks, by creating versions of the city that belong to the work's participants, stemming from their sound collages and narrations. Moreover, the work establishes a dialogue between these projections and the public space. In doing so, it helps, in Félix Guattari's terms, to produce multiple exchanges between the individual, the group and the machine, offering to the participants (whether producers or listeners) the possibility to resingularize themselves [17]. In other words, the self takes shape given a set of conditions—many

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of which emerge from the structures that configure everyday life and that are defined by power [18], but the possibility exists of using objects and media to generate meanings that differ from those conditions imposed by the power structures and, in so doing, of creating alternative forms of being. This work thus constitutes an effort to counter the hegemonic version of life in the cities, which too often projects a commodifiable façade profitable in the tourism market, oblivious to the issues affecting the citizens. This critical use of the media and of technological tools [19], as well as the sharing of knowledge among the participants, becomes decisive for sustaining plurality and dissent.

VIRTUAL MEMORY AND COLLECTIVE MEMORY

In this context, the work *Las Calles Habladas*, started in 2013 by Clara Boj and Diego Díaz, constitutes a tweak on the concepts of AR mentioned above. An app [20] (Fig. 2), which can be used anywhere, provides the listener with a randomly generated walk of about 1 km, departing from the listener's current location, and displays the itinerary on an Android or iOS mobile device. While the participants follow the generated path, the GPS system detects their exact location, but the app, instead of launching a predetermined audio, reproduces a random selection of Google entries related to that place, voiced by a robotic text reader.

The doubly random character of this work makes it, in the words of its creators, a *generative audio walk*. First, the app chooses its destination, looking for an angle between 0 and 360 degrees. Second, the app selects its readings randomly, without a filter. This is to say, the artists have programmed an algorithm that tracks information based on keywords and geolocated searches in Google, but it is the Google results that return the information [21]. However, Google has its own algorithms, which determine what data are found. In this sense, the digital memory stored in Google—in turn determined by the user's settings and profile—collapses with the direct experience of the physical space.

This app aims to challenge critically the way in which new technologies are transforming human relationships and especially how we live and relate in the public space [22],

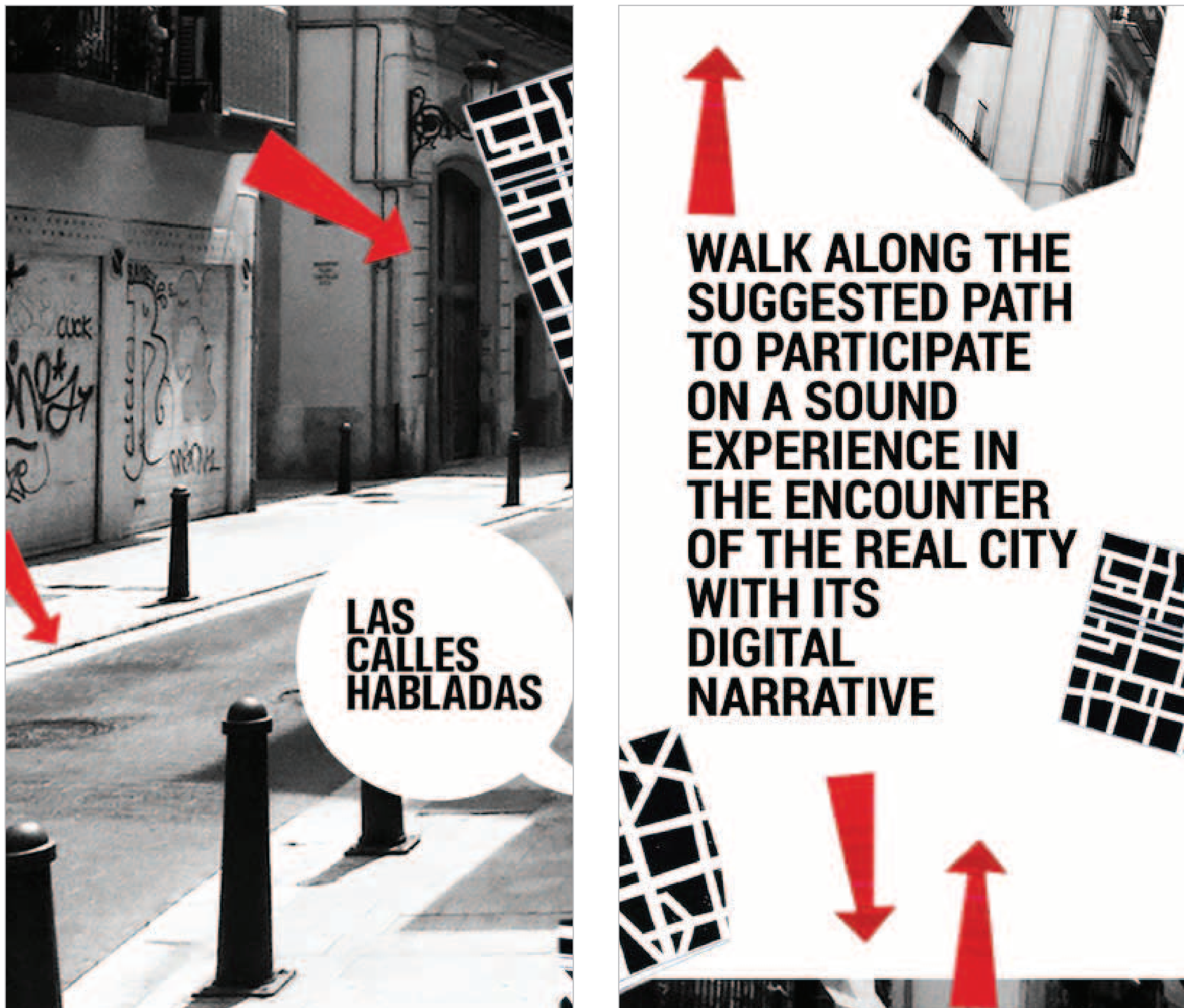

Fig. 2. Diego Díaz and Clara Boj, *Las Calles Habladas*, 2013–present. Screenshots of the app. (© Clara Boj and Diego Díaz, <www.lalalab.org>)

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reflecting on how what we do in the digital space affects our experience of the city and vice versa [23]. Díaz and Boj use the app in performances (where a megaphone substitutes for headphones) and workshops, with the question in mind of "whether the digital city speaks to us . . . in a different way depending on the neighborhood we are in, in order to see if the digital space reflects the socio-economic nature of the real space" [24]. In fact, they have observed that the app works as an extractor of digital information regarding the space the user walks in [25]. The tension between the digital representation of the city and how it informs our concept about its spaces contrasts with, and simultaneously feeds, our direct experience of the place.

The clash presented by this app invites a reflection on what we know—and how we learn—about places. As Lev Manovich put it, "All of these technologies [GPS and others] want to make the map equal to the territory" [26], alluding to Jorge Luis Borges's story "On Exactitude in Science" [27]. Furthermore, Jean Baudrillard departs from Borges's idea of a map so exhaustive that it coincides point by point with the territory, to state that we live in a world where the map has substituted for the territory. Representation has become the only reality, "substituting the signs of the real for the real" [28]. *Las Calles Habladas* shows how a massive search engine as powerful as Google can work as such a map, showing the intertwining of data in interconnection with a place, together with the actual experience of its spaces, which the map attempts to take over.

While engaging with the artwork, the participants are enrolled in surveillance practices via the devices used—namely their cellphones—and the geolocalization networks. However, multiple apps use these networks, including Google, in order to refine their services, and in doing so they have become an almost inevitable condition of everyday cellphone use. Moreover, these artworks are closer to the inverse surveillance strategies known as *sousveillance*, or the activity of the people themselves using technologies to watch and record images "from the bottom up," as opposed to being watched from "above" [29]. In the *NoTours* example, the tracking tools are not just made visible but put in the hands of the participants, so that their insights as "surveillees" can be included and made trackable for further listeners. In *Las Calles Habladas*, there is a relationship between our position being tracked and the double process—first Google itself and then the app—that inevitably mediates the discourse, inviting reflection on how any medium meddles with our access to information and our acquisition of knowledge.

CONCLUSION

Through three different implementations of AR, the projects discussed here attempt to recuperate a collectively constructed memory and to establish a connection with space, contrasting with the institutionally supported narration of history. They succeed in putting the emerging technologies of that moment under the higher priority of the artistic premises guiding them, and not vice versa. In the process, social exchanges become crucial; these take place in the sharing of personal narratives, in the sounds people connect to a space and in the data narrations via Google entries.

In recent years, numerous apps have emerged that make possible the layering of digital content over space physically perceived as real, and often artworks' main concern relates to what the technology can do. In contrast, here the technology is just the medium that can best render the elements and concepts unfolding in the three projects. The projects build instead a sense of collectivity through social exchanges in the public space, pointing at how these can challenge the logic of power relationships. In doing so, they enrich artistic research with social research methods that look into the dynamics of micropolitics and hegemony.

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