

“THE LISTENING WALKER”

Interactive Sound Walk in a Virtual City

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ABSTRACT

The “Listening Walker” is an interactive sound installation designed as a video game with different levels of exploration. It is a part of a research project, the goal of which is to analyze writing styles used in interactive sound installations and to propose new authoring tools for composers. The version presented at FDG illustrates the scripting style where the narration takes the player’s point of view. Such an installation shows the evolution of the composer’s role from that of a deterministic creation to a non-deterministic one..

1. DESCRIPTION

The “Listening Walker” was produced as part of the “Terra Dynamica” project (www.terradynamica.com), funded by the French government. The installation has been created for the exhibition “Urban stimulations” in Paris during the “Futur en Seine” Festival in 2013. It is both a stand-alone art piece by itself and a part of a research project.

The player’s goal is to discover a virtual district of Paris. When the walk begins, neither the plot, nor the buildings or the inhabitants are fully perceived. Then, Non Player Characters (NPCs) appear, moving around the listener. They are interpreting his moves and the time spent listening to particular sounds. According to the listener’s attitude, each NPC has his or her own particular reaction such as running away, getting closer to the listener, ignoring him or helping him to discover secret paths in the city. Depending on the player’s listening behavior, the city emerges progressively from the ground.

Compared to a "real game", there is almost no challenge, and no time limit. Listening curiosity and the stability of the player’s relationship with the NPCs create the personality of the visit.

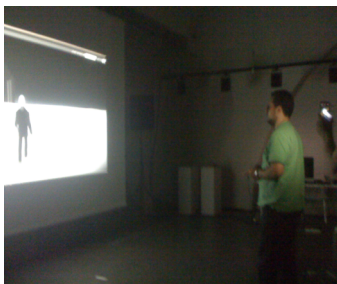


Figure 1. Listening walker following a NPC

2. GOALS OF THIS RESEARCH

The author of this installation has worked as a music composer on numerous sound walk art installations (1). During the last decade, this work has been influenced by the design methods used in video games (2), leading to interactive sound walk pieces. In the design process of such pieces, compared with interactive music works, the composer must write her/his sound design in a real or a virtual space according to the listener’s promenade.

So the goals of this work was to design and implement a sound art installation like a video game and also to experiment writing styles and tools for interactive art installations. The first version of this piece uses a “scripting” writing style that considers the player as the narrator. The whole interactive story is written from a subjective point of view. The map and a set of progression levels structure the narration. The listener controls his progression in the virtual city using a game controller. He receives almost all the data needed for this progression via spatialized sounds: NPC voices, ambient sounds located in given areas, cued sounds to trigger his attention.

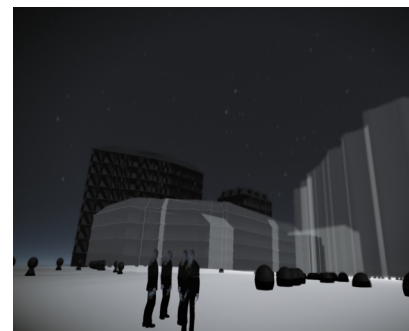


Figure 2. Emergence of the city

Development of this project relies on the CryEngine and Fmod technologies and uses the assets, the map of Paris and the technologies that were created for the Terra Dynamica project.

The original installation presented in Paris used a WFS (Wave Field Synthesis) 3D sound system. The image was projected on a large screen in front of the player. The same installation can also be exhibited using binaural spatialization for the player (headphones) and stereo for the audience.

3. CONCLUSION AND FUTURE WORK

A second version of the same story using an emergent writing style has been developed. In this case, the NPCs are the narrators and their unpredictable interactions produce numerous possible narrations. The two styles have been compared from the author's point of view. The comparison from the player's point of view is still to be done. The detail of this research work can be found in (3).

4. CREDITS

Design: Cecile Le Prado; Integration: Lubna Odeh, Romain Barthelemy with the help of Guillaume Tiger; Graphic design: Xavier Bouffault; Programming development: Alexandre Topol, Guillaume Levieux; Project production monitoring: Stephane

Natkin; Administration CNAM : Viviane Gal; Co-production Clameurs.

5. REFERENCES

- [1] 1. Cecile Le Prado. *Sound installations and Spatialization*. In Women, Art and Technology, M.I.T. Press, 2003.
- [2] 2. Cecile Le Prado and Stephane Natkin. *Listen Lisboa, Scripting Languages for Interactive Musical Installations*. In Proceedings of SMC 2007, Lefkada, Greece, 2007.
- [3] 3. Cecile Le Prado. *Ecriture sonore: entre determinisme, émergence et interactivité*. PhD dissertation, CNAM, Paris, 2013.