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# Playing Geopartitura in the Urban Space: Artwork with Music, Image, Technology and Interactivity

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*Ana Lemos, André Freitas, Bruno Braga, Camille Venturelli, Claudia Loch, Gustavo Soares, Juliana Hilário, Francisco Barretto, Leonardo Guilherme, Ronaldo Ribeiro, Suzete Venturelli, Tiago Barros e Victor Valentim.*

Urban cyber-interventions (ciurbi)<sup>1</sup> are artistic activist activities, which modify people's routines in real time in an interactive way. These artistic actions collaborate in the transformation of social behaviour, using computing media that allow collective activities. The art projects have a few signature characteristics, such as the performance of activities related to urban intervention through interactive projections on city architecture, and are made collectively by the MídiaLab team. The following paper is about one of these ciurbis, called 'Geopartitura',<sup>2</sup> which can best be described as a 'game'. The team conducted Geopartitura in five states in six different regions of Brazil, with at least three urban interventions per state, making a total of eighteen performances. A total of five workshops were held mainly in the capitals of selected Brazilian states. These activities took place throughout 2012.

The word 'geopartitura' is formed by the conjunction of the words *geografia*/geography and *partitura*/score. Geography is the science of space; it is a discipline that seeks to discover the meaning of places. Thus, it contributes significantly to society, to the reorganisation of its spaces and its forms of interaction with the environment. The word 'score' indicates the written representation of music. The poetics of Geopartitura are related to the existence of a rhythm in the universe of knowledge that rules music and images in their different mani-

festations. Geopartitura is committed to social inclusion and the democratisation of culture. It is a Brazilian cultural production, formed by the intersection of the arts, and is a collaborative work that aims to stimulate contemplation and provoke thought among the participants through their experience with computer art. People of all ages and social classes can benefit – for example, the target audience in the school community includes students, teachers, staff and parents, while that of the urban community includes those who learn about these activities through the media and all those who happen to be on the traffic routes near where they take place. Geopartitura's urban interventions are performed in public places, and anyone who is curious about the subject is encouraged to watch and participate.

The Canadian composer Murray Schafer (2001) says that we can learn how human beings behave through sounds and how these sounds affect and change human behaviour. With the arts, and particularly with music, we can learn how human beings create soundscapes that are ideal for that other life, the life of imagination and psychic contemplation (2001, p. 18). The Geopartitura system is linked to the philosophy of electro-acoustic music, which is related to the idea of soundscape. Thus, Geopartitura contributes to technological innovation, as it broadens the concept of soundscape by adding other senses, such as vision, through collective



*Image 1: Geopartitura at Taguatinga – DF, 2012*

and interactive concerts. The concerts apply cybernetic technologies to enable the dialogue of people who are in the urban space, through their smartphones. This connection between people stimulates contemplation and thought, because it uses smartphones for aesthetic expression.

The soundscapes generated as a concert become the basis for the composition of a subjective mapping. To play music, the participant must install the Geopartitura software on their mobile device. This is done simply through an internet connection. Once the software is installed and initialised, the participant can view the Geopartitura interface. The software identifies the geo-referenced position of the active participants in real time, and relates them to coloured points in the interface. The con-



nections between these points form 'strings', which can be played. In addition, the project realises urban cyber-interventions, projecting the Geopartitura interface onto the surfaces of urban buildings in real time, simultaneously providing the sound of the Geopartitura system in urban space. The sound of the system is played in real time on the participants' smartphones. The Geopartitura system thus fuses music and image.

The achievement of Geopartitura are: (a) the integration between music and image through the modulation system and flexibility of the interface; (b) the relationship between people with the Geopartitura system; (c) the hybrid activity of music and image with the use of interactive technology; (d) the interaction of the people with the Geopartitura system in real



*Image 2: Geopartitura workshop at Amazonas*

time; (e) the interactive experience through the simulation of stringed instruments that connect georeferenced points; (f) the hybrid experience with projection and sound in urban space; (g) the playful concert with heuristic value; (h) the application of art in order to educate citizens aesthetically; (i) the contribution to make possible life with more technology education; (j) the benefit the population; the artistic enjoyment of the public participating through Geopartitura; (k) the accessibility through art and the increase of the quality of life of the participants by developing their functional and emotional capabilities with technology; (l) the artistic expression of the participants and/or the enhancement of their skills, and thus, the digital inclusion of the people in the workshops; (m) the creation of multipliers that can teach other people how to use the software in schools and communities, and thus the permanence of knowledge.

### **The Originality of Geopartitura**

The Geopartitura project is unique in its particular category; its software was developed by artist-programmers at MídiaLab especially for this project. The disappearance of borders in the visual arts has raised diverse artistic interactions. The theme of this project is a discussion concerning the multiple possibilities of current artistic interfaces and interactions.

This is a collective concert that encourages diversity. During the performance, anyone can participate by playing music through the Android operating system. People who are present but do not want to participate, or who do not have the equipment, can watch the performance, see the projection and listen to the music composed in real time. The participant can install the software for free. Thus, anyone can participate in this intervention, and can also promote other Geopartitura concerts. The viral nature of the performance increases exponentially with the use of this new technology. The

urban interventions result in original real-time music composed by the participants, leading to an innovative mix and diversity of sounds.

### **Workshop: Educational project**

A total of five workshops were held in the capitals of selected Brazilian states, and they each made an impact on the local culture. The achievements of the workshops included the training of local people as qualified artists and producers, the promotion of social inclusion through digital media, and the contribution to artistic knowledge at the local, regional and national level.

The workshops were divided according to three main themes: computer art, music and interactive technology. These three axes contained common activities, always taking into consideration the role of joy as a guide for interactivity and collaboration between human beings and machines. They were also divided into stages. The members of the MídiaLab team, which included artists, doctors and developers from the University of Brasília, acted as instructors in the workshops.

In the workshop's first stage, practical activities were proposed to prepare the participants to perform in multimedia concerts; each workshop had the appropriate methodology for this purpose, and the participants were able to partake in theoretical courses in the fields of art, music and interactive technology. In the second stage, the participants were introduced to specific studies for the development of group activities. In this case, the team used methodological foundations related to the creation of image and digital music. Stages three and four then combined theoretical studies with practical production, where the students performed a collaborative concert with the Geopartitura software.

## The Geopartitura concert

This concert provided the idea of a visual soundscape, with sounds that were inherent to the particular environment it took place in, and used the relationship between music and image as it was created collectively in real time. The audio-visual landscape enabled the interaction of the 'strings' of the interface, which were drawn between individuals connected in real time, and the production of sound when these chords were played. In addition, the project provided urban cyber-interventions, projecting the interface onto the surface of buildings, and providing the sounds of Geopartitura in the urban space in real time.

The implementation of urban interventions in the selected cities involved the following activities: (a) meetings held to present the project to authorities/institutions and civil society of the municipalities involved, for the delimitation of sites suitable for urban interventions; (b) the dissemination of the activities in local media and digital media, including on Geopartitura blog; (c) the transportation and installation of necessary equipment in selected locations to achieve urban interventions; (d) the projection of the interface onto the surface of the architecture; (e) the sound emission of the system; (f) the distribution of leaflets about the software; (g) the enablement of the interaction with the system in real time; (h) the integration between music and image through the modulation system and flexibility of the interface; (i) the activation of the relationship between people through the system; (j) the hybrid activity of music and image with the use of interactive technology; (k) the interactive experience through the simulation of stringed instruments that connect geo-referenced points, and a hybrid experience with projection and sound in urban space; (l) the filming of the activities and the collection of testimonials of the participants.

## Playing Geopartitura

The Geopartitura concerts took place in urban space. The city itself is a mutant construction: alive and moving. Indirectly and without clear awareness of the nature of his work, by creating the city, man has recreated himself. In this sense, we should consider the city a social laboratory where individuals test their hypotheses about how to live well in society (Park, 1984, p. 163).

The urban space is external space, public space, formed mainly by transit routes. Someone inserted into this space will visualise the external field, the traffic space, surrounded by private buildings whose interiors are usually inaccessible to the collective gaze. Therefore the street is the strongest image of the city, and it is characterised as a multifunctional space where various events occur, from trade to traffic, from meetings to parades. Urban space is public, belonging to the collectivity, a characteristic that favours a whole variety of human expressions, including artistic manifestations; it is the place where the fun of playing Geopartitura happens. But to understand the relation between Geopartitura and urban space we first need to understand Geopartitura as a fun activity, as a game. In relation to this, it is necessary to consider two important authors in order to understand the concepts of 'fun', 'games' and 'play': Donald Winnicott and Johan Huizinga. According to Winnicott (1971), games allow people to create an open and positive relationship with culture – if play is essential, it is because people who play develop into creative human beings.

According to Huizinga (1949, p. 13), when summing up the formal characteristics of play, we might call it an activity that happens outside of 'ordinary' life; that is, it is 'not serious', yet at the same time it that absorbs the player intensely. It is an activity unconnected to any material interests. It proceeds within its



Image 3: Geopartitura at Taguatinga – DF, 2012



own boundaries of time and space according to fixed rules and in an orderly manner, and it promotes the formation of social groupings, which tend to surround themselves with secrecy. In the Geopartitura game, people stress their difference from the common world by the use of wires on their mobile phones. The game that takes place on the frame of the interface of the mobile phone is also extended to the projected image on the surface of the building, with the image formed by the connections between the participants.

Engaging in social activities has been associated with an increased sense of well-being in both adults and children. Social networks, for example, seem to encourage a sense of meaning and coherence in life (Papalia and Olds, 2000, p. 13). An interesting characteristic of Geopartitura is the connection that is created between people in the public space. Many of these participants were unknown to each other, but during the Geopartitura concert they discovered a special connection in the distinctive time and place of the game.

According to Huizinga (1949, p.14), the limitation of space is important for every game. All play moves within a playground that is marked off beforehand, materially or ideally, deliberately or as a matter of course. This special place, with the form and function of a playground,

is a space where particular rules obtain. The playground of Geopartitura is set up for a limited time in the public space. But this moment can remain in the participant's memory, so they can keep this experience in mind each time they are in that place, and this can help them think in new ways about their city.

Inside the Geopartitura playing space, a peculiar order reigns. It brings a temporary and limited perfection into the confusion of the urban space. The profound affinity between play and order is perhaps the reason why play seems to lie, to such a large extent, in the field of aesthetics (Huizinga, 1949, p. 16). Other art works are also related to the idea of play – one important example of this is the artworks in the international exposition and conference *Homo ludens ludens* (2008).<sup>3</sup> The events of this exhibition examined play as a principal element of today's world, and highlighted its necessity for our contemporary societies. Projects of different character reflected play's various roles, showing how, when play is reformed and reversed, it can embody social and political acts and issues, and become a tool for activism. By mingling the virtual and the real, it revitalises other disciplines.

One of the art works of the exhibition was 'Objects of Desire'<sup>4</sup> (2008) by the Ludic Society (M. Charmante, Fleshgordo, Imonym, Mos-

MaxHax, P. M. Ong from Austria, Switzerland and the UK). 'Objects of Desire' guides a neo-situationist's walk through an invisible city of electromagnetic waves. Names of actual urban Wifi zones are tagged like street-names in the exhibition space, while aether waves with the same subjective names are superimposed on the arts space, creating a playground. An SM (Standard Model) games console serves as portable Wunder-Toy to indicate the electromagnetic waves of networks, as well as the waves emitted by tagged objects. Acquiring this games console, players start a Dérive aiming to track these tagged objects. As in the art work Geopartitura, the playground of 'Objects of Desire' is also that of urban space.

Geopartitura's *ciurbis*, therefore, are artistic activist actions, and through play they are able to modify in real time people's routines and their relationship with public spaces in an interactive way. This paper introduced the technical features of Geopartitura, its original characteristics, the objectives of the project and its playing possibilities. The artwork Geopartitura shows us one of play's many expressions and roles: as a tool for activism. This act of appropriation of urban space, the sense of belonging, the confidence and will to participate in public life are feelings that could have an important role in the future of the city, and for the renovation of urban spaces.



## Notes

<sup>1</sup> The world 'ciurbi' was created by the MídiaLab team. It has become a denomination that is used to describe any urban intervention that has an interactive projection on urban architecture.

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<sup>3</sup> The exhibition *Homo ludens ludens: third part of the gaming trilogy* was held in 2008 at the Laboral Centro de Arte y Creación Industrial in Gijón, Spain.

<sup>4</sup> See the website: <http://www.ludic-society.net/desire>

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