

## BALANCE-UNBALANCE (E-ARTS MEETS THE ACTUAL WORLD)

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### Abstract

Environmental problems, economic uncertainty and political complexity have been around for a long time. What was different before was the speed and depth of transformations compared with today's sudden changes. The frequent occurrence and severity that certain weather and climate-related events are having around us is increasing, and the ability of human beings on modifying the environment have turn into a power capable of altering the planet. How can the electronic art play a role in helping to revert the current mass destructive tendency? Can we artists make a difference, participating with our electronic art of multi- inter- or trans- disciplinary teams, in finding solutions to complex problems such as climate change? Aiming to use electronic art as a catalyst with the intent of engendering a deeper awareness and creating lasting intellectual working partnerships in solving our global environmental crisis, some initiatives (e.g. Balance-Unbalance) are in development and will be discussed during the proposed panel.

### Keywords

Electronic arts, media arts, sound arts, humanitarian actions, climate change, environmental crisis.

### Speakers

Among the guest speakers for this panel there will be artists, scientists, curators and engineers. At the time of this writing, some of the names proposed for the panel are:

- Pat Badani
- Nina Czegedy
- Ricardo Dal Farra
- Roger Malina
- Anne Nigten
- Mike Phillips

All the proposed artists, scientists and curators are well-known for their interest and participation in activities related to searching how to solve environmental problems.

### Introduction

Environmental problems, economic uncertainty and political complexity have been around for a long time. What was different before was the speed and depth of transformations compared with today's sudden changes. The frequent occurrence and severity that certain weather and climate-related events are having around us - such as floods, twisters, etc. - is increasing, and the ability of human beings on modify-ing

adjacent surroundings, as well as very distant places, have turned into a power capable of altering the whole planet.

The global climate is changing, and communities around the world are suffering the consequences. Traditional disaster management approaches are not enough to deal with rising risks, and new forms of collaboration are needed to inspire people and organizations to link knowledge with action.

Artists could inspire new explorations regarding how to actively participate in this major challenge of our environmental crisis. We need to develop innovative ways to facilitate a paradigm shift towards a sustainable future. We need to discuss proposals for the future from a diversity of cultural perspectives and socio-economic situations with open minds. Creative thinking, innovative tools, and transdisciplinary actions could help to produce perceptual, intellectual and pragmatic changes. It is not about an indulgent utopia for the future nor desire, but a matter of survival.

Aiming to use electronic art as a catalyst with the intent of engendering a deeper awareness and creating lasting intellectual working partnerships in helping to solve our environmental crisis, some initiatives have been operating for several years -such as the *Balance-Unbalance* international conference series- and it is the time to make an evaluation of their actions and outcomes, to best define the next steps.

### Balance-Unbalance

The *Balance-Unbalance* project was launched with an international conference in 2010, aiming to develop the role of the media arts and artists in dealing with environmental challenges. *Balance-Unbalance* explores intersections between nature, art, science, technology and society as we are moving into an era of unprecedented ecological threats. The first conference was held in Buenos Aires, Argentina. It was organized by the Electronic Arts Research and Experimentation Centre (CEIArtE) from the National University of Tres de Febrero. Papers were delivered by a representative of the National Secretary of Environment and Sustainable Development of Argentina, experts and graduate students from different universities with chemical, agricultural and environmental engineering backgrounds (some of them specialists in pollution, renewable energies and food technologies), a lawyer, a sociologist and philosopher, artists coming from Argentina, Brazil and Canada, and an astrophysicist (*Balance-Unbalance*, 2010).

*Balance-Unbalance* (a.k.a. BunB) was held again in 2011, this time at Concordia University, in the city of

Montreal, Canada. Those were two days of reflection, debate, information exchange and promotion of projects and actions regarding the environment and our responsibility at this crucial moment in history. This conference was possible thanks to the direct involvement of faculty from Concordia University coming from very diverse backgrounds, like communication, political sciences, geography, management, music, digital arts and design. There was an amazing number of submissions received to participate in the conference with paper presentations, posters, films, electroacoustic and computer music, art installations and also a diversity of transdisciplinary sessions with open structures to accommodate all kind of innovative proposals, always considering digital art as the interconnecting hub and the environmental crisis as the umbrella covering us all (*Balance-Unbalance*, 2011).

Once again in 2013, a third edition of *Balance-Unbalance* was showing the high potential of these actions. The expected catalyzer started to work and the digital arts were, step-by-step, leading the way. This time the conference was held at the Noosa biosphere, an ecological reserve recognized by UNESCO in Australia. The Noosa Biosphere is a dynamic learning laboratory for sustainability in one of the most pristine and diverse environments in Australia. The three-day conference took place at Central Queensland University, with satellite events in several other places, including Lake Cootharaba (*Balance-Unbalance*, 2013).

An e-book with some of the papers presented at the 2013 *Balance-Unbalance* conference was published and it can be downloaded from the Internet for free (Davis, 2013).

The conference theme: 'Future Nature, Future Culture[s]' aimed to challenge our expectations of Earth, provoke our understanding of nature and inspire our actions for a sustainable future. *Balance-Unbalance* was proposing to ask ourselves: "What we will be calling nature in 20, 50 or 100 years? How we will live in the future? How could creativity help us shape a society of understanding and interconnectedness? What role could transdisciplinary thought and action play in reimagining a sustainable future?" considering that: "All is interconnected. No person, no animal, no object or idea can exist independently. Our limited knowledge of life can be expanded, but to do so we need better ways to understand each other. This includes a deeper awareness of how different human societies can comprehend cultural differences and synergies. There is a dramatic need for a paradigm shift and we need to act now if we are going to survive as a species." (from the *Balance-Unbalance* 2013 website).

Like in previous editions, digital art was not only part of the papers in the form of theoretical analysis and proposals but a substantial component of the event. A number of artistic events were also held in partnership. Fifteen short papers on research and creation projects presented during this conference have been published by The MIT Press on Leonardo, the Journal of the International Society for the Arts, Sciences and Technology, on a special section devoted to *Balance-Unbalance* (Dal Farra, 2014).

The fourth edition of *Balance-Unbalance* was held in March, 2015. It was hosted by Arizona State University and

its main focus was set on: "Water, Climate and Place. Reimagining Environments". The subject reflects some particularly relevant circumstances considering the location: The Southwestern desert of the United States.

*Balance-Unbalance* 2016 was held in Manizales, Colombia. This city is part of the coffee-grower axis and it is built in a mountain region with seismic instability. A rich, changing and challenging environment, with a subtropical highland variety of climate and an average of 1,500 millimeters (59 inches) of precipitation a year, that allowed participants to have a contrasting experience considering the places where previous editions of the conference were held (*Balance-Unbalance*, 2016).

Twenty-six short papers about projects presented during the *Balance-Unbalance* 2015 and 2016 are already available on the MIT Press website and published on paper by Leonardo (Dal Farra, 2018).

The most recent edition of *Balance-Unbalance* was hosted by Plymouth University, in the UK, during 2017 (*Balance-Unbalance*, 2017). Among many other activities, it included one evening at the amazing Eden Project, in Cornwall, where also a Leonardo/ISAST 50 years celebration was held (Eden Project, 2017).

### 'art! ∞ climate'

Sometimes experiments take their own way, and ideas becomes real. Dr. Pablo Suarez, Associate Director of the Red Cross / Red Crescent Climate Centre came to Montreal in 2011 as a keynote speaker of the second *Balance-Unbalance*, held in 2011. As a direct result of his participation in this conference, the 'art! ∞ climate' project was born shortly after (*art! ∞ climate* call, 2012).

The Red Cross / Red Crescent Climate Centre and the Electronic Arts Research and Experimentation Centre (CEIArtE) joined forces to develop the *art! ∞ climate* contest for the creation of digital sound-based art miniatures focusing on the environmental crisis and climate change related issues. The Climate Centre's mission is to help address the humanitarian consequences of climate change and extreme weather events. In its efforts to engage people at risk, government agencies, academic institutions and other stakeholders, it has become clear that information is rarely sufficient to trigger behavior change. As a result, the Climate Centre is designing and facilitating methods for learning and dialogue that involve not only the brainpower but also the emotions of participants (such as collaborative workshops, participatory games and short educational films, linking information, decisions and consequences on disaster management).

The *art! ∞ climate* contest had two main objectives: a) Provide the Climate Centre with sound-based art material that can support their actions; and b) Improve knowledge about the human dimensions of the environmental crisis and promote awareness about the effects of climate change, both among creative artists and among those exposed to their work.

For this contest, sound art miniatures implied short creations of sound art/music produced using new technologies and encompassing what is known as soundscapes, electroacoustic and computer compositions, sonorizations, and sonifications.

The categories of the first contest were two: 'Mosquitoes' and 'Open Theme'. The 'Mosquitoes' category aimed to support initiatives to raise awareness and better manage the growing risk of malaria, dengue and other mosquito-borne diseases that are showing new regional and seasonal patterns due to changes in rainfall and temperature - an issue highlighted in several Red Cross projects in Africa, Asia and the Americas. The 'Open Theme' category invited submissions about other dimensions of changing environmental conditions.

The works were selected by a jury of internationally recognized composers and new media artists, and members of the Climate Centre as well, finding that was possible to have good artistic works that could also fulfil the specific needs of a humanitarian organization for its daily field actions. Selected works came from sound artists and electroacoustic composers from all over the world (*art! ∞ climate* selected works, 2013).

All pieces are now available in SoundCloud both for listening online and for downloading, under a Creative Commons license (*art! ∞ climate* SoundCloud, 2014).

Composing digital sound art miniatures proved to be a great way for musicians to stop being spectators and start to contribute actively to humanitarian goals.

A second contest was launched in 2014. This time, several organizations were teaming up: the original two organizers, CEIArtE and the Red Cross / Red Crescent Climate Centre, now together also with the Climate and Development Knowledge Network (CDKN), the International Institute for Environment and Development (IIED), and the Overseas Development Institute (ODI) (Development & Climate Days, 2014).

There were also two categories on this second *art! ∞ climate* contest. As before, the categories were defined according to the needs specified by the humanitarian organizations, that on this opportunity were: 'Sea level rise' and 'Zero poverty. Zero Emissions. Within one generation' (2<sup>nd</sup> *art! ∞ climate*, 2014).

The selected pieces have been already presented in several international events, and also same as with the first edition of *art! ∞ climate*, are available in SoundCloud for listening online and for downloading. The Red Cross / Red Crescent Climate Centre -and associated humanitarian organizations- are able to using them according to their field action needs.

A third contest is being held at the time of this writing. The categories once again were proposed by the Climate Centre considering the potential use of the pieces as part of their actions. The "Timescales" category is expecting to use art and music to incite an emotionally driven exploration of the difference between weather and climate, considering it can be useful to communicate the interaction of trends and extreme events. The "Thresholds" category focuses on the

actions that could be implemented in the window between a forecast and a disaster, and how the triggering level can be identified and the full system explained (*art! ∞ climate* call, 2017).

## Panel/Roundtable

In this context of global threats: Can the electronic arts and artists help? A large part of the population is living in uncertainty [regarding basic needs] and many barely surviving. When the Balance-Unbalance project started some years ago it probably appeared to be a naïve, good-will based, utopian initiative, trying to join intelligence and forces from a variety of fields in using e-art as a catalyst to face a problem we all share: the complex environmental crisis. Bringing people from very different sectors of society together, today Balance-Unbalance and its associated projects are not only proving it is feasible to connect artistic creation and realistic tools for change but to actually help in making that social changes could happen. The electronic arts acting as a driving force. The possibility to work on a project where artistic quality, knowledge building, and humanitarian actions are all together in a balanced equation to confront the unbalance is feasible (Dal Farra, 2013).

Is enough what Balance-Unbalance, and projects like the 'art! ∞ climate' have been doing? The idea of focusing on creation-knowledge-action projects to reach those who are already affected or in imminent danger from the consequences of climate change, and also to those who are not directly touched by it yet is in the core of these projects. What are the next steps we can give to expand the possibilities of these, and other related projects? Should we need to look for different models? How can we improve collaboration between players coming from different fields and disciplines in a way to more effectively help our society? Are these inter- and transdisciplinary experiences achieving their ultimate goal? In a world where goodwill is far from enough, how can we accelerate results to have a better life in a humanly livable planet? What are roles that artists can play working together with scientists, engineers, experts in economy, and policymakers? How ethics and responsibility should act in this complex proposal based on multiple visions and collaboration processes? These are some early triggering questions that will be refined to reach ISEA2018 in the best possible shape, to discuss between the participants of the panel, and then receive the input of everyone attending. The main idea is here to propose realistic actions that could mitigate the impact of climate change, and change the current trend, to have a cleaner environment. As electronic artists, we can work together with experts from many different fields to contribute to this process, and we want to explore and discuss with this panel, the best way of doing it.

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Dr. Ricardo Dal Farra is a composer and new media artist, associate professor at the Music Department of Concordia University, Canada and director of the Electronic Arts Research Centre (CEIArtE) at UNTREF, Argentina. He has been director of Hexagram, Canada; researcher for UNESCO, France; director of the Multimedia Communication national program at the Federal Ministry of Education, Argentina; coordinator of the Documentation and Conservation of the Media Arts Heritage - DOCAM international alliance, Canada; and senior consultant of Amauta, the Andean Media Arts Centre in Cusco, Peru. As an electroacoustic music composer and new media artist his work has been presented in over 40 countries and recordings of his pieces are published in 23 international editions. Funded by The Daniel Langlois Foundation he created the largest collection publicly available of *Latin American Electroacoustic Music*. Dal Farra is the founding director of the *Balance-Unbalance*, “*art! ∞ climate*”, EChO, BaDArtE and *Understanding Visual Music* international projects.