



∞ ISEA2017

16th INTERNATIONAL  
IMAGE FESTIVAL

MANIZALES/COLOMBIA

# BIO - CREATION AND PEACE PROCEEDINGS

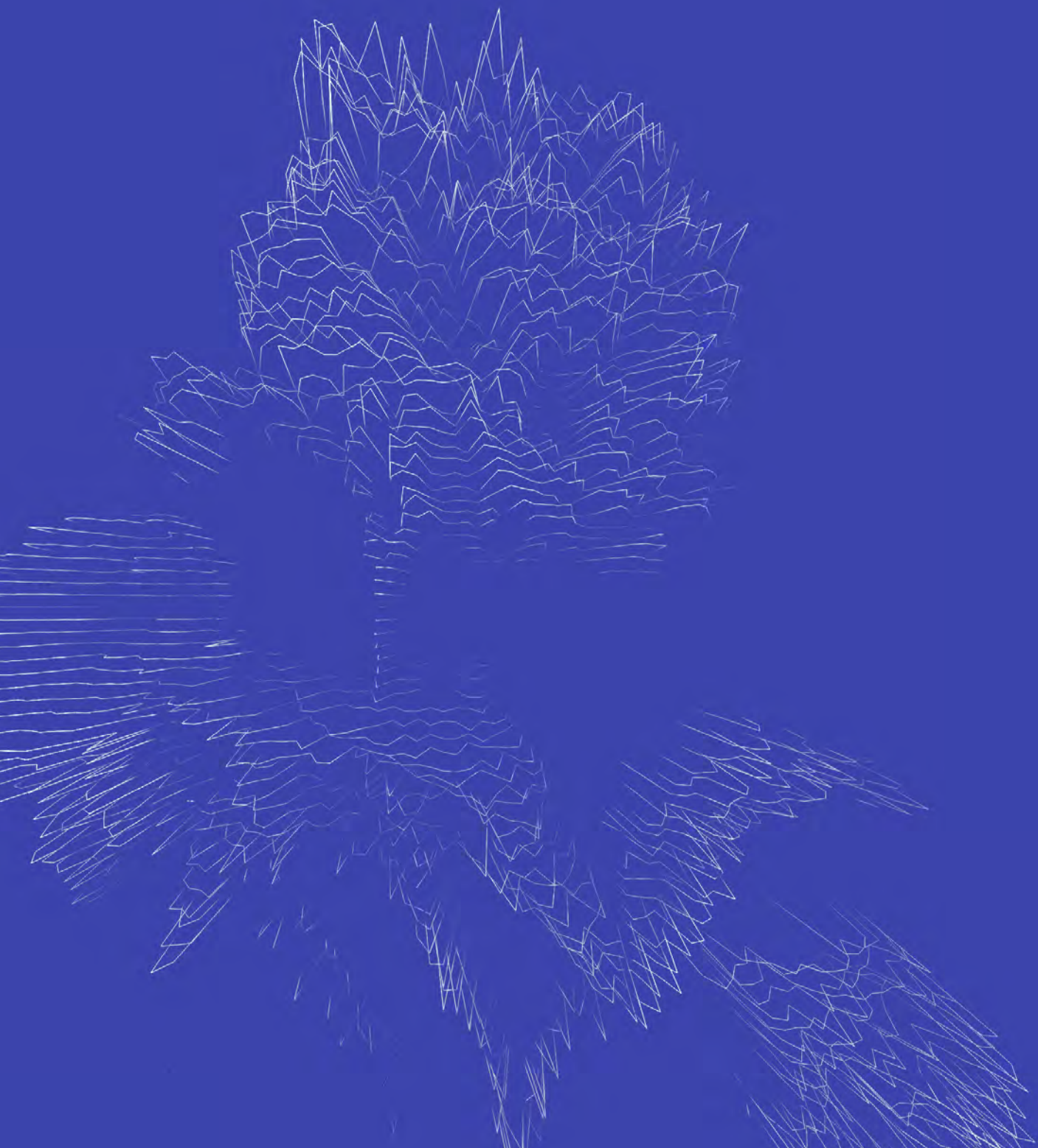
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## **ISEA2017 Manizales BIO-CREATION AND PEACE**

Proceedings of the 23rd International Symposium on Electronic Arts.

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& G. Mauricio Mejía.

Copy-editing: Grafos Soluciones.

Editorial Coordinators: María Camila Hurtado Arciniegas & Mariana Valencia Giraldo.

Image Design ISEA2017: Alexander Cano.

Cover Design: Luis Miguel Álvarez Valencia

Design and Diagramming: Julián David Patiño Galvez, Diego Alejandro Giraldo Ospina,  
Santiago Benavides Osorio & Luis Esteban López Salgado.

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Department of Visual Design, Universidad de Caldas:  
Calle 65 No. 26 – 10, Bloque Orlando Sierra, floor 4 Manizales, Colombia

Printed in Bogotá D.C  
ISBN: 978-958-759-161-3



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## Presentation

In behalf of the University of Caldas, partner institutions, and organizing committee, we are glad to present the ISEA2017 proceedings. The 23rd International Symposium on Electronic Arts was held jointly with the 16th International Image Festival in Manizales, Colombia. The University of Caldas has organized the Festival for twenty years and we are proud to organize this year the Symposium. Additionally, 2017 is the France-Colombia year and the event had a significant participation of French artists and authors.

Planning the event has been an exciting, we believe that the conversation between the ISEA community and Latin-American artists and designers will be heightened from this year. The event consisted of two days of workshops and tutorials and five days of academic presentations, keynotes, artistic exhibitions and talks, and other special events. In the first day of workshops, the Leonardo 50th anniversary celebration kick-off was held, which was a space to foresee the next fifty years of transdisciplinary collaborative explorations in art, science, and technology.

This proceedings book is the collection of accepted papers, posters, panels and roundtables that describe current creative research in electronic art, design, science, and technology. We thank the academic chairs Andrés Burbano and Julián Jaramillo for their tireless and persistent work, the authors, and the IPC members. We also thank Cristina Sabogal, Mónica Arango, Paula López, Camila Hurtado, Mariana Valencia, and the members of the organizing committee and volunteers that made possible the academic program.

ISEA2017 was possible thanks to the support of a myriad of institutions and partners including University of Brighton, PROCOLOMBIA, Alcaldía de Manizales, Gobernación de Caldas, Embajada de Francia, Gobierno de Colombia - Todos por un nuevo país, Instituto Francés, Fundación Renault, Schneider Electric, British Council, LEONARDO, Instituto Italiano de Cultura, Goethe Institut, IDARTES, Alcaldía de Bogotá, Instituto de Cultura y Turismo de Manizales.

**Felipe C. Londoño, Director ISEA2017**  
**G. Mauricio Mejía, Deputy director ISEA2017**





## Preface

This Proceedings presents the results of the Academic Call of ISEA2017, which received 151 submissions for papers, panels, posters and roundtables by 260 authors from 4 continents. All the submitted works were reviewed by at least two members of the International Program Committee (IPC), through a double-blind evaluation process that achieved 295 reviews. There is an expressive representation of 120 Latin-American researchers, 60 of which come from Colombia, 27 from Brazil, 21 from Mexico and others who come from countries such as Argentina, Chile, Costa Rica, Ecuador, Peru, and Uruguay. It draws a complete picture of the activities concerning arts and technology in the region that, we hope, will have a substantial impact.

The Academic Call proposed an intellectual and creative engagement with unusual fields in the framework of the negotiations between the arts and the technologies that have characterized previous venues in the area. The two main conceptual tracks of ISEA2017 are Bio Creation and Peace, and they are divided into six sub-themes: “Bio Creation and Data,” “The Cultural Dimensions of Bio-creation and Peace,” “Interdisciplinary Platforms for Coexistence,” “Critical Perspectives on the Use of Technology for Peace,” “Media Art, Landscape, and Heritage,” and “Design, Art, Science, and Technology”.

The inclusion of novel topics in the academic symposium unveils the breadth of the area, which shows that such thematic expansion is necessary to accommodate and translate the needs and interests of the Colombian society within the core of the Post-Globalization landscape in which we live today. In times challenged by unanticipated turns of events, when “alternative-facts” and “post-truth” media negate the conceptual world-views of people, when structures of power deny environmental changes, and when old and new conflicts arise as leitmotifs of human civilization, there is clear need for a profound exploration of this two notions: Bio Creation and Peace. Academic and artistic events such as the International Symposium on Electronic Arts should seriously assume the reflection and action on these fields exploring the implications for our local and global societies.

The reflection around Bio Creation can thoughtfully articulate the questions about biology, computation, nature, and ecology as an integral part of contemporary endeavors in the arts and technology. This is a task that could be done paying attention to the recent theoretical reflections; for instance, to the Green Studies debate led by intellectuals such as Jens Hauser or pointing to the ethical remarks related to the bio media discussed in Joanna Zylińska’s work. The other main component, the reflection around Peace is crucial for our socio-cultural context. As the reader probably knows, there is an unprecedented Peace process happening in Colombia that is attempting to solve a struggle that has upset Colombian society for more than a half of a Century. This process that is well advanced has had a meaningful impact on the current Colombian political configuration; however, it still needs substantial elaboration to contribute to the construction of a post-conflict society. This condition is one of the reasons why is vital that the next ISEA will be hosted in Durban, South Africa, nation that is a permanent reference.

The selection of papers and presentations of the Academic Track offers an extraordinary variety of proposals articulating the thematic concepts proposed with a battery of classical questions that are part of the foundations of the questions addressed in ISEA since its inception; for instance, the importance of technological media, the role of digital technologies, the value of data, and the significance interactive processes.

Before closing we would like to thank the IPC members for their valuable help reviewing the proposals, many thanks to the people who applied, thanks to the ones who came to Manizales. We present in front of you, our gratitude and respect for your work and contribution.

**Andrés Burbano & Julián Jaramillo Arango**  
**ISEA2017 Academic Chairs**



## **SUB-THEMES**

### **Bio creation & Data**

Data is becoming pervasive in our daily lives. Scientists have used data and biological processes to create products and systems, while artists explore the aesthetics of technology, data and biology. How do artists integrate data and biological phenomenon in the creative process? In what ways do designers take advantage of large amounts of data to make decisions that affect sustainability and biodiversity?

### **Critical perspectives on the use of Technology for Peace**

Technology is a potential tool that supports peace process and conflict resolution. What is the role of art and design in defining the use of technology to support peace and conflict resolution? Are there cultural identity tensions catalyzed by technologies? How can technology promote intercultural dialogues and peace construction?

### **Media Art, Landscape and Heritage**

ISEA2017 will take place in a region in Colombia known as the Coffee Cultural Landscape, declared as a world heritage site by UNESCO. We invite work that reflects on the conflict between media and heritage. How do artists and designers include heritage in their critical thinking and aesthetic decisions? How could media art help disseminate cultural values around peace? Does media art have the capacity to preserve heritage? Does conservation or cultural transformation generate conflict?

### **Interdisciplinary Platforms for Coexistence**

Transdisciplinary teams collaborate to generate social and political content and debates. Artists, designers and scientists have tried to work together and get citizens involved with interactive technologies and media. Are these platforms showing paths for social coexistence? How transdisciplinary collaborations can generate social benefits? How can biological process be used as source of inspiration and the generation of social possibilities for living in peace?

### **The Cultural Dimensions of Bio-creation and Peace**

In recent times, pockets of peace across our planet have emerged and Colombia is one example. Does the idea of peace have a larger role to play than simply resolving conflict? In what ways could indigenous awareness contribute to our understanding of peace? What bridges in thought and action are needed to achieve global peace across cultural and transdisciplinary boundaries? Is bio-creation in conflict with, or in accord with, indigenous awareness of living organisms?

### **Design, Art, Science, and Technology**

This subtheme is to open up participation for other authors that want to submit works to ISEA2017 and include a broad interdisciplinary discussion and showcase about interrelations among design, art, science and technology.

**Felipe C. Londoño, Director ISEA2017**

**G. Mauricio Mejía, Deputy director ISEA2017**



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