

Co-funded by the
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Multidisciplinary Garden Cartography

Root & Seeds XXI. Biodiversity Crisis and Plant Resistance

Ferran Soldevila Garden – Universitat de Barcelona
15 & 16 July, 2021



*Multidisciplinary Garden Cartography
In the frame of Roots & Seeds XXI. Biodiversity Crisis and Plant Resistance
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Event Collaborator

MELPOM



Introduction

Roots & Seeds XXI. Biodiversity Crisis and Plant Resistance is a European cooperation project, led by Quo Artis and developed in collaboration with the Ars Electronica festival (Austria), the Leonardo / Olats Art and Science Observatory (France) and the University of Barcelona with the collaboration of the Botanical Institute of Barcelona.

It is co-financed by the Creative Europe Program of the European Union. It will last for two years (October 2020 – October 2022), during which cultural activities that combine artistic-scientific methods and approaches to address the biodiversity crisis will be developed.


The project is committed to raising public awareness of this crisis, analyzing its causes and promoting the dissemination of knowledge about the world of plants. The first event will be the “Multidisciplinary Garden Cartography”, which will take place at the Ferran Soldevila Garden (University of Barcelona) on July 15 and 16, 2021, a think tank in which artists and scientists will participate. The concept of this event will be replicated in Paris and Linz in September this year, adapting the format to its different gardens and participants.

For the event in Barcelona we will invite a group of 20 professionals from different fields (artists, scientists, economists, philosophers and environmental science researchers, along with cultural actors such as curators and art critics) whose practices are linked to the plant world in different ways. Based on round tables and transdisciplinary dialogues, we will analyze the crisis of biodiversity with the intention of proposing sustainable ways of relating to nature. During the event, the participants will carry out a multidisciplinary cartography, that is, a joint mapping of the garden. Beyond its taxonomic information, this cartography will have the intention of making visible discourses that consider plants as agents and not as resources.

Through these workshops, *Roots & Seeds XXI* seeks to safeguard and promote botanical heritage, weaving scientific knowledge with storytelling and humanities. In this way, the “Multidisciplinary Garden Cartography” will promote the creative potential of artists and scientists working together, fostering multidisciplinary collaboration networks and hybrid methodologies.

Subsequently, a publication will summarize the dialogues produced there, in order to share them with the widest possible audience. Podcasts and video capsules with the interviews of the participants will also be made and distributed through the communication channels of the project partners and the Creative Europe Program of the European Commission.

The event will be in English.



Garden of the Historical Building of the University of Barcelona

Ferrán Soldevila Garden (Gran Via de les Corts Catalanes, 585, 08007 Barcelona)

The garden of the Historical Building of the University of Barcelona, called the Ferran Soldevila Garden since 1995, has been part of Barcelona's Eixample since 1871, the date on which the University complex was inaugurated. In addition to being part of the municipal catalogue of natural areas and green spaces in the city, in 1970 it was declared a Historic and Artistic Monument along with the entire university campus.

Despite being a small garden, it has a great variety of plants. It's 0.94 hectares of vegetation contributes to absorb about 7,000kg of carbon dioxide each year. With more than 155 species and a thousand specimens from all over the world, walking through this garden feels like travelling through the five continents.

Visiting each of its spaces allows us to discover a good sample of the vegetation that we can find in the streets of our cities, as well as very old species that have survived millions of years of evolution. There, we can recognize species of trees and shrubs that inhabit our childhood memories, or memories with which we have emotional ties, as well as species that provide us with food, wood, medicine or other benefits; and which we will try to see with new eyes.

Advisors

Paco Calvo (ES)

Paco Calvo is a Professor of Philosophy of Science and Principal Investigator of MINTLab (Minimal Intelligence Lab) at the University of Murcia (Spain), he specializes in the philosophy of cognitive science, courtesy of a Fulbright scholarship in the late 90s (University of California, San Diego), and received a Ph.D. in Philosophy from the University of Glasgow (UK) in 2000.

His current research interests range broadly within the cognitive sciences with special emphasis on plant intelligence, ecological psychology and embodied cognitive science. He is a member of the scientific committee of the International Laboratory of Plant Neurobiology (LINV, Florence) headed by Prof. Stefano Mancuso. His most recent research has been published in Scientific Reports, British Journal for the Philosophy of Science, Plant, Cell & Environment, Annals of Botany, or Trends in Plant Science among others. He is co-editor of Companion to Philosophy of Psychology, Handbook of Embodied Cognitive Science, and The Architecture of Cognition for the publishers Routledge, Elsevier, and MIT Press, respectively.

Lucio Montecchio (IT)

Lucio Montecchio is a Full Professor at the University of Padua, where he teaches both Forest Pathology and Trees' Health. His research activity focuses mainly on trade-related spread of exotic plants' parasites, their survey, epidemiology and containment attempts.

Member of the advisory board of the Padova University Botanical Garden (1575), he is the author of numerous scientific and technical publications and is a consultant to outstanding international institutions such as IPPC/FAO, EU, EPPO, EAC. In 2018, the Financial Times called him "The man who saves trees".

He has an intense scientific dissemination activity on ecology and environment care, including the blog Alberiesperti (www.alberi.blog), the book "Germogli", but also theatre and web readings, TV, newspapers, and radio interviews and comments.

Participants

Marco Agnolin (IT): Economist that specializes in the textile industry and the fashion sector. Former CEO of Bershka and Diesel, he started A Better Mistake, a new sustainable fashion brand far from the throwaway model.

Paula Bruna (ES): Artist who graduated in Environmental Sciences and holds a PhD in Fine Art with a thesis about art and political ecology. Her practice takes as reference concepts of ecology, ecological economy, and theories on strong sustainability and degrowth, emphasizing the interaction between our society and the ecological system where it lies.

Gabino Carballo (ES): Landscaper with a Masters Degree in Project Management, and a Degree in landscaping from the UCJC in Madrid. He works as a Senior Green Technician in the projects department of the Municipal Institute of Parcs i Jardins of the Barcelona City Council.

Blanca de la Torre (ES): Curator who works at the intersection of art, cultural studies, ecology and sustainable practices. She is the curator of the XV Cuenca Biennial (Ecuador) and responsible for the Aula Sostenible at CAAM, a permanent space dedicated to art and sustainability at the Museum of Contemporary Art in Las Palmas de Gran Canaria.

Evgenia Emets (RU-PT): Artist and founder of the Eternal Forest Sanctuary Project, a multidisciplinary art project that aims to create 1000 Sanctuaries and protect them for 1000 years, through art, ecology and community.

Xavier Gabarrell i Durany (ES): Professor of the Department of Chemistry, Biology and Environment Engineering at the UAB, is director of ICTA-UAB and Coordinating Scientist of SMART-ER at ECIU University. He leads the Industrial Ecology research group called Sostenipra and the Fertilecity Project.

Jordi Juanos, Director de Plant for The Planet (ES): Plant for the Planet is an organization that aims to create awareness among children and adults about the problems of climate change and global justice. The initiative also works to plant trees and sees this as a practical and symbolic action in efforts to reduce the effect of climate change.

Iñaki y Aitor Muñoz (ES): Graduated from the University of Fine Arts of Barcelona. Iñaki completed his studies with a degree in Fashion Design, while Aitor specialized in Landscaping and Botany. Both founded the women's clothing brand Ailanto, which is committed to local and respectful production, guaranteeing sustainability with its suppliers and collaborators in the proper use of materials and their production processes.





Francisco Navarrete Sitja (CL): Chilean artist whose field of artistic and collaborative research is currently addressing the disappearance of spontaneous orchids in the Parco Naturale Regionale Monti Lucretili (Valle dell'Aniene - Valle Ustica. Lazio, Italy), focusing his interest on how global warming and landscape anthropization could be negatively impacting adaptation of orchids and aggravating the extinction of the species.

Nacho Peres Osia (ES): Farmer specialist in permaculture, biodynamic and regenerative agriculture. He investigates horticultural varieties and techniques around the world for their introduction into local productions. He is currently responsible for organic production at the Ferrer Sustainability Foundation.

Antonio Riello (IT): Artist with a degree in Pharmaceutical Chemistry with an eclectic and endless curiosity for social paradoxes. He taught anatomical drawing for several years at the Accademia Belle Arti in Bologna. Since 2010 he has managed seminars and conferences on Contemporary Art and Fashion (the relationship between the human body and clothing / uniforms) at various universities and art schools in the UK, including the Royal College of Arts (London), the University Westminster (London) and Ruskin Anglia University (Cambridge).

Joan Rieradevall Pons (ES): Doctor in Chemical Sciences (Chemical Engineering), scientific collaborator of the Sostenipra research group of the Institute of Environmental Science and Technology (ICTA) María de Maeztu Center of Excellence of the Autonomous University of Barcelona. He is the founding partner of Inèdit Innova and Tectum Garden spin off the UAB.

Alejandro Rueda (CO): Environmental, Economic and Social Sustainability, new generation agriculturist. He is Strategy & Finances Associate of a vertical farming company based in Barcelona.

Robertina Sebjanic (SI): Internationally recognized artist, whose work revolves around the biological, chemical, political and cultural realities of aquatic environments and explores the impact of humanity on other species and on the rights of non-human entities, at the same time that she calls for emphatic strategies towards other species to be adopted. In her analysis of the Anthropocene theoretical framework, the artist uses the term "aquatocene" and "formation water" to refer to the impact of human beings on aquatic environments.

Claudia Schnugg (AT): Researcher and curator with interdisciplinary experience in social sciences, business administration, cultural sciences, and the arts. She is a curator in the fields of collaboration between art and science, organizational aesthetics, incorporated knowledge and artistic interventions, and is the author of the book "Creating ArtScience Collaboration", one of the great references in the field.

Performance



As guest performance, **Akyute** collective will perform a musical intervention in the garden.

Akyute is an artistic Collective formed by Magdalena Hart (Uruguay), Natalia Gima (Argentina) and Miriam Felici (Italy) that uses technology as a tool to integrate nature in the digital age, unifying the design of interactive experiences, audiovisual arts and generative sound. On this occasion, they will present a performance in which through the reinterpretation of the data collected from the Ferran Soldevila Garden, they will synthesize auditory frequencies with the aim of building a soundscape where human perception of its vegetation will be transformed into sound.



Roots & Seeds XXI

Biodiversity Crisis and Plant Resistance

During the last years, the discourses around the loss of biodiversity and more sustainable production and consumption models have advanced widely in the fields of natural sciences, social sciences and new technologies. However, our actions individually and collectively are lagging behind.

Roots & Seeds XXI. Biodiversity Crisis and Plant Resistance is a cultural project that aims to establish bridges that help alleviate this delay. Through the creation of new imaginaries arising from the intersection of Art and Science, Roots & Seeds XXI and with the involvement of artists, economists and scientists, it will seek to promote practices that resonate with a wider audience. Throughout the two years that the project will last (until October 2022), we will produce events and activities that generate connections between artists, philosophers, botanists, activists, economists, designers and curators, with the intention of generating dialogues and charting new paths that place the plant world in the center. Understanding the plant world as an agent and not a resource, we will try to imagine new ways of relating to it.

The activities that we will develop (calls for art production, talks, publications, exhibitions, among others) will operate at the intersection of Art and Science, and with them we will promote habits that directly affect the crisis of plant biodiversity. A crisis whose causes and ramifications are impossible to address without transcending the borders that divide the areas of knowledge with which we have been operating for years.

Activities within the Project

- An Open Call for an Artistic Research Residency at Malina House, Paris, in April 2022.
- An Open Call for grants for the production of two works of art, which will be exhibited at the Ars Electronica Festival in Linz (Austria), in September 2022.
- Two Laser Event conferences in Paris by Leonardo / Olats, in September 2021 and February 2022.
- Three Multidisciplinary Cartographies of Gardens in Barcelona, Paris and Linz in July, September and October 2021.
- 24 Podcasts that will record the experience and reflections arising from the multidisciplinary cartographies, and that will be available on the project website and the Leonardo / Olats platform.
- Forum of Art and Science in Barcelona, organized by the University of Barcelona, in June 2021.
- Workshop on Botany and Literature in a Public Library in Barcelona, guided by the HerbART team of the University of Barcelona, in July 2022.
- An exhibition and round table at the Ars Electronica Festival, Linz, in September 2022.
- 8 awareness and dissemination videos on the biodiversity crisis, recorded during the different activities of the project.

The Quo Artis logo is displayed within a white circle. It features the text "QUO ARTIS" in a large, bold, black sans-serif font. Below it, the words "ART AND SCIENCE FOUNDATION" are written in a smaller, red, all-caps sans-serif font, preceded by a small red square icon.

QUO ARTIS
ART AND SCIENCE FOUNDATION

The Ars Electronica logo is shown inside a white circle. It consists of a stylized black icon on the left, followed by the text "ARS ELECTRONICA" in a bold, black, all-caps sans-serif font. Below this, the tagline "Art, Technology & Society" is written in a smaller, black, sans-serif font.

ARS ELECTRONICA
Art, Technology & Society

European Partners

a. Quo Artis

Quo Artis is a non-profit organization that aims to promote artistic projects at the intersection of Art and Science. Based in the Sant Pau Modernist Campus (Barcelona), it organizes exhibitions, conferences and expeditions and produces Art & Science works.

Concerned about the environment, in 2017 the Foundation organized an expedition to Antarctica with a group of artists and scientists in order to raise awareness about the melting of the largest freshwater reserve on Earth. Due to its multicultural value, this project was sponsored by UNESCO.

Currently Quo Artis is preparing an Art & Science expedition to the Galapagos Islands (September 2021). Amongst the participants there will be Nobel laureates: Frances Arnold, Barry Barish and Aarón Ciechanover, and an international group of representatives of the artistic / cultural world: Vik Muniz, Victoria Vesna, Jorge Carrión, Joan Fontcuberta, Robertina Šejdanić and Lonneke Gordijn. This expedition will be carried out under the patronage of UNESCO. The Foundation is the leader of "Roots & Seeds XXI. Biodiversity Crisis and Plant Resistance", an international cooperation project co-financed by the European Commission within the Creative Europe program.

Quo Artis is a member of the Council of Spanish Foundations for Science FECYT (Ministry of Science and Technology). Some of his artistic and scientific collaborators are: MIT Media Lab, City University of London, European Space Agency, Pushkin Museum of Fine Arts (Moscow), Venice Biennale, Museum of Houston, Festival of Advanced Music Sónar (Barcelona), Watermill Foundation (New York), Berlin School of Mind and Brain and CCCB (Barcelona), Ars Electronica (Austria), IRB Institute for Biomedical Research (Barcelona); among other.

More information: <https://quoartis.org>

b. Ars Electronica

Ars Electronica is an Austrian cultural, educational and scientific institute active in the field of new media art, founded in Linz in 1979. Ars Electronica's activities focus on the interlinkages between art, technology and society. It runs an annual festival, and manages a multidisciplinary media arts R&D facility known as the Futurelab. It also confers the Prix Ars Electronica awards.

Since 1979, the annual festival has been a gathering of artists, scientists and technologists, intended as a setting for experimentation, evaluation and reinvention. The festival has always exerted a public presence in Linz, mounting large-scale open-air projects and holding lectures, discussions and workshops in a wide range of public venues. Each year the festival is devoted to a specific theme and it attracts around 579 participants and about 85,000 visitors.

With its nearly 40 years of experience in trans-disciplinary work, Ars Electronica will facilitate the planning, organization and implementation of the exhibition and outreach activities in the framework of "Roots & Seeds XXI". This



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set of experiences and networks as well as its world-renowned presentation platform will be an ideal ground for this project.

Ars Electronica's network (ie. Studiotopia, STARTS Regional Centers, European ARTificial Intelligence Lab) and its annual highly visible Festival will contribute with its communication and dissemination resources so that "Roots & Seeds XXI" can tap into all these privileged resources and highly increase its dissemination outreach.

More information: <https://ars.electronica.art>

c. **Leonardo/Olats**

Leonardo / OLATS is the french (european) sister organization of Leonardo / ISAST, which is The International Society for the Arts, Science and Technology. The association is active in the domain of art and creation that relates to life, bio(techno)logy, and biodiversity in different ways: audio publishing with a series of podcasts, organization of workshops and conferences, providing support to the projects of artists in residence and, above all, publications. Leonardo is a reputed peer-reviewed academic journal published by the MIT Press covering the application of contemporary science and technology to the arts and music.

More información: <http://www.olats.org>

d. **Universitat de Barcelona, en colaboración con l'Institut Botànic de Barcelona**

The University of Barcelona has more than 570 years of history, is the leader in Catalonia and Spain and ranks in the top positions in Europe. It is also the only university in the country that is part of the exclusive League of European Research Universities (LERU) and leads top-level internationalization initiatives, such as the Charm European University (CHARM-EU) alliance. The University of Barcelona is the principal centre of university research in Spain and has become a European benchmark for research activity, both in terms of the number of research programmes it conducts and the excellence these have achieved.

University of Barcelona's EtnoBioFiC research group is devoted to all aspects of plant diversity and genome evolution as well as ethnobotany, the overlap of social and natural sciences. The team has experience in topics related to literature, art and botany. And in 2019 it organized the international workshop "HerbArt -Art and Science at Confluence", where artists and botany researchers met to share processes and identify territories of interdisciplinary collaboration.

More information: <http://www.ub.edu> & <https://www.ibb.csic.es>



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