

IMNA

Mutant Institute of Environmental Narratives

MATADERO
MADRID'S
ARTISTIC
LABORATORY
FOR CLIMATE
ACTION



MATADERO

Mutant Institute of Environmental Narratives

Metodology . 10
Swarm . 10
Lines of research and action . 11

IMNA x MADRID

Action + research projects

Ecovisionaries . 16
Cyborg garden . 19
Cli-fi tv series . 22
Artistic residency . 24
Game of swarms . 25
Ministry of the future . 25

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IMG ↑ MATADERO MADRID / BEGO SOLÍS

IMG COVER IMNA/ LA RABIOSA PRODUCTORA

Today, more than ever, we need initiatives that help us foster our collective imagination to face the biggest challenge of our species: the present and future of the environmental crisis. The Mutant Institute of Environmental Narratives (IMNA), Matadero Madrid's artistic laboratory for climate action, has been working since 2018 to propose new narrative strategies and innovative projects from art and fiction.

The IMNA is not an ordinary cultural project, it is a mutant device to adapt to uncertain futures with new ways of approaching problems and storytelling. A space for research, experimental interdisciplinary creation and learning; a meeting place between very diverse agents, in which the strategies to follow are given by ants, bees or thousand-headed molds.

The IMNA postulates that the urgency and complexity of the current planetary challenges require us to activate processes based on collective intelligence, processes that go beyond particular disciplines; and that transformations will only be possible if, together with essential scientific research and technological innovation, a cultural change takes place. The IMNA promotes an understanding of the human and its position in the world, that recognizes the needs of other species and is capable of establishing a commitment of coexistence with them, as well as a pact of responsibility towards future generations.

Combining artistic creation, science and interdisciplinary research, IMNA produces new pieces with national and international artists in very different formats: exhibition, audiovisual, textual, podcasts ..., proposing new forms of *storytelling*; launching a television series of climatic fictions; encouraging speculative design and projects in the field of environmental humanities; imagining the future of

journalism; establishing a dialogue with municipal policies, together with researchers and creators a cyborg garden for Matadero which will lower the temperatures of its surroundings.

The IMNA is also a catalyst of initiatives that contribute to accelerate dissemination and empathy with propositive ecological discourses.



METHODOLOGY

↳ Co-creation tools and collective intelligence processes

In 2019, IMNA launched a research line together with national and international research centres focusing on the study of swarm methodology. Inspired by living organisms such as ants, bees or molds, the project brings together artists, biologists, experts in virtual reality, public policy makers and other agents in the creation of cooperative games and tools for co-creation through collective intelligence.

IMNA's methodology is designed to be applied in small or large interdisciplinary working groups of decentralised structure.

These groups for co-creation that we call swarms, are formed by members with specific and interdisciplinary roles. They also work in a coordinated and cooperative way. Swarm intelligence systems typically comprise a population of simple, specialised agents interacting locally with each other and with their environment. Like ant colonies, the alignment of birds in flight, the behaviour of flocks as they graze or the growth of bacteria, swarms function can be compared to the nervous system of a complex organism. It operates through simple interaction, fluid communication and the coordinated movement of agents.

Swarm methodology aims to develop tools for mediation and to approach specific problems using processes that are based on **collective intelligence**, i. e. processes that depend on the way in which tasks are organised, on groups of agents, and on a participatory approach. Moreover, by incorporating the proposal of

artists who have collaborated with IMNA, such as Paula Nishijima or the Laboratorio de Pensamiento Lúdico (the Laboratory of Playful Thinking), the methodology makes use of the concept of **play as a fundamental component** of learning process.

Through these processes, our super-organism stays alive: it thinks, talks, moves, interacts with its environment, and makes decisions. But one important element is missing: a conscience that analyses our mission, our mediating methods and proposes new approaches. Our ethos. This role is played by coordinated agents or by appointing specific agents. This conscience is also optimised, it grows and mutates. By developing new tools and mediation capacities, this new organ acquires complexity. With each self-evaluation loop, the identity of the IMNA mutates and develops a personality of its own, a defined way of behaving, a way of understanding or feeling environment.

SWARM

↳ The IMNA operates through an interdisciplinary network that brings together an international group of artists, designers, researchers, scientists, engineers, architects, public policy makers and many other agents.

As a cultural platform for climate innovation, the IMNA is promoted by the Technology Innovation Center for Development of the Polytechnic University of Madrid (itdUPM); the Madrid City Council, through its Environment and Mobility Department; and the Matadero Madrid Centre for Contemporary Creation. Together with these institutions and other entities, the IMNA is promoting the Deep Demonstrations of Clean and Healthy Cities initiative in Madrid - part of the Climate-KIC of the European Institute of Innovation and Technology (EIT) - which seeks to support 10 cities that demonstrate change to ensure a resilient future with zero net emissions in 2030.

In addition, the IMNA is supported by the Daniel y

Nina Carasso Foundation as part of its "*Componer saberes para comprender los desafíos contemporáneos*" programme which aims to support initiatives that face contemporary challenges through collective intelligence.

The following institutions collaborate with the IMNA: Banco de Sabadell Foundation, L'Oréal, Laboratory for Environmental Narrative Strategies (LENS - UCLA), Experimental Architecture Group, Centre for Research in Animal Cognition of the Centre National de la Recherche Scientifique of the University of Toulouse (CNRS), Area of Biodiversity and Conservation of the University Rey Juan Carlos, Greenpeace Spain, Extinction Rebellion Spain, Cineteca Madrid, Intermediae Matadero, Matadero

LINE OF RESEARCH AND ACTION

↳ Urban greening and health

What would our cities be like if our health depended on their biodiversity? How might we adapt to climate change in urban areas? Our bodies are composed of many more non-human cells than human cells, we evolved thanks to the cooperation of tiny species that need a certain environment and nutrients to live. The balance of this environment — the good quality of the air and water, or the healthy food on which our health depends — maintains an optimal balance in relation to its biodiversity.

Human settlements already exceed the planet's resource capacity. Increasing urban development puts further pressure on cities' resource systems and infrastructures. To adapt to certain health and climate emergency scenarios such as the present one, and create resilient communities, we must consider cities as the environments that most need to be transformed.

This line of work studies urban greening - the planning of green infrastructure within the city to increase biodiversity - in connection with our health. With the aim of contributing to removing the cultural barrier between nature and human society, "Urban greening and health" investigates issues such as *biophobia* or other cultural limitations that have determined how our cities are designed, and opens up possible imaginaries of urban rewildering.

↳ Intergenerational Pact and Green Deal

What sort of planet are we going to bequeath to future generations? How can we promote global governance models that ensure our resilience as a species? What institutions need to be reformed to achieve this? In 2004, the Bolivian representative to the United Nations, Angélica Navarro, spoke of the need for a "Marshall Plan for the Earth" and of the urgent need to mobilise resources and people as never before to ensure that future generations may have a future. Since then, proposals for a Green Deal have followed one after the other. In the context of European institutional policy, the Green Deal is put forward as a framework to promote an efficient use of resources through circular economies, as well as to restore biodiversity and reduce pollution. All this with the social objective of "leaving no one behind".

This line of work focuses on research into long-term global governance policies that promote a pact of responsibility towards future generations. It places special emphasis on the development of the European Green Deal and proposes spaces for criticism and institutional reform.

↳ Co-existence and communication between species

One of the basic tenets of the traditional division between "nature" and "human society" is so-called speciesism, or the idea of limiting culture to the human

species. Specism and human exceptionalism has led to the definition of planet-wide, human-run models of governance, whose notions of collective action and justice are dominated by Western political thought. However, environmental activism and ecological thinking of the last years have highlighted the following idea: to survive this and other contemporary crises, we must understand politics as something that goes beyond the human species, as the governance and organisation of different species societies that share the planet.

This line of work is proposed as a collective exercise in understanding our impact on other species and as a way to approach them. In response to speciesism, it proposes exercises in communication and empathy with non-human entities and the study of initiatives that acknowledge their rights.

↳ Cooperative resilience and flexible urban infrastructures

What kind of networks are we building in our human relationships and with other species? What would happen if we understood the Planet as several brains thinking and acting in one and the same body, as occurs in certain microorganisms? And what if that model of cooperation was the rule rather than the exception in adaptation processes?

Beginning with a revision of the theories of competition-based evolution, the line of work of cooperative resilience studies the adaptation processes of other species based on cooperation and horizontal learning. This line follows the reference work of biologists such as Lynn Margulis or Margaret McFall-Nagi, who have proposed revisions of the dominant competitive paradigm derived from Darwin's evolutionary theory through the idea of symbiosis (from the Greek "*living together*") and cooperation. Cooperative resilience studies, through art, species such as *Physarum polycephalum*: a multi-headed mold or a giant rhizomatic cell that mutates depending on its nutritional needs. Although it lacks a brain, it has a great capacity for learning.



IMG ↑ MUTANT ACTION. WORKSHOP

IMNA X MADRID

IMNA carries out long-term work as a laboratory for cultural innovation in the *Madrid Deep Demonstrations of Healthy and Clean Cities* of the EIT Climate-KIC, which aims to contribute with the necessary changes to accelerate the path towards Madrid's carbon neutrality by 2030. Together with a network of European cities such as Vienna, Leuven and Milan, the EIT Climate-KIC supports Madrid as a demonstrator city in a continuous learning between cities towards more sustainable models.

The organizations promoting the Madrid Deep Demonstration are: Madrid City Council, the Polytechnic University of Madrid through the Innovation and Technology for Development Centre (itdUPM) and Matadero Madrid (IMNA), providing a cultural innovation approach.

The Madrid Deep Demonstrations (MDD) initiative proposes the creation of a multi-stakeholder collaborative work model to develop a portfolio of interconnected projects. Its objective is to design and deploy interventions of different scale that allow linking mobility, urban energy renewal, new forms of regulation, and nature and health as vectors of planning and decarbonization of the city of Madrid. These interventions seek to promote employment through the generation of new models of financing and co-management of the territory, the recovery of industrial soils, the increase of biodiversity, and influence a change in social perception in relation to the necessary natural environments for the welfare of our species.



Action-research projects



IMG ↑ MATADERO MADRID / BEGO SOLÍS

The Mutant Institute of Environmental Narratives (IMNA) is the Matadero Madrid's Artistic Laboratory for climate action. It promotes different lines of work involving communication between species, cooperative resilience, urban natures or environmental justice. These lines of in-depth research are undertaken through a series of spaces for action and social innovation initiatives.

ECOVISIONARIES

↳ Art for a planet in emergency

↳ From June 14th to October 6th, 2019

Eco-visionaries is the shared name of an international exhibition project originally organised by MAAT- Museum of Art and Architecture of Lisbon (Portugal), Bildmuseet of Umeå (Sweden), House of Electronic Arts (HeK) of Basel (Switzerland) and LABoral Centro of Art and Industrial Creation of Gijón (Spain). It has been conceived as a work

in progress to which the Matadero Madrid Contemporary Creation Center and the Royal Academy of Arts in London (United Kingdom) have joined with new contributions. Matadero Madrid and LaBoral Centro de Arte y Promoción Industrial of Gijón centers also collaborate for the joint presentation of the proposal.



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IMG ↑↑↑↑ MATADERO MADRID / BEGO SOLÍS

Led by architects and artists, and with the participation of engineers, geologists, botanists, sociologists, anthropologists and designers, in 2018 the co-creation of the Cyborg Garden in Matadero began. It became an experimental space and a study case of urban prototypes with the aim to replicate its adaption strategies to climate change in other areas of Madrid.

CYBORG GARDEN

↳ Climate change adaptation strategies

The Matadero Madrid site, with its vast spaces devoid of vegetation or shade, is located in the middle of a “heat island”, which means that it suffers greatly from the extreme temperatures and heat waves that are tending to occur more and more frequently in the city. Taking this adverse situation as a starting point and through a series of working groups led by artists and architects and with the participation of geologists, botanists, engineers, sociologists, anthropologists and designers, in April 2018 a process was launched to create a **Cyborg Garden**, put forward by Matadero as a testing ground and case study with which to develop strategies for adapting to climate change and prototypes that can be replicated in other spaces in Madrid. The IMNA Garden is also a meeting place for different species in which to try out ways of co-inhabiting with non-humans from a space of desire and care.

In 2019, the Nave 16 of Matadero Madrid was the setting to discover the prototypes of this Garden, created by artists such as the bio-designer and Computer Doctor Orkan Telhan, who worked with new species and with the care rituals of these hybrids, at the same time, natural and artificial; the collective uh513 formed by the artist María Castellanos and the technologist Alberto Valverde, who, through cyborg prototypes and virtual reality, invited us to expand our sensory capacities and interact with the plants in the garden; the group of architects Double Happiness

(Joyce Hwang and Nerea Feliz) attended to the other inhabitants of Matadero Madrid: insects, neighbors that are not always visible but are crucial in the dynamics of the urban ecosystem; the architects TAKK (Mireia Luzárraga and Alejandro Muño) who developed living spaces, generators of shade, that would participate in the local biodiversity, and the group formed by Rachel Armstrong, Rolf Hughes, Pierangelo Scravaglieri [Newcastle University] and Ioannis Ieropoulos [University of the West of England] (England) who designed a purification system to transform the urine of visitors into irrigation water, for the Cyborg Garden. Matadero Madrid functioned as a testing ground and case study for the testing of replicable prototypes in other spaces in Madrid, as well as other scientific and technological innovation processes, to test, through art, solutions based on nature.

The IMNA Garden is also a meeting place between different species in which to test ways of co-living with non-humans from a space of desire and care. During 2020, the process of interdisciplinary co-creation has continued with monthly meetings of the working groups and the implementation of the first phase of the Cyborg Garden. The development of the first phase on the main street of Matadero is scheduled for 2021.



IMG ↑ IMAGENSUBLIMINAL (MIGUEL DE GUZMÁN + ROCÍO ROMERO). EXHIBITION DESIGN: ELII [ARCHITECTURE OFFICE]



IMG ↑↑↑↑ MATADERO MADRID / BEGO SOLÍS



IMG ↑↑↑↑ MATADERO MADRID / BEGO SOLÍS

CLI-FI TV SERIES

↳ Visions of greened urban futures

The Cli-Fi TV series project is working on the creation of a television series about the future of human beings and other species in cities like Madrid after going through processes of extreme nature or urban rewilding.

Cli-Fi TV series is based on the estimate that by 2050 80% of the European population will live in towns and cities, putting increasing pressure on all their resources and infrastructure systems. In order to adapt to the uncertain scenarios of the climate emergency and with the objective of decarbonization as a horizon, cities are beginning to emphasize urban nature processes, a way of understanding urbanism that emphasizes green infrastructures (trees, parks, forests, etc.) —a strategically planned network of semi-natural areas with environments designed to perform services such as water purification, increase air quality, climate mitigation, etc. — rather than in traditional gray infrastructures.

But what consequences might the implementation of extreme greening processes have? What other species would we have to live with? What opportunities are there for human beings and what sacrifices do we need to make?

The project invites artists and filmmakers to direct chapters for a television series and to work together with urban planners, scientists, agents of public administrations and citizens in interdisciplinary scripting tables to imagine new urban models and of cohabitation with other species. The objective is to draw non-apocalyptic futures through audiovisual production, persuasive fables of nature capable of gathering the complexity of these processes while also integrating critical views such as biophobia. Furthermore, the project explores the possibilities of fiction as a design tool for the unexpected.

In 2020 the IMNA has started to develop the first episode of the series with the architect and artist Liam Young and in collaboration with many other agents (see *Matadero Mutant Action 2020*)

The Cli-Fi series is a project to create a television series about the future of humanity and other species in cities such as Madrid after undergoing ‘extreme urban rewilding processes’.



IMG ↑ MATADERO MADRID / BEGO SOLÍS

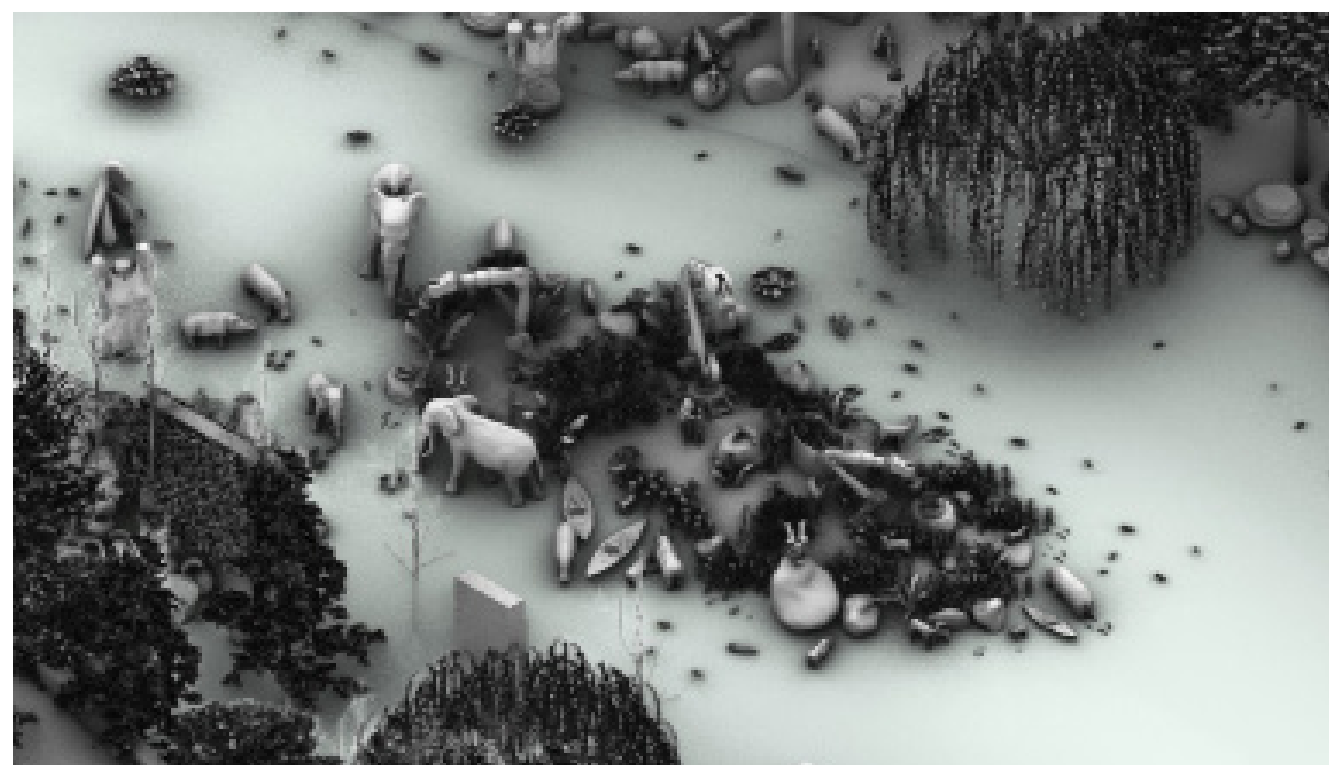
ARTISTIC RESIDENCY

↳ Art and journalism in response to climate change

Our worldview is largely formatted by the media, films, literature and the entertainment industry, through which we share languages and ideas and interact with our environment. But what imaginaries do contemporary journalism and the information flow actually produce as far as the climate emergency is concerned? Are the traditional discourses of such media as newspapers or TV news broadcasts sufficient to convey the urgency of the crisis and the need for action? What role can art play in this context? In response to this and other questions, the Centre for Artistic Residencies in Matadero Madrid and IMNA are launching a residence program to support artistic practices at the intersection of art and journalism. **From 13 January to 5 April 2020**, Matadero welcomed the artist **Andrea Molina**, the winner of the call. A trained architect, with a postgraduate degree from the ETSAM, a member of the Extinction Rebellion collective and winner of the Mies

Van der Rohe Foundation's Young Talent Award, among others, Molina's proposal involves research into the impact of climate change on the district of Usera through the creation of a participatory audiovisual map. Together with artist Gabriel Ruiz-Larrea, Molina conducted a series of eco-fiction workshops with local residents of Usera, the contents of which will form the basis of the mapping.

Andrea Molina's residency will be televised in February by the **Metrópolis TV programme on the Spanish TV channel La 2**. They will report on the entire creation process and on the final result of the residency. Her work will also be presented at the final exhibition of the Matadero Centre for Artistic Residencies in December 2020.



IMG ↑ MATADERO MADRID / BEGO SOLÍS

GAME OF SWARMS

↳ Cooperation methodologies based on natural systems

Game of Swarms is a joint line of research between IMNA and national and international research centres that seek to study and imitate the behaviour of other species in order to develop innovative strategies. The project brings together artists, biologists, experts in virtual reality, public policy makers, and other agents engaged in the study and imitation of living organisms such as ants, bees or molds in order to build a **game of cooperation** that helps to articulate **collective intelligences capable of promoting**

social transformations. An analogue version of the game was developed in 2019 and has been tested by more than a hundred participants including the public at the Eco-Visionaries exhibition in Matadero (from 14 June to 6 October 2019) and students taking the master's degree in *Systems Organisation* at the Polytechnic University of Madrid. The digital version of the cooperation game will be developed in 2020 and will also be the interface of the new IMNA website.

MINISTRY OF THE FUTURE

↳ Girls, boys and young climate activists

Imbued with the urgency expressed by groups of young citizens such as *Jovenes por el Clima* or *Fridays for Future* who are demanding long-term social and political changes to ensure a sustainable future, the aim of the project is to imagine what the portfolio of a hypothetical Ministry of the Future should be. This portfolio would develop a pact between generations of humans and between non-human species. It is conceived as a meeting place for children, citizen action groups, philosophers, artists, lawyers and other national and international agents in response to the need

to **define heterogeneous policies that recognise the rights of non-human beings and promote long-term approaches**, with future generations in mind. Conceived by IMNA and Cineteca Madrid (film archive) and with the collaboration of **Greenpeace and Ciudad DIWO**, the project is developed through meetings and summer camps. On the meanwhile, a **video manifesto** is produced as a roadmap towards a binding Ministry of the Future.

*Due to the COVID-19 pandemics the 2020 summer camp was cancelled but we are planning new iterations of the Ministry of the future.



IMG ↑ MATADERO MADRID / BEGO SOLÍS

Creators who have collaborated with the **IMNA:**

Liam Young, Fito Conesa, Robertina Šebjanič, Episkaia, Carmen Haro Barba, Laboratorio del Pensamiento Lúdico, Andrea Molina, Lois Patiño, La Rabiosa Productora. **Cyborg Garden:** uh513 [María Castellanos y Alberto Valverde], TAKK [Mireia Luzárraga y Alejandro Muiño], Orkan Telhan, Double Happiness [Joyce Hwang y Nerea Feliz] y Rachel Armstrong, Rolf Hughes, Pierangelo Scragliari [Newcastle University] and Ioannis Ieropoulos [University of the West of England]. **Game of Swarms:** Paula Nishijima, Audrey Dussutour, Sara Arganda, Sofía Bouchebti, Patricia Nunes Silva.

Ecovisionaries exhibition:

Allora & Calzadilla, Nelly Ben Hayoun, Ursula Biemann y Paulo Tavares, C+/In the Air, Carolina Caycedo, Emma Charles, Fernando Cremades, Alexandra Daisy Ginsberg, Darlene Farris-Labar, Paula Gaetano Adi, Tue Greenfort, Terike Haapoja, HeHe, Husos, Andrés Jaque, Kiluanji Kia Henda, Jakob Kudsk Steensen, Pedro Neves Marques, Next Nature Network, Eva Papamargariti, Gabriel Ruiz Larrea, SKREI, Superflex, Jenna Sutela, Unknown Fields Division, Ana Vaz y Tristan Bera, and Pinar Yoldas.

The IMNA operates through an interdisciplinary network promoted by the Centre for Innovation in Technology for Human Development of the Polytechnic University of Madrid (itdUPM); Madrid City Council, through its Environment and Mobility Department; and Matadero Madrid itself.

This work platform fosters the Climate-KIC project in Madrid, Deep Demonstrations of Healthy, Clean Cities: an initiative of the European Institute of Innovation and Technology that seeks to support cities demonstrating change in order to guarantee a resilient future of zero net emissions in 2030.

The IMNA is also supported by the Daniel and Nina Carrasco Foundation as part of its *Componer saberes para comprender los desafíos contemporáneos*.

Idea and co-direction: Matadero Madrid
Co-direction and curator: Amanda Masha Caminals
Co-direction and curator of Cyborg Garden: Elii [oficina de arquitectura]
Coordination: Natalia Matesanz Ventura, cumuloLimbo studio
Project Coordination: María Buey, Eduardo Castillo Vinuesa
Advisory team of IMNA: Rosa Ferré, Juan Azcárate, Luis Tejero, Marisol Mena, Carlos Mataix, Julio Lumbreras, Manuel Alméstar, Sara Romero, Luisa Fernanda Guerra, Alejandro Sacristán.
In IMNA actively participate all Matadero Madrid programs [Oficina de coordinación, Intermediae y Centro de Residencias Artísticas] y Cineteca Madrid.

Collaborators: EIT Climate-KIC, Fundación Banco de Sabadell, Acción Cultural Española (AC/E), Laboratory for Environmental Narrative Strategies (LENS - UCLA), Experimental Architecture Group, Centro de Investigación en Cognición Animal del Centre National de la Recherche Scientifique de la Universidad de Toulouse (CNRS), Área de Biodiversidad y Conservación de la Universidad Rey Juan Carlos, Greenpeace España, Extinction Rebellion España and more.



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