



## **INTERACTIVOS? '19**

**RURAL SCIENCES**

**Silo - Arte e Latitude rural**, with the support of **Serrapilheira Institute**, presents:

### **Interactivos?'19: Rural Sciences**

5 proposals were selected to be developed with the contribution of collaborators in a rural laboratory located in Serrinha do Alambari - RJ - Brazil, from **August 03 to August 17, 2019**.

Until **5th July**, professionals from different fields can submit proposals to collaborate with those projects.

The selected collaborators will receive lodging and food during the event.

**See below for the selected projects.**

**And sign up as a collaborator [here](#).**

**For questions or problems with the form, email:**  
**[interactivos@silosilo.org.br](mailto:interactivos@silosilo.org.br)**

## **INTERNATIONAL CALL**

### **Interactivos?'19: Rural Sciences**

#### **CONTEXT**

**Interactivos?'** is a laboratory for the development of projects in a collaborative way. Encouraging the intersection between popular, scientific, technical and artistic knowledge, in this edition, the projects in Interactivos? are related to science, its methods and processes: an experimental laboratory and a space for participative scientific education.

#### **CONDITIONS**

To the collaborators of the laboratory we offer: lodging or camping structure, food; work environment with tools and internet connection; collective spaces for meetings; tutors and technicians to assist in the development of the projects, as well as theoretical, aesthetic and conceptual support.

#### **METHODOLOGY**

This work methodology aims to be a platform for research, production and collective learning that starts from the development of the selected projects. 5 Proposals will be selected to be developed in multidisciplinary groups composed by the project proponents and up to 5 collaborators, with the advice of tutors (if necessary), in this case aiming at concept, technique, methodologies and mediations. The call for collaborators will be launched after the selection of the projects. Each working group should think about having a prototype of their idea at the end of the process.

One of the key objectives of the program is to foster the development, dissemination and free access to networks of collaboration and knowledge.

## PROJECTS

- ASTRONOMY IMMERSION AND CONTACT WITH THE SKY

COSMOS PROJECT | Manaus, AM, Brasil



How to transform the pleasant practice of observing the sky, in a tool for knowledge construction? The intention of this project is to investigate and create activities that can be added to the practice of observing the night sky with telescopes and/or planetariums. The Cosmos Project already works with scientific outreach workshops in public schools, and now we want to co-create an immersion in Astronomy open to the public, and empathetic, welcoming, charming and constructive.

### **Collaborators Profile:**

Artists in general (musicians, actors, visual and sound artists, illustrators, etc.); people who work on narrative construction (writers, youtubers, writers, storytellers, digital or board game creators, etc.); people who work with science communication, people who work with planetariums, science museums, educommunication etc; Serrinha residents, astronomers, anthropologists, astrologers and other interested parties.

- PHOTOSYNTHETIC PHOTOGRAPHY

JOAQUÍN PÁEZ | Córdoba, Argentina



**FOTOGRAFIA  
FOTOSSINTÉTICA**  
Joaquín Páez | Córdoba, Argentina

The project aims to deepen a research on the technique of photosynthetic photography through interdisciplinary experimentation. The objective is to improve the technique for artistic production. The experimental process will be developed through trial and error tests, making copies in leaves of trees and studying in detail the results of each test etc.

**Collaborators Profile:**

Organic Chemists, Biologists with field experience in the area, artist specializing in natural resins, graphic designer, residents of Serrinha and others interested in research. All of them with experience or interest in a collaborative and interdisciplinary methodology, curious and open-minded.

- **ECHOES**  
**LOW COST EQUIPMENT FOR BIOACÚSTIC ANALYSIS**

**KEILA ZACHÉ, FABIANA DUFFRAYER [causa] | Rio de Janeiro, RJ, Brasil**



The environment has a diversity of languages and presents a sound plasticity with an infinity of melodies that share contrast and resilience.

That is why Ecos proposes the development of an automatic sound recording equipment for terrestrial environments - with good performance, replicable and low cost - based on a pre-existing model. During the lab we will verify the daily sound composition of a locality and measure the effectiveness of the hybrid prototype developed from the sound signal analysis in specific software for this purpose, basic statistical test and graphics generation.

#### **Collaborators Profile:**

Collaborators with knowledge of electronics, programming, aptitude and interest in field studies, audio engineering, sound and biology.



- RURAL BIOMETANO (CH4)

Students and researchers of UERJ | Resende, RJ, Brasil



Small-scale biogas generated from compostable waste is not easily adapted to traditional stoves due to low methane content and high concentration of contaminants. Many of the existing technologies for upgrading biogas to biomethane are costly and incompatible with the needs of a small-scale residential process.

The purpose of this project is to link scientific and popular knowledge, using low-cost and easy-to-acquire materials (or even waste) to build a more accessible system for use on rural properties.

#### Collaborators Profile:

People who have some experience with biogas and biometrics, biologists, engineers, chemists, students, farmers, architects, designers, residents of Serrinha.

- **BIOMATERIALS**

**CAMILA MACARENA PICCO | Argentina ou Portugal**



Biofabrication of materials and products using organic matter from the Environmental Protection Area of Serrinha do Alambari, Brazil, RJ. The proposal is to combine the artisan process of producing bio-leather and bio-cultured mycelic products, with digital manufacturing tools to process them and create designs. Among these tools, it is proposed, for example, the use of thermoforming, 3D printer, laser cutting, among others. The objective is to generate new materials and evaluate their possible application in biodegradable products that contribute to the care of the environment.

**Collaborators Profile:**

Materials engineers, Biologists, Biotechnologists, Technologists, Designers, Artists, Scientists related to the production of biological materials and processes.

## BACKGROUND

The model of this program is based on the methodology developed by Medialab-Prado, a center for arts and technology based in Madrid, Spain. Since 2006, Interactivos'?' proposes an interactive model of learning that surpasses the typical hierarchical dynamics established in the teacher/student relationship. The name refers to a questioning of the idea of interactivity while proposing the collective creation and use of open tools in an environment in which participants can both learn and teach.

## WHERE

**Interactivos'?' 19 - Rural Sciences** will take place in Serrinha do Alambari, located in the municipality of Resende, in Rio de Janeiro State. Serrinha do Alambari is an integral part of an APA (Environmental Protection Area), situated in the municipal area of Resende, in the state of Rio de Janeiro, on the eastern slopes of Itatiaia National Park. This area is peculiar for being a rural and environmental protection area. Serrinha has around 1,000 inhabitants, with small and medium-scale industries, commerce and tourism. The Environmental Protection Area of Serrinha do Alambari encompasses the communities of Serrinha and Capelinha, protecting the high part of the micro basins of the Alambari and Pirapitinga rivers. Its total area is 4,500 hectares.

## SILO

We are a Civil Society Organisation of Public Interest dedicated to fostering and publicising cultural projects in rural regions, with the aim of bringing about transdisciplinary exchange between different areas - above all art, the sciences and technologies - and stimulating exchange between intuitive techniques and scientific knowledge.

**SUPPORT:** Instituto Serrapilheira

**CONTACT:** [interactivos@siloz.org.br](mailto:interactivos@siloz.org.br)

