



Innovation  
and creation laboratory  
for social design

MADAGASCAR

With Vitogaz Madagascar

**NDAO**  
**HANAVAO**



# *NDAO HANAVAO*

Innovation and creation laboratory  
for social design  
ANTANANARIVO, MADAGASCAR  
Since 2018

After more than 4 years of deployment around the transformation of plastic waste into wool with The Polyfloss Factory, Ndao Hanavao is undertaking new phases of experimentation around plastic recycling and invasive algaeae with its innovation laboratory for social design.

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The R'Art Plast team on a 't'sihy' (traditional Malagasy carpet) lined with Polyfloss wool and created with designer Carine Ratovonarivo, Antananarivo, 2020





Workshop with Tahina Rakotoarivony, Ndao Hanavao laboratory, Antananarivo, 2022

Local initiative launched by Rubis Mécénat and Vitogaz Madagascar, Ndao Hanavao is an innovation and creation laboratory set up by guest designers and young Malagasy vocational trainees with artisans, engineers and local stakeholders. Ndao Hanavao strives to find viable long-term solutions through the implementation of social design projects in order to respond to the social and environmental problems the population in Madagascar is facing.

All year long, the laboratory hosts young Malagasy trainees from disadvantaged areas of the city to accompany them in the development of collaborative and commercial initiatives based on projects developed in the lab.

At the same time, Ndao Hanavao regularly invites artists and designers to experiment with projects established in the laboratory.



Spinning of the Polyfloss wool with a spinning wheel, Ndao Hanavao laboratory, Antananarivo, 2019

*To develop a local laboratory for research and solidarity actions by offering young adults an education and training programme linked to design and its local economy.*

**Benjamin Loyauté**, Ndao Hanavao project curator

**SOCIAL DESIGN**

Confronted by exponential growth in the object design market and dwindling global resources, a rising number of designers are exploring increasingly specialist activities. These designers are addressing environmental, political, social and humanitarian issues in order to offer a practical response to contemporary problems. They are tackling change in a globalised world by inventing new types of progress and designing forward-looking and tailored solutions to, among others, environmental challenges. This process had no formal definition for some time. It now has a name: 'social design'.

**Benjamin Loyauté**, Ndao Hanavao project curator



Workshop with The Polyfloss Factory, Ndao Hanavao laboratory, Antananarivo, 2019



# Guest designers

## The Polyfloss Factory

### Turning plastic waste into wool

Since 2018

Invited to develop the concept of their Polyfloss machine in Antananarivo, The Polyfloss Factory set up with the Ndao Hanavao laboratory an ongoing incubation, experimentation and training laboratory aimed at the transformation of plastic waste, a major local issue.

Innovative plastic recycling process which draws its inspiration from candy floss, the Polyfloss Factory produces a flexible wool which can be used in different ways as a thermal insulator, packaging, design pieces. It can also be used for craft and artistic textile creations.

Collected from the waste dumps of Antananarivo by a network of collectors, the recycled plastic is transformed into wool and then into finished products at the Ndao Hanavao laboratory with the Polyfloss Factory process.

*Ndao Hanavao is an example of collaboration and design focusing on innovation. In a supportive atmosphere of knowledge-sharing, all project members work together to become drivers of social, climate, and creative changes.*

**Audrey Gaulard**, designer, The Polyfloss Factory

#### More about the project

'L'entreprise du faire', 2019

Text by Benjamin Loyauté, Ndao Hanavao project curator

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Opposite:  
Setting up  
of the plastic  
collection  
network with  
The Polyfloss  
Factory,  
Antananarivo,  
2018

Below:  
Turning plastic  
into wool with  
the Polyfloss  
machine,  
Ndao Hanavao  
laboratory,  
Antananarivo,  
2019



Opposite:  
Production of the  
Polyfloss wool,  
Ndao Hanavao  
laboratory,  
Antananarivo, 2019

Below:  
The Polyfloss  
Factory team,  
from left to right:  
Nick Paget,  
Audrey Gaulard,  
Émile de Visscher,  
Christophe Machet,  
Antananarivo, 2019



The Polyfloss Factory project was developed at the Royal College of Art in London in 2011. The team, composed of Audrey Gaulard (textile and robotic designer), Nick Paget (industrial designer), Christophe Machet (mechanical systems engineer and designer) and Emile De Visscher (materials science engineer and designer), was exploring ecological issues and decided to devise a process for recycling plastic at a local level.



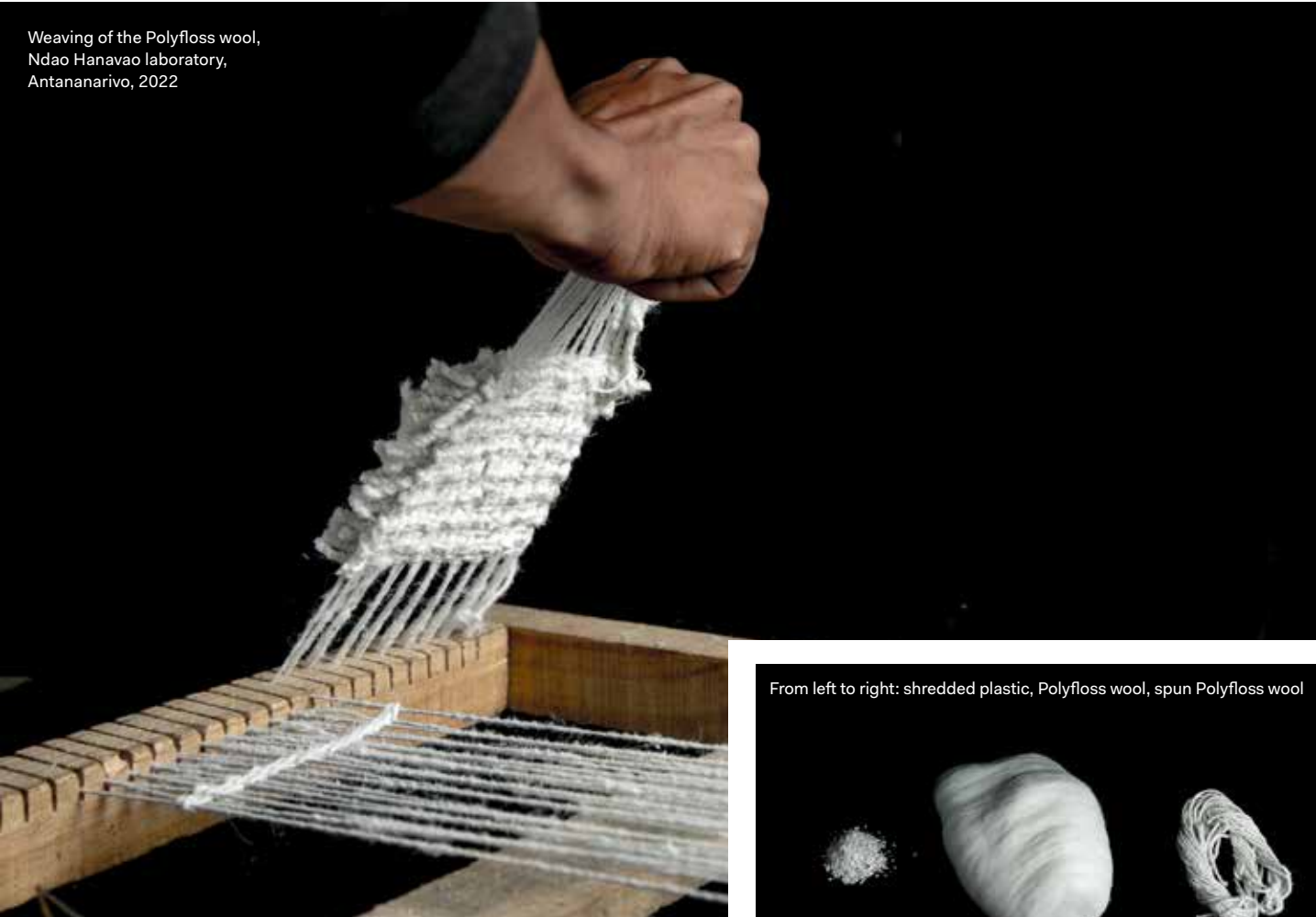
# THE R'ART PLAST COMPANY

## Marketing of Polyfloss wool and its by-products Since 2021

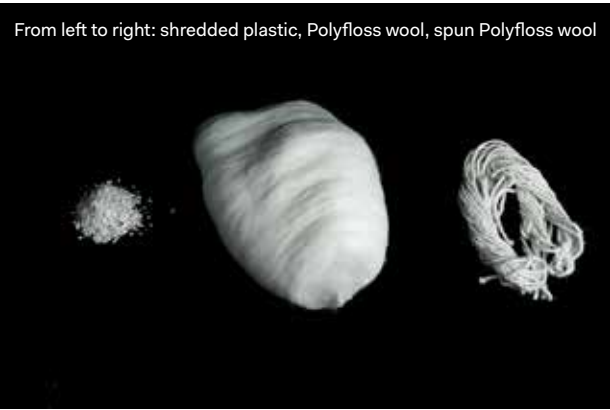
R'Art Plast is a business founded by five young Malagasy trained at the Ndao Hanavao laboratory. R'Art Plast sell in Madagascar wool made from plastic waste at the Ndao Hanavao laboratory. R'Art Plast also sells original items designed in collaboration with guest designers and artists using Polyfloss wool.



Spinning of the Polyfloss wool, Ndao Hanavao laboratory, Antananarivo, 2020



Weaving of the Polyfloss wool,  
Ndao Hanavao laboratory,  
Antananarivo, 2022



From left to right: shredded plastic, Polyfloss wool, spun Polyfloss wool



Sculptures in recycled plastic, Ny Fitiavanay . Our Love . Notre Amour exhibition, Hakanto Contemporary, Antananarivo, 2021



# COLLABORATIONS

Ndao Hanavao has been inviting designers and artists to conduct research and to experiment with the Polyfloss wool.

## Joël Andrianomearisoa

Malagasy artist

Since 2019, Joël Andrianomearisoa has been collaborating with the Ndao Hanavao lab to create artworks from the Polyfloss wool produced on site and to lead workshops with the lab's young designers in order to make them aware of his artistic practice.

Biography

Born in 1977 in Antananarivo, Madagascar, Joël Andrianomearisoa lives and works between Paris and Antananarivo. He is a graduate from the École Spéciale d'Architecture in Paris, and his work explores many disciplines, from fashion to design, video to photography, scenography to architecture, installations to visual arts. Andrianomearisoa's work has been shown, among others, at the Maxxi in Roma, the Hamburger Bahnhof in Berlin, the Smithsonian in Washington and the Centre Pompidou in Paris. In 2019, he represents the first pavilion of Madagascar at the Venice Biennale (Italy), with support from Rubis Mécénat. He is represented by galleries Sabrina Amrani (Madrid) and Primo Marella (Milan).

## Laureline Galliot

French designer

Since 2019, Ndao Hanavao has been collaborating with the designer Laureline Galliot to create a model of rug made with the Polyfloss wool. The rug will evoke articles of straw and the traditional stripes of the 'lambas' (emblematic item of the Malagasy traditional costume).

Biography

Influenced by her own paintings on Ipad, Laureline Galliot explores the new forms of pictoriality offered by virtual sculpture and painting software. In combination with 3D printers, they can also be made into three-dimensional ready-painted objects using an innovative form of plaster craft. Her digital creations adapted for weaving looms also allow her to produce textiles and rugs. Laureate of the vase design award of Villa Noailles in 2013 and of the Villa Kujoyama in 2017, her work has joined the French design national collection of the CNAP and the MAD in Paris.

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Workshop with Joël Andrianomearisoa, Ndao Hanavao laboratory, Antananarivo, 2019



Workshop with Laureline Galliot, Ndao Hanavao laboratory, Antananarivo, 2019





# Benjamin Loyauté

French artist, Ndao Hanavao project curator

Since 2020, Benjamin Loyauté has been conducting research with the Ndao Hanavao laboratory on ‘good-luck’ amulets inspired by Malagasy traditions.

Biography

Since the start of his career, Benjamin Loyauté has invited us to read his work through the lens of the social sciences, phenomenology, fables and Koans. According to him, ‘there is reality, what we see of reality, and what we do with it’. Known for his research around speech acts, his work explores the ordinary, forms of cultural and natural heritage, contemporary beliefs, and changes in societies. For the artist, ‘creation is like being in an ambush’. He is interested in forms of appropriation of our faculties of perception and in resistance movements.

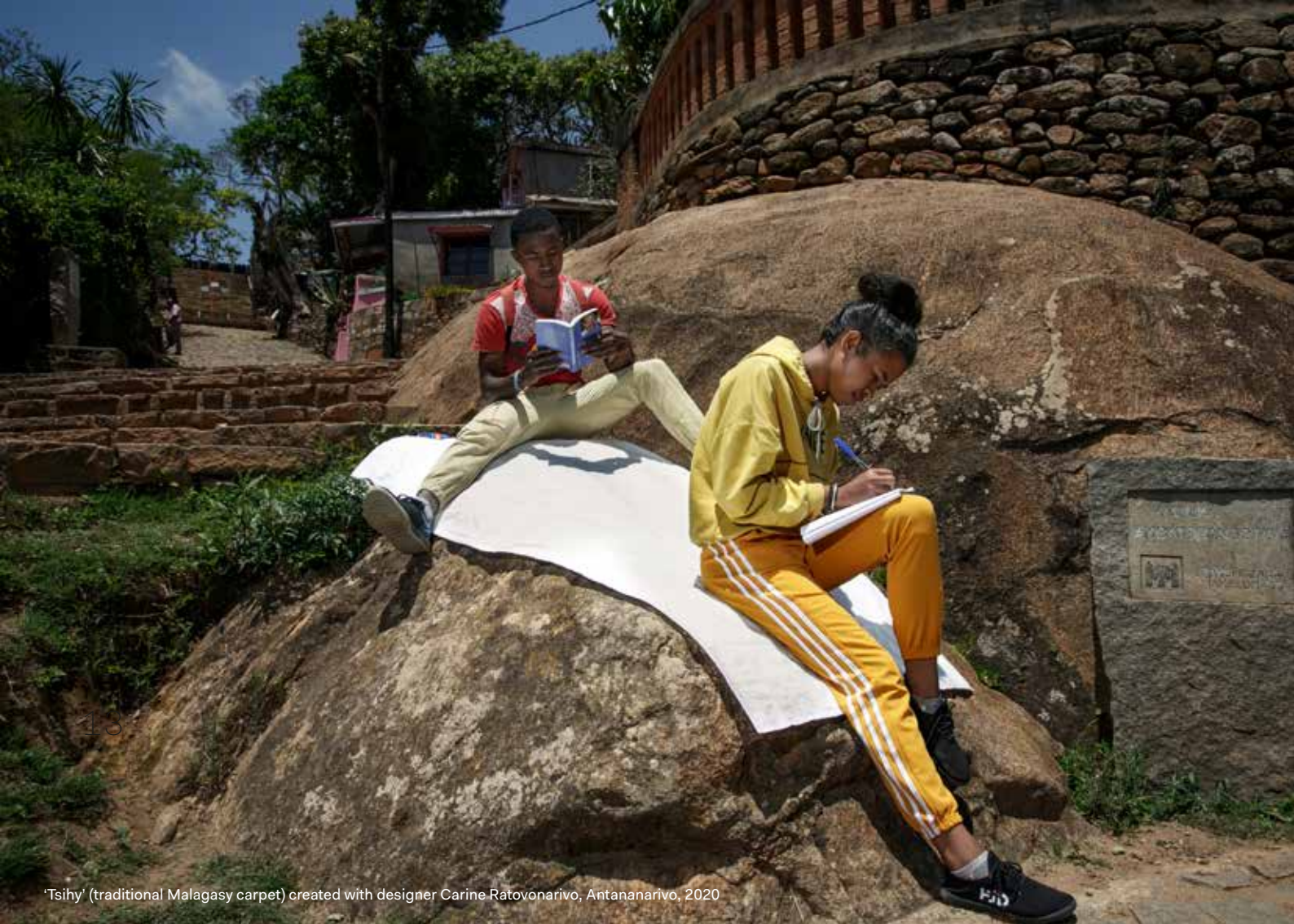
# Carine Ratovonarivo

Malagasy eco-designer and Ndao Hanavao project coordinator

In 2020, Carine Ratovonarivo collaborated with the Ndao Hanavao laboratory to reinterpret the traditional Malagasy mat; the tsihy. This new reading of this object combines two techniques: a quilted structure with patterns reminiscent of the original art of manual weaving, and Polyfloss plastic wool stuffing, which offers the same level of comfort as the traditional ‘tsihy’.

Biography

Carine Ratovonarivo was born in Madagascar. After graduating in Applied Arts in 2009, she funds Carine H.C.R éco-design. Her designs follow the fundamental rules of eco-design: Reduce, Reuse, Recycle. Driven by an exacerbated ecological approach, each object emanating from her travelling workshops sublimates banality and tries to propose the right combination between matter, form and function. Her offerings reveal a strong preservation of the Malagasy intangible heritage, combining recycling and craftsmanship.



‘Tsihy’ (traditional Malagasy carpet) created with designer Carine Ratovonarivo, Antananarivo, 2020

# Nicole Stjernswärd – KAIKU Living Color

American designer

From 2020 to 2021, Ndao Hanavao has been collaborating with Nicole Stjernswärd in order to find solutions for the coloration of the Polyfloss wool with natural pigments from Madagascar.

Biography

Nicole Stjernswärd is a London-based multidisciplinary designer and the founder of KAIKU Living Color, a process that creates sustainable colorants made from agricultural waste and mineral residues - a sustainable alternative to synthetic colors. She holds an MSc/MA in Innovation Design Engineering from Imperial College London and the Royal College of Art, and in Architecture from the University of Minnesota. Her experience extends across the fields of design, engineering, and architecture, with a focus on sustainable innovation.

# Other artists invited:

Madame Zo (in her memory), Malagasy artist

Tahina Rakotoarivony, Malagasy artist



# Guest designers

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## Alexandre Echassieriau

**Designing an object of necessity  
from recycled plastic waste**

Since 2022

In Madagascar, Alexandre Echassieriau explores the network created by local stakeholders to recover resources on the island from waste produced by human activities. Heat compression of locally recyclable materials will be the main focus of the designer's collaboration with the Ndao Hanavao laboratory. Applying this process to mass-produced essential consumer goods will recover a previously bulky resource and make it available to the Malagasy people.

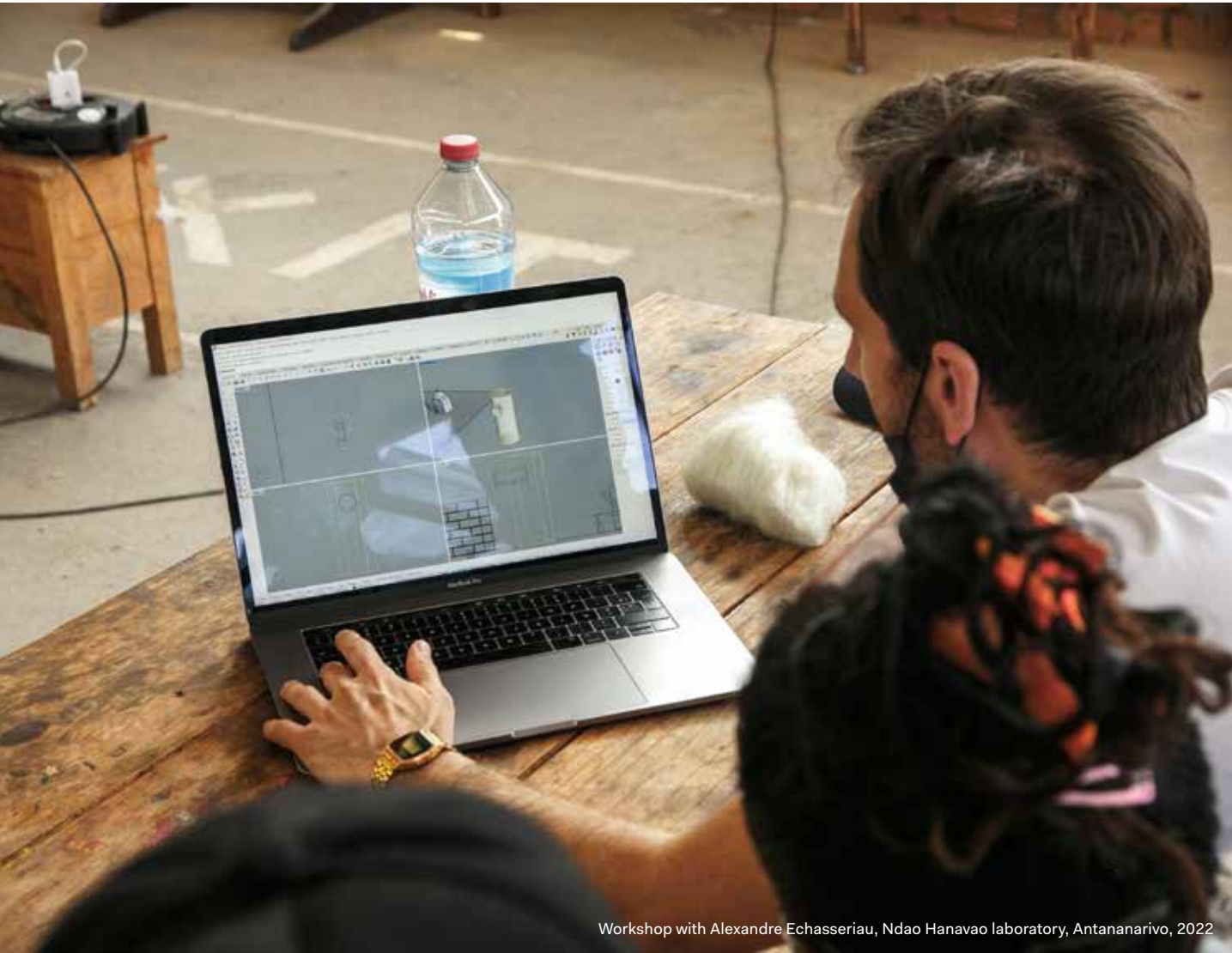
### Biography

A graduate of the École Boulle and ENSCI - Les Ateliers, Alexandre Echassieriau is a designer and maker. He trained as an industrial designer working on creating both tools and the items they can be used to produce, operating in ecosystems on diverse scales with great agility. Working in a freelance capacity since 2013, he set up the Crafter Studio in 2016 and supports economic stakeholders with innovative projects, bringing together different perspectives, seeking inspiration in the fields of art, science and traditional know-how. From design through to the production of a prototype, he adopts an experimental and flexible approach to his work, immersing himself in the project environment.

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Alexandre Echassieriau visiting the SOMACOU, Antananarivo, 2022



Workshop with Alexandre Echassieriau, Ndao Hanavao laboratory, Antananarivo, 2022



# Samuel Tomatis

Transforming invasive algae  
In collaboration with the Cétamada non-profit association  
Since 2022

The project developed by Samuel Tomatis aims to implement his technique for transforming green algae into objects by adapting it to environmental issues in Madagascar. In collaboration with the Cétamada non-profit association on Saint Marie Island and the Ndao Hanavao laboratory, he implements a process for collecting and transforming algae and invasive plants and make them into useful, aesthetic and biodegradable objects.

Biography

Samuel Tomatis graduated in 2016 from the ENSCI - Les Ateliers, after graduating from the Institut Supérieur des Arts Appliqués. The young designer has a close relationship with science and ecology, and his work oscillates between industrial design and ephemeral architecture. Seduced by the sea and the tidal phenomenon, his research revolves around the universe of marine resources, and more particularly seaweed. Samuel works with a variety of trades, including scientists and craftspeople. Experimentation, material work and eco-design are at the heart of his approach. In 2017, he was finalist of the Audi Talents and won the Agora grant for design, chaired by Erwan Bouroullec. His work has been shown at the Centre Pompidou and at the Villa Noailles.





# Exhibitions, residencies and collaborations with institutions

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**Exhibition NY FITIAVANAY . OUR LOVE . NOTRE AMOUR**  
**Hakanto Contemporary, Antananarivo**  
**October 2021 – March 2022**

Participation to the group show «NY FITIAVANAY . OUR LOVE . NOTRE AMOUR»,  
by artist Joël Andrianomearisoa with the participation of 26 Malagasy artists  
including young designers from the Ndao Hanavao laboratory.

**Exposition Brise du rouge soleil**  
**Joël Andrianomearisoa**  
**Towers and ramparts of Aigues-Mortes, France**  
**April – October 2021**

Presentation of a triptych of works made of Polyfloss wool by the artist  
Joël Andrianomearisoa in collaboration with the Ndao Hanavao laboratory.

**Exhibition Ndao Hanavao ! La Magie du collectif**  
**French Institute of Madagascar, Antananarivo**  
**December 2020 – January 2021**

Group show presenting a group of artistic and design works  
made in the frame of The Polyfloss Factory project.  
Guest artists and designers presented: Joël Andrianomearisoa, Laureline Galliot,  
KAIKU Living Color (Nicole Stjernswärd), Benjamin Loyauté, Madame Zo,  
Henitsoa Rafalia, Carine Ratovonarivo, Rijasolo, The Polyfloss Factory  
(Audrey Gaulard, Christophe Machet, Nick Paget, Émile de Visscher)

Curated by Benjamin Loyauté



Opposite :  
exhibition *Brise du rouge soleil*  
by Joël Andrianomearisoa,  
Towers and ramparts of Aigues-Mortes,  
France, 2021

# Publication

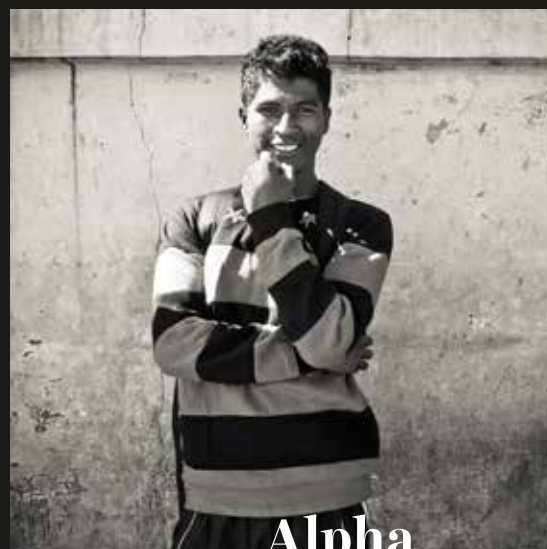
**Ndao Hanavao !**  
Published by Rubis Mécénat  
Texts by Benjamin Loyauté  
and The Polyfloss Factory  
2020







**Francky  
Razafindrainibe**



**Alpha  
Ramiliarisoa**



**Heriniaina  
Rakotoarisoa**



**Modeste  
Rafanomezantsoa**



**Sandra  
Ramiliarisoa**

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# Actors

## **YOUNG ADULTS IN TRAINING AT THE NDAO HANAVAO LABORATORY**

The project hosts five young Malagasy trainees, in their twenties, from disadvantaged areas of Antananarivo, current or former beneficiaries of non-profit associations which help people to re-enter the workforce, such as Enda, Manda, and Graines de Bitume.

In 2021, they created the company R'Art Plast, which sells the Polyfloss wool in Madagascar.

## **NDAO HANAVAO TEAM**

### **Permanent team**

**Lorraine Gobin**, Rubis Mécénat managing director

**Juliette Le Bihan**, Rubis Mécénat project manager

**Benjamin Loyauté**, project curator

**Camille de Roffignac**, project manager

### **Local team**

**Carine Ratovonarivo**, designer and project coordinator

**Jacquis Hariniavo Ramahefarison**, workshop manager

**Rijasolo et Rafalia Henitsoa**, project's photographers

**Vitogaz Madagascar** represented by Zo Andriamampianina general administrator, assisted by Harilala Rasolondraibe, Patrick Rakotomalala, administrative director and Rova Rakotobe, accountant

### **Laboratoire Ndao Hanavao**

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# Context

## SOCIO-CULTURAL PROGRAMMES OF RUBIS MÉCÉNAT

**Educational artistic and social programmes to reintegrate, professionalize and reveal young artists in South Africa, Jamaica and Madagascar.**

Rubis Mécénat develops long-term social and art initiatives by establishing educational programmes based on the visual arts and design for young adults from disadvantaged communities in some of the countries where the Group is active.

These educational programmes function as creative platforms at the heart of local communities by offering to young adults workshops led by recognised artists and general educational support classes so that they can acquire academic and artistic skills.

*Rubis Mécénat's commitment creates strong links of solidarity and trust. By going as close as possible towards those that are the furthest away from contemporary art, Rubis Mécénat reaffirms its belief in its educational and societal virtues. It does not only reach out to students, it also encourages the local community to enter into an active discourse around the visual arts and design.*

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Observation trip of Alexandre Echasseriau, Antananarivo, 2022



'Tsihy' (traditional Malagasy carpet) created with designer Carine Ratovonariho, Antananarivo, 2020



## RUBIS MÉCÉNAT

### RUBIS GROUP ENDOWMENT FUND FOR COMMITTED SOCIAL AND ARTISTIC PROJECTS

#### Ndao Hanavao founder

Since 2011, Rubis Mécénat, the Rubis group's endowment fund, has been promoting artistic creation throughout the countries where the Group operates. The fund develops long-term social art initiatives by establishing educational artistic programmes based on the visual arts and design for young adults from disadvantaged communities in some countries of the Group\*. At the same time, it supports artists in France and abroad by commissioning works for specific sites as well as for the Group's industrial sites, in collaboration with cultural institutions. For each commission, Rubis Mécénat helps to produce the artwork and accompanies the artist throughout the creative process. The fund also supports artists in a longer term by purchasing art works, editing publications and producing artists videos.

\* Today, Rubis Mécénat undertakes three socio-cultural programmes: Of Soul and Joy, a photographic project in South Africa (since 2012), InPulse, a creative platform for visual arts in Jamaica (since 2015), and Ndao Hanavao, a laboratory for innovation and social design in Madagascar (since 2018).

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## VITOGAZ MADAGASCAR

### RUBIS GROUP SUBSIDIARY

#### Partner of the Ndao Hanavao programme

When it was decided to privatise SOLIMA, a former state-owned oil company, Vitogaz (Rubis Group subsidiary) set up a full-service chain in Madagascar to import, store, process and distribute Liquefied Petroleum Gas (LPG), which has been operational since March 2001.

In Madagascar, which is the fourth poorest country in the world and has the fifth largest population of non-school-attending children, 90% of the population lives below the poverty line and three-quarters of the population live on less than two euros a day.

Since 2016, Vitogaz Madagascar has been actively supporting the Graines de Bitume association, which helps children living in the street or in the very poor districts of the capital city, Antananarivo, find their rightful place in society.

In addition to funding learning days and other events, and organising tours of its gas depots as part of a youth employment programme, the Vitogaz subsidiary and the Rubis Group have, years, been providing financial support since 2017 to the Graines de Bitume association so that it can operate its two existing centers, which are attended by nearly 300 young people every day.

The launch in 2018 of the societal and environmental project Ndao Hanavao strengthen the civic footprint of Vitogaz in Madagascar. This initiative implies an ongoing commitment of Vitogaz on the field, affirming its responsibility as a committed company and taking part in the social landscape of Madagascar. Vitogaz encourages its employees to contribute to the Ndao Hanavao project by providing a team of volunteers who take part in the various administrative and logistical tasks related to the programme. The creation by the subsidiary of an eponymous non-profit organization to facilitate the project's management also means a strong connection to the region and a will to engage in a long-term commitment.



# CONTACT

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