

PRESS KIT

cité

**sciences
et industrie**

renaissances

**Online experience
from 5 May 2021**

**Exhibition
from 6 July 2021**

AN AUDACIOUS SUBJECT 3 ORIGINAL PRODUCTIONS

→ Book launch on 18
February 2021 (book
only in French)
→ Digital double available
from 5 May 2021
→ Exhibition opens at
Cité des sciences et de
l'industrie on 6 July 2021

An exhibition created in
partnership with the University
of Paris Dauphine – PSL.
All visitors from age 12.
Trilingual: French, English
and Spanish.



This exhibition is part
of the editorial line
Societyscience / The way
our world is changing.
This thematic line features
exhibitions dealing with
changes in science and
technology and their
impact on our individual and
collective lives.
They therefore provide
valuable insight into
the social sciences
and the major issues
that society faces.

editorial

Against the background of today's unprecedentedly acute crisis, *Renaissances* opens a new chapter in the exploration of the contemporary world begun by the Cité des sciences et de l'industrie. A highly original exhibition produced in scientific partnership with Université Paris Dauphine – PSL, *Renaissances* encourages visitors to examine possible futures based on the now familiar new challenges the scientific community constantly warns us about. Potential responses to those challenges lead to discussion and the expression of concerns, helping us construct a new vision of the future. That vision – both individual and collective – is the subject of *Renaissances*, which is keen to challenge our perceptions by harnessing the power of fiction. To do so, the exhibition presents the visitor with three social and thought experiments, immersing him in three different environments in 2023, 2039 and 2045. Finally, for the first time, the public will be able to discover the digital double of an exhibition before its physical opening. This is a new way for our establishment to try out a new combination of onsite and remote experiences.

Bruno Maquart,
Chairman and CEO of Universcience

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Pollution, climate change, overconsumption of resources and energy, the pandemic, social inequality... Today's world faces more threats than ever before. That situation raises questions, expectations and hopes, but also individual and collective concerns and anxieties that we must master if we are to take a positive view of the future. Innovative in its subject and formats, *Renaissances* presents stories that are half-real, half-fiction, each one an experience that enables us to analyse our reactions and our ability to adapt to 21st-century conditions. The exhibition uses completely new narrative and prospective approaches. The power of fiction will trigger strong emotions in each visitor, liberating their imagination. In the course of the exhibition, scenarios featuring possible future worlds alternate with pauses for thought to encourage contemplation.



“
Foresight does not aim to predict the future – reveal it as if it were already accomplished – but rather to help us build it.
”

Hugues de Jouvenel
Invitation à la prospective
An Invitation to Foresight
(Paris, publ. Futuribles, coll.
Perspectives, 2004, 88 pp)

The exhibition itinerary



Entrance

There are two versions of the *Renaissances* exhibition: **a digital one available from May and a physical one opening at Cité des sciences et de l'industrie in July**. Both question our relationship with the present and future by plunging visitors into three fictional worlds in three different years: **2023, 2029 and 2045**. In counterpoint, we turn to scientists and specialists from a variety of backgrounds. This gives the visitor – who is in turn player, decision-maker, influencer, co-builder and thinker – an opportunity to **analyse his own emotions and master his perceptions of the future of his world**.

From the start, the *Renaissances* exhibition provides the public with an overview of the situation. An original presentation of data collected by the **Great Acceleration** a scientific research project led by American climatologist and chemist Will Steffen* underlines the current state of emergency, alerting the visitor. At the core of the exhibition, a journey begins with the question: "What will happen tomorrow?" **Leading to three proposals for traveling into the future in search of prospects based on references drawn from enhanced awareness and an understanding of our emotions.**

2023 Imagination and forests



When global disruption reaches a peak, our collective imagination frequently turns to the forest. Travelling forward in time to an impromptu setting in 2023, the visitor can practise survival in the forest for a simulated period of 2 days and 2 nights.

Using a mobile application that enables an immediate dialogue with a survival instructor, they face a number of challenges: lighting a fire, building a shelter, finding water and gathering food. The virtual instructor also helps them manage their emotions throughout the experience. The choices they make in the course of the game will facilitate or complicate their handling of the challenges. The venture mainly demands ingenuity and an ability to improvise and observe. An adapted version of the experience is also part of the digital version of the exhibition.

SCIENTIFIC ANALYSES: THE CALL OF THE FOREST

During a first pause for thought, visitors listen to experts describing myths related to our vision of "the call of the forest". What need causes our enthusiasm for survival courses? How can we understand and interpret survivalism? ZADists*, doomers*... Aside from feeling a desire to protect nature, are people who go on forest survival courses trying to relieve a general sense of anxiety? The "concrete" wish to prepare for a catastrophe leads to a need to reconnect with nature. According to Bertrand Vidal, sociologist, the ability to closely observe and understand one's environment is decisive in achieving a "revival". So is the forest an "ideal" living place or simply a transit zone? 2016 data from the French National Institute of Statistics and Economic Research show that 50 million people in France live in towns. Given that observation, forest survival seems an unlikely option for 21st-century Western populations.



“
Our modern societies are
fundamentally subject to
the same pressures as
ancient ones.
”

Dan Hoyer

Researcher in mathematics
applied to history.
Global History Databank
Project.

* see glossary p.10



“
Overthrowing the global
machine [...] means coming
up with innovative accounts
that are inspiring enough
to transform our values,
visions and imagination.
”

Cyril Dion

"What if everything
collapsed?", Socialter
special issue
Effondrement (Collapse),
2018, p.92.

2029 Imagination and apocalypse



In the screening room at the core of both the physical exhibition and the online version, visitors are immersed in a second fictional scenario, set in 2029: **How can we manage an emergency resulting from a collapse?**

The urban world has suddenly become hostile: disruption of services, a scarcity of resources and a breakdown in law and order. The story focuses on human interactions and illustrates how difficult it is to make decisions that may be incompatible with our values. **Gregarious or individualistic? Pessimistic or optimistic? Selfish or altruistic? Here, each individual can test how he or she behaves when confronted by different issues.**

On a number of occasions during the experience, visitors must make choices.

Following a vote – collective or not, rational or emotional – the action takes different turns as it heads towards one of four possible endings.

SCIENTIFIC ANALYSES: CRISES AND THE END OF THE WORLD

Experts in human, historical and systemic sciences analyse our fear of the world ending in this second pause for thought.

Imagined apocalypses are a powerful tool for understanding humankind, they have existed since the emergence of human societies. Do they help us put our emotions into words? What is a collapse? Should we be thinking about one or several possible collapses? And are our thoughts always ethnocentric?



2045 Imagination and resilience



At home or in the physical exhibition, the visitor travels to 2045 for a 28-minute fictional audio story. Despite an almost total lack of utopian stories in our current imagination, **the aim of the scenario presented is to examine humanity's capacity for a resilience that can change tomorrow's lifestyles.**

Welcome to a future world set in Besançon, Eastern France. In this different social and environmental context, men and women try to live together in a "normal" way. A number of subjects are explored: **education, transport, energy, material resources, technology, farming and love, together with societal organisation.**

The visitor listens to the sequences in chronological order or in whichever way they want. In this section, there are resources enabling them to learn about popular initiatives, scientific projects and alternatives that are being implemented or tested. They show that the world is evolving and has already begun its transition.

SCIENTIFIC ANALYSES: FUTURES TO BE CONSTRUCTED

The third pause for thought examines our ability to adapt and react. We present interviews of economic scientists, experts on resilience, engineers and sociologists. **They reveal the keys we need to begin a possible transition and build a society capable of resilience, where basic, technological, political and economic sciences will play a major role.** What is resilience? What roles do knowledge, science and technology play in imagining a desirable future? Are low-tech and degrowth good solutions? Who should the actors be? Individuals, communities, politicians...?



“Imagination is profoundly real in that it structures our everyday lives.”

Bertrand Vidal

Sociologist of the imagination and the social phenomenon of survivalism

End of the exhibition

A questionnaire completes the visit. Optimistic or pessimistic, active or passive... each visitor discovers their own profile as they answer the questions.

Then a film entitled *Covid-19, what lessons?* sheds light on recent disruption related to the health crisis.

The exhibition continues in a free-access reading area presenting publications and online resources.

They enable the visitor to delve further into the subjects covered: futuristic imaginary accounts of survival and revival, press articles, glossary...

Finally, the visitor can express his vision of the future through a poem, drawing or piece of writing to outline their "final word".

The onsite multimedia system presents each of the creations submitted in turn on a large screen visible to all. A real-time sharing of a rich, varied palette of possible futures!

COLLAPSE

"Process at the end of which basic needs (water, food, housing, clothing, energy, etc.) will no longer be provided to most of the population by services governed by law."

Yves Cochet, former French Minister of the Environment According to Joseph Tainter, the collapse of societies is related to their growing complexification and increasingly elaborate responses, which, as they attempt to solve a technical problem, simply inflate networks of dependency and vulnerability. For Jared Diamond, a collapse occurs when societies confronted by ecological difficulties are unable to reform sufficiently to adapt their lifestyle to environmental change.

ZADIST

The term "ZADiste" was included in France's Le Petit Robert dictionary in 2016. It was defined as "An activist who occupies a ZAD to oppose a development project that could harm the environment." The acronym "ZAD", meaning "Zone à défendre" ("Zone to be defended") is thought to date back to 2011 and "zadiste" to 2012.

SURVIVALISM

A range of activities carried out by people with a rather pessimistic view of the future. They are preparing for a possible disaster which might disrupt access to basic needs. They learn techniques for survival in hostile environments and basic medicine, and build up stocks of food and weapons. Today, the Survival Expo fair (subtitled Self-sufficiency and Sustainable Development) mainly revolves around permaculture, low-tech, food resilience, etc. The search for self-sufficiency is a crucial aspect, linked to a connection with and protection of the living world.

GLOSSARY

THE GREAT ACCELERATION

In 2014, an international scientific paper* compared socioeconomic data illustrating the impacts of human development with data on changes in terrestrial systems. The lines on the graph have something in common: exponential growth from 1950 on, showing that in sixty years, humanity had affected ecosystems faster and more radically than in any other comparable period in human history.

* W. Broadgate, Wendy et al. "The Great Acceleration Data (October 2014)", International Geosphere-Biosphere Programme. Retrieved 21 April 2018.

DOOMERS

An English term referring to those who worry about the collapse of civilization. A movement of young people aged twenty to thirty who share the idea that their generation has been sacrificed. "Doomers" see themselves as being in total opposition to baby-boomers, the generation born after the Second World War. They consider that baby-boomers have taken everything for themselves, leaving nothing. Damien Leloup, Ecofascism: how the far right online has appropriated climate issues. (Le Monde, 4 October 2019)

RESILIENCE

The ability of a system (e.g. an ecosystem, individual, population or city) to return to a state of order and acceptable functionality following environmental or societal disruption such as, for instance, a storm, crop failure or population exodus.

Related to the exhibition

the book

RENAISSANCES. SIX STORIES TO REINVENT THE WORLD.



A fictional anthology edited by Denis Guiot. From age 13. A new joint publication from Syros/Cité des sciences et de l'industrie, on sale since 18 February 2021 in bookshops.

Format 150 x 210 mm; 334 pages, €14.95 incl. tax
Preface by Denis Guiot, Astrophysics and Science Fiction Cosmology and Galactic Evolution Laboratory, CEA (French Atomic and Alternative Energy Commission) Founder of the Scientifiction section of Bifrost magazine. Afterword by Roland Lehoucq, astrophysicist at the French Atomic and Alternative Energy Commission (CEA).

In this collection of six new short stories, the World Before is collapsing or has already gone and the World After must be constructed. Six writers of sci-fi for young people devise possible tomorrows within our reach. All give reasons to believe in a desirable future. The book is related to the *HopePunk* literary school, which champions the idea of building a fairer future that offers hope.

facilitation

ARCHAEOLOGY OF THE FUTURE

This workshop provides an opportunity to explore the concept of the Anthropocene and its markers. Contemporary human activity could leave signs in the sedimentary layers of the future. Visitors are encouraged to imagine and produce replicas of hypothetical rocks to come.

From age 12, length: 90', scheduled from summer 2021

THE ANTHROPOCENE FORUM

This debate workshop will discuss and approve a critical study of the great contemporary socio-environmental issues related to the impact of our societies on the environment.

From school year 10, length: 60', from October 2021

TIPPING POINT: WATER AND ITS ISSUES

This facilitation-debate asks the public about our water consumption. Water is essential to life, so what would happen if there were shortages? Would it be the end of society as we know it?

From age 14, length: 90', booking required

SIX STORIES, SIX AUTHORS:

Solange de Paris by Nadia Coste

Violette learns that a local society is running a vertical farm and finds out about permaculture. She discovers a new, green, poetic, revolutionary Paris that will change her life!

Reapers of the Wind by Yves Grevet

Following a major collapse, communities in a Breton region arm themselves and clash. Ten years later, young Yūna leaves her family to work on an offshore wind turbine. By chance, she meets former enemies and helps them to make peace.

Green Hat Farm by Florence Hinckel

There has been a sudden major economic crisis. Sofia, 18, is alarmed by the power cuts that begin: she has an artificial heart which must be recharged regularly. She follows her boyfriend Gabriel to a farm run independently by his survivalist parents.

The Fresco by Christophe Lambert

In 2040, in the Southwest of France, Agnès, 16, is teaching art to the young people in her community. She is in open conflict with her father over her artistic activities, which he sees as unnecessary, but an eventful journey into hostile territory will change everything...

Murder in a Gentle World by Jérôme Leroy

Following an economic collapse in around 2040, a society that promotes freedom and is free of killing has developed. And yet... a female farmworker from the common land of Capinghem is found dead, murdered. How can that be possible?

The End of the World by Nathalie Stragier

Gwen is excited to be sitting her Internet licence exam at school. But it's so hard to get a pass! In the 2030s, web addiction led to the collapse of the network. Ever since, very few candidates have been able to obtain that precious key to success. However, Gwen cannot accept the idea of failure. She knows the licence could change her life completely...

conferences

25 March at 7 pm CYCLE: MY PLANET TOMORROW!

World Water Day with a linkup to Senegal. Led by experts and those who work in the field.

In partnership with the IRD (French Research Institute for Development).

22 May at 2.30 pm THE COMMITMENT OF GENERATION GRETA, A TRIBUTE TO BERNARD STIEGLER

With experts and secondary-school students

27 May at 7 pm CYCLE: MY PLANET TOMORROW!

To celebrate International Biodiversity Day with a linkup to Madagascar. Led by experts and those who work in the field.

In partnership with the IRD (French Research Institute for Development).

3 June at 2 pm MY FIRST CONFERENCE (FOR AGES 6-8)

With Lisa Garnier, ecologist.

From September 2021 STORIES

These themed events will look at the Anthropocene and science fiction.

Universcience project team

CHRISTELLE GUIRAUD

curator

MARK READ

museography

GÉRALDINE ATTIE

museography



THE FICTIONAL SCENARIOS OF RENAISSANCES WERE PRODUCED IN PARTNERSHIP WITH...



JULIEN BITTNER

Director of the 2029 film – *Visions and apocalypse*

After spending his childhood in Africa (Nigeria, Côte d'Ivoire), Julien Bittner came to France in 1992. In 1996, while he was still in school year 13, he made his first short film: *Casser la Voix* (*Strain Your Voice*), which won the Special Jury Prize at the Student Film Festival in Caen. In 2012, he directed *Detox*, a short film sold internationally (Russia, Latin America, Belgium, France, etc.) and notably broadcast on OCS. Between 2015 and 2017, he made the multi-award-winning web series *Jezabel* (best international web series in Hollywood, best drama in New York, best actor for Hélène Kuhn). In 2016, he directed an exclusive VR 360° mini-episode for the TV series *The Bureau*.

→ WHY DID YOU DECIDE TO TAKE PART IN THIS CREATIVE PROJECT AT THE CITÉ DES SCIENCES ET DE L'INDUSTRIE?

What I liked about it was that I already had a good grounding in the field (collapsology) when I saw the call for tenders. It's a subject that has interested and concerned me greatly for a number of years now. My wife and I have often discussed it. Stay? Leave? Where to go and how to protect our children and ourselves? The conversations featured in the film are very similar to ones we have actually had. When the chance came to turn them into a film, I was very enthusiastic. Today, I live near the Cité des sciences et de l'industrie and it's a place I've been very fond of since I first visited it at the age of 9 during a stay in Paris. I was very proud to be chosen for the project. Subsequently, the partnership went extremely smoothly despite the outbreak of the pandemic two weeks before the initial filming. During the first lockdown, we realised that the scenario was actually quite realistic – which was rather disturbing!

Fortunately, we were able to return and finish the filming 6 months later. Reality almost mirrored the fiction in every way.

→ WHAT WAS SPECIAL ABOUT THAT FILMING AND HOW WAS IT DIFFERENT FROM YOUR WORK ON YOUR WEB SERIES?

The filming was no different. The main difficulty was to find unlit streets at night. Apart from that, it was quite dynamic, very intense work, but nothing we couldn't handle. We were able to film between two lockdowns and a curfew, and the whole team had been tested. The important thing was above all continuity, because we filmed virtually identical scenes with slight variations and had to avoid mistakes.

→ THE IDEA OF DISABILITY, ESPECIALLY WITH THE HEARING-IMPAIRED AND DEAF, WAS AN ESSENTIAL POINT IN THE CONSTRUCTION OF THE FICTIONAL SCENARIO. HOW DID YOU DECIDE TO APPROACH IT?

Including a deaf/hearing-impaired character in the film was obvious for me. Firstly, because I'm slightly hearing-impaired myself and wear hearing aids. Also, I had the

opportunity to get to know sign language when making the web series *Jezabel*, which featured a dumb – but not deaf person – who used it. Working with young first-time actor Violette Guette-Deleria was simpler because she has cochlear implants so she could hear us and that made the directing easier. She was very impressive and wowed us all. I think it's essential for the disabled to be present on the screen.

→ HOW WOULD YOU DESCRIBE THE EXHIBITION IN A WORD OR TWO?

Essential. Few people can anticipate what might happen after a collapse and it's very important to me for people to be aware. I think a "family" exhibition is an excellent way of addressing the subject while suggesting solutions and avoiding too much alarm. It's a topic that can make people severely depressive and it's good to manage that feeling by explaining things. It's a change of paradigm, of society, not the annihilation of humanity. It's very important to make the distinction and I think the exhibition will do that perfectly.



THOMAS BAUMGARTNER

Directors of the 2045 fictional scenario – *Visions and resilience*

Thomas Baumgartner is co-founder of the audio-visual production agency wave.audio. Former chief editor of Radio Nova, in 2002, he began to publish podcasts on Arte Radio, the audio service of the Arte TV channel and pioneer of podcasts in Europe. Subsequently, he extended his career to new media such as France Culture, *Les Passagers de la nuit* 2009-2011; France Inter, *Antibuzz*, in 2012; or *Mouv'*, *la Webligne*, 2013-2014. Thomas Baumgartner has made many programme series – *L'Atelier du son*, *Supersonic*, etc. – documentaries – *Une vie une oeuvre* George Grosz, *Une vie une oeuvre* Roland Dubillard. He has also broadcast major interviews with Kenneth Goldsmith, Alvin Lucier, Marc Riboud, Moebius and Miriam Cendrars, and produced podcasts for the *Transmission* series, Arte Radio 2020.



AMANDINE CASADAMONT

Amandine Casadamont is a polymorphic radio creator able to adapt to any kind of programme or format. Her productions in many areas (contemporary art, Mental Clubbing, cinema, etc.), are well-known and can be heard in different countries. Amandine Casadamont has won many international prizes, such as the Sound Documentary Prize at the Mexico City International Radio Biennale, the Phonurgia Prize for radiophonic sound art, and the New York Festival Sound Art Category prize. Finally, in 2020, she was awarded the SCAM Best Sound Work prize for *Chasseurs*.

→ YOU ARE BOTH PRODUCERS AND CREATORS OF RADIO PROGRAMS. CAN YOU EXPLAIN WHAT CONVINCED YOU TO WORK WITH THE CITÉ DES SCIENCES ET DE L'INDUSTRIE?

T&A: Its scientific and educational quality was an essential incentive for us. We knew that the bar would be set very high. And at the same time, it was another way of presenting a creative sound production: different place, different timing. Also, we liked the idea of benefitting from the formal audacity of its general facilitation policy. In itself, the project immediately seemed promising with its synergy of fiction, (immersive) sensory experience and thoughtful ecological foresight. Finally, it was a challenge we took on together: to produce three fictional films of equal quality in three languages.

T: Very soon, all those challenges were met and a very productive exchange began between the production and the museum. We felt we were in harmony. I think we showed ourselves to be reactive and inventive, which fostered mutual trust throughout the project despite the disruptive health crisis. A: The idea of working on a scientific scenario intended to anticipate the nature of tomorrow's world was an interesting,

inspiring concept. It was rather satisfying to apply our skills and perception to a project whose effect was collective and educational. And which was demanding in terms of directing the actors (multilingual!), sound immersion and pace.

→ WAS IT THE FIRST TIME YOU HAD WORKED TOGETHER AND HOW DO YOU INSPIRE EACH OTHER?

T: We have known each other for about ten years and we have had the opportunity to work together many times. Initially at France Culture, on a radio show called *Les Passagers de la Nuit*, which I produced and which gave Amandine a chance to express herself and experiment. I especially remember when she presented Chantal Champagne, an extremely extravagant transsexual cat. Amandine is a great professional of the sound world who refuses to accept any limitations, she's very free-minded. She works on contemporary art, radio drama and interviews that are more conventional – she did some with Philippe Bouvard for the series *À Voix Nue* which was quite amazing! – and she won the 2020 SCAM Prize for Best Radio Documentary. When we looked at the project, I called her immediately. Multilingual, looking to the future, science, an environmental issue – I thought she'd like it.

A: I was delighted when Thomas came to me about the project. Firstly, because it was unusual and ambitious. Also, because it gave me a chance to work with him again. We had worked together on many productions at France Culture, which meant a lot in my radio career.

→ THIS FICTIONAL STORY IS PART OF AN EXHIBITION. HOW WAS THE WORK ORGANISED AMONG THE TEAMS?

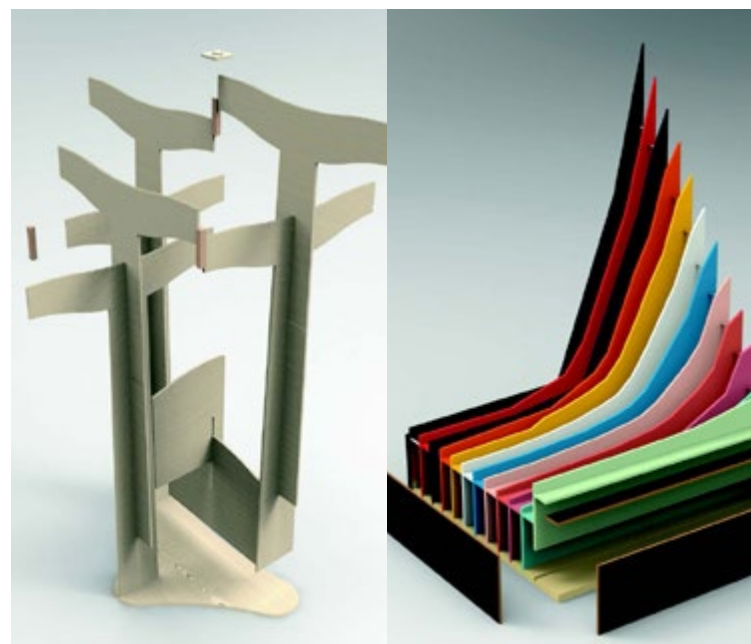
T: The Cité des sciences et de l'industrie's specifications were clear right from the start and they allowed for the creativity we wanted to develop in the project. There were script changes at the beginning of the process developed with Christophe Leraie, our contact at the Cité. The casting and choice of locations (Forest of Fontainebleau, an apartment and a Parisian courtyard) were done by Amandine Casadamont and our production executive, Clémence Mary, who also organised the shooting and supervised the team of actors. Overall, we were in constant contact and cooperated constantly with the exhibition's curating team.

→ DO YOU HAVE A STORY TO SHARE ABOUT THE SHOOTING?

A: Part of the shooting took place in the quarry of the last traditional sandstone cutter in Fontainebleau, at Moigny-sur-École. That quarry supplied the supposedly indestructible stone for the Châteaux of Vincennes and Versailles. During onsite recording, the production found themselves face to face with a film team that was there to examine the location for the imminent filming of Le Petit Nicolas, in which India Hair would take part a few weeks later! I can also tell you that we worked extra hours, because for the scenes recorded in the Forest of Fontainebleau, we had to record between two overflights to avoid any sound pollution (the story is set in a time when combustion engines are no longer used). The problem is that we had chosen the location before the return of air traffic, which had been hugely reduced by the health crisis. When we recorded, we realised just how many planes flew over the Forest of Fontainebleau!

→ HOW WOULD YOU DESCRIBE THE EXHIBITION IN A WORD OR TWO?

T: A very promising collapse.



A specific policy of reusing materials for the onsite Renaissances exhibition at the Cité des sciences et de l'industrie

In response to the issues alluded throughout this exhibition, Universcience has planned the event to ensure a principled "end of life". The aim of the approach is ethical. To deal with the urgent need to prepare an attractive future, Yves Morel's layout is sober and appropriate. The materials are used responsibly and there will be no waste. Furniture will be turned into new products to create a circular exhibition economy. To facilitate reuse, the furniture will mainly be made of certified sustainable wood. Glue-free assembly will enable the different components to be dismantled later for simplified reuse. As for the textiles, recycled fibres will be prioritised. Finally, all the materials and components of the exhibition will be offered to others via a donation platform. Universcience is already in contact with operators in the cultural and associative world to plan their redistribution and reuse.

Scientific committee

BERTRAND VIDAL

Sociology of imagination

—
IRSA laboratory – Institute for Sociological and Anthropological Research, Paul Valéry University, Montpellier 3.
Author of *Survivalisme, êtes-vous prêt pour la fin du monde?* (*Survivalism: are you ready for the end of the world?*)

ALICE CANABATE

Environmental and political sociology

—
Laboratory of Social and Political Change (LCSP) at the University of Paris-Diderot, Paris 7

MICHEL IDA

Engineering

—
General Manager of the Open Labs at CEA Tech, CEA (Atomic Energy Commission)

PHILIPPE BIHOUX

Engineering

—
Engineer at the SNCF French national railway company and specialist in the finiteness of mining resources.
Author of *L'Âge des Low Tech* (*The Age of Low-Tech*) (2014) and *Le bonheur était pour demain* (*Happiness Was for Tomorrow*) (2019)

CHRISTINE DOUXAMI

Anthropology

—
Arts and Politics, and especially forms of political theatre
Popular performances and events, particularly among African-Brazilians.
(EHESS and IMAF Institute of African Worlds UMR 8171 –CNRS and UMR 243-IRD).

GUILLAUME MANDIL

Information technology

—
Computer scientist at the INRIA with the STEEP team (Sustainability, Transition, Environment, Economics and local Policy)

PIERRE ERIC SUTTER

Social psychology

—
Observatory of Working Life and Observatory of the Experience of Collapses; head of Mars-lab, bureau for the optimisation of social performance and health prevention at work.

ROLAND LEHOUCQ

Astrophysics and science fiction

—
Laboratory of Cosmology and the Evolution of Galaxies, CEA (Atomic Energy Commission).
Founder of the Scientifiction section of Bifrost magazine

SEBASTIAN GREVSMÜHL

Science history

—
Science historian and specialist in environmental history and visual studies. CRH (Centre for Historical Research) / EHESS; research officer, CNRS.

LOÏC STEFFAN

Economics

—
Economics and administration, management and sustainable development at the Champollion Albi University Institute (CNRS researcher)

Scientific partnership

Dauphine | PSL 
UNIVERSITÉ PARIS

UNIVERSITY OF PARIS DAUPHINE – PSL

The University of Paris Dauphine – PSL deals with many subjects – mathematics, information technology, management science, economics, sociology, political science and law – whether in the domains of teaching or research. This year, it has become the first university to provide all its first- and second-year Bachelor's students with

compulsory teaching on "Ecological issues in the 21st century". Researchers in every field contribute to a better understanding of the physical and social processes that shape climate change. Partnership with Universcience for the *Renaissances* exhibition enables the university to promote that policy and supports the efforts of its academics and researchers to publicise their work at the Cité.

A few questions for



DOMINIQUE MÉDA

Professor of Sociology, Director of the IRISSO (Institute for Interdisciplinary Research in Social Sciences), University of Paris Dauphine – PSL, Co-holder of the "Ecology, Work and Employment" chair, College of World Studies (FMSH)

→ WHAT INTERESTS YOU MOST ABOUT THIS EXHIBITION HELD AT THE CITÉ DES SCIENCES ET DE L'INDUSTRIE?

I find the general idea of using emotion and especially fear as an incentive to encourage a wish to understand very interesting. That way of doing things is very directly based on what the philosopher Hans Jonas calls "the heuristics of fear" in *The Imperative of Responsibility*. The idea is to use fear – of the future, the aftermath of disasters – as a method of discovery. Fear is supposed to trigger a desire to know and understand, in order to be able to act in full knowledge of the facts. That means fear is seen as an emotion that helps us avoid the worst. And I think that the whole exhibition relies on that philosophy and allows visitors to experience the entire process, which runs from concern to anxiety and then learning about mechanisms – what we can do – and finally the policies we need to deal with the threat.

→ WHAT DO YOU FIND PARTICULARLY EDUCATIONAL ABOUT THE RENAISSANCES EXHIBITION?

I find it very effective to present alternating sequences where emotion dominates – that challenge visitors with very realistic simulation exercises, difficult ethical choices to be made, games, etc. – and stages where knowledge is disseminated more conventionally with presentations from researchers, practical examples and various forms of explanation: filmed, verbal or written.

→ WHAT MESSAGE DO YOU THINK THE PUBLIC WILL TAKE AWAY FROM THEIR VISIT?

I think the public will be shaken! It seems to me that even informed visitors will feel powerful emotions thanks to the different scenarios and views of the future. It's very effective to be able to personally experience these different kinds of things that we could well face over the next decades: great

upheavals which, unlike what has happened with the health crisis, could make our telecommunications networks or energy production partly unusable. It's a useful way of understanding things, very different to what can be achieved by reading articles or formal works. So I think that not even readers of *Le Monde* newspaper or summaries of IPCC reports will come away unmoved from the presented scenarios. And what can we say about those who have never really taken an interest in the issues of climate change? Obviously, learning also comes from the different stages involved. Visitors are not left on their own. Different solutions are suggested and they fortunately make the end of the visit a little more inspirational. I'm sure that the message the public will take away is that we need to act now.

→ HOW WOULD YOU DESCRIBE THE EXHIBITION IN A WORD OR TWO?

Extremely effective.



ROLAND LEHOUCQ

Astrophysics and science fiction Laboratory of Cosmology and the Evolution of Galaxies, CEA. Founder of the Scientifiction section in *Bifrost* magazine

→ YOU ARE A MEMBER OF THE RENAISSANCES EXHIBITION SCIENTIFIC COMMITTEE. WHAT CONVINCED YOU TO TAKE PART IN IT?

I had already had the opportunity to work on Universcience's scientific exhibitions – *The Great Story of the Universe* and *The Odyssey of Light*, but also the *Star Wars* saga, the inventions of Gaston Lagaffe and science fiction. The Renaissance exhibition explores possible futures of our societies in this age of frequent environmental disruptions they can cause. Imagining the social consequences of our technical decisions is similar to science fiction, which can actually be seen as social thought experiments. So I couldn't miss the chance to play a part in an exhibition that combined science and fiction!

→ WHAT DO YOU THINK ABOUT USING IMAGINATION AND FICTION TO ENHANCE PUBLIC AWARENESS OF THE DIFFERENT ISSUES OF THE 21ST CENTURY? IN YOUR OPINION, WHAT DOES SCIENCE FICTION CONTRIBUTE TO OUR SOCIETIES?

As I said in the afterword to the book accompanying the exhibition, science fiction is an essential literary genre that serves to explore the future. First,

it tells stories that make people think. It comes up with altered, original ideas that allow us to take a step back. Given the apparent lack of alternatives to the prevailing system (Margaret Thatcher's famous saying, "There Is No Alternative"), science fiction, as a whole is a catalogue of possibilities that describes many futures: tomorrow is open-ended. Secondly, science fiction creates and simulates worlds. It imagines physical and social systems scattered over space and time, while establishing rules specific to a new model of society. One of its advantages over conventional literature is that it very obviously takes account of emergent technical issues. Thirdly, science fiction is a warehouse of political ideas. It would be easy to dismiss that view by reducing its writing to simple exercises in unbridled imagination. But that would be ignoring the contributions of major works such as George Orwell's *1984* or Aldous Huxley's *Brave New World*. Of course, science fiction does not provide perfect plans or oven-ready recipes. The aim is to identify alternative possibilities in its stories. On what basis do they provide the means to achieve a manageable situation and keep the planet habitable? How is collective life organised? What is the role of technology? Finally,

science fiction lays the foundations of "the ethics of the future", an expression used by German philosopher Hans Jonas (1903-1993). He defined them as ethics of today which take responsibility for the future and are designed to protect our descendants from the consequences of our current actions. The importance of ecology in science fiction suggests a future where the habitability of the planet is the responsibility of us all, from one generation to the next. Science fiction does not try to predict the future, but by exploring different possibilities, it helps us to think about the present.

→ WHAT MESSAGE DO YOU THINK THE PUBLIC WILL TAKE AWAY FROM THEIR VISIT?

I hope they'll take two. The first is that we need to act urgently because the damage to our environment is accelerating so much that it's endangering the very habitability of our planet. The second is that many things are still possible. The future is open-ended and our course can be corrected if we make long-term, collective efforts.

→ HOW WOULD YOU DESCRIBE THE EXHIBITION IN A WORD OR TWO?

Let's act!



SEBASTIAN GREVSMÜHL

Science historian and specialist in environmental history and visual studies. CRH (Centre for Historical Research) / EHESS; CNRS research officer.

→ WHAT PART OF THE EXHIBITION PARTICULARLY STRUCK YOU?

I was especially interested by the question of imagination, especially in relation to the forest. It holds a central place in environmental history in terms of the management of a renewable resource over the years and the greater or lesser control of access to it by the authorities, and its close connection with the water cycle and the potentially disastrous impacts of deforestation on the climate, especially in a colonial context. Yet in the exhibition, another major function of the forest emerges; it is the perfect place for human survival. Some see it as satisfying an (often-unconscious) need to "reconnect" with nature and the wild. In fact, many scientists believe that is one of the key conditions for finding solutions to the environmental crisis. Therefore, the forest is a location where ideas come together: environmental management, control and mastery, human survival, and a so-called "return" to nature. In short, it's a crossroad of imagination

that not only points to the future, but also to outcomes for the human race.

→ AS A SCIENCE HISTORIAN, CAN YOU EXPLAIN THE IMPORTANCE OF STUDYING THE PAST AND PRESENT TO UNDERSTAND FUTURE ISSUES?

The past mainly teaches us that we didn't blindly stumble into the current environmental crisis. In other words, our fears are based on several centuries of "environmental reflexivity", i.e. past sensitivity to environmental conditions, and not only on a very local scale, but very often on the scale of a country, kingdom or empire, and sometimes even the world. In that way, history also throws light on the political issues that have actually led to our current situation. So raising the question of environmental sensitivity in the long term enables us to politicize again discussions about overarching concepts such as the Anthropocene, it shows that the world is governed by economic, technical and political choices, and better understand how those choices sometimes lastingly

shape both our world and our ability to act in the future.

→ WHAT MESSAGE DO YOU THINK THE PUBLIC WILL TAKE AWAY FROM THEIR VISIT?

The public will leave having benefited from an experience that results from placing in perspective and discussing social phenomena such as "survivalism" or our fascination with narratives of collapses, together with other crucially topical and far-reaching issues – especially on the scientific level – such as the Anthropocene. One of the main strengths of the exhibition is to suggest very concrete scenarios and solutions that can assist visitors with their daily choices, allowing them to aspire to a future that might be described as more peaceful and perhaps fairer.

→ HOW WOULD YOU DESCRIBE THE EXHIBITION IN A WORD OR TWO?

Imagination. I think that's the word which best describes the exhibition since that is precisely the issue: how can we use our imagination – and above all how can we come up with

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