



Dandora Landfill #3, Plastics Recycling, Nairobi, Kenya, 2016

EDWARD BURTYNSKY

MOUNDS AND VOIDS: FROM HUMAN TO GLOBAL SCALE

NOVEMBER 10TH, 2020 - SEPTEMBER 19TH, 2021

**VISITOR'S INFORMATION
GUIDE - SCHOOLS & COLLEGES**



**Centre
Culturel
Canadien
Paris**

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INTRODUCTION

Introduction to the Canadian Cultural Centre

As the centre of Canadian cultural diplomacy in France, the Canadian Cultural Centre in Paris **promotes the most innovative of contemporary Canadian artistic creativity across all areas of artistic expression.**

With a 160 m2 glass roofed art gallery and an events room, **the Canadian Cultural Centre hosts Canadian artists throughout the year, holding contemporary art exhibitions, concerts of all types, film screenings, literary events, conferences and workshops for young people.**

The Canadian Cultural Centre **also supports a Canadian cultural schedule throughout France,** supporting French and Canadian institutes to carry out exchanges and cooperative projects.

The Canadian Cultural Centre is also an active member of the **Forum of Foreign Cultural Institutes in Paris (FICEP)**, supported by the **Ministry of Culture** since it was established in 2002.

50 years of the CCC

The Canadian Cultural Centre in Paris is celebrating its **fiftieth anniversary!** Established in 1970 by the Ambassador Jules Léger, the Canadian Cultural Centre, which is the only cultural centre that Canada has abroad, has been **showcasing our cultural diplomacy for half a century.**

5 years of COP21 and the Paris Agreement

2021 is shaping up to be an important year for the environment with numerous meetings in which Canada will be fully involved: the One Planet Summit, the World Nature Conference of the IUCN, UN conferences on biodiversity with COP15 at Kunming in China and on global warming with COP26 at Glasgow in the UK. As the second largest country in the world with a surface area of 10 million square kilometres, **Canada is fully aware of its responsibilities.**

Since the Paris Agreement of 2015, we have stood shoulder to shoulder with the countries which are committed to preserving our planet. **The 5th Anniversary last December was a call to lift our sights even further.** The Prime Minister Justin Trudeau used the occasion of the Climate Ambition Summit in London to present **Canada's strengthened climate plan, a road map for our country to protect the environment, create jobs and support Canadian communities.**

Because that is where the challenge lies in the 21st century: to implement positive action on the climate, to stimulate the jobs and innovation of the future, to provide our citizens with clean air and water, to have inclusive communities and to prepare a better future for our children. This means creating virtuous and responsible actions **to compose together a new positive history of the anthropocene era.**



Tyrone Mine #3, Silver City, New Mexico, USA, 2012

ABOUT THE EXHIBITION

Edward Burtynsky: an astonishing look at our planet

The origins of his approach

Edward Burtynsky was born in 1955 in **St. Catharines**, a town in south west Ontario. He grew up in an area particularly marked by industrial facilities and factories owned by General Motors, for whom his father worked.

He took his first steps in photography when he was **11**, when his father bought him his first camera. After obtaining a degree in Applied Arts – Photography and Media from Ryerson University in 1982, Edward Burtynsky founded **Toronto Image Works** in 1985. This contained his personal studio, a dark room for hire, a tailored photographic laboratory and a training centre in digital imaging and new media (1).

Influenced by American photographers such as **Ansel Adams, Edward Weston and Carleton Watkins** (2), for years Edward Burtynsky photographed landscapes which he himself described as “immaculate” (3). One day while travelling through Pennsylvania he was fascinated to come across the mines in Frackville: **an immense landscape completely transformed by the work of man. That started off a new approach to photography and a new way of looking at the planet.**

Since then, Edward Burtynsky has travelled the world looking for industrial sites and transformed, **damaged landscapes**. These he observes with sensitivity and depth, magnifying them through his **particular viewfinder**.

His spectacular photographs are **rich in details, colour, contrast and counterpoint of scale**. They reveal landscapes and realities which only very rarely impact our day to day experience: mines and quarries, dumps, recycling industries, oil refineries.

1. in Daniel Baird, “Edward Burtynsky”, September 2013
<https://www.thecanadianencyclopedia.ca/fr/article/edward-burtynsky>

2. Ibid.

3. in “The Landscapes Manufactured by Edward Burtynsky - TED2005 -
https://www.ted.com/talks/edward_burtynsky_my_wish_manufactured_landscapes_and_green_education?utm_campaign=tedspreed&utm_medium=referral&utm_source=tedcomshare

“

“THESE PICTURES ARE METAPHORS FOR THE DILEMMA OF OUR MODERN EXISTENCE, BETWEEN ATTRACTION AND REPULSION, SEDUCTION AND FEAR. OUR DEPENDENCE ON NATURE FOR THE RAW MATERIALS WE CONSUME AND OUR CONCERN FOR THE HEALTH OF OUR PLANET PUTS US IN A DIFFICULT DILEMMA. FOR ME THESE PICTURES ACT AS REFLECTING POOLS FOR OUR TIMES”.

Edward Burtynsky

Carrara Marble Quarries, Carbonara Quarry #1, Carrara, Italy, 2016





Iberia Quarries #2, Marmorose EFA Co., Bencatel, Portugal, 2006

The Anthropocene Project

In September 2018, Edward Burtynsky got together with artists **Jennifer Baichwal and Nicholas de Pencier** to design the Anthropocene Project: **a set of multi-disciplinary activities** combining **photography, cinema, virtual reality, augmented reality and scientific research** to study the influence of Man on the condition, dynamics and future of the Earth.

The Anthropocene Project quickly evolved to include cinematographic projections, high definition mural photographs by Edward Burtynsky, 360° virtual reality short length films and augmented reality exhibits. These aesthetic experiences throw the spectators deep into the heart of the **Anthropocene: a new geological era where human beings** are the main force for change on Earth and where human activities have direct and intense repercussions on all ecosystems.

In particular the Anthropocene Project was embodied by a major travelling museum exhibition shown at **the Ontario Museum of Fine Arts** and **the Canadian Museum of Fine Arts** at the same time in 2018. It then went to the **Manifattura di Arti, Sperimentazione e Tecnologia** (MAST) in Bologna, Italy in Spring 2019.



Shipbreaking #27 with cutter, Chittagong, Bangladesh, 2001

Overview of the Exhibition

Remarks on the Exhibition by the Curator, Catherine Bédard

Edward Burtynsky is a well known Canadian photographer who has been travelling the world for decades, exploring the landscapes that our modern existence leaves in its wake. Of paradoxical beauty, his photographs show abundance and lack, local and global issues of water and oil, resource exploitation and the resulting impact on labour and people. Burtynsky has recently created an ambitious and panoramic project covering all the components of a journey that is both coherent and whole-hearted: Anthropocene.

The exhibition at the Canadian Cultural Centre provides a unique and subjective journey through the body of this colossal work. *Mounds and Voids* concentrates on the human and industrial resources used for the profitable exploitation of the land, on the global balance between fullness and emptiness generated by local imbalances, on what lies underground and where the lie of the land is anything but natural. Away from the major urban centres and the daily life of the privileged, what traces are mining and conglomeration operations leaving on our planet? What do we see and what do we know of those who dig, extract, collect and select by bare hand, where industrial machinery cannot go?

Using an immersive and contrasting one-on-one comparison between an industrial operation and an artisanal mine in Africa, the exhibition is a piercing but paradoxical look at the sidelines of our world, inviting us to take the measure of the local and global issues involved in resource exploitation. *Mounds and Voids: from Human to Global Scale* is also an exercise in image construction and its inherent power, on a singular form for mastering the representation of space and scale, as well as on the deliberate use of technology to create an exploratory view that exceeds and defies the limits of perception.

The exhibition brings together two monumental works created in Johannesburg and Madagascar from Edward Burtynsky's most recent project, "Africa". A series of experiments in augmented reality which create a meditative experience on the memory of these industrial relics. A condensed selection of fourteen photographs which grapple with the limits of visual presentation of land exploitation and recycling.

*Catherine Bédard - Exhibition curator
Canadian Cultural Centre*

Extraction: the central theme of the exhibition

“Mounds And Voids: From Human to Global Scale” offers a subjective passage through the work of Edward Burtynsky by way of the **extractive industries**.

The central subject of Edward Burtynsky’s photography, “extracting a material from where it lies buried”, is **one of the most critical contemporary issues for the planet**. Everywhere in the world, the land is exploited to extract raw materials **until the resources are exhausted**. Large scale extractive industry always produces mounds and voids on the surface of the Earth. These are the visible effects which the Canadian photographer wishes to present, to illustrate the impact of these activities.

On the mezzanine floor of the gallery, 14 of Burtynsky’s photographs are on display including **the famous Bao Steel pyramid near Shanghai**. In the centre of a composition strongly marked by lines of force, the coal pyramid stands facing us, asserting itself against the background light. This immense black mound both reminds us of antiquity – the Pyramids of Egypt – and the ecological disaster in the making. Coal is needed to produce steel and plays a considerable part in generating CO2 emissions throughout the world.

As if in response to this dark and threatening mountain of coal, **the quarries of Portugal and Italy** are exhibited a bit further on. The photographs concentrate on amazing views of mountains where trucks with enormous wheels, excavators and hundreds of men dig out the rock to extract blocks of marble.

The photographs convey the tension which underlies the entire exhibition, between fullness and emptiness, between hillocks and hollows, between mountains and excavations.



Bao Steel #8, Shanghai, China, 2005



Iberia Quarries #2, Marmorose EFA Co., Bencatel, Portugal, 2006



Sapphire Mining Settlement #1, Sakaraha, Madagascar, 2019

The central theme of materials extraction also leads to questions about those involved in resource exploitation – **who are these people who dig the ground?** Brought together into one exhibition space, Burtynsky's photographs underline the contrasts between the various mines and quarries of the world. It explains how **"half the world excavates and extracts using the latest mining technology (...) while the other half still uses muscle power"**.

These realities are contrasted in the two enormous photographic murals in the gallery. On one side we have a vast **industrial site in Johannesburg** where monumental machines excavate tonnes of coal each day. There are no people in view and the viewer is completely immersed in a robotic, technological world. On the other side, we have **a mine in Madagascar** where thousands of workers dig the earth with their bare hands every day, looking for sapphires. The huge mural shows every detail, it captures the life of these workers and the human strength needed to remove the precious stones from the ground.

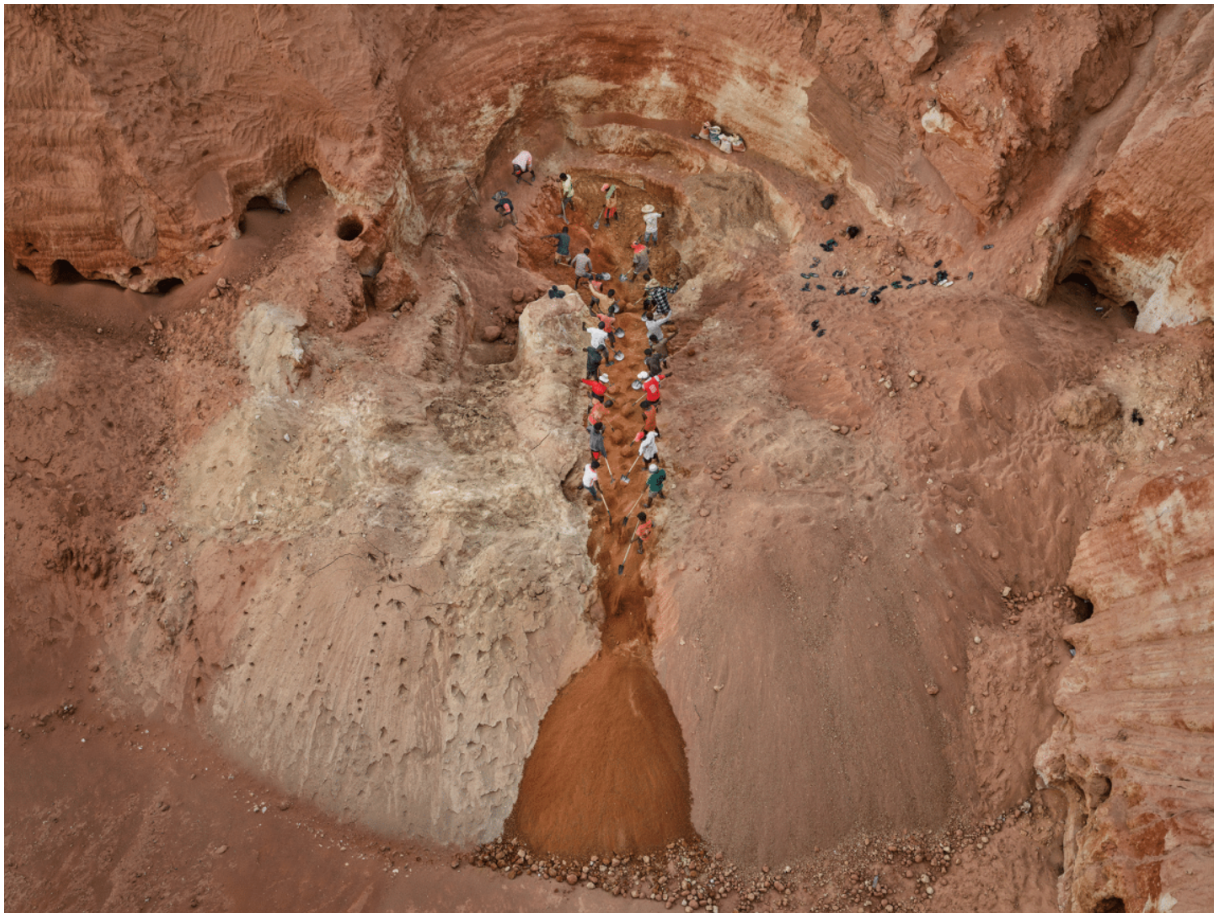
Also in **Madagascar**, the photograph ***Ilakaka Sapphire Mine*** shows twenty workers digging with shovels to find sapphires, forming a human chain to make up for the lack of machines and technology. In the photograph ***Dandora Landfill***, taken in 2016 in **Nairobi, Kenya**, Burtynsky's lens zooms in on **workers in one of the largest dumps in the world** where they sort, recycle and resell the thousands of tonnes of waste left every day. Burtynsky's perspective on these artisanal mines underlines how much the men and women who exploit the land are themselves exploited in turn.



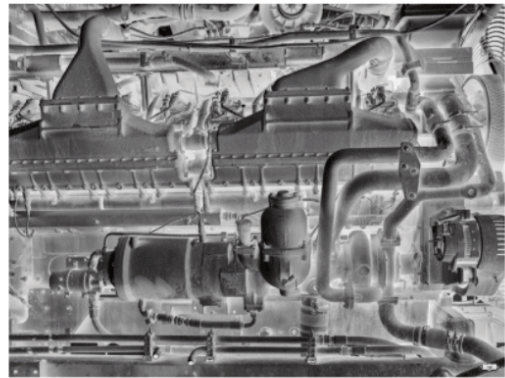
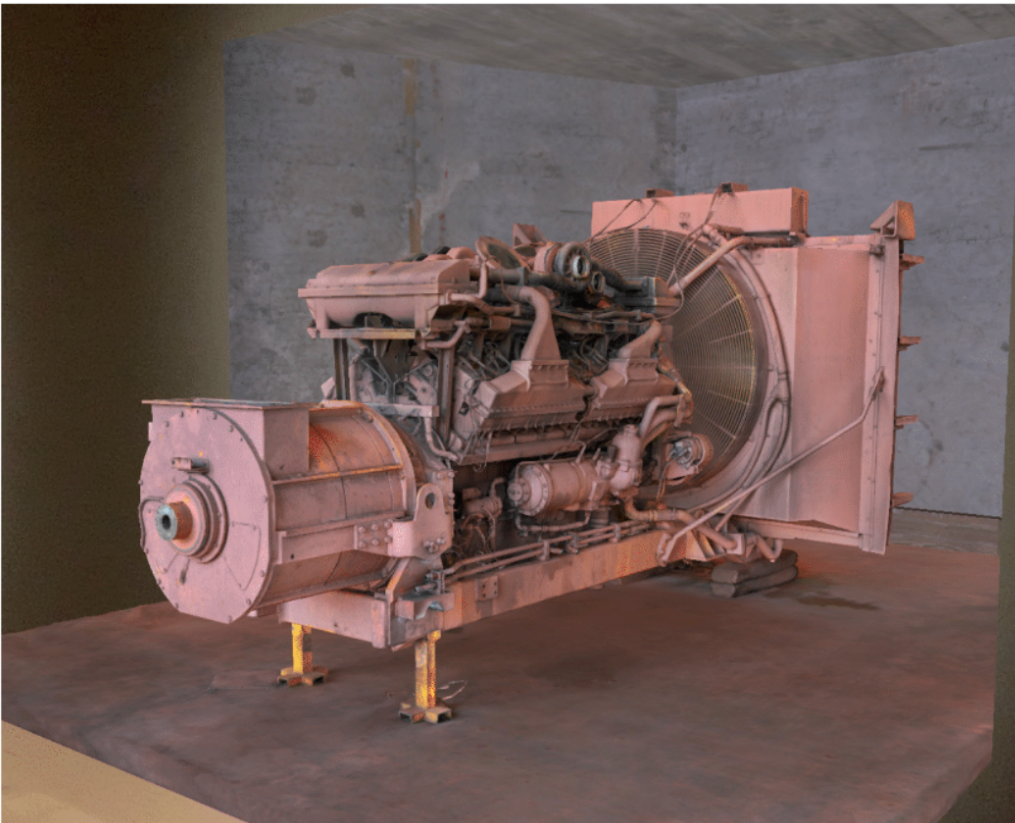
Dandora Landfill #3, Plastics Recycling, Nairobi, Kenya, 2016



Processing Facility, Leeuwpan Coal Mine, Delmas, South Africa, 2019



Ilakaka Sapphire Mine #1, of Ilakaka, Madagascar, 2019



Augmented Reality #6, Komatsu Truck Engine, of Sishen Mine, Kathu, South Africa, 2017

Augmented Reality: a new photographic technology

While aiming to raise himself ever higher above the ground, Edward Burtynsky has always made the most of technical progress over the last few decades to develop his work. Digital photography and the first drones have given him access to **spectacular views of the industrial and environmental upheavals taking place in the world.**

More recently, the photographer has also started using state of the art technologies such as **360° video, 3D** and **augmented reality** to document his trips to the four corners of the world. "I travel the world and I capture something to bring back to the gallery space", says Burtynsky.

Our exhibition "Mounds And Voids: From Human to Global Scale" contains **three augmented reality works** produced using **photogrammetry**, a 3D digitisation technique which consists of photographing something from several angles. The various shots are then re-assembled by software to generate a single 3D digital image, with **a very high level of detail.**

Of the three works, one shows one of the largest internal combustion engines in the world. This enormous engine could never have got through the doors of our gallery but you can see it here in virtual form, projecting it into space with a tablet computer.

For the Canadian photographer, augmented reality is **a new form of artistic expression** which is revolutionising photographic technique, in the same way as the change from black and white to colour.



"Shipbreaking #23, Chittagong, Bangladesh, 2000"

EDUCATIONAL MATERIAL

Exercising your perception: from Human to Global scale

Burtynsky and photographers in general pay attention to the composition of the picture, i.e. to how they want to frame the photograph.

Some parameters to take into account:

Depth of Field

You can already say who and what is **in the foreground and in the background**.

- The **foreground** refers to objects located in the front of the photograph.
- The **background** refers to what is behind the subject or object in the foreground.



Framing

How and where the photographer puts his camera and ruler.

- **A wide angle** shot covers both the subject and his environment. Both are of equal importance in the picture.
- **A medium angle** shot is centred on the subject. He is more important than his environment, even though the environment is still there.
- **(The American shot**, widely used in cinema, cuts the subject or person at mid-thigh level. The subject is isolated and the scenery becomes secondary).
- **A tight shot** consists of cutting the subject above waist level to highlight them.
- **A close-up** highlights part of the subject's body: his face, his expression or another detail which fills the entire frame.

On the above photograph, define the foreground and background as well as the framing aspect ratio used.

EDUCATIONAL MATERIAL



Exercising your perception: from Human to Global scale

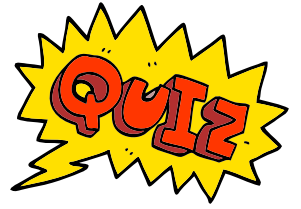
Shooting angles:

- **High Angle:** the camera is located above the subject
- **Low Angle:** the camera is located below the subject.
- **Eye level angle:** the camera is positioned facing the subject.

On the above photograph, define the camera angle used.



Ilakaka Sapphire Mine #1, of Ilakaka, Madagascar, 2019



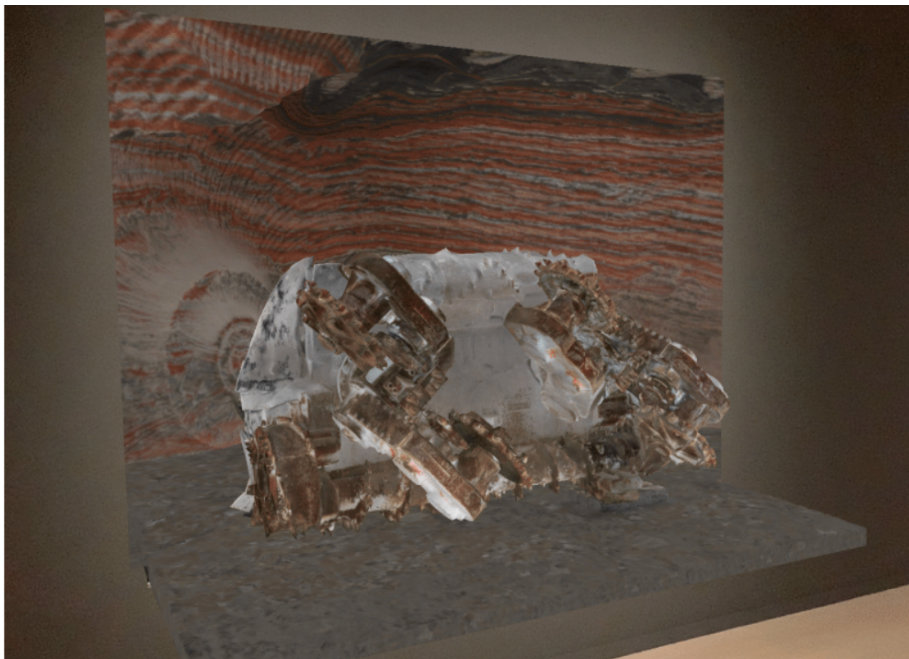
EXHIBITION QUIZ



Dandora Landfill #3, Plastics Recycling, Nairobi, 2016

Where was the photograph taken?

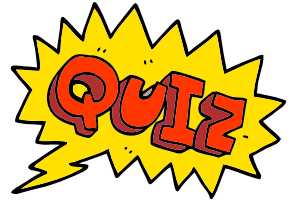
- ☐ In Canada
- ☐ In Kenya
- ☐ In South Africa



Augmented Reality #7, Ural 20R Combine, of Heading & Winning Machine, Uralkali Potash Mine, Berezniki, Russia, 2017

What new technology is Edward Burtynsky using for his exhibition "Mounds And Voids: From Human to Global Scale"?

- ☐ 360° Vidéo
- ☐ Augmented Reality
- ☐ Photo retouching software



EXHIBITION QUIZ



Sapphire Mining Settlement #1, Sakaraha, Madagascar, 2019

What resource is being extracted in this photo?

- ☐ Diamonds
- ☐ Marble
- ☐ Sapphires



Bao Steel #8, Shanghai, China, 2005

What resource is piled up in the shape of pyramid in this photo?

- ☐ Gravel
- ☐ Coal
- ☐ Earth

DISCUSSION



In your opinion, is the exploitation of the Earth's natural resources sustainable?

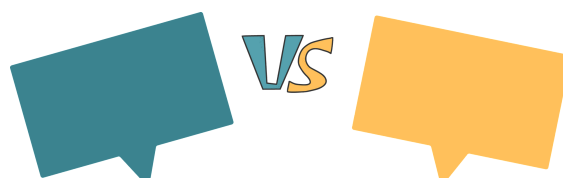
If not, what are the alternatives?

Divide yourselves up into small groups and write down some ideas to share with the rest of the class.

The Canadian photographer Edward Burtynsky uses new imaging technologies such as augmented reality.

In your opinion, does this add something new and relevant for the spectator and if so, what?

Divide yourselves up into small groups and write down some ideas to share with the rest of the class.



MOTS CACHÉS

F	Y	Q	E	B	U	R	T	Y	N	S	K	Y	J
E	L	H	K	E	X	H	I	B	I	T	I	O	N
V	J	B	A	O	S	T	E	E	L	V	R	Y	A
H	E	X	T	R	A	C	T	I	O	N	T	X	M
E	J	S	A	P	P	H	I	R	E	S	D	F	B
P	H	O	T	O	G	R	A	P	H	N	B	B	Z
R	W	W	3	D	S	X	M	A	R	B	L	E	F
K	P	M	O	U	N	D	S	I	V	O	I	D	S
U	A	N	T	H	R	O	P	O	C	E	N	E	Q
Y	E	R	E	S	O	U	R	C	E	S	T	U	E
M	H	I	E	N	V	I	R	O	N	M	E	N	T
K	G	F	V	M	I	N	E	L	D	U	G	I	C
O	C	A	N	A	D	A	O	X	R	G	F	E	I
A	H	S	P	L	A	N	E	T	R	V	S	Z	R

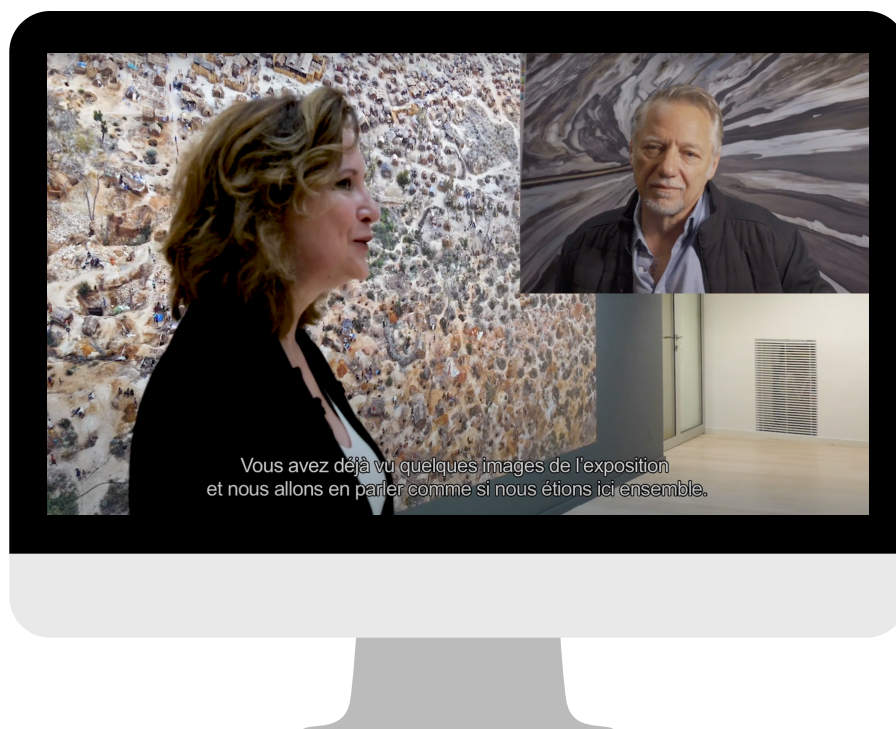
Anthropocene
BaoSteel
Burtynsky
Canada
Environment
Exhibition
Extraction
Marble

Mine
Mounds
Planet
Photograph
Resources
Sapphires
Voids
3D

TO FIND OUT MORE



To find out more, watch the virtual guided tour of the exhibition by Edward Burtynsky and the curator Catherine Bédard on [our Youtube channel!](#)



[**VIRTUAL GUIDED TOUR**](#)

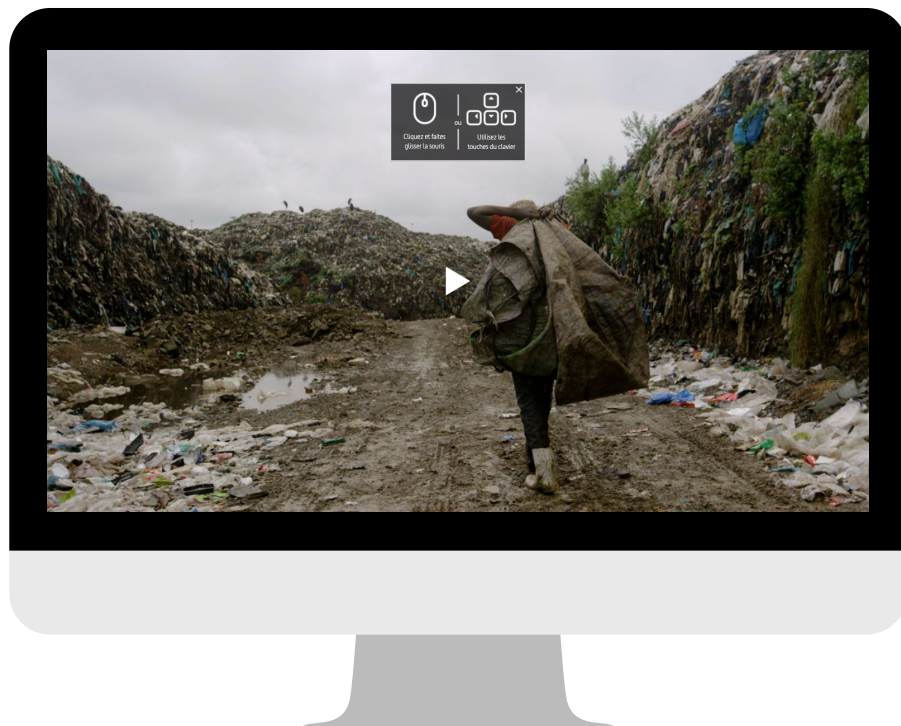


TO FIND OUT MORE



To find out more about Edward Burtynsky's work,
educational resources are available at:

<https://anthropocene.canadiangeographic.ca/fr>



360° VIDEOS

