



UNIVERSAL HISTORY OF THE EARTHQUAKES

INDUCED EARTHQUAKES ARE ALSO UNPREDICTABLE

In Japanese mythology, the god Kashima is in charge of guarding Namazu, a giant catfish, keeping it inside a stone cave in the depths of Earth. When Kashima lets his guard down, the fish escapes and the movement of its tail causes earthquakes across the planet. This is one of the stories in Leticia Ramos' collection. The artist has been investigating the socioeconomic, psychological and political causes and effects of earthquakes since she was awarded the Fundación Botín Visual Art Grant in 2016. The departure point for her research is the earthquake that struck Lisbon in 1775. Seen as one of history's most intense earthquakes, the event had a tremendous impact on 18th century Portuguese society – and, consequently, also on its colonies. The cataclysm (the earthquake was followed by a tsunami that generated waves up to 20 metres high, as well as countless fires) hit Lisbon in the morning of All Saints' Day, endorsing the many mythical and religious interpretations of the calamity that followed. The Marquis of Pombal – who was then the country's Prime Minister – was in charge of rebuilding the Portuguese capital. The nobleman erected the metropolis' new structures at a speed that would cause envy to contemporary developers who are today responsible for the contentious projects of retrofitting these same buildings. The enterprise was mostly paid for by gold coming from Minas Gerais, and it required a monumental amount of timber – for instance, the famous 'Pombaline cages', were built mainly using Brazilian hardwood – which was imported in a rush from the Brazilian colony, triggering commotion amongst taxpayers across the Atlantic.

Ramos draws on this traumatic event in order to produce a sequence of static and moving images that are the result of multiple photographic experiments. Since the start of her career, the artist feeds a specific interest in procedures and the historical evolution of analogic photo-techniques, which has led to the development of a series of unique devices and machines that are able to materialise her projects. 'Universal History of Earthquakes' is the combination of a deep understanding of the media and the artist's interest in narrative – in this case, both historical and fictional. Narrative is often an intuitive tool used to mitigate the impact of drastic changes: we tell stories to ourselves and create characters and allegories in order to give sense to the intangible or to make the experience of reality more tolerable.

The earthquake hit Lisbon in 1775, and photography was invented in 1835 (somewhere between the historical disagreement about its authorship: Talbot or Daguerre?). It was precisely the lack of 'photographic evidence' that encouraged the artist to investigate the accounts of that time through stories told by those who were keen to narrate and visually represent what they saw. The majority of photographs exhibited in 'Universal History of Earthquakes' were created using the technique of stroboscopic photography in microfilm, which registers the movement of falling objects, in a direct reference to the moment when the shaking occurs. By employing techniques that are typical of the scientific field, Ramos transposes the experiences of a technical lab to the photo lab, creating, therefore, a new type of visual vocabulary.

A sphere cuts through a black plane, gradually losing its definition; its dilated displacement is somehow melancholic, soundless (The magician and the Earthquake I, 2016). The images of earthquakes that we often see in the news are nothing similar to the moving light abstractions created by Ramos. In contrast to the raw reality of photographs depicting debris and the overexposure of natural disasters victims, Ramos' images seem to hold the time of trauma. They emulate perception altered by extreme situations and seem to record what happens when we realise with our body that nothing is definite. Experts rely on technology such as quantitative analysis and probabilities, simulators and three-dimensional models in an attempt to anticipate the impact of the present on the near future. However, for the layperson, the visualisation of this research creates little more than anxiety - we still don't have the vocabulary necessary to transform algorithms into metaphors and analogies. Ramos' images share the same level of methodological rigour applied in scientific research, but without claiming to explain any-

thing. Her visual simulations fascinate for the way they reiterate the mystery and speculation that still reside in the most advanced scientific discoveries. There is still no convincing explanation about the reasons behind the movement of tectonic plates – perhaps Kashima’s unintentional nap that allowed Namazu to escape. On the face of it, all we can do is study their impact and project potential preventive measures (such as in the case of Pombal’s constructions) or to turn this kind of phenomena into allegories that can illustrate the socio-political mess we are in.

The legend goes that Namazu only escapes when social injustice is rampant. It levels things out and, faced with the tragedy, everyone goes back to ground zero. In calamitous situations, the State is put to the test, whilst cooperation and solidarity networks come to the fore. Immanuel Kant is amongst the several Enlightenment philosophers (Voltaire refers to the earthquake in *Candide*, for example) who tried to understand the possible reasons behind nature’s ‘furious wrath’ against Lisbon. The German writer chose a geological and moral argument to approach the catastrophe, thus moving away from the divine explanations that were prevalent at the time. With this in mind, Ramos took her proposition further by acting out ‘empirical science’. At Pivô, the artist replicated the experiment proposed by the philosopher in one of his essays about the natural disaster in Lisbon. Ramos used boxes filled with soil built according to the following instructions:

‘It is now time to say something about the causes of earthquakes. It is easy for a natural philosopher to reproduce their manifestations. One takes twenty-five pounds of iron fillings, an equal amount of sulphur, and mixes it with ordinary water, buries this paste one or one-and-a-half feet underground and compresses the earth firmly above it. After several hours, a dense vapour is seen rising; the earth trembles, and flames break forth from the soil.’

Taking Kant’s speculation to create a fictional film, Ramos pushes scientific narrative beyond its limits. Today, the ‘natural philosopher’ to which Kant refers is closer to an artist than a scientist. The concept behind the experiment does not explain the origins of earthquakes but it encompasses the conflict between religion and natural science at a crucial moment in the history of Western thought. And what does it mean to talk about earthquakes – or images of earthquakes – in an art exhibition in Brazil in 2018? Whilst I was writing this text, I received a phone alert from The Guardian telling me that an earthquake had just killed 98 people in Bali. I opened the link and watched shaky video footage shot by an eyewitness on their phone. The muffled audio revealed screams and explosions. I attempt here to answer my question with another question: why did the English newspaper choose to publicise precisely this image? Perhaps because it is a ‘real-time’ illustration of the horrors of a natural catastrophe and, in the same measure, a solid evidence of the paper’s efficient coverage. I am thousands of miles away from the quake’s epicentre and yet I promptly received the news seconds after it had happened. In the era of hyper-definition, the amateur image adds a sense of truth and urgency different from professional lenses. Hito Steyerl coined the term ‘poor image’ to describe this type of image. For Steyerl, these inferior images, made in a rush, carry some weight of reality and are conducive of a certain aesthetic of objectivity that is symptomatic of our time.

The ‘aesthetic’ of a shaking camera has been co-opted by the mainstream media – and, of course, this makes room for induced situations and scenarios. The only thing that makes me believe that the video was in fact shot by someone who was amidst the earthquake in Bali is the newspaper’s logo that appears at the corner of the screen. However, in reality, the video could have been made in someone’s shower, in the same way the first landing on the moon could have been staged using a model similar to the ones produced by Ramos. Her complex analogic images do not echo Steyerl’s concept. In contrast to the images which the German artist refers to – which are like a digital and frantic by-product of the search for absolute present in our advanced capitalism –, Ramos’ photo-experiments insist on the idea that there is something important about the images that take long, that do not speak for themselves. They are not evidence or a symptom of anything, deliberately remaining as an open question. Ramos’ images are premeditated manipulations, which in a sense makes them immune to the conceptual reconfigurations

that images in circulation are often subjected to.

Ramos' historical-scientific-fictional research evolves into the installation *Seismograph* (2018). By transforming a 16mm projector into a mock seismograph, the artist proposes to measure and, simultaneously, project the vibration of the Copan building. The metal needle that scratches the negative exposed in real-time supposedly reveals the modern building's vulnerability – or perhaps the vulnerability of all structures we believe to be stable. And what does that mean in seismologic terms? Absolutely nothing. This new cinematographic machine expands on the approach that Ramos has taken for years: a phenomenon, a historical event or a piece of news is the departure point for long and comprehensive projects of artistic investigation. Still today we think about the impact of Lisbon's earthquake, we understand the extent to which it affected the relationship between Portugal and Brazil, we also know that its ramifications propelled Enlightenment ideas and have provided us with a legacy of civil construction techniques and geological research. However, despite it all, it is still impossible to predict an earthquake. Therefore, an earthquake is always something imminent. Leticia Ramos' work inhabits a place between science, history, fictional narrative and (why not) magic – a place that is only accessible to art. Her open projects look attentively to the effects of the past without worrying about predicting the future. This artist-inventor calls our attention to the fact that an image is always the merging of something in the world with our ability to interpret and transform what we see.

Fernanda Brenner

1 The 'Pombaline cage' is an anti-seismic construction system typically used in central Lisbon. It consists of a three-dimensional wooden structure incorporated to the brickwork. Given its pliable nature, wood can resist traction and compression.

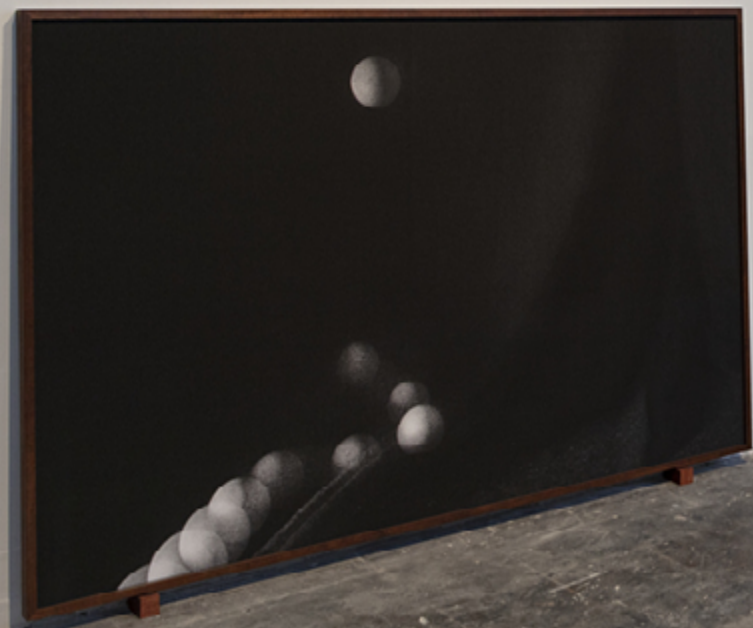
2 Official history credits two people as the inventors of photography: Henry Talbot, in England, and Louis Daguerre, in France. In 1835, Talbot published an article documenting how he captured images using paper treated with silver chloride, which was then immersed in a salted solution. The result was a negative. Daguerre's method captured images on a thin copper plate coated in silver salt, which was then treated with mercury vapour to secure the printing. The result was a positive image, which could no longer be copied. There is also a thesis that photography was invented in Brazil in 1833, through a different method developed by Antoine Hercule Florence. In 2017, Ramos worked on a project based on Florence's history and her experiments with 'tableaux transparent'. The *Blue Night* was commissioned for the exhibition "Hercule Florence: Le Nouveaux Robinson", at the New National Museum of Monaco (NMNM).

3 For the exhibition at Fundación Botín (2017), the artist built a kinetic sculpture-model that simulated the earthquake vibration on Pombaline cages. *Earthquakes Simulation Machine* is in exhibition at Pivô.

4 Kant, Immanuel. 'On the causes of earthquakes on the occasion of the calamity that befell the western countries of Europe towards the end of last year (1756)'. Available at <http://users.clas.ufl.edu/burt/spaceshot-sairheads/Kantearthquakes.pdf>, last accessed on 15 August 2018.

5 <https://www.theguardian.com/world/2018/aug/05/powerful-earthquake-strikes-indonesia-killing-at-least-three>, last accessed on 5 August 2018.

6 Steyerl, Hito. In Defence of the Poor Image: <https://www.e-flux.com/journal/10/61362/in-defense-of-the-poor-image/>, last accessed on 5 August 2018.



Earthquakes Simulation Machine 2016
Electronic device, engine, arduino board, metallic
structure, plywood and cable

The Magician And The Earthquake II 2016
Stroboscopic photography
Credit Fundación Botín, Santander Collection



The Magician And The Earthquake II 2016
Stroboscopic photography
Credit Fundación Botín, Santander Collection



Seismograph 2018

35mm film, projector, needle, subwoofer, wood and seismograph,







The Magician And The Earthquake I 2016
Stroboscopic Photography
Credit Fundación Botín, Santander Collection



Study for the fall of a sheet of paper in a “Pombaline cage” #3 2016

Stroboscopic photography on microfilm, silverprint-
Credit Fundación Botín, Santander Collection

Study For The Fall Of A Sheet Of Paper 2014

Stroboscopic Photography
Courtesy Mendes Wood DM



Risco IV, 2018

Silver print and photogram

Risco II, 2018

Silver print and photogram

Risco III, 2018

Silver print and photogram

Courtesy Mendes Wood DM





Earthquake Spectrum I 2016
Stroboscopic photography on microfilm
Credit Fundación Botín, Santander Collection

Black Panorama II, 2018
Print from microfilm

**For A Researcher Of The Nature, It Is Not Difficult
To Simulate A Phenomenon** 2018
16mm film transferred to video, 7'



Black Panorama II, 2018
Print from microfilm



For A Researcher Of The Nature,
It Is Not Difficult To Simulate A
Phenomenon 2018
16mm film transferred to video, 7'



Ruptures II 2016

Stroboscopic photography on
microfilm, silverprint
Credit Fundación Botín, Santander
Collection

Ruptures IV 2018

Stroboscopic photography on
microfilm, silverprint

Ruptures III 2018

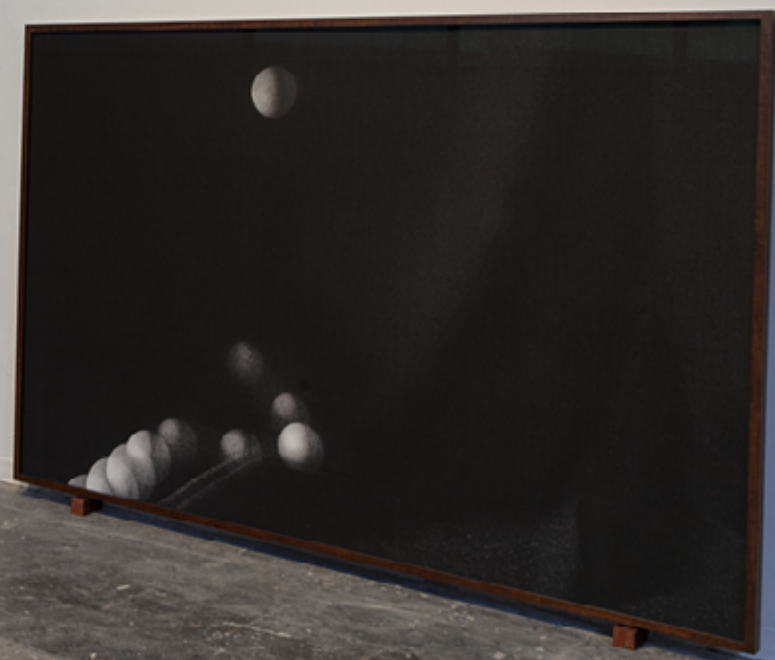
Stroboscopic photography on
microfilm, silverprint
Courtesy Mendes Wood DM



Instant Sequential I, 2009
35mm / vídeo, 2' looping



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