



**University of Brighton**

**PAUL SERMON,  
CHARLOTTE GOULD AND  
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**OUT OF SIGHT, OUT OF MIND**

The immersive environment as a tool to  
communicate environmental crisis

# RESEARCH OUTPUT



**Out of Sight, Out of Mind** used an immersive virtual reality installation artwork to convey the ecological trajectory of the Mar Menor saltwater lagoon area on the south east coast of Spain.

Created by Paul Sermon, Charlotte Gould and Jeremiah Ambrose, it brought audiences into a 360° environment that incorporated both video and audio recordings as well as telepresent video interaction using a system of live 360° chroma-keying between two separate gallery spaces. Remote participants were able to encounter each other in an obscure landscape of recorded and imagined realities by stepping into one of two constructed four by four metre blue box space installations.



Using a unique, bespoke method of gaze-controlled interaction, the 360° video shots were linked together allowing participants to explore a non-linear narrative of the entire Mar Menor area. This presented the consequence of the anthropocene as a direct result of human interventions by locating people within it, rather than taking an 'out of sight, out of mind' disconnected observation of it.



Through the art installation, and drawing on theories of play, narrative, engagement and telepresent self-recognition, Sermon, Gould and Ambrose examined the ways in which large-scale problems outside everyday human experience might be understood differently through a process of virtual immersion within a structured narrative environment.

The work was produced in the context of an invitation to the 'Reset: Mar Menor Lab' residency programme and workshop, 'Imaginary laboratory for a landscape in crisis,' convened and directed by Clara Boj and Diego Díaz from the University of Murcia. The installation was exhibited at the Centro Cultural Puertas de Castilla in Murcia from 9 to 27 May 2019.

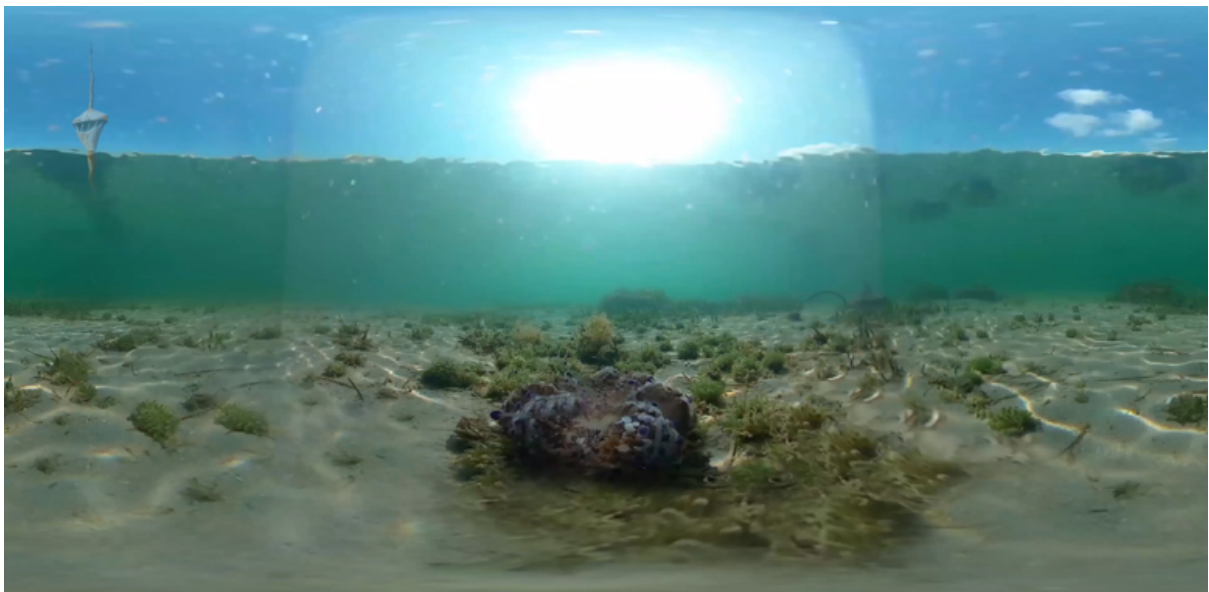
## **Out of Sight, Out of Mind**

(top) Gallery visitors play and interact together in a 360° virtual video environment of a former hovercraft factory on the shore of the Mar Menor

(middle) Gallery visitors play and interact together in a 360° virtual video environment on a disused rotating bridge on the La Manga

(bottom) Participant researcher hides and plays in greenscreen installation site with head-mounted display

# Out of Sight, Out of Mind



## **Out of Sight, Out of Mind**

- (top) Equirectangular 360° video from an island in the Mar Menor, with a 'suitcase city' on the La Manga in the distance and colossal mining excavator on the horizon  
(bottom) 360° equirectangular underwater video scene of dying jellyfish in the Mar Menor

The 360° environments were created from real and artistically devised elements. Using headsets and telematic chroma-keying, visitors were given the illusion of moving through these spaces, interacting with other visitors from the green screen areas.

# Out of Sight, Out of Mind



## Out of Sight, Out of Mind

Documentary film including digital artistic techniques, samples of equirectangular 360° video backdrops and participants using the equipment to engage with the digital environments.

Documentary film available at <https://vimeo.com/340940379>

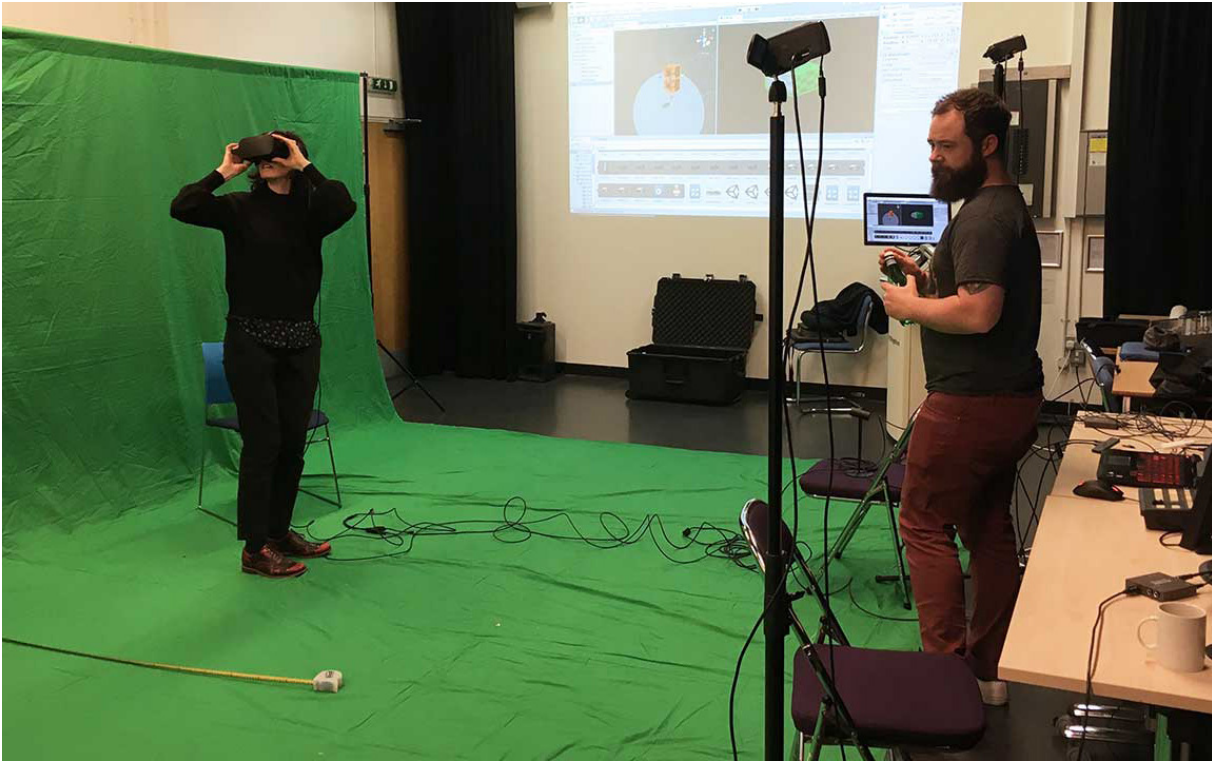


## Out of Sight, Out of Mind 360°

An interactive 360° video of the Mar Menor used in the creation of the digital environments for the artworks.

Available at <https://vimeo.com/322263778>

# Out of Sight, Out of Mind



## Out of Sight, Out of Mind

(top) Researchers develop and test green-screen techniques to incorporate live interaction between remote participants in 360° video environments  
(bottom) Participant researcher demonstrating visitor options, playing and jumping in greenscreen installation site with head-mounted display

# RESEARCH QUESTIONS



**Mar Menor, Murcia, Spain**  
Satellite photograph of the Mar Menor, a 170km<sup>2</sup> saltwater lagoon, separated from the Mediterranean by the La Manga land strip, 21km long and 100 metres wide

**Out of Sight, Out of Mind examined the effectiveness of an immersive artistic approach to the communication of ecological challenges.**

It considered the detail of these in the environment of the Mar Menor, Murcia, Spain, recognising the difficulties in prompting a public sense of personal agency and effectiveness within the widespread ecological crisis evident in large-scale pollution, erosion and the decline of symbiotic harmony and balance.

The researchers experimented with the potential for a 360° immersive mixed reality environment that offered audiences agency to co-create using narrative prompts in the devised background environment.

The research questions were driven by these factors to specifically ask:

1. Can scientific environmental data, manifested as an immersive virtual reality experience, provide a tangible and accessible understanding of (and empathy with) the environmental crisis in the region of the Mar Menor?
2. Will a gallery visitor in a 360° video environment feel present within a simulated landscape rather than a disembodied observer, and will this lead to a deeper sense of presence, empathy and a responsibility for actions and consequences?

# RESEARCH CONTEXT

**The research for this output began with the team's invitation to participate in the 'Reset: Mar Menor Lab' residency programme and workshop 'Imaginary laboratory for a landscape in crisis', convened and directed by Clara Boj and Diego Díaz from the University of Murcia.**

The residency itself took place directly on the shores of the 170 km<sup>2</sup> Mar Menor saltwater lagoon and the La Manga, a 21 km long and 100 metre wide strip of tourist resorts separating the Mar Menor from the Mediterranean sea, on the south east coast of Spain, from 10 to 21 September 2018. The residency workshop brought together a unique interdisciplinary mix of over 20 participants, including digital media artists, environmental scientists, activists and media theorists, with an aim to investigate, discuss and respond to the 'anthropocene' effects on this deteriorating natural landscape.

This term was popularised by Paul Crutzen to denote the current geological epoch where human activity is causing ecological decline (Crutzen, 2006). Timothy Morton in *Humankind: Solidarity with Nonhuman People* (2017) associates the beginnings of man's impact on ecology with attempts to improve material conditions, leading to the extreme impacts clearly visible in the Mar Menor. Morton identifies ecology as a 'Hyper Object', too big to be empirically observed. Ecological phenomena are impacted by so many combined actions that individual actions can appear insignificant.

Bruno Latour (1991; 2018) sees no clear division between nature and culture but instead holds that there are many hybrids in between which are interconnected through networks. He reaffirms the position that human culture and nature are interconnected through networks, proposing that in order to avert the impending geological disaster, we move from a system of production to a political ecology, one which involves a shift away from the local-global dichotomy (Latour, 2018).

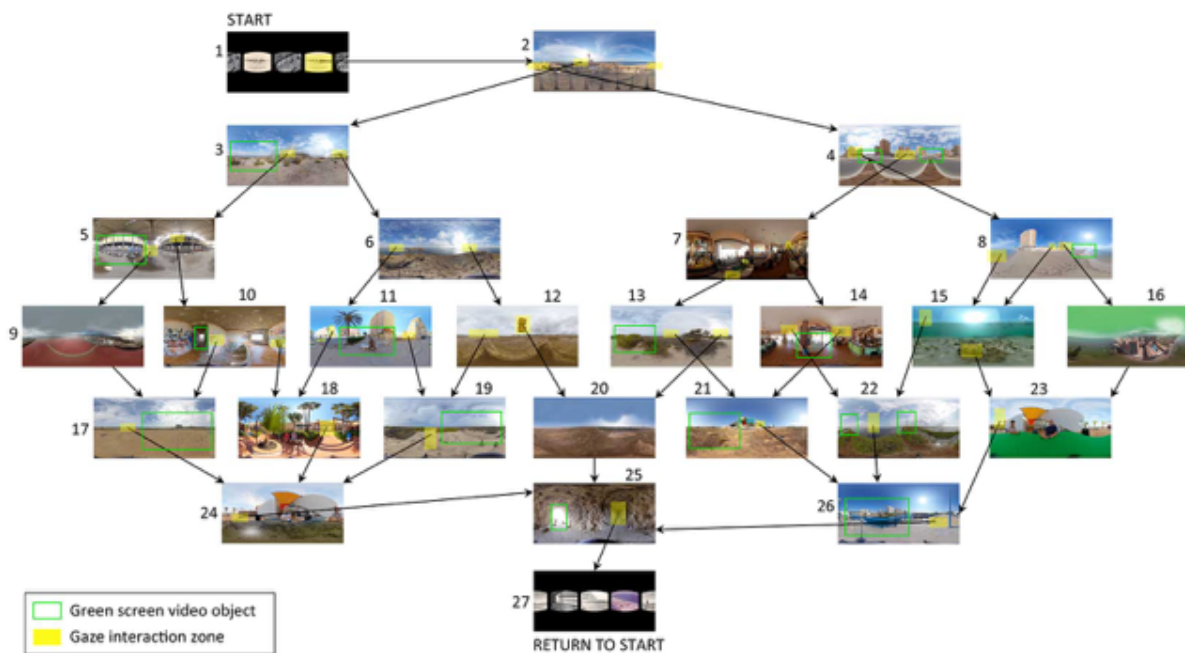
The research drew both on the alienating effect of the Hyper Object and the solution to it in the notion of networks.



**Mar Menor Lab: Art and Science in an Emergency Landscape, Residency Programme  
11 - 16 September 2018**

(top) Workshop at the residency  
(middle and bottom) Excursion to dry river bed destroyed by mining and agricultural deposits

# RESEARCH PROCESS



(above) **Interactive narrative plan linking 360° video shots together, identifying branching links between them**

(overleaf left) **Researchers developing 360° video recordings including green screen effects, and drone filming**

(overleaf top right) **Collating reviewing and plotting 360° video shots**

(overleaf bottom right) **Participant interacts and plays in green screen installation space; video capture of view in head-mounted display of augmented three-dimensional flamingo flying in 360° drone shot across sea salt mines in the Mar Menor**

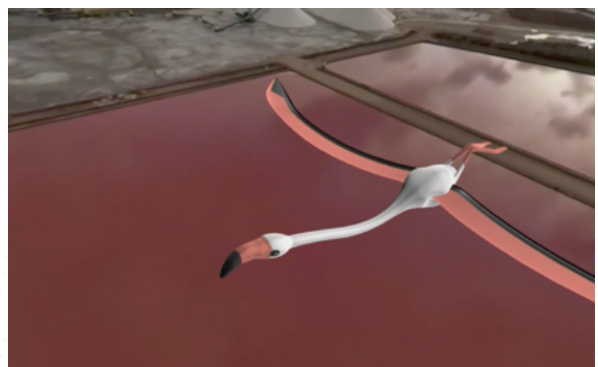
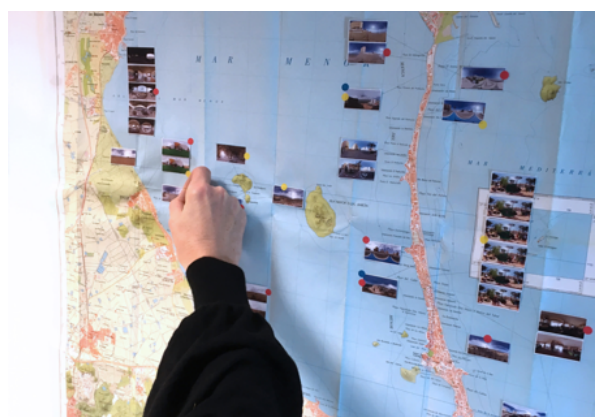
The research used an artistically devised backdrop as part of a unique interactive 360° video experience of the Mar Menor, aiming to manifest the anthropocene effects on this natural landscape in augmented, surreal and metaphysical ways, highlighting the fragile inter-relations of species within the natural environment.

Researchers developed new methods of immersive video capture and observation of the Mar Menor during an intensive stage of data gathering that used 360° video techniques, including underwater filming in the lagoon and drone controlled aerial recordings as well as spatial audio recordings, generated through interviews, conversations, observation and reflective methods of research.

They reviewed the 360° video material and available scientific data to construct a prototype non-linear interactive 360° video experience including augmented animated elements. This offered a unique experience of the Mar Menor as an uncanny encounter of a landscape proliferated by familiar animated objects representing this data. It included visual metaphors such as a mountain of salt indicating the salinity level in the lagoon, green clouds representing its increased chlorophyll level and a skyline of suitcases signifying mass tourism. Visitors to the galleries were invited to interact with this virtual space, co-producing the narrative experience within the created environment.



# Out of Sight, Out of Mind

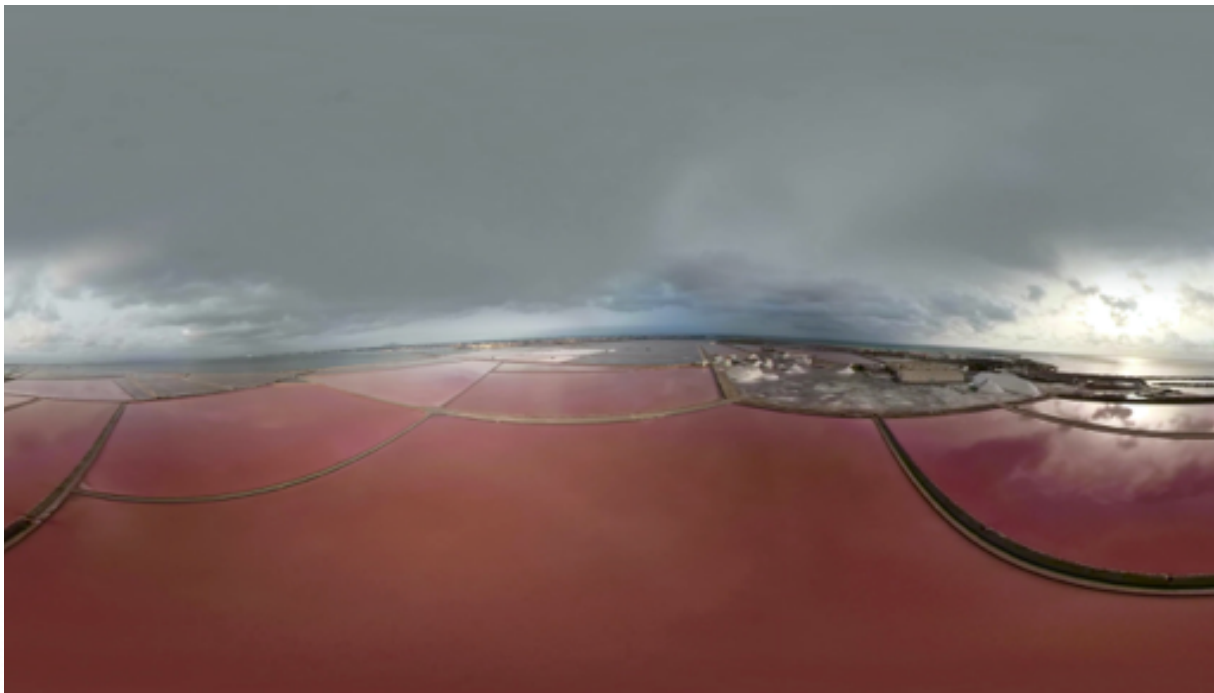


## Out of Sight, Out of Mind



**Examples of equirectangular 360° video environment**  
(top) Augmented flying fried egg jellyfish flying outside hotels on the  
La Manga beaches on the Mar Menor  
(bottom) Former hovercraft factory on the shore of the Mar Menor

# Out of Sight, Out of Mind



**Examples of equirectangular 360° video environment**  
(top) Road with augmented wasteland running along the La Manga  
(bottom) 360° video drone shot flying over the Mar Menor sea salt mines

# RESEARCH INSIGHTS



**Gallery visitor in greenscreen installation site with head-mounted display**

**Out of Sight, Out of Mind gave insight both into the extension of telematic artwork into a virtual reality narrative environment, and the value of the experience this provides in developing empathy with large-scale ecological problems.**

The researchers extended the telematic art practices that Sermon and Gould pioneered and have been developing since the 1990s. They made innovations through the use of virtual reality headsets and 360° filming techniques, and worked with their research assistant, Jeremiah Ambrose, to make use of gaze-controlled navigation. These experiments were found to influence the audience's freedom of behaviour and gave a sense of agency to impact on the narrative outcome of the artwork.

Telematic art installation allows users to interact playfully and to become immersed in engagement with the environment and with others. It specifically obviates any control by the artists, who provide the environment and the technologies but otherwise allow personal narratives and interactions to unfold. This in turn allows impactful agency (Shanken and Stiles, 2011). The potential for audience agency was enhanced in the virtual reality environment of 'Out of Sight, Out of Mind' by including the audience's physical body within the artwork, which enabled unencumbered improvisation and play. It was this level of immersion that impacted on the profound effects that were felt by participants; confirming and extending the understanding of the enhanced level of impact that virtual reality content has been found to have on the participating public (Bailenson, 2018). The experience allowed visitors to co-create a unique interaction with the digital environment. The researchers tested scenarios that included real, enhanced and fictional elements, each designed to optimise playful, sympathetic engagement and an empathy with the endangered lagoon area.

Visitors reported that they felt as if they were inhabiting the space within the Mar Menor and felt a greater sense of empathy with it. This was visible from the recorded composite material. By moving through a variety of settings, participants could experience a range of patterns of engagement, triggering contemplation, surprise, joy and fear.

The live, ambient experience, unique for each participant, gave each visitor a sense of having contributed to the outcome of a collective experience and this was essential to the overall appreciation of the ecological message. Shaping the outcomes further through co-production both with the artists as well as with other visitors, participants were able to take away vivid and highly personalised memories of the artwork for further reflection and action.

# Out of Sight, Out of Mind



## **Out of Sight, Out of Mind**

(top) Gallery visitors play and interact together in a 360° video environment that takes them virtually within a disused military tunnel on an island in the Mar Menor

(bottom) Gallery visitor in greenscreen installation site with head-mounted virtual reality display

# DISSEMINATION



## Nuestro Mar Menor | Programa 4

Documentary on the exhibition  
Lagunas: Projects and Processes  
of Art and Science in the  
Mar Menor

Extracted section for Out of Sight,  
Out of Mind available at:  
[https://youtu.be/x3nUqs\\_bL7Y](https://youtu.be/x3nUqs_bL7Y)

Full documentary available at:  
<https://youtu.be/lvwyZmhjAMQ>  
(in Spanish)

'Out of Sight, Out of Mind' was exhibited at the Centro Cultural Puertas de Castilla in Murcia from 9 to 27 May 2019 for the exhibition *Lagunas: Projects and Processes of Art and Science in the Mar Menor*, curated by Clara Boj and Diego Díaz, University of Murcia, with support from the Daniel and Nina Carasso Foundation. <http://centropuertasdecastilla.es/event/reset-mar-menor/>

The installation was derived from research undertaken during the 'Reset: Mar Menor Lab' residency programme and workshop: 'Imaginary laboratory for a landscape in crisis,' September 2018, and was convened by the University of Murcia and directed by Clara Boj and Diego Díaz. To coincide with the LAGUNAS exhibition, local Murcia TV 'Nuestro Mar Menor | Programa 4' covered the entire exhibition.

The exhibition *Reset Mar Menor: Imaginary laboratory for a landscape in crisis*, curated by María Ptqk, was presented at the Centre del Carme Cultura Contemporània (CCCC), Valencia between 28 October 2020 and 10 January 2021, featuring all projects and artworks realised during the three-year University of Murcia project. <https://www.consorcimuseus.gva.es/exposicion/reset-mar-menor-laboratorio-de-imaginarios-para-un-paisaje-en-crisis/>.

This exhibition included a video documentary projection of the 'Out of Sight, Out of Mind' installation presented previously at the Centro Cultural Puertas de Castilla in Murcia from 9 to 27 May 2019. Due to Covid-19 restrictions it was not possible to present the full interactive installation on this occasion in Valencia. Documentation of the exhibition at CCCC, Valencia, is available at <https://youtu.be/5RGyW45tI3g>

# Out of Sight, Out of Mind



(top) Centro Cultural Puertas de Castilla, Gallery in Murcia, Spain

(above) Project team present research findings during the Mar Menor Lab: September 2018

(below) Exhibition opening *Reset Mar Menor: Imaginary laboratory for a landscape in crisis* Centre del Carme Cultura Contemporània, València, 28 October 2020

## Presentations

Sermon, P., Gould, C. and Ambrose, J. (2018) Residency participants at the Mar Menor Lab. Art and Science in an emergency landscape, Mar Menor, Murcia, Spain. 10 to 21 September. <http://www.marmenorlab.org/portfolio/reset-mar-menor-2018-2/?lang=en> (Accessed December 2020)

Sermon, P., Gould, C. and Ambrose, J. (2019) 'Out of sight, out of mind' panel discussion and paper, 25th International Symposium on Electronic Art 2019: Lux Aeterna [in italics] Gwangju, Republic of Korea, 22-28 June. [http://www.isea-archives.org/docs/2019/ISEA2019\\_Proceedings.pdf](http://www.isea-archives.org/docs/2019/ISEA2019_Proceedings.pdf) (Accessed December 2020)

Sermon, P., Gould, C. and Ambrose, J. (2019) Gallery workshop and prototype installation at the University of Brighton Gallery, Grand Parade, University of Brighton, 12-14 March.



Vicent Marzá i Ibáñez, conseller d' Educació, Cultura i Esport, i José Luis Pérez Pont, director del Consorci de Museus de la Comunitat Valenciana, es complauen a convidar-vos a la inauguració de l'exposició *Reset Mar Menor*.

Vicent Marzá i Ibáñez, conseller d' Educació, Cultura i Esport, i José Luis Pérez Pont, director del Consorci de Museus de la Comunitat Valenciana, se complauen en invitarle a la inauguració de la exposició *Reset Mar Menor*.



Inauguració de l'exposició  
Inauguración de la exposición

28.10.2020 - 19:00 h.

Centre del Carme Cultura Contemporània  
Museu. 2. València  
T. 963 152 024 / [www.consorciemuseus.gva.es](http://www.consorciemuseus.gva.es)



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- Bailenson, J. (2018) *Experience on Demand*. New York and London: W.W. Norton and Company.
- Crutzen, P.J. (2006) 'The Anthropocene'. Ehlers E. and Krafft T. eds. *Earth System Science in the Anthropocene*. Berlin: Springer.
- Latour, B. (1991) *We have Never Been Modern* (translated Porter C.). Cambridge MA: Harvard University Press.
- Latour, B. (2018) *Down to Earth Politics in the New Climate Regime*. Cambridge and Medford, MA: Polity Press.
- Morton, T. (2017) *Humankind: Solidarity with Non-Human People*. London and New York: Verso.
- Shanken, E. and Stiles, K. (2011) 'Missing in action: Agency and meaning in interactive arts.' Lovejoy, M., Paul, C. and Vesna, V. eds. *Context Providers Conditions of Meaning in Media Arts*. Bristol and Chicago: Intellect Press.

(overleaf)

**Mar Menor Lab: Art and Science in  
an Emergency Landscape, Residency  
Programme 11 to 16 September 2018**  
Equirectangular 360° video interview with  
tourist sat at a greenscreen table upon  
which a 360° drone shot of the Mar Menor  
has been chroma-keyed



# Out of Sight, Out of Mind

