

Impact case study (REF3)

Institution: University of East London (UEL)		
Unit of Assessment: 32 Art and Design: History, Practice and Theory		
Title of case study: Atmospheric art; Portraying the climate emergency with air		
Period when the underpinning research was undertaken: 2000 – 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Dr Michael Pinsky	Role(s) (e.g. job title): Reader	Period(s) employed by submitting HEI: 2002 – present
Period when the claimed impact occurred: 2017 – 2020		
Is this case study continued from a case study submitted in 2014? No		

1. Summary of the impact (indicative maximum 100 words)

Pinsky has revolutionised how information about air pollution and toxicity can be disseminated, in a non-toxic and accessible manner. His *Pollution Pods* art installation has toured internationally and helped visitors, including policy makers and UN delegates, grasp the global implications of declining air quality for health and wellbeing. The effect of his installation differs from other educational methods by stimulating multiple senses directly and invoking emotional rather than purely intellectual responses.

2. Underpinning research (indicative maximum 500 words)

Throughout his research, Pinsky uses his art pieces to bring awareness of climate change to the general public, promoting positive behaviour change and supporting education. Pieces such as *Plunge* (R1a, b) or *In Transit* (R2) visualise encroaching climate issues; rising sea levels and non-fiscal costs of transport modes respectively. *Pollution Pods* (R3) builds on his experience with climate activism art and collaborative studies to create an art piece optimised for climate psychology and advocating for behaviour change in his audience.



Figure 1. *Plunge* in situ



Figure 2. *In Transit* gallery display

The *Pollution Pods* were commissioned by and developed with The Norwegian University of Science and Technology (NTNU) as part of a multidisciplinary investigation of environmental psychology, visual art and communication around climate concerns. Based on findings from Phase 1 of the project, which collected data on the mechanisms prior artwork employed to illicit changes in emotion and opinion (R4), Pinsky was challenged with designing an art piece which aligned with the principles set forth by the study:

- Exposure to immersive activism art increased intentions to engage in actions to address pollution and climate change;
- Sadness, helplessness and anger were strongest emotions impacting intentions to act;
- Ascription of responsibility was strongest cognition impacting intentions to act. (R5)

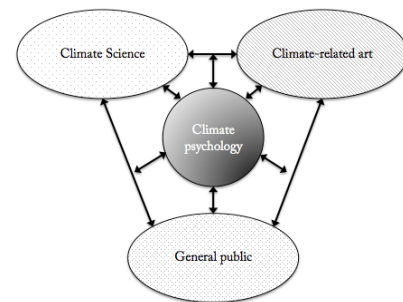


Figure 3. Model of relationship between climate psychology and art

Pinsky decided to recreate the pollution in five chosen locations representing the least toxic to the most toxic in air quality: Tautra, Norway; London, United Kingdom; San Paolo, Brazil; Beijing, China and New Dehli, India. These locations were chosen to represent how air pollution presents significant risk to the health of local and adjacent populations and to demonstrate the unique circumstances facing the Global South as they wrestle with the causes and consequences of toxic air. The domes are interconnected to illustrate that air pollution is a global problem.

When initial recreations proved too toxic for visitors even for short exposure durations, Pinsky reached out to International Flavours and Fragrances (IFF) to mix unique cocktails of perfumes, produced by perfumers from the chosen locales. The final concoctions emulated the locations relative presence of ozone, particulate matter, nitrogen dioxide, sulphur dioxide and carbon monoxide within the interconnected pods solely through smell. By combining the perfumes with heaters, humidifiers and misters Pinsky was able to simulate the atmospheres of the locations. The pods evoke a physical and psychological reaction, but the atmospheres are non-toxic.

The materials and design were chosen to avoid contributing to air pollution. Light-weight reclaimed Norwegian pine forms the frame of the domes and the construction of the tessellated shapes is simple for local staff to construct while the exhibition is touring, ensuring that the pods can reach as many places/people as possible and reducing the installations as well as visitors' carbon footprint. (R6)

3. References to the research (indicative maximum of six references)

R1a. *Plunge*. 2012. [LED lights]. London, UK. Commissioned by ArtsAdmin and LIFT. June 2012.

R1b. <https://www.youtube.com/watch?v=Ci9w6Q1ILO0&t>

R2. *In Transit*. 2000. [digital prints, plexiglass, vinyl, film]. The Economist Building, London, UK. 25 October – 23 December 2000.

R3. *Pollution Pods*. 2017. [Pine frame, Hubs connectors, PVC bioplastic, humidifiers, misters, scent diffusers, fans, ozone machines, heaters, air conditioners, perfumes]. STARMUS festival, Trondheim, Norway. 18 – 23 June 2017.

R4. Roosen, L. J., Klöckner, C. A., and Swim, J. K. 2017. Visual art as a way to communicate climate change: a psychological perspective on climate change-related art. *World Art*, 1-26. <https://doi.org/10.1080/21500894.2017.1375002>.

R5. Sommer, L. K., Swim, J. K., Keller, A., and Klöckner, C. A. 2019. "Pollution Pods": the merging of art and psychology to engage the public in climate change. *Global Environmental Change* 59, 101992. <https://doi.org/10.1016/j.gloenvcha.2019.101992>

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R6. <https://www.climart.info/pollutionpods>**4. Details of the impact** (indicative maximum 750 words)**1. Changing climate psychology, awareness and education.**

In April 2019, as Pinsky was installing *Pollution Pods* in Vancouver, Canada commissioned as part of the annual TED conference, the Mayor of London announced that 2 million Londoners – including 400,000 children – were living in areas exceeding legal air pollutant metrics **(S1)**. The global health implications of air pollution continue to require urgent and drastic action from individuals and governments.

In surveys of audiences after they experienced *Pollution Pods*, many participants reported an “*awareness of the environmental consequences of their action, their willingness to take responsibility for their consequences, and belief in the relevance of environmental problems for daily life.*” **(S2)**

Pinsky’s *Pollution Pods* succeed in provoking the emotions and cognitions which are most likely to incite positive behavioural change in audiences and, in turn, the global atmosphere. The effectiveness of Pinsky’s approach was recognised in the 2019 textbook *Public/community health and nursing practice: caring for populations* as an aid to help nursing students comprehend the dangers of public health hazards like toxic air and convey them to patients **(S3)**.



Figure 5. *Pollution Pods* exhibit at TED



Figure 4. Visitor enjoys Norwegian air at Somerset House, London

Pollution Pods pairs well with educational events such as the King’s College seminar series which was funded by the Medical Research Council **(S4)** and the events surrounding the UN Youth Climate Summit New York City, 2019. Pinsky continues to be involved with TED Talks, exhibiting at the annual 2019 conference and delivering a talk at TEDx Freiburg. **(S5)**

2. Global Collaboration for Global Problems

As illustrated by the inter-connected pods, Pinsky emphasises the need for global participation in solutions to climate change. From the inception of the project, Pinsky worked closely with international institutions and corporations: NTNU, IFF, AirLabs, Hubs and the Norwegian Institute for Clean Air. In particular, his commission for IFF and their perfumers brought new opportunity for expert perfumers from those areas to showcase their craft and to participate in political art.

Pinsky’s commitment to promoting international responsibility for air pollution has translated into a relevance which extends beyond language barriers, demonstrated by international coverage in

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English, French, German, Spanish, Korean, Italian, Luxembourgish, Portuguese, Japanese, Swiss, Czech, Chinese, Russian, Vietnamese and Indonesian. The sustained, global interest in *Pollution Pods* results in sustained interest in air pollution and access to commentary about the project is crucial to reaching people who will not have the opportunity to view the pods in person.

Since the initial exhibition in Norway, *Pollution Pods* has toured to eight different countries and over 30,000 visitors have experienced the sensations of the pods (**S6**). In each new location, the installation attracts media coverage and engagement. (**S7a, b, c, d, e**)



Figure 6. Dr Ghebreyesus' Twitter feed



Figure 7. Deputy Secretary General of the United Nations Amina Mohammed and Director-General of the World Health Organization Dr Tedros Adhanom Ghebreyesus talk with Pinsky

Pollution Pods has also reached prominent health and climate activist spokespeople, such as Greta Thunberg and Dr Tedros Adhanom Ghebreyesus, Director-General of WHO. Between those two figures alone, 6.3 million Twitter followers were engaged specifically with the challenges and consequences of air pollution in the context of wider climate and health concerns. *Pollution Pods* even featured on an episode of Daily Planet, a scientific news show aired on and produced by Discovery Channel Canada.



Figure 8. Greta Thunberg visits the pods

3. Engagement with policy makers

Pollution Pods was exhibited December 2019 in Madrid, Spain concurrent to the COP25 UN Climate Change Conference. It was officially endorsed and opened by Minister for the Ecological Transition Spain Teresa Ribera, WHO Director Dr Maria Neira, and the Deputy-Executive Secretary of the UN Framework Convention on Climate Change, Ovais Sarmad. (**S8**)



Figure 9. The pods in Madrid

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During this time, the pods hosted members of the public and delegates from the conference. *Pollution Pods* was especially topical to the delegates, as the conference discussed the parameters of the 2015 Paris Agreement and emission targets.

The pods were exhibited as part of Manchester's 2019 Clean Air Week, a collaborative project between local councils, charities and communities to help reduce air pollution in Greater Manchester and alert the public to health hazards. **(S9)**

4. Moving forward

As a result of the positive reception and success of *Pollution Pods*, Pinsky is now working with Professor Stephen Holgate, Medical Research Council Clinical Professor of Immunopharmacology, to create a response to the dangers of indoor pollution through olfactory art. **(S10)**

5. Sources to corroborate the impact (indicative maximum of 10 references)

S1. <https://www.london.gov.uk/press-releases/mayoral/two-million-londoners-live-with-illegal-toxic-air>

S2. Sommer, L. K., Swim, J. K., Keller, A. and Klöckner, C. A. 2019. "Pollution Pods": the merging of art and psychology to engage the public in climate change. *Global Environmental Change* 59, 101992. <https://doi.org/10.1016/j.gloenvcha.2019.101992>

S3. Savage, C.L. 2019. *Public/community health and nursing practice; caring for populations*. F. A. Davis.

S4. <https://www.kcl.ac.uk/events/tli-focus-seminar-series-poisoned-air-are-courts-the-antidote>

S5. <https://www.youtube.com/watch?v=87zoSgPAmNk>

S6. <https://capefarewell.com/pollution-pods/overview.html>

S7a. Special feature on Climate Change Art in Korean <http://www.michaelpinsky.com/wp-content/uploads/2020/02/PUBLIC-ART-SPECIAL-FEATURE.pdf>

S7b. The *Guardian*. <https://www.theguardian.com/cities/2018/apr/20/pollution-pods-let-you-sample-smog-beijing-and-delhi-air-london-somerset-house-michael-pinsky>

S7c. *Now This*. <https://twitter.com/nowthisnews/status/988236766678323200>

S7d. The *Telegraph*.

<https://www.telegraph.co.uk/travel/destinations/europe/norway/articles/pollution-pods-norway-art-installation/>

S7e. *Daily Echo*, local Bournemouth newspaper.

<https://www.bournemouthecho.co.uk/news/17925348.pollution-pods-tried-greta-thunberg-coming-brownsea-island/>

S8. [https://capefarewell.com/images/random/Pollution Pods at COP25 press release.pdf](https://capefarewell.com/images/random/Pollution%20Pods%20at%20COP25%20press%20release.pdf)

S9. <https://tfgm.com/news/pollution-pods-land-in-gm>

S10. Testimony of Professor Stephen Holgate, CBE, BSc, MB BS, MD, DSc, FRCP, FRCP (Edin), FRCPATH, FIBMS, FSB, CSc (Hon), FMedSci.