

The Voice of Warning

RCA Preemptive Listening + UCL Warning Research Centre + STOP Sizewell C



SUMMARY

The Voice of Warning is a new collaboration between the UCL Warning Research Centre and the Preemptive Listening research project at the Royal College of Art. It brings together artists, scientists, and advocacy groups to explore alternative methods for warning the deep future through the prism of the siren. What does it mean to be the voice that warns? How can we warn across different time scales and space scales? The Voice of Warning aims to mobilise artists and the channels of artistic production (in particular, sound and listening practices) to articulate concerns and stimulate innovative participatory warning methods responding to energy transition decisions and the building of new nuclear power stations in the UK, such as Sizewell C.

Led by artist Aura Satz and researcher/curator Francesca Laura Cavallo, UCL's Warning Research Centre hosted two workshops exploring the aural dimension of warnings and the soundscapes they occupy (and create) through emergency sirens. The workshops, organised in collaboration with *Stop Sizewell C*, focused on the controversial Sizewell C proposed development of a nuclear power station in Suffolk. As *Stop Sizewell C* Alison Downs told us, many of their supporters have never attended marches before and might not necessarily feel comfortable with protest (or 'sirening'). Yet they find themselves responsible for warning about decisions that will affect future generations.

Organisers: Francesca Laura Cavallo (RCA), Carina Fearnley (UCL), Ilan Kelman (UCL), Aura Satz (RCA), Alison Downes (Stop Sizewell C). Supported by OKRE and [UCL Music Futures](#).

Workshop 1 consisted of a walk followed by deep listening and sounding exercises, leading to co-creating a new 'siren' for Sizewell: a sound or interpretation of a possible equivalent that not just warns but points to the imagination of a possible future. Using 'abstract' sounds (both listened to and produced by participants), the project experimented with citizens-led methods for warning about the deep future with the aim to transform risk perceptions and empower citizens beyond the traditional landscape of protest. The resulting siren sound might become a tool for campaigning, a soundscape, an artwork or just a pretext to reimagine a possible future. It will also form part of the Preemptive Listening Audio Archive, a long-term research project that reimagines sirens and emergency signals at the Royal College of Art.

Workshop 2 at UCL held a space for reflection on what it means to be the voice that warns by discussing the listening and sounding exercises in Sizewell in relation to broader discourses about warnings and risk communication. It involved UCL WRC affiliate researchers alongside invited artists, nuclear policy advisors and activists to test and further develop our research methodologies with an interdisciplinary team of experts and practitioners.

RATIONALE / BACKGROUND (previous to the workshop)

The project aims to mobilise artists and the channels of artistic production (in particular, sound and listening practices) to articulate concerns and stimulate innovative participatory warning methods responding to energy transition decisions and the new risky infrastructures attached to them. Although a *consent-based* approach is often mandated in the development of new major energy infrastructures that disrupt natural environments and livelihoods, affected communities often have little agency when major corporations, intergovernmental projects and high-stakes interests choose their territory to extract or produce energy and resources needed by the majority. An example of this problematic discrepancy between the planning and implementation of risky infrastructures and those affected by it is evident in the case of Sizewell C, where plans to build a 'state-of-the-art' nuclear power station have been opposed by the local community. In Sizewell, citizens are tasked with the unglamorous burden of warning society of the risks ahead by sounding the siren for the future. It is a task they have not necessarily chosen, yet, in a way, they are the embodied sirens warning for the distant future.

On the one hand, *Preemptive Listening's* advisor Paul Dorfman and UCL Professor Mark Barrett have, among others, warned of coastal erosion and demonstrated that investing in renewable energy supplies along with energy demand reduction would be safer and more cost-effective than nuclear. On the other hand, UCL's Warning Research Centre has repeatedly pointed to public engagement, imagination, and co-creation as more effective and fair risk communication strategies (e.g., Fearnley and Kelman's December 2021 report for the UK's National Preparedness Commission). Deployed as a method in various international summits, including the international climate change negotiations, co-creation is seen to harness humanity's creative powers in order to ensure that we better and fully comprehend the disasters humanity faces, and the threats that can be generated by

responding improperly. Moreover, Human Centred Design and Pauline's Oliveros '*deep listening*' are co-creation techniques recently discussed across sound art and critical indigenous research studies, providing further ground for exploring the potential of such methodologies.¹ Focusing on siren sounds and interpretations from the perspective of both sound art (or music) and warning studies, our project addresses the *sensory* and *aesthetic* responses that shape our risk perceptions to inform the warning methods of the future. To initiate what we hope will be a long-term collaboration between the Warning Research Centre and RCA's Preemptive Listening, this pilot project aims to test and assess the possibilities that art and participatory creative practices can offer in the creation of more inclusive (or citizen-led) warning methods and preparedness strategies. It combines art, science, and community action—to engage people emotionally, artistically, and intellectually to create 'risk knowledge' (Weichselgartner & Pigeon, 2015) and shape discussions, consultations and policy.

REPORT:

Day 1 in Sizewell involved 16 participants, including local residents affiliated to the Stop Sizewell C group, several researchers, and the 4 facilitators: Alison Downes, Aura Satz, Francesca Cavallo and Carina Fearnely.

The workshop involved:

- A. a Guided walk on the Site (lead by Downes) with group field recordings (led by Satz)
- B. a risk-mapping exercise (lead by Fearnely) focussing on memories of the site and a listening/movement exercise (led by Cavallo/Satz) in response to a number of reimagined sirens, drawing from pre-existing materials with guidance from Judy Edworthy as to which could serve as effective alarms.
- C. Sonic meditations based on the writing of Pauline Oliveros; a writing exercise about speculative siren sounds; and finally the Siren for Sizewell C sounding session (led by Cavallo/Satz).

As the sounds suggested included some speculative or even impossible sounds, we opted for an Oliveros-inspired score. From immediate feedback and feedback forms collated to date, this exercise was perhaps more cathartic and thought-provoking than pragmatic. Overall participants commented they found it stimulating to think about Sizewell C in terms of sound and sirens and also commented feeling empowered by the activity and more hopeful about the possibility of stopping the construction of Sizewell C.

¹ For example in his book *Hungry Listening*, Dylan Thomas warns against what he calls 'Listening Essentialism': hungry listening is not just a "settler problem." Developing practices of Deep Listening and critical listening positionality requires us to adopt self-reflexive ethics about the appropriate conditions for listening: the right place, time, and frame of mind' (p.248)

Fearnley commented she felt inspired to think how warnings may not just warn in a negative manner but point to different futures/strategies that provide positive alternatives.

Siren produced during workshop recording [here](#)

Participants Feedback:

Nine of the participants have completed feedback forms (see below), six of which live in the vicinity of Sizewell. Whilst almost unanimously, they considered that the workshop did not change their perceptions of the risks the power station poses to the local community (Q1,Q2) as they are already involved in some form of community activism, their answer suggests the need to engage with the local community that is not already affiliated to *STOP Sizewell C*.

All local participants state they are already motivated in “defending” the environment, and a third of them found the artist’s perspective stimulating for both thinking and campaigning. Most importantly, the activities made them realise “absences in existing warning systems and knowledge of these systems within the community”. In this regard, answers, which suggest an openness to different artistic methods such as banners, radio and sound work, and sirens making, point to creating opportunities for other community groups to come together, assess the risks and their knowledge of them to “scrutinise the rhetoric of nuclear energy production as clean energy” and link campaigning to policy. One participant suggested “a 3-mile walk with activities/interactions highlighting the destruction to the environment and future plans to local community groups, i.e. WI, U3A, Youth groups etc.” (Q3). Such activities, they state, are essential to “show the future generations we care.”

In evaluating the specific activities (Q4), respondents have expressed a diverse range of preferences demonstrating that the chosen mix of tones and methods was able to resonate with different people: mentioned preferences include the field recording, the conversations during the walk (highlighting the lack of similar forums to generate ideas), writing post-it notes, listening to the reimagined sirens, the activity with the stones and calling out (see recording). One participant/ researcher wrote: “I believe this issue can only be resolved/faced through principles of cooperation, democratic means and co-creation. The activities and discussion were based on these principles: that resonated deeply”.

Individually, participants found inspiration for their own artistic and campaigning pursuits. For example, one participant from Sizewell suggested “organising workshops about cartooning, stitching, photography, letter-writing, re-writing EDF public information material, art, poetry and sound in Theberton”. Other participants’ suggestions included: motivation in “building awareness of the issue by informally talking to people”; “exploring nuclear culture after graduation through breath and sound” (RCA student); “fundraising by donating work”; and “promoting more citizen-science activities”. Overall, from informal conversations and written feedback, they hope there will be a follow-up to the workshop, and 5 participants mention organising more walks.

Based on their feedback (Q8 and Q9), these follow-up activities should focus on :

- Offer more background information about the facilitators, the objectives and purpose of the workshops, and possibly offer a handout (one participant found it was unclear where the activity was leading to). They should also provide feedback about the UCL workshop.

- We will share this report with all participants addressing such concerns (this was always the plan)
- Remixing the field recording in a workshop to create the siren (mentioned by 2 participants)
- Reflect on what people wrote on the papers regarding future scenarios (a designated exercise?)
- Allowing more time for a final discussion/ reflection
- Activities should be policy-oriented and lead to further research into democratic consultation for the installation of new nuclear facilities (“Policies are made and forced more than often on the local communities. The complexity of consultations is overwhelming to deal with for local communities. I would like to learn more from the cases in which a plan of the power station is halted in the recent past”)
- Marry principles of cooperation, democratic means and co-creation (citizen science) with artistic practice.

DAY 2: We reconvened at UCL's Warning Research Centre to discuss the SSC workshop and its possible impact with a number of respondents (participants included Aura Satz, Francesca Cavallo, Carina Fearnely, Ilan Kelman, Alison Downes, Paul Dorfman, Judy Edworthy, Carmen Solana, Lisa Lavia and 3 artists with an interest in nuclear culture, 2 of which attended the workshop in Sizewell the day before). Some important observations emerged, such as the idea of co-creation as a tool for deliberative democracy; risk mapping and sounding as a useful method for creative engagement with risk assessment, and sound/ aural culture as a particularly helpful tool to think through emergency preparedness and deep time risks due to its inherent participatory nature and connection to the invisible. In conclusion, the siren we produced may not be definitive, but, in the right context, it is a powerful tool for thinking creatively and critically about the risks Sizewell C produces to locals and society at large and how they can be mitigated through new alliances between scientists of various disciplines, creatives, and activists. This triangular approach, we believe, might produce impact way beyond the activity itself in many directions. Indeed, one of the key beneficial outcomes is that Stop Sizewell C is now connected with UCL WRC and their affiliated scholars for continuing the campaign with science-based knowledge.

Specific feedback and key takeaways from participants and respondents:

Downes: the workshop highlighted the fact that ‘risk’ (e.g. clarifying what the risks the development poses) might be the best approach for their campaign to resonate with the larger discourses and impact policy.

Lavia: pointed out how soundscape research focuses on co-creation as it must incorporate observations from the receivers or listeners as well as the source (relevant to the study of warning and justifying co-creation).

Edworthy: identified psycho/behavioural tools useful for the co-creation process of alarms and warnings, and helped identify which sirens from our archive might be more effective in terms of the responses they elicit.

Dorfman: pointed to his positive experience of co-creation tools as forms of knowledge construction to develop health and nuclear policy where local knowledge is central to the development of top-down policies (citizen science). In particular art-based methodologies can drive deliberative democracy and positive/constructive messaging about alternatives to nuclear power.

Solana: suggested the positive impact of creative practices for the rehearsal of disasters, so that the co-creation of warnings can also become an exercise to generate risk knowledge and perception.

Follow-up activities include:

- Donating the recorded material (including the new siren and field recording) and written notes (including re-imagined sirens) to *Stop Sizewell C* to use for future creative activities, exhibitions, or developing new work.
- Adding this material to the RCA Preemptive Listening Archive.
- Possibly facilitate a follow-up workshop to produce new sounds based on those suggested during the activities.
- Share evaluation with Stop Sizewell C and UCL
- Satz, Downes, Fearnley and Cavallo to contribute a session to the upcoming [Creating Effective Warnings for all Conferences](#) in the presence of UN members (September 2023)
- Article for the Human Geography Journal (possibly funded through research impact RCA) – to reflect on the methodology and its main takeaway points

The extended impact of such activities may lead to the following:

- Archiving and memorialising local concerns for the development and meaningful connections with the site before its transformation
- Generate more artistic and/or conservation focussed projects to enhance and preserve the site of Sizewell C.
- Create meaningful connections that reassess the risk of Sizewell C and Nuclear power in general.
- Enhance national awareness of nuclear risks through an art project in collaboration with future nuclear power station residents.
- Linking public awareness to policymaking facilitated by the contributors' multidisciplinary expertise and networks
- Lobbying Suffolk County Council to commission an independent consultation with the local community leading to mapping the risks Sizewell C poses and the co-creation of an emergency preparedness strategy



Final reflection / recommendation / impact.

IMPACT FOR SIZEWELL:

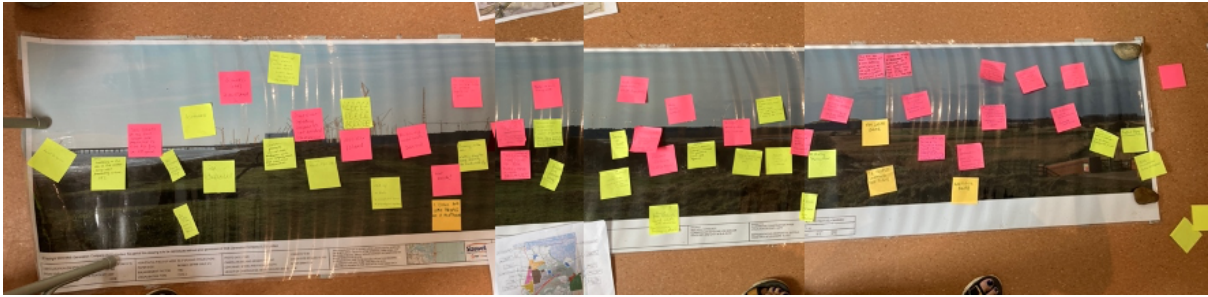
The workshops were exploratory and open by design in order to learn about local concerns and how we could mobilise artistic work with local knowledge and scientific research to pave a just strategy to respond to the proposed development of Sizewell C. Following the workshops, the need for an independent consultation about the risks and a warning and preparedness strategy for the site has emerged. Such consultation, however, necessitates opportunities for people to come together, reflect, discuss and create in order to produce risk knowledge and inform their risk perception. In this regard, more public engagement, as well as links to policy, are paramount. The implementation and evaluation of such processes, moreover, enhances a broader field of research into the study of democratic consultation for the installation of new nuclear facilities, which is more than necessary in the current climate and debates around the UK transition to 'green energies' and the contested position of nuclear energy.

“The workshop and subsequent reflection have made me realise how little I know about how the local community would be made aware of any emergency at Sizewell B. Depending on the type of incident, the community could be of vastly different size/range (this is, of course, something we need to consider for the Sizewell C 'siren'). This ignorance was also brought home to me a few weeks ago when I was en route to Thorpeness (2 km south of Sizewell) to meet friends for lunch and saw unusual plumes of perhaps smoke rising from the site whilst Sizewell B was on shutdown undergoing maintenance. I realised I had absolutely no idea how we would know if we needed to evacuate, and I tuned into the local radio station to see if there was any news before deciding to join my friends. But I was unnerved by the incident and felt (and feel) vulnerable... We cope by pretending there is nothing to be concerned about - but there are tangible risks and your work could be of great value in raising awareness of these risks both with the local communities and the wider public - as well as with government and investors.” (written by a Sizewell-based participant)

FURTHER ACTIVITIES:

In their feedback, a participant mentioned that the reimagined sirens we played during the activity were 'disappointing' as possible warnings in the real world. Sirens, for them, need to be more loud and frightening. Another mentioned the need for diversified warning registers that resonate with different people. Effectively, most of the sirens that participants suggested in the writing exercise (see appendix) evoke loud and terrifying sounds. How does their feedback further complicate the Preemptive Listening research question "Does an Alarm have to be Alarming?" and the advisory panel's deliberations regarding the possibility of deploying more reassuring sounds? As Edwordy pointed out, there is a need for further exploring the effects on sounds from a behavioural perspective. A follow-up workshop (with a sound designer/ artist?) to use field recording and co-create a siren for Sizewell can be extraordinarily generative in this direction, especially if it involves a behavioural scientist as a part of a formal consultation or a broader public engagement programme.

Appendix / Material



A. Field Recording: [Download Here](#)

B. Mapping Exercise: Memories of the site and how it will be in 100 years:

Post-it Notes:

- Sea levels and the earth [locust?] are predicted to rise by 1M in 100 years
- ↓ Nuclear Island ↓ Peaceful Black Veil descends, No Life ↑ Cleaned up site, birdlife
- Bodies Beaming Battlefields
- Significant change in specific locations but little changes globally
- Bodies and desires become shelter
- Aerial community + sea + installation of surveillance facilities
- No more humans by the sea, total chance of paradigm, hopefully for the better
- Lack of resources (attention) to keep Sizewell safe. FEAR. Multiple threats concurrently globally due to sea level rise /food supplies
- New beach?
- Beautiful beach walks, beach of dreaming protesting, destruction of the power station
- Saw my first seaside orchid today, which looked like a bee
- Beach birds, sounds of stones
- Drought Desertification. No Wildlife.
- The pit has been turned into a local energy supply owned by the local council through a shared ownership scheme
- There is always a guardian at the entrance, and they tell the story of how Sizewell C was stopped
- Green Raid route. Siren – chop down tree. 24/7 light. Mum [mes] + dog walk at Icerton Hill. I went to the beach.
- Move career. Holiday waves 2123 [panting by concrete] Sizewell B, C, D. Tourist bunker.
- Short- termism. Vested Interests. Delays. * Devastation * multiple locations globally.
- Walking Route
- The White Dome
- Walking from the Sluice (on the coast of G Eastbridge), the Olde Abbey + [dreaming ? claiming?] with friends
- Explosion due to terrorism: → no energy → contamination → no re-coler [?] – legal case UK vs France
- Surrounded by Water. Huge impact on Sealife. A toxic island.
- Nuclear particles in the sea travelling the globe for 1000s a year
- Swallows flying in Minsmere Sluice
- RSPB Minsmere Bird Watching
- No Birdsong – Loss of Biodiversity – flooded wetlands

- Bodies and desires becoming shelter
- Beach birds sounds of stones
- Sound of nuclear fission and nuclear [deas?] (SONIFICATION)
- A starling Murmuration
- Get the children to speak about what they feel about a future with Sizewell nuclear waste
- Walking Route
- The White Dome
- Nuclear particles in the sea travel the globe for 1000s a year
- Swallows flying in Minsmere Sluice
- New forms of communication and understanding from shared dystopian experiences
- Cacophony sickening animal plus bird noise Kittiwakes, Bitterns, Little Terns, Mable hammers, otters, avocets, seals
- by all social media
- Bird song destroyed by crushing metal
- Sounds of Toxicity + explosion followed by terrifying silence
- ↓Thrumming noise, unsettling legacy of destruction ↑ Huge sky expanse, Minsmere wild beauty, bird wildlife sanctuary
- Reasoned Argument on why Sz C is a risky investment, multitudes of people writing to their pension fund
- Sound of Swifts, low frequency, feel not hear.



