

Research as Art Awards 2017: Fifteen extraordinary images shed light on the beauty and diversity of research

July 14 2017



Overall Winner. Ruth Callaway (College of Science/ Coleg Gwyddoniaeth) SEACAMS2 and Tidal Lagoon Swansea Bay Plc have worked together to explore opportunities to enhance the ecological value of the world's first tidal lagoon in Swansea Bay. A Bioblocks workshop was held at Oriel Science in February 2017. It was funded by SEACAMS2 and involved over 200 children who used cubes of clay to sculpt ecologically attractive habitats for

coastal creatures. These 'bioblocks' demonstrate how manmade structures can support marine life while children and their families have gained a better understanding of the unique resilience of sea creatures. It is hoped that the diverse and complex habitat will enable more species to use this new material as a living space: crevices and holes will provide shelter; variable textures and overhangs will allow animals and seaweed to cling to the material. Credit: Ruth Callaway, Swansea University

Fifteen stunning images, and the fascinating stories behind them—such as how a barn owl's pellets reveal which animals it has eaten, how data can save lives, and how Barbie breaks free—have today been revealed as the winners of the 2017 Research as Art awards.

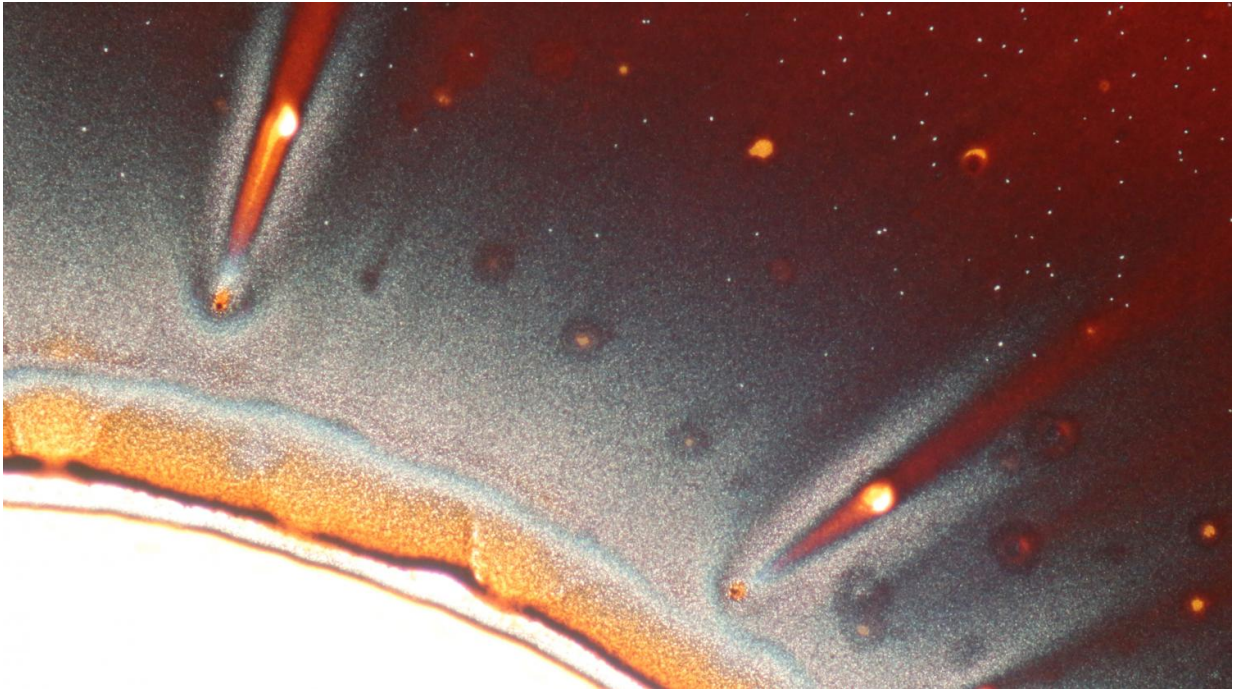
The overall winner is Dr Ruth Callaway, a research officer from the College of Science. Her entry, Bioblocks: building for nature, illustrates how children and researchers have been exploring ways in which the tidal lagoon proposed for Swansea Bay could become a new habitat for marine creatures.

At a workshop held by the University, over 200 children used cubes of clay to sculpt ecologically attractive habitats that could be used by sea creatures. Crevices and holes could provide shelter. Using different textures and overhangs would allow animals and seaweed to cling to the breakwater.

The workshop is one of the ways in which Swansea University researchers on the SEACAMS project have been working with Tidal Lagoon Swansea Bay Plc, to enhance the ecological value of the world's first [tidal lagoon](#).

See and download winning images here
<https://www.flickr.com/gp/swanseauniversity/215x76>

Research as Art is the only competition of its kind, open to researchers from all subjects, and with an emphasis on telling the research story, as well as composing a striking image.



Award for imagination / Enillydd y Wobr Dychymg. Emmanuel Péan (College of Engineering -- SPECIFIC - Y Coleg Peirianeg) This photo, taken with an optical microscope, is the result of a perovskite sample that went wrong. This could have been caused by incorrect deposition of ethyl acetate, which should have improved the crystallisation of the perovskite layer on the substrate. The resulting picture looks like meteors (middle of the image) crashing onto a sun (left bottom corner). Those 'meteors' and their 'tails' may have been formed by the presence of impurities on the sample. In contrast, the 'sun' might have resulted from an inhomogeneous diffusion of ethyl acetate into the perovskite sublayer. Finally, the white spots in the darkest region (right top corner) seem like distant stars. To conclude, scientific research is not always fruitful, however, it is when you make mistakes that you learn the most and have the most fun. Credit: Emmanuel Péan, Swansea University

It offers an outlet for researchers' creativity, and celebrates the diversity, beauty, and impact of research at Swansea University - a top 30 research university.

86 entries were received from researchers across all Colleges of the University, with titles such as:

- Soaring skills of a vulture
- Coffee and medication monitoring
- Still on duty? A Roman soldier in endangered Syria

A distinguished judging panel of senior figures from the Royal Institution, NewScientist, and Nature, selected a total of fifteen winners. Along with the overall winner, there were judges' awards in four categories relating to engagement—imagination, inspiration, illumination, and the natural world—and 10 highly-commended entries.

Overall winner Dr Ruth Callaway described the image in her winning entry:

"Over 200 children used cubes of clay to sculpt ecologically attractive habitats for coastal creatures. These bioblocks demonstrate that humanmade structures can support marine life, while children and their families have gained a better understanding of the unique resilience of [sea creatures](#).



Award for the connection with the natural world. Melissanthi Sommers-Kontoleon (College of Science) Barn owls, like many other birds, produce pellets that contain all the undigested parts of their prey. By pulling apart the pellets, one can find skulls and other bones from which the species of animal the owl has consumed can be identified. Credit: Melissanthi Sommers-Kontoleon, Swansea University

It is hoped that the diverse and complex habitat will enable more species to use this new material as a living space: crevices and holes will provide shelter; variable textures and overhangs will allow animals and seaweed to cling to the material."

Dr Ruth Callaway added: "Innovative projects such as the Tidal Lagoon Swansea Bay are inspiring, but they also throw up lots of questions and complex environmental challenges.

For marine scientists, the project creates unprecedented research opportunities to explore how the construction process could reduce negative impact on the coastal environment.

The EU-funded SEACAMS project and the company Tidal Lagoon Power work in collaboration, and we explore novel ways of enhancing biodiversity. Discussing these ideas with the public both informs the wider community about our work and triggers new research ideas."

Provided by Swansea University

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