Two Minutes to Midnight,
The Agency of Hydrogen in an Art of the Anthropocene

Portfolio
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Declaration

I Nicholas Laessing confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis. All photographs are by the author, Nicholas Laessing unless stated otherwise.
Can there be ‘liveable collaborations’ also with entities, substances, elements - a collaboration with hydrogen? Odourless, colourless, tasteless and invisible, on earth it is bound to compounds: coal, oil, wood and also to water. Beyond earth most stars are mostly hydrogen.
Fabrication of Water Gas Car, 2016, with Jimmy Whitmore & Jonah Kinross, Devon
Fabrication of Water Gas Car, 2016, Devon
Fabrication of Water Gas Car, 2016, Devon
Electrolyser test, 2016, Devon, MP3 video, 00.13 mins
Fabrication of Water Gas Car, 2016, Devon
Fabrication of Water Gas Car, 2016, Devon
Water Gas Car, 2016, No Such Thing As Gravity, group exhibition, FACT, Liverpool, 2016-17, photo Stephen King
Water Gas Car, video 2016, MP4 video, 2:31 mins, camera Elisabeth Laessing
Water Gas Car 2016, No Such Thing As Gravity, group exhibition, FACT, Liverpool, photo Stephen King
Mass spectrometer gas concentration experiment, Rhod Jervis, Max Maier, James Dodwell, Electrochemical Innovation Laboratory UCL, 2018, MP4 video 00.08 (left)
Testing gas concentration using the mass spectrometer with Rhod Jervis, Max Maier and James Dodwell at the Electrochemical Innovation Laboratory UCL, 2018
Zirfon Perl gas separator membrane
Apparatus (a) for testing gaskets and water flow using air compressor and water pump, MP4 video 00.05
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Excerpts from sketchbooks 2018-19
Fabrication of Hydrogen Kitchen, 2019, Slade School of Fine Art studio
Water Gas Kitchen, 2019, Experimental Futures, group exhibition, 2019, Rostock Kunsthalle
Water Gas Kitchen, Experimental Futures, group exhibition, 2019
Rostock Kunsthalle
Water Gas Kitchen, Experimental Futures, group exhibition, 2019 Rostock Kunsthalle
Water Gas Kitchen, 2019, Experimental Futures, group exhibition, 2019 Rostock Kunsthalle
Hydrogen Kitchen, frying an egg. Delfina Foundation, 2019, MP4 video documentation, 00:51, camera Andreea Ionascu
Hydrogen Kitchen, cooking pancakes with PhD colleagues, 2019, Delfina Foundation
Hydrogen Kitchen, Delfina Foundation, 2019, photo Ollie Harrop
Hydrogen Kitchen, Andreea Ionascu cooking omelettes for the event Hydrogen Utopia? Delfina Foundation, December 2019, photo Ollie Harrop
Hydrogen Kitchen, Andreea Ionascu cooking omelettes for the event Hydrogen Utopia? Delfina Foundation, 2019, photo Ollie Harrop
Hydrogen - Fuel of The Future? Workshop with UCell at The Calthorpe Project, June 2018, Kings Cross
Arte Útil Working Group, 3-day workshop with PhD colleagues Ellie Doney and Kasia Depta-Garapich at The Calthorpe Project Kings Cross London, December 2018, photo Adriana Arroyo
Arte Útil Working Group, 3-day workshop with PhD colleagues Ellie Doney and Kasia Depta-Garapich at The Calthorpe Project, Kings Cross London, December 2018, photo Adriana Arroyo
Arte Útil Working Group, 3-day workshop with PhD colleagues Ellie Doney and Kasia Depta-Garapich at The Calthorpe Project, Kings Cross London, December 2018, photo Adriana Arroyo
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Plant Orbiter 2017, 133 x 82 x 185 cm, Galerie PCP, Paris, photo Margot Montigny
Excerpts from sketchbooks, 2017
Excerpts from sketchbooks, 2017
Excerpts from sketchbooks, planting drawing for *Plant Orbiter* 2017
Plant Orbiter CAD drawings, 2017, with Richard Simpson,
Plant Orbiter CAD drawings, 2017, with Richard Simpson,
Plant Orbiter fabrication, Slade School of Art studio, 2017
Plant Orbiter fabrication, Slade School of Art studio, 2019
Plant Orbiter fabrication, Slade School of Art studio, 2017
Plant Orbiter 2017, Galerie PCP, Paris, photo Margot Montigny
Plant Orbiter 2017, Galerie PCP, Paris, photo Margot Montigny
Plant Orbiter 2017, propagator tank, Galerie PCP, Paris, photo Margot Montigny
Plant Orbiter 2017, propagator tank, Galerie PCP, Paris, photo Margot Montigny
Plant Orbiter 2017, nutrient solutions, PH monitor, seeds, buckets, steel trolley, Galerie PCP, Paris, photo Margot Montigny
Plant Orbiter, 2017 MP4 video documentation, 01.14, stop frame video of nutrient solution cycle, Galerie PCP, Paris, camera Peter Cybulski,
Plant Orbiter 2017, detail, 133 x 82 x 185 cm, Galerie PCP, Paris, photo Margot Montigny
Food Futures workshop with Ellie Doney at The Calthorpe Project, Kings Cross London, March 2018, photo Adriana Arroyo
Food Futures workshop, 2018, Iona’s five-year-old son Toma, sketching out an improved solar-powered Plant Orbiter, photo Adriana Arroyo
Plant Orbiter at The Calthorpe Project, Kings Cross London, March 2018 with Mila Campoy (left) and Annika Miller Jones
Growing Solutions workshop with Ros Gray, Delfina Foundation, London, 2019
Growing Solutions workshop with Ros Gray, Delfina Foundation, London, 2019
Growing Solutions workshop with Ros Gray, Delfina Foundation, London, 2019
Plant Orbiter pesto and salads, Delfina Foundation 2019
Plant Orbiter  The Great Exhibition Road Festival, Victoria & Albert Museum, 2019
Plant Orbiter 2019, Europe After The Rain, Newlyn Art Gallery 2019, photo Steve Tanner
Sun Cooker, Europe After The Rain, group exhibition, Newlyn Art Gallery, 2019, photo Steve Tanner
Sun Cooker, Europe After The Rain, group exhibition, Newlyn Art Gallery, 2019, photo Steve Tanner
Sun Cooker, MP4 video
documentation, 00.30,
UCL Sustainability week, November 2018, camera Magdalene Zoledz
Sun Cooker, UCL Sustainability week, November 2018, with PhD colleagues Ellie Doney and Nayoung Jeong, making Korean tea and ramen noodles in the UCL main Quad,
Life-Systems climate crisis workshop, with students from Liceo Scientifuco Lussana at GAMeC, Bergamo Museum of Modern Art, 2019. Over the week students made a mixed media art installation using a stationary bicycle to power an electrical generator.
*Life-Systems* climate crisis workshop, 2019 with students from Liceo Scientifico Lussana at GAMeC, Bergamo Museum of Modern Art
Life-Systems climate crisis workshop, 2019, with students from Liceo Scientifuco Lussana at GAMeC, Bergamo Museum of Modern Art
Hand-powered phone chargers. Life-Systems climate crisis workshop, 2019, with students from Liceo Scientifuco Lussana at GAMeC, Bergamo Museum of Modern Art
Pedal-powered video installation, Fridays for Future protest signs, climate crisis mind maps, Life-Systems 4-day climate crisis workshop, GAMeC Bergamo
Pedal powered video installation, *Life-Systems* climate crisis workshop, 2019, with students from Liceo Scientifuco Lussana at GAMeC, Bergamo Museum of Modern Art
Ecologies of Art and Making, with Ellie Doney, a taster art foundation course, Hub 67, Hackney Wick, London, on behalf of the Slade School of Fine Art, 2020, photo Michael Pheasant
Ecologies of Art and Making with Ellie Doney, taster art foundation course, Hub 67, Hackney Wick, London, on behalf of the Slade School of Fine Art, 2020, photo Michael Pheasant
Ecologies of Art and Making with Ellie Doney, a taster art foundation course, Hub 67, Hackney Wick, London, on behalf of the Slade School of Fine Art, 2020, photo Michael Pheasant
Scaling Waste to Energy Technology: from local to global community engagement, Microbial fuel cell Installation, 2021, The Calthorpe Project, photo Andreea Ionascu
Scaling Waste to Energy Technology: from local to global community engagement, Microbial fuel cell Installation, 2021, The Calthorpe Project, photo Andreea Ionascu
Scaling Waste to Energy Technology: from local to global community engagement, Microbial fuel cell Installation, 2021, The Calthorpe Project, photo Andreea Ionascu
...to provide a beautiful solution to the challenges re: water-energy-food...the result is beautiful, immediately makes you change your perspective about what is possible – and is scalable;...it is a great way of engaging the community – showing people what can be done and starting a meaningful conversation... I feel honoured to be involved tbh.

WhatsApp chat with Dr Eileen Kennedy 13/10/2020

Microbial fuel cell Installation, Scaling Waste to Energy Technology: from local to global community engagement, 2021, with collaborators (left to right) Enrique Lopez Arroyo, Aneeba Rashid, Dr Luiza Campos, Andreea Ionascu, The Calthorpe Project, photo Andreea Ionascu