



Sunlight: YES

A Film by: Kenta McGrath + Joseph London



Documentary / 2023 / 49 mins / Australia

sunlightyesfilm.com

symbiotica
BIOLOGICAL ARTS

THE **SEEDBOX**
A COMMUNITY-DRIVEN ORGANIZATION
FOR SUSTAINABLE FOOD PRODUCTION

THE
**COMMUNITY
GARDEN
FESTIVAL**

 Department of
Local Government, Sport
and Cultural Industries

DACHI X FILMS

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INFO

Directed by: Kenta McGrath
Joseph London
Featuring: SymbioticA

Genre: Documentary
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CONTACT

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PRESS QUOTES

"Elusive, discursive, informative, beguiling, revelatory, deeply unsettling."
– James Hewison, former director, Melbourne International Film Festival

"This film, and SymbioticA, are a testament to Australia's cutting edge."
– Jack Sargeant, author (*Deathtripping*, *Naked Lens*, *Flesh & Excess*)

"Wholly original and deeply bizarre... wickedly hilarious."
– *The Curb*

"One of the most unusual, originally constructed films I have seen in a long, long time."
– Paul Williams, director (*Gurrumul*)



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TAGLINE

Welcome to a world without sunlight, soil or shit.

LOGLINE

Pioneering Australian bio-artists SymbioticA showcase their *Sunlight, Soil & Shit (De)Cycle* project, the latest in a long line of potential technological solutions to the looming global food crisis. Will it save humanity from its doom? Where are the investors?

SYNOPSIS

In recent years, tech companies around the world have offered many innovative solutions to the looming global food crisis: vertical farms, 3D-printed cakes, lab-grown ice cream, juicy steaks made from nothing but thin air. Courtesy of SymbioticA – the pioneering Australian bio-artists responsible for the world’s first-ever piece of meat grown in a laboratory – we can now add to this burgeoning list the *Sunlight, Soil & Shit (De)Cycle* (or *3SDC*) project. It’s an efficient, groundbreaking technological system that may be able to produce all the food we could ever hope for – and, as its name suggests, without any need for sunlight, soil or shit.

SymbioticA launch their project at a time when the future of the planet isn’t looking too flash. Temperatures soar. Case numbers skyrocket. Weather systems wreak havoc. A war is waged. Will the public have faith in the *3SDC* project? Will somebody invest in it? Can it save us from the mess we’ve found ourselves in?

Guided by AMY – an artificial-intelligence narrator with knowledge to burn – *Sunlight: YES* documents, contextualises and critiques the exhibition whilst ruminating on art, science, innovation, stick insects and the state of the world today.



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DIRECTORS' STATEMENT

As filmmakers with barely even a rudimentary grasp of science, we've always felt it easier to put our faith in others when it comes to the future of the planet: the people who send rockets out to space, who cure diseases, who make things work. The same people who will presumably save us from the abyss we appear to be sleepwalking into. What role can art play – what value could it possibly have – in this grim state of affairs? It's easier not to have to address that question either.

We knew that the team at SymbioticA grew strange things which straddled the fields of art and science, but we never really understood what they did and why they did it until we were invited to make a film about their latest project. It was a difficult and daunting undertaking. There were so many ideas, so many worlds we knew virtually nothing about. We were out of our depth. But they didn't seem to mind; in fact, we dare say they enjoyed that we were out of our depth.

In the end we did what we could, which is to say we latched onto what we saw, heard and felt. The mysterious pile of compost bathed in red light. The people who came and stared and tried to understand, just like we did. The feeling in your gut that lets you know things aren't okay, but that you ignore anyway.

And of course, there's Ionat and Oron, those warm human beings who have very serious things to say, but choose to say them in the most playful fashion. What a nice surprise it was to have our faith questioned, prodded, ridiculed, reflected back at us – indeed, to see it become the subject itself of the film.

Kenta McGrath & Joseph London

November 2023



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WHAT IS "SUNLIGHT, SOIL & SHIT (DE)CYCLE"?



Sunlight, Soil & Shit (De)Cycle, or 3SDC, is a contestable food systems project about Agricultural Technology (AgTech) by SymbioticA artists Ionat Zurr and Oron Catts, in collaboration with Steve Berrick. Transpiring in February 2022 at PS Art Space in Walyalup (Fremantle), Western Australia, the work is a performative durational experiment that includes an installation, public workshops, a symposium, a dinner party and live streaming of the event. A documentary by Kenta McGrath and Joseph London, *Sunlight: YES*, serves as both an extension of, and an artistic response to, the project.

As proposed by AgTech, the technological utopian future automates and controls food production, while non-standardised elements such as sunlight, soil and shit (the three S's) are removed in favour of artificial light, substrates and fertilisers. In times of ecological crisis, there is a vital need for seriously playful artistic interventions into these fantasies of separating humans from Nature. By using aesthetics to intervene, sense, and gain data of the different processes involved in food manufacturing, the 3SDC project allows the public to consider their own relations with both Nature and technology.

Visit the 3SDC website: sunlightsoilshit.systems

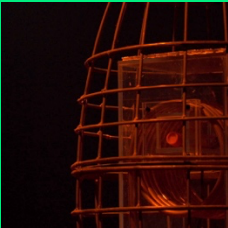


Sunlight, Soil & Shit (De)Cycle was awarded the Award of Distinction in the "Intelligence Artificial & Life Art" category at Prix Ars Electronica 2023.



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THE 3SDC COMPONENTS



Compost + Incubator = **Compostcubator**. A constructed pile of compost generates heat, warming the water that flows to a custom-designed biological incubator positioned on top. The heat sustains the growth of living (mouse) cells contained in a tissue-culture flask, to create what is known today as “lab-grown meat” (aka in-vitro meat, clean meat, cultivated meat or cultured meat). This type of “meat” is the cornerstone of cellular agriculture – the practice of growing animal products without the animal.



Patented by Amos Herbert Hobson in 1888, **Alkaline Hydrolysis** is a process whereby bones, meat, animal waste and other such refuse can be broken down for fertilising purposes. Often marketed as “aquamation” or “biocremation”, it is promoted today as a form of environmental cremation suitable for humans and pets alike. 3SDC’s own Alkaline Hydrolysis urn uses hacked brewing equipment to break down the meat grown inside the Compostcubator, turning it into a nutritional supplement for plants.



The nourishing liquid produced through the Alkaline Hydrolysis process can be sprinkled over the soilless plants in the **Hydroponic Systems**, which are designed to optimise plant growth by bypassing Nature and strictly regulating nutrients, lighting and pH levels. Sleek, stylish and easy to use, they are perfect for high-density living areas with low space-potential (no sun required). The plants produced can be eaten and enjoyed – or better still, used as fodder for the compost that heats the Compostcubator, thereby renewing the cycle.

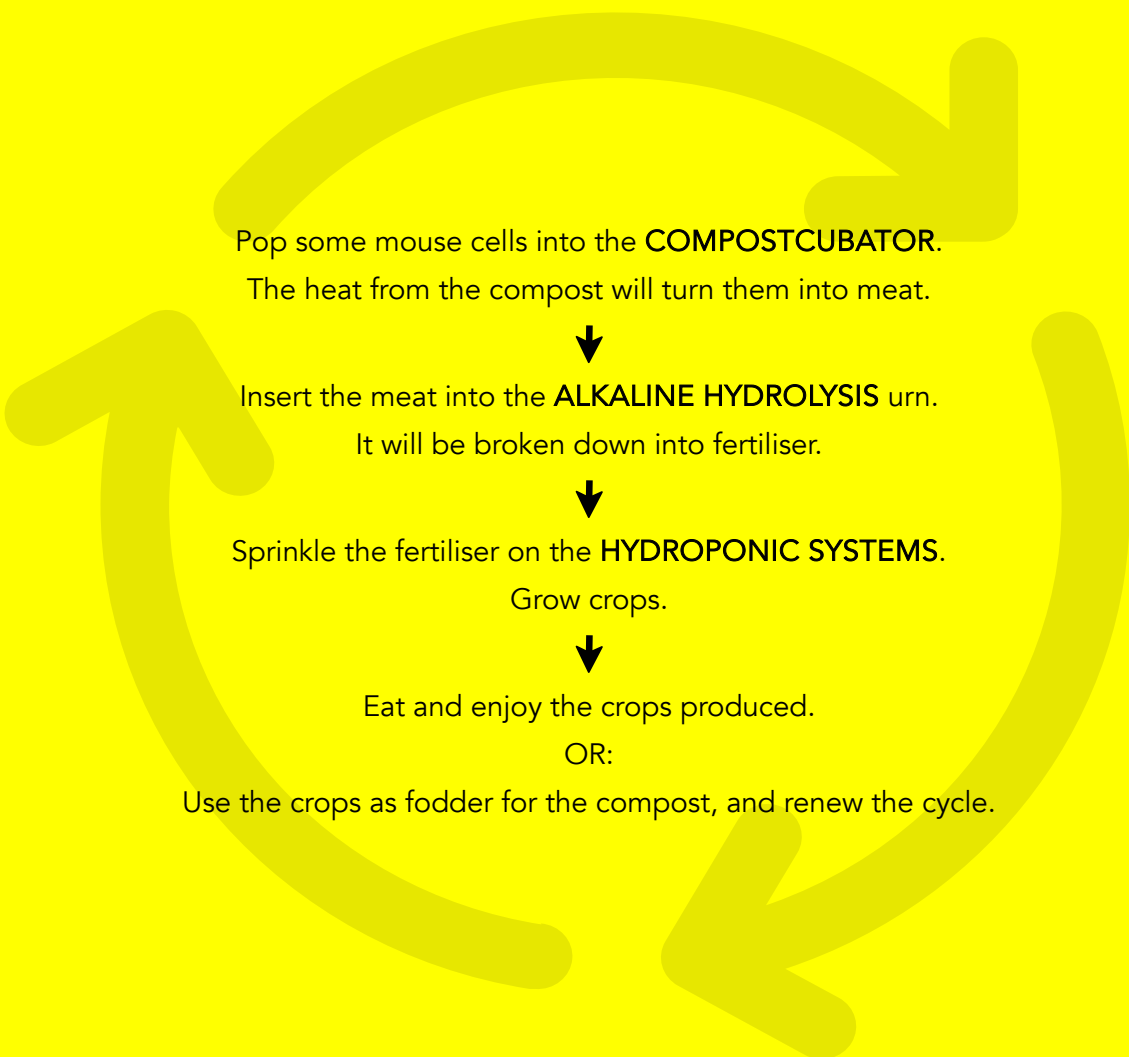
0.0	0.0	0.0	2.200	47.200
376	5.5	0.5	1.560	16.700
0	5.1	1.1	66.400	44.000
0	2.7	1.1	65.300	42.200
0	2.7	1.5	37000	57.600
0	1.5	0.6	70300	15.000
0	1.3	0.5	43700	35000
0	0.8	0.2	1.600	8.4700
785	0.8	0.2	1.600	8.3200
590	0.8	0.2	1.600	8.5000
0	0.7	0.2	1.670	8.8300
0	0.7	0.2	1.600	8.5000
0	0.7	0.2	1.600	9.2200
0	0.7	0.2	1.670	9.2200
Total	0.7	0.2	1.600	9.3000
54.3C	0.7	0.2	1.600	9.4500
54.3C	0.6	0.2	1.600	8.3300
54.3C	0.6	0.2	1.600	8.7500
54.3C	0.6	0.2	1.600	8.8500
54.3C	0.6	0.2	1.600	8.8700
54.3C	0.6	0.2	1.670	9.4900
54.3C	0.5	0.2	1.670	8.3300
54.3C	0.5	0.2	1.600	9.1300

The **Control Room** is the nerve centre of the 3SDC system and provides instant value, clarity and certainty. An array of sensors and cameras gathers indispensable information and knowledge, which is displayed onsite and online. The range of data collected is so comprehensive that it can facilitate food production within a completely nature-free environment. The Control Room eliminates the need to actually observe what is being produced – not to mention the need for sun, soil, wind and other such unreliable elements.



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THE 3SDC CYCLE



Pop some mouse cells into the **COMPOSTCUBATOR**.
The heat from the compost will turn them into meat.



Insert the meat into the **ALKALINE HYDROLYSIS** urn.
It will be broken down into fertiliser.



Sprinkle the fertiliser on the **HYDROPONIC SYSTEMS**.
Grow crops.



Eat and enjoy the crops produced.

OR:

Use the crops as fodder for the compost, and renew the cycle.

[Allow the **CONTROL ROOM** data to guide every step in the cycle.]



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FILMMAKER BIOS



Kenta McGrath (producer, co-director) is a filmmaker and writer whose work encompasses documentary, experimental and narrative cinema. His films have screened at Perth Festival, FIDOCs, Biennale of Sydney, Fremantle Arts Centre, Melbourne Design Week and Bradford International Film Festival. He has contributed criticism to *Metro*, *Senses of Cinema*, *Alphaville*, *ScreenHub*, the British Film Institute and the National Film and Sound Archive of Australia.



Joseph London (co-director) is a filmmaker, visual researcher and educator whose work explores complex human relationships – with each other and with our environment. His debut feature documentary, *The Beloved* (2021 Melbourne International Film Festival), is an epic four-hour meditation on the untold aftermath of the Rajneesh sannyasin movement (“The Orange People”) in Fremantle, Western Australia.

ARTIST BIOS



Ionat Zurr is an artist, researcher, curator and lecturer who is considered a pioneer in the field of biological arts. In 1996 she founded The Tissue Culture & Art Project with Oron Catts, a renowned collaboration that explores how tissue engineering can be used as a medium for artistic expression. Her work has been exhibited at Pompidou Centre, Museum of Modern Art, Mori Art Museum, The Art Gallery of Western Australia, Ars Electronica and National Art Museum of China. Zurr is SymbioticA’s academic coordinator and Chair of the Fine Arts Discipline at the School of Design, University of Western Australia.



Oron Catts is an artist, researcher and curator who is considered a leader in the field of biological arts through his pioneering work with The Tissue Culture & Art Project, which he established in 1996 with longtime collaborator, Ionat Zurr. He is the co-founder and director of SymbioticA, and was a Professor of Contestable Design at the Royal College for the Arts UK. In 2009 Catts was recognised by Thames & Hudson as one of the “60 Innovators Shaping our Creative Future”, and by Icon Magazine (UK) as one of the top 20 designers “making the future and transforming the way we work.”



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Steve Berrick is an artist and coder specialising in designing interactive systems for performance and installation. His recent works include *Guardians* (Perth Winter Arts Festival), *Bumperball* (Scitech Science Museum), *Hello Future Self* (Experimenta Make Sense) and *Somewhere Our City* (Perth International Arts Festival). Berrick has received awards for robot design, technology design and software enabling crowd-sourced place activation.



symbiotica
BIOLOGICAL ARTS

Established in 2000 by cell biologist Professor Miranda Grounds, neuroscientist Professor Stuart Bunt and artist Oron Catts, **SymbioticA** is an internationally renowned artistic laboratory dedicated to the research, learning, critique and hands-on engagement with the life sciences. Situated in the School of Human Sciences at The University of Western Australia, SymbioticA develops programs that allow artists and designers access to labs and techniques usually reserved only for scientists and engineers. SymbioticA has enjoyed sustained success under Oron Catts' leadership, winning the Golden Nica in Hybrid Art at Prix Ars Electronica (2007) and the Western Australian Premier's Science Award (2008), and becoming a Centre of Excellence in 2008.



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FURTHER READING + VIEWING + LISTENING

[“Sunlight, Soil & Shit’ Show and Podcast”](#) (*Fremantle Shipping News*, 18 Feb 2022)

An extended interview with Oron Catts, who discusses the themes and issues surrounding the 3SDC project.

[“SYMBIOTICA Sunlight, Soil and Shit”](#) (*X-Press Magazine*, 27 Jan 2022)

A short article about the 3SDC exhibition.

[“Can Science Save Us?”](#) (*The Community Garden Project*, 8 Feb 2022)

The full stream of the keynote discussion featured in *Sunlight: YES*, held as part of 2022 The Seed Box Community Garden Festival. Featuring Oron Catts and Audrey Samson and moderated by Susan Reid.

[“This Startup is Trying to Make Juicy Steaks Out of Thin Air”](#) (*Wired*, 14 Feb 2022)

An article about Air Protein, a Californian startup that aims to make meat out of thin air.

[“ArtMeatFlesh”](#) (Science Gallery Dublin, 2016)

The full video of ArtMeatFlesh, the live cooking show featured in *Sunlight: YES*. Oron Catts hosts two teams of artists, scientists and philosophers as they face off in a kitchen, where they confront lab-grown meat, future food cults, a secret ingredient and the very strong stomachs of the audience.

[“The taste of test tube meat”](#) (originally published by SBS, 4 June 2008)

An article about lab-grown meat, including an interview with Oron Catts about the Tissue Culture and Art Project’s *Disembodied Cuisine*.

[“Oron Catts and Ionat Zurr: ‘Working with Living Materials’”](#) (*Experimenta*, 24 June 2021)

A discussion with Ionat Zurr and Oron Catts about their creative practice. Part of “The Experimenta Studio Sessions” series on Australian artists.

[“Biomess exhibition challenges conventional ideas of what belongs in a gallery”](#) (ABC, 16 Sep 2018)

An article about Ionat Zurr and Oron Catts’ “Biomess” exhibition at the Art Gallery of Western Australia.

[“Museum Kills Live Exhibit”](#) (*The New York Times*, 13 May 2008)

A short article about Ionat Zurr and Oron Catts’ *Victimless Leather* installation at the Museum of Modern Art’s “Design and the Elastic Mind” exhibition.



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CREDITS

Directed, Filmed and Edited by: Kenta McGrath + Joseph London
Producer: Kenta McGrath
Executive Producers: Oron Catts + Ionat Zurr
Narrator: AMY
Sound Mixer: Andy Hill
Equipment: Location Equipment

The 3SDC Team

Lead Artists: Ionat Zurr + Oron Catts
in collaboration with Steve Berrick
Creative Producer: Matt Gingold
Food Artist: Dr Donna Franklin
Lead Installer: JC Carter
SymbioticA Manager: Chris Cobilis
Photographer: Daniel James Grant
Graphic Designer: Milton Andrews
Publicity: Rachel Davidson

The Investors

Department of Local Government, Sport & Cultural Industries W.A.
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PS Art Space



