MATTHEW
HALPENNY.

matthewhalpenny.com
matthew.halpenny@gmail.com

BIO

Matthew Halpenny is an interdisciplinary artist, researcher, and designer from Montréal who works between the milieus of biology, art, and technology. Their current work examines the materiality of our digital information technologies, the socio-political landscape of entangled energy emissions, and the gardening of nature-centric technologies through experiential installations and social mobilizations of creative prototypes. Their interdisciplinary practice-based research is rooted in system-centric thinking, cybernetics, and relational ecologies explored through research-creation frameworks that emphasize process, replicability, documentation, and design considerations that include multi-sensory & more-than-human worldviews.

EDUCATION

Sept 2025 - April 2027 — **MDes, Master of Design** | Concordia University, Montréal QC
Faculty of Fine Arts – Department of *Computation Arts & Design* | **GPA: 3.8**

Jan. 2021 - April 2024 — **M.Sc., Interdisciplinary Research-Creation** | Université de Montréal, Montréal QC
Faculty of Biology / Faculty of Communications - Department of Individualized Studies | **GPA: 4.2**

- **Practice-based thesis** project ***(Gardening the Cybernetic Meadow)*** engaging with interdisciplinary art, ecology, and sustainable energy technologies including microbial fuel cells (MFCs).
- **Research output:** Participatory installation artwork, open-source 3D printable microbial fuel cell bioreactor designs, accessible MFC fabrication guide, and a written exegesis (90p – 30,000w).

Sept. 2014 - May 2020 — **BFA, Computation Arts (Minor - Biology)** | Concordia University, Montréal QC
Faculty of Fine Arts - Department of Computation Arts & Design | **GPA: 3.6**

TRAINING

July – Aug. 2021 — **Second Nature Lab #2: Network Energetics** | NODE Forum 2020
Facilitator: Julian Oliver | *Format*: Workshop Series [Six Sessions]

- Critical Engineer, Julian Oliver, taught participants the tools needed to understand the geopolitics of embodied network energy + how to trace [reduce] the energy footprint of any global ICT network path.

SELECT WORK EXPERIENCE

Sept. 2025 – … — **Research Assistant** - *REGEN*
Concordia University, Montréal, QC
REGEN : co-création de dispositifs artistiques technologiques adaptatifs et régénératifs en dialogue is a five-year interuniversity research-creation (R-C) project focused on the study of plant regeneration and its implications for creative practice (Dir : A. Jarry).

October 2025 — **Installation Technician** – Biennale Némo 2025
Canadian Cultural Center, Paris, FR.

May 2023 – Sept. 2024 — **IT Coordinator** – CKUT 90.3FM
Radio CKUT 90.3FM, Montréal, QC.

Jan. 2020 – 2024 — **Technical Director** – Interdisciplinary Media Lab
World Creation Studio, Montréal, QC.

Jan. – May 2023 / Jan. – May 2024 — **Research Director & Residency Technician** – CO/CREATE Residency Series
World Creation Studio, Montréal, QC.

April 2022 – 2024 — **Research & Technical Assistant** – NOMAD Air Filtration Kits | *[re]Capture*
Concordia University, Montréal, QC.
Soft Dynamic Membranes: Air filtration as a material, interdisciplinary, and socio-environmental exchange process. This research-creation project examines the material aspect of air pollution, designing open toolkits for the public and public biodesign implementations. (Director: A. Jarry).

April 2020 – 2023 — **Research & Technical Assistant** - *Vers une Quatrième Nature*
Université de Montréal, Montréal, QC.
Interdisciplinary, practice-based research project on "slow" creative interventions and sites of reflections through research-creation on cybernetic, Bipolar Moss sculptures. (Dir. T. Bardini).

April 2020 – 2022 — **Research & Technical Assistant** - *Fossilation*
Concordia University, Montréal, QC | EnsadLab, Paris, FR.
Multidisciplinary research-creation on sustainable interfaces between communities, ecological milieus and the built environment – explored and implemented through bioplastic membranes & architectural [piezo / thermoelectric] energy harvesting devices (Dir. Alice Jarry and Samuel Bianchini).

May 2020 – Nov. 2020 / April 2021 – May 2022	**Web Developer & Artist Liaison** – Hexagram CMS & Sympioetique CMS *Hexagram Network*, Montréal, QC.
June 2020	**Digital Archivist**– ISEA 2020 Organization: *Printemps Numerique*, Montréal, QC.
Sept. 2019 – May 2020	**Gallery Technician** – Centre Phi Organization: *Hexagram Network*, Montréal, QC.

PANELS, CONFERENCES, & WORKSHOPS

Oct. 2025	***Oscillation: Material Assemblages before and after the Human*** [Panel] Biennale Némo - Canadian Cultural Center, Paris, FR.
May 2024 / Feb. 2023	**Introduction to 3D Printing [Workshop Series]** *World Creation Studio*, Montréal, QC.
Sept. 2023	***Soft Robotics: Form, Inform, Deform*** [Conference] MATERIA (Hexagram x Elektra) - Place des Arts, Montréal, QC.
June 2023	***Re-situating: more-than-human*** [Workshop] ArtSci Salon - rare Charitable Reserve, Cambridge, ON.
March 2023	***[re]capture: Bio-Materialization of Air Pollution*** [Workshop] Speculative Life Biolab & City of Montréal - Concordia University, Montréal, QC.
July 2022	***Open-Source Microbial Fuel Cell Project*** [Conference] Digital Ecologies Conference – University of Bonn, Bonn, GR.
April 2022	**LASER 11 - *Distributed Greenery*** [Panel Moderator] Leonardo Art-Science (LASER), Phoenix, AZ [Virtual].
Sept. 2021	***Emergenc-y: Living Materials Workshop*** [Workshop] Ars Electronica*,* Vienna, AT [Virtual].
Jan. 2021	***Reprise de Vues*** [Conference] *Hors Piste* 2022 - Musée des Arts et Métiers & Le Centre Pompidou, Paris, FR [Virtual].
Oct. 2020	***Designing Technology for a Symbiosis Between Natural Systems and Information Infrastructure*** [Conference] ISEA2020 : Sentience - ISEA & Printemps Numerique, Montréal, QC [Virtual].
Nov. 2020	***Face aux troubles de l'urgence écologique, la lenteur et..durabilité de production et de creation*** [Panel] HTMLLES 2020 – Ada X, Montréal, QC.
Jan. 2019	***BioCircuitry: Slime Mold Networks and Computational Models*** [Workshop] Speculative Life BioLab - Concordia University, Montréal, QC.

SELECT EXHIBITIONS

Oct. 2025	***Oscillation*** – *Fossilation* (2021), *[re]capture* (2024), *The Cybernetic Meadow* (2024) *Organizer*: Biennale Némo | Canadian Cultural Center, Paris, FR.
May 2024	***[re]capture*** [Solo Exhibition] - *[re]capture* (2024) *Organizer*: Ariane Plante | EPISODE Gallery, Montréal, QC.
Oct. 2022	**(Eco)Systems of Hope** – *Mycocene* (2018) *Organizer:* MTL CONNECTE | Anteism Books, Montréal, QC.
Aug. 2022	**Digital Ecologies** - *Slow Serif* (2022) *Organizer*: Digital Ecologies | University of Bonn, Bonn, GR.
Aug. 2022	**MUTEK Forum** - *Fossilation* (2021) *Organizer*: MUTEK | Place des Arts, Montréal, QC.
Sept. 2021	**Ars Electronica: EMERGENC/Y** - *Fossilation* (2021) *Organizer*: Ars Electronica – A New Digital Deal | Vienna, AT [Virtual].
Aug. 2021	**Reprise des Vues** - *Fossilation* (2021) *Organizer*: Hors Piste | Centre Pompidou, Paris, FR.
Oct. 2019	**Elektra XX -** *Mycocene* (2018) *Organizer:* Elektra | Oboro, Montréal, QC.

Oct. 2019	**Behavioural Matter** - *Mycocene* (2018) *Organizer:* Speculative Life | Centre Pompidou, Paris, FR.
April 2019	**Convergence** - *Sensenet* (2017) *Organizer:* Convergence | Hexagram Black Box, Montréal QC.
April 2018	**RiTa.js Gallery** - *poetry.DNA* (2017) *Organizer:* rednoise | RiTa.js [Virtual].

SELECT RESIDENCIES

Jan - April 2024	**Energy Transitions Residency** | Pico Power Speculative Life BioLab | TeZ – Concordia University Montréal, QC.
June 2023	**Ars Bioartica Residency** | *Vers une Quatrième Nature* SOLU Bioart Society | Kilpisjärvi Biological Station, Lapland, FL.
Aug. 2022	**Perte de Signal Research-Creation Residency** | NOMAD Perte de Signal, Montréal, QC
Nov. 2019	**milieuXbauhaus Residency** | Vision in Motion: Moholy-Nagy Speculative Life & The Goethe-Institut, Montréal, QC
Oct. 2019	**Caisse Desjardins New Media Creation Residency** | Mycocene Oboro, Montréal, QC

PEER-REVIEWED PUBLICATIONS

Feb. 2026	***Gardening Regenerative Energy:*** **An Integrated Systems Approach to Sustainable Technologies** [Book] | Whole Earth Redux **Publisher:** Gray Area, San Fransisco, USA | **Editor:** Hannah Scott **Role:** Author – Book Chapter
March 2024	***Gardening the Cybernetic Meadow****: fostering ecosophic care using microbial fuel cells as a temporal aesthetic medium* [M.Sc. Thesis] | Université de Montréal*,* Montréal, QC. **Publisher:** Papyrus (Open Access) - Université de Montréal*,* Montréal, QC. **Role:** Author
May 2020	***Designing Technology for a Symbiosis Between Natural Systems and Information Infrastructure*** [Conference Proceedings - Short Paper] | ISEA2020 **Publisher:** ISEA2020: Sentience - ISEA International. **Role:** Author
Feb. 2023	***Slow Serif - A Conversation*** [Journal] | *Ki* Issue 2: Qui Parle **Publisher:** UC Berkeley, Berkeley, CA, USA. **Role:** Co-author (w/ McCracken, B.)
Aug. 2022	***Fossilation: Nurturing Slow Expectations*** [Book] | Living Architecture Systems Group **Publisher:** Riverside Architectural Press, Toronto, ON. **Role:** Co-author (in Fossilation Collective, w/ Gomez, G.)
April 2022	***Form taking/force shaping*** [Journal, p. 58-73] | Antennae Issue 59: Microbial Ecologies. **Publisher:** Antennae - The Journal of Nature in Visual Culture. Chicago, IL, USA. **Role:** Contributor ["Residual Energies & Limits to Growth: Cultivating and Assembling Together"]

SELECT AWARDS & GRANTS

Sept. 2025	**Peter N. Thomson Family Graduate Scholarship** | Concordia University ($20000) Entry scholarship awarded for my enrollment in the two-year MDes graduate program.
May 2021	**Joseph Armand Bombardier Canada Graduate Scholarship** | SSHRC ($17500) CGM Funding awarded to my M.Sc. thesis project, *Gardening the Cybernetic Meadow*.
Feb. 2021 / 2020	**Research & Exploration** | Canada Council for the Arts ($10000 / $22000) Creative research funding for the interdisciplinary collective projects (*somme*) "Teletrophicate(s)" & "Enclosed Garden".
May 2020	**Campaign for the New Millennium Award** | Concordia University, Montréal, QC ($500) Faculty of Fine Arts' award for academic excellence and artistic output.
May 2019	**Department Awards (2019)** | Faculty of Fine Arts, Concordia University, Montréal, QC Honarary Mention: *Mycocene* (2019) - *somme Collective*

Aug. 2019	**Caisse Desjardins New Media Creation Grant** – Oboro ($5300) Awarded in conjunction with Oboro's new media residency for producing *Mycocene* (2018).

MEMBERSHIPS & AFFILIATIONS

2021 – …	**Research Member** | Research Chair in Critical Practices in Materials and Materiality *Organization*: Concordia University, Montréal, QC.
2020 – 2024	**Founder & Director** | Interdisciplinary Media Lab *Organization:* World Creation Studio, Montréal, QC.
2020 – …	**Graduate Research Member** | Hexagram Network *Organization:* Réseau Hexagram, Montréal, QC.
2018 – 2023	**Co-Founder & Director** | *somme* Collective *Collective Members:* Sam Bourgault, Emma Forgues, Matthew Salaciak, Owen Coolidge