

David P.D. Munns,
B.Sc., B.A.(Hons.), M.Phil., Ph.D.

Curriculum Vitae

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CURRENT POSITIONS:

2021-current: Affiliate with the doctoral program in history, CUNY Graduate College.

2009-current: Professor with tenure, Department of History, John Jay College of Criminal Justice. City University of New York. 524 W. 59th St. New York, NY. 10019. USA.

EDUCATION:

2003 - Ph.D. Johns Hopkins University. Advisor: Stuart W. Leslie.

1998 - M.Phil. University of Sydney. Advisor: Nicolas Rasmussen.

1995 - B.A.(Hons). Australian National University.

1993 - B.Sc. Australian National University.

PREVIOUS POSITIONS:

2017-2018: Interdisciplinary Writing Fellow at the Rachel Carson Center, Munich.

2006-2009: Lecturer, Centre for the History of Science, Medicine, and Technology, Imperial College. London.

2002-2006: Auxiliary Professor, Department of History and Politics, Drexel University. Philadelphia.

PUBLICATIONS:

Books

A Single Sky: How an International Community Forged the Science of Radio Astronomy (MIT Press, 2013).

Engineering the Environment: Phytotrons and the Quest for Climate Control in the Cold War (University of Pittsburgh Press, 2017).

Shortlisted for the 2018 Suzanne J Levinson Prize (History of Science Society).

with Kärin Nickelsen: Far Beyond the Moon: A History of Life Support Systems in the Space Age (Pittsburgh University Press, 2021).

The Atom Goes to College: Nuclear Engineers, Teaching Reactors, and the Atomic Age, forthcoming.

with Allison Kavey, The Industrious and the Indolent: Eugenics and the Making of Poverty as a Pathology, in progress.

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Fighting the Tyranny of Heredity, Women, Euthenics, and Making of Better Environments, in progress.

TRON: The Suffix that Was the Twentieth Century, in progress.

Big Science Down Under: Australia's Boldest Experiments, in progress.

The Automobile and The City: How the Car Shaped New York, in progress.

Articles and book chapters

' "Not By a Decree of Fate": Ellen Richards, Euthenics, and the Environment in the Progressive Era,' *Journal of the History of Biology* (2023): <https://doi.org/10.1007/s10739-023-09733-9>

"Stuck Inside," *Distillations* (Feb 2022). <https://www.sciencehistory.org/distillations/stuck-inside>

"Teaching in a Swimming Pool: The Ford Nuclear Reactor and the Training of the Atomic Age," *Historical Studies in the Natural Sciences* 51:2 (2021): 232-268. Part of a special issue entitled "Revealing the Michigan Memorial-Phoenix Project."

with Joseph Martin, Gisela Mateos, and Edna Suárez-Díaz, "Introduction: Historical Peculiarity and the Order of the Phoenix," *Historical Studies in the Natural Sciences* 51:2 (2021): 169-178.

"The Age of Biology," *History of Science* 59:4 (2021): 492-521. <https://doi.org/10.1177/0073275320954123>

'Colonizing the Final Frontier,' *Science* Vol 368:6486 (April 3, 2020), p. 40.

"The Atom Goes To College": The Teaching Reactors that Trained the Atomic Age." In *Legacies of the Manhattan Project: Reflections on 75 Years in a Nuclear World* Michael Mays (ed.) (Pullman: Washington State University Press, 2020): chapter 5.

"What Living in Space Teaches Us About Living on Earth." Environment & Society Portal, *Arcadia* (Spring 2019), no. 14. Rachel Carson Center for Environment and Society. doi.org/10.5282/rcc/8704

with Kärin Nickelsen, 'To Live Among the Stars: Artificial Environments in the Early Space Age.' *History and Technology* 33: (2018): 272-299.

'A tale of 'trons': the suffix that tells the story of modern science.' www.Aeon.co. Oct 20, 2017.

Republished as: 'The Suffix that Tells the Story of Modern Science.' *The Atlantic*, Oct 26, 2017. <https://www.theatlantic.com/technology/archive/2017/10/history-of-trons/543687/>

'From the Alatron to the Zootron: the history of the twentieth century is a story of Trons,' *Annalen der Physik* 529:6 (2017): 1-6. [Impact Factor: 3.317]

'The Phytotronist and the Phenotype: Plant Physiology, Big Science, and a Cold War Biology of the Whole Plant,' *Studies in the History and Philosophy of Biological and Biomedical Sciences Part C* 50 (2015): 29-40.

' "The awe in which biologists hold physicists": Frits Went's first phytotron at Caltech, and an Experimental Definition of the Biological Environment.' *History and Philosophy of the Life Sciences* 36:2 (2014): 209-231.

'A Single Sky: Learning to See the Heavens and the World Through Radio,' in *The Dark Universe: Sonic Acts XV* Arie Altena ed. (Sonic Acts Press, 2013): 62-83.

'Controlling the Environment: the Australian phytotron and postcolonial science,' *British Scholar* II:2 (2010): 197-226.

'"Gay, Innocent, and Heartless": Peter Pan in Popular Culture,' in *Second Star to the Right: Peter Pan in the Popular Imagination* Allison Kavey and Lester Friedman eds. (Rutgers University Press, 2008): 219-42.

'The Challenge of Variations: The Observational Traditions of Ptolemy and Aristotle, and Copernicus' Heliocentric Solution,' *Nuncius* 27:2 (2007): 221-257.

'If We Build It, Who Will Come?: Training radio astronomers and the limitations of 'National' laboratories in Cold War America,' *Historical Studies in the Physical and Biological Sciences* 34:1 (2003): 93-117.

'Linear Accelerators, Radio Astronomy, and the Search for International Prestige in Australia, 1944-1948,' *Historical Studies in the Physical and Biological Sciences* 27:2 (1997): 299-318.

Website and Blog

www.worldoftrons.com
<http://www.worldoftrons.com/blog/>

WORKS IN PROGRESS:

Article: 'The Search for the Laws of Biology in the Ecotron.'

GRANTS AND AWARDS:

2022: Short-term Senior Research Fellowship. Science History Institute, Philadelphia.

2020-21: PSC_CUNY Award.

2017-2018: Interdisciplinary Writing Fellowship at the Rachel Carson Center, Munich.

2016-17: PSC-CUNY Enhanced Research Award.

2016-17: Mid-Career Fellowship, Office of the Advancement of Research.

July 2014- June 2015 - PSC-CUNY Award.

2013-14. Office of Undergraduate Research grant to develop a multi-year research methods course for history majors.

July 2011- June 2012 - PSC-CUNY Award.

March 2011 - Friends of the Library of the University of Wisconsin, Madison Award.

Feb 2011 - Biot Grant, California Institute of Technology Archives, Pasadena.

April 2001 - Mayer Fellowship, The Huntington Library, Pasadena.

Spring, 2001. Nomination for the Krieger School of Arts and Sciences, Johns Hopkins University Teaching Assistant Award.

Spring 1999 - Dean's Teaching Fellowship, Johns Hopkins University. Awarded for the purpose of independently constructing and teaching an undergraduate course - '*The Name of the Rose: Science and Culture in the Middle Ages.*'

1997-2002 - Johns Hopkins University Ph.D. doctoral scholarship recipient.

INVITED TALKS:

David P.D. Munns, CV.

'Citizens of the World,' Aspen Institute. March 3, 2022.

'Far Beyond the Moon; Or, An Excremental History of the Space Age, Johns Hopkins University. Sept 23, 2021.

'An Excremental History of the Space Age,' CUNY Graduate College. April 22, 2021.

'An Excremental History of the Space Age,' Michigan Technological University. March 23, 2021.

'To Live Among the Stars.' *University of Pennsylvania STS Colloquium*. Philadelphia. April 8, 2019.

"History of the Phytotron," Rutgers Department of Environmental Sciences, March 29, 2019. [Talk plus class discussion].

'An Excremental History of the Space Age,' National Air and Space Museum colloquium. Washington, D.C., Feb 21, 2019.

'Engineering the Environment: Phytotrons and the Quest for Climate Control in the Cold War,' Deutsches Museum Montagskolloquium, Jan 18, 2018.

'The Phytotronic Era,' Oct 27, 2016. *20th century history series*. University of Cambridge.

'The case of the Algastron; or coping with shit in space,' *Again, Method*. Ludwig-Maximilians Universität, Germany. Oct 24-25, 2016.

'The phytotronist and the phenotype: Plant physiology, big science, and a Cold War biology of the whole plant,' *Perspectives for the history of the life sciences: New themes, new sources, new approaches*. Oct 30-Nov 1, 2015, Munich, Germany.

'A Single Sky: learning to see the heaven through radio,' *The Dark Universe (Cosmic Acts International and Interdisciplinary Festival)*. Amsterdam, Feb 21-24 2013.

'Frits Went's vision of Theoretical Biology in the Caltech phytotron.' History of Science Reading Group, Gallatin School, NYU, Feb 2012.

'Gay, Innocent, and Heartless': The aging of Peter Pan in popular culture.' Goodenough College London Port Talk, July 2009.

'Controlling the Environment: the Australian phytotron and postcolonial science,' *HPS Department, University of Leeds*, Feb 2009.

'Science for a Postcolonial World: the case of the Australian phytotron,' *Menzies Center for Australian Studies*. London. Jan, 2009.

PAPERS PRESENTED:

'Ellen Richards and Euthenics,' Society for the History of Technology, Long Beach. Nov 2023.

'Far beyond the Moon,' Office of the Advancement of Research book talk, John Jay College April 7, 2022.

'Ellen Richards and Euthenics,' Science History Institute talk. March 24, 2022.

'Under Glass: The Image and Imagination of Nature under Control,' Circulation of Images conference. Oct 23, 2021

'The Atom Goes to College,' History of Science workshop, Gallatin School, NYU, Sept 10, 2021.

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'Plant physiology, phytotronics, and a Cold War biology of the experimental plant,' *Society for the Social Studies of Science (4S)*. New Orleans, Sept 4-7, 2019.

'Engineering the environment: Plants, phytotrons, and climate control in the cold war.' *International Society for the History, Philosophy, and Social Studies of Biology*, Oslo, July 8-12, 2019.

'To Live Among the Stars,' part of the organized panel "High and Low, Then and Now in Space."
Tensions of Europe. Luxembourg, June 27-30, 2019.

'Why We Still Must Go To Mars in a Biosphere. Answer: it is how we shall learn to live on Earth.' *Crafting the Long Tomorrow*, Biosphere 2, Tucson, AZ. Feb 22-24.

To Live Among the Stars: the Creation of Artificial Environments for Space,' *Society for the History of Technology*. St. Louis, Oct 13, 2018.

'The Alcatraz and the Aqua-Hamster,' *4S*, Sydney. August 2018.

'To Live Among the Stars: the Creation of Artificial Environments for Space,' *Rachel Carson Center*, Munich. Jan 11, 2018.

'The Alcatraz vs the Fecal Bag,' *History of Science Society*. Toronto. Nov 9-11, 2017.

'Civilizing the Atom: Teaching Reactors in the Atomic Age,' *Society for the History of Technology*. Philadelphia, Oct 26-29, 2017.

'From the Alcatraz to the Zootron, the history of science is a world of trons,' *Canadian Society for the History and Philosophy of Science*. Toronto. May 26-29, 2017.

'The Alcatraz vs the Fecal Bag: the Space Program from the Bottom Up,' *Columbia History of Science group*. Friday Harbor Laboratories. March 2-5, 2017.

'Civilizing the Atom: Teaching Reactors in the Atomic Age,' *Legacies of the Manhattan Project*. Hanford, WA. March 15-19, 2017.

'The World of Trons,' *Society for Literature, Science and Culture*. Atlanta, Nov 3-6, 2016.

'Civilizing the Atom.' *History of Science Society*. Atlanta, Nov 3-6, 2016.

"The awe in which biologists hold physicists": Frits Went, plant physiology, and the creation of the first phytotron at Caltech.' *History of Science Society*. Boston, Nov 2013.

'Frits Went's vision of Theoretical Biology in the Caltech phytotron.' History of Science Reading Group, Gallatin School, NYU, Feb 2012.

'"The tree has graduated from molecular biology": physics, biology, and the plants under the glass of the phytotron.' *History of Science Society*. Cleveland, Nov 2011.

'The technology of the environmental control of plant growth.' *Society for the History of Technology*. Cleveland, Nov 2011.

'Approaches to national and disciplinary comparative history,' *British Society for the History of Science Meeting*. Leicester, July 2009.

'Discipline and Disciples: Reasserting Community in the History of Recent Science,' *The '3-Societies' Meeting: BSHS-CSHSSS-HSS*, Oxford, July 4-6, 2008.

'Training Instruments: Pedagogy and discipline in radio astronomy at Harvard and Caltech, 1945-1960,' *Imperial College London seminar*. 2007.

'The Challenge of Variations: The Observational Traditions of Ptolemy and Aristotle, and Copernicus' Heliocentric Solution,' *History of Science Society Meeting*, Vancouver, Canada, Nov 2-5, 2006

'Controlling the Environment: Phytotrons, the Green Revolution, and Biological Big Science,' *Liberal Studies Department*. California State University, Fullerton. Feb, 2005.

'An International, cooperative vision for Cold War Science: The Formation and Character of the Radio Astronomy Community,' *History of Science Society Meeting*. Cambridge, MA, Nov 20-23, 2003.

'Bringing Disciplines Together: the Formation of the Radio Astronomy Community,' *Midwest Junto in the History of Science*. Minneapolis, MN. April 4-6, 2003.

'Instrumental, International, and Innocent: Radio Astronomy and Cold War Science in the 1950s,' *National Air and Space Museum, Seminar in Space History*. Washington, D.C., April 19, 2001.

'Becoming Astronomy: How Cosmic Noise Became Radio Astronomy,' *History of Science Society Meeting*. Vancouver, Canada, November 2000.

'Phytotrons: Where the Greenhouse Met the Cyclotron,' *Joint Meeting BSHS, CHPS, HSS*. St Louis, MO, August 2000.

'The Place of Observational Phenomenon in Ptolemaic Astronomy,' *Mid-Atlantic Conference*. University of Pennsylvania. Philadelphia, PA, August 1999.

'Biological Big Science: Phytotrons in Australia and the United States after 1945,' *Joint Atlantic Seminar in the History of Biology*. Philadelphia, PA, April 1999.

'Radio Astronomy at Harvard,' *Colloquium, Department of the History of Science, Medicine, and Technology*. Johns Hopkins University. Baltimore, MD, March 1999.

'The Heliocentric Solution to Observational Problems in the work of Copernicus,' *Australasian Association for the History, Philosophy, and Social Studies of Science Annual Meeting*. Adelaide, Australia, July 1998.

'Radio Astronomy in Australia,' *Australasian Association for the History, Philosophy, and Social Studies of Science Annual Meeting*. Auckland, New Zealand, July 1997.

'Radio Astronomy, Linear Accelerators, and the Search for International Prestige in Australia,' *History of Science Society Meeting*. Atlanta, GA, November 1996.

TEACHING EXPERIENCE.

Undergraduate classes taught.

- a) 'The Name of the Rose': Science and Culture in the Middle Ages.
- b) The Anthropocene in NYC.
- c) The Discovery of the Scientific Method.
- d) The Scientific Revolution.
- e) History of the Automobile in Modern America.
- f) The History of Science from Plato to NATO.
- g) History of Eugenics.

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- h) Research Methods in History.
- i) Historiography.
- j) The History of Technology.
- k) Modern American History, 1870-1989
- l) European History, 1870-1989.
- m) Benjamin Franklin, (team-taught, interdisciplinary).
- n) Global History, AD500-AD1600.
- o) Global History, AD1600-AD2000.
- p) The Atomic Age: Bombs, Scientists, and Superpowers.
- q) The Atomic Bomb, (team-taught, interdisciplinary).
- r) The History of Science since Newton.
- s) Justice in the Western Tradition.
- t) The History of the Renaissance.
- u) United States Military History in the 20th Century.
- v) The History of Science in London.
- w) Frankenstein, (team-taught, interdisciplinary).

Senior Undergraduate (Honors) Seminar

- x) Galileo: Artist, Courtier, Scientist, Heretic?, 2006.
- y) Senior Seminar and Thesis for Humanities and Justice, 2013, 2015, 2016.
- z) Macaulay Honors Seminar: Science and Technology in New York City, 2014, 2015, 2016.
- aa) Senior Thesis for the Global History Major, 2016, 2020.

Graduate Seminars

- bb) How to Know about Knowing: Introduction to the History, Sociology, and Philosophy of Science, Medicine, and Technology. (CUNY Graduate College)
- cc) Understanding Scientific Instruments in Recent Science (Drexel University M.Sc.)
- dd) Core Seminar in the History of Science, Medicine, and Technology (London Center, M.Sc., 2006-2009)
- ee) Science, Technology and Medicine in the Twentieth Century (London Center, M.Sc., 2006-2009)

COLLEGE AND PROFESSIONAL SERVICE:

- 2018-2021: Chair, History Dept. John Jay College.
- 2022-23: Undergraduate Curriculum and Standards Committee
- 2022-23: History Department Curriculum Committee.
- 2015-16: Vice-President (elected) of the Faculty Senate, John Jay College.
- 2014-15: At-Large member (elected), Faculty Personnel Committee, John Jay College.
- 2013-16: Humanities and Justice Major Coordinator.
- 2013-16: Chair, Humanities and Justice Assessment Committee
- 2013-16: Chair, Humanities and Justice Curriculum Committee.
- 2013-15: Co-sponsor, Provost's taskforce on the Student Evaluation of the Faculty.
- 2014-15: Faculty advisor to Student Government.
- 2013-16: Office of Undergraduate Research, Advisory Board.

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2013-14: World Cultures and Global Issues Assessment Team.
2012-15: John Jay College representative to the CUNY Faculty Senate.
2010-14: History Departmental Representative on the John Jay College Senate and Council.
2012-13: John Jay Faculty Senate Poetry Selection Committee.
2012-13: History Department Curriculum Committee.
2011-15: History Department Assessment Committee.
2010-16: Humanities and Justice Committee (Chair 2013-16).
2010-12: John Jay College Sexual Harassment Policy committee.
2007-09: Core Course Convener for the London Center M.Sc.
2007-09: Chair of the syllabus sub-committee on the London Center M.Sc. Core Course.
1995-96: President of the Senior Common Room of The Women's College, University of Sydney.

Member of the Editorial Board:

Berichte zur Wissenschaftsgeschichte (2019 -).

Reviewer for:

Notes and Records of the Royal Society; Isis;
History and Philosophy of the Life Sciences; Technology & Culture;
Journal of the History of Biology; History and Technology.