

CURRICULUM VITAE



Jonas Jørgensen

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SHORT PROFILE

Jonas Jørgensen is Assistant Professor at the Center for Soft Robotics at the Biorobotics section of the University of Southern Denmark. Jonas was formally trained as a physicist (BSc) and an art historian (BA, MA) at Copenhagen University and Columbia University (New York). He received his PhD degree at the IT University of Copenhagen as a member of the Robotics Evolution and Art Lab (REAL).

Jonas' writings have appeared in peer-reviewed and popular outlets including edited volumes, artist monographs, exhibition catalogues, art pedagogical journals, and conference proceedings. He has given lectures, presented papers, and organized workshops related to his research on soft robotics and robotic art at a number of international conferences and festivals including MediaArtHistories, ICRA (International Conference on Robotics and Automation), HRI (ACM/IEEE International Conference on Human Robot Interaction), ISEA, Pixelache, MOCO (Movement Computing), Aesthetics of the Posthuman, and Politics of the Machines (EVA Copenhagen).

Jonas' collaborative art projects have been exhibited internationally at institutions including Chronus Art Center (Shanghai, China), Science Gallery Dublin, Forum Box (Helsinki, Finland), Kunsthal Grenland (Porsgrunn, Norway), and Nikolaj Kunsthal (Copenhagen, Denmark).

EDUCATION

PhD

IT University of Copenhagen, Dec. 2015-June 2019

Thesis: "Constructing Soft Robot Aesthetics: Art, Sensation, and Materiality in Practice"

Main supervisor: Laura Beloff, second supervisor: Gunhild Ravn Borggreen (Copenhagen University)

Thesis committee: prof. Kasper Støy (IT Univ. of Copenhagen) (chair), prof. Matthew Fuller (Goldsmiths Univ.), senior lecturer Petra Gemeinboeck (Univ. of New South Wales)

Excerpt of evaluation report:

The project makes clearly articulated and substantiated contributions to knowledge, in particular an arts-led, transdisciplinary methodology for exploring soft robot aesthetics and to enact a series of material encounters, situated at and co-constituting a nexus of artistic, theoretical and technical perspectives. ...

The standard of this thesis is outstanding and positions the thesis at the forefront of international research ... This is an exemplary practice-based PhD project and thesis, which sets out to investigate important and timely questions ... this is a strong PhD thesis that is ground-breaking and opens new areas of research and thereby goes beyond what is required for the award of the PhD degree.

MA, Art History

University of Copenhagen, graduated February 2012

Thesis advisor: Mikkel Bolt Rasmussen

Graduate Visiting Student

Columbia University, New York, January – June 2010

Coursework and seminars (MA and PhD level) under professors Rosalind Krauss, Keith Moxey, and Hamid Dabashi.

BA, Art History

University of Copenhagen, graduated June 2008

Thesis advisor: Mette Sandbye

B.Sc., Physics

University of Copenhagen, graduated September 2006

Thesis advisor: Eugene Polzik

Coursework (B.Sc. Engineering (electronics))

University of Southern Denmark, Aug. 2001 - June 2002

First year of the BSc program in electronics engineering completed.

ACADEMIC APPOINTMENTS

Assistant professor, Center for Soft Robotics, SDU Biorobotics, University of Southern Denmark, Odense, Sept. 2019-present

Visiting scholar, Centre for Cultural Studies, Goldsmiths University, London. Oct.-Nov. 2016
Hosted by prof. Matthew Fuller.

Assistant lecturer, IT University of Copenhagen (Culture & Games section), August-December 2015

Research assistant, IT University of Copenhagen (Culture & Games section), May-December 2015

PUBLICATIONS

Peer Reviewed Publications

1. Jørgensen, J., Bojesen, K.B., Jochum, E. “ Is a soft robot more ‘natural’? Challenging the perception of soft robotics in human-robot interaction”. Submitted to *International Journal of Social Robotics* (under review (May 15 2020)). 31 pages.
2. Bering, M.B., Jørgensen, J., Belling, E.A., Beloff, L. “Soft Robotics and Posthuman Entities”. Submitted to *JAR – Journal for Artistic Research* (under review (May 15 2020)). 9 media pages.
3. Jørgensen, J. “From Soft Sculpture to Soft Robotics: Retracing Entropic Aesthetics of the Life-like.” In Hava Aldouby (ed.): *Shifting Interfaces: An Anthology of Presence, Empathy, and Agency in 21st-Century Media Arts*, Leuven University Press, 2020. 20 pages.
4. Jørgensen, J. & Ploetz, S. ”LARPing Human-Robot Interaction.”. In *Proceedings of the workshop on Creative Content Generation for Social Robotics (HRI'20 conference)*. 5 pages.
5. Christiansen, M.B. & Jørgensen, J. “Augmenting Soft Robotics with Sound.” In *HRI '20: Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction*. New York, NY, USA: Association for Computing Machinery. 3 pages.
6. Christiansen, M.B. & Jørgensen, J. “SONO.” In *HRI '20: Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction*. New York, NY, USA: Association for Computing Machinery. 1 page (abstract).
7. Jørgensen, J. *Constructing Soft Robot Aesthetics. Art, Sensation, and Materiality in Practice*. PhD thesis. IT Univ. of Copenhagen. 2019. 219 pages.
8. Jørgensen, J. “Enacting the Soft Automaton: Empirical Ontologies and two Soft Robots from Media Art and Technical Research.” In *EVA Copenhagen 2018 - Politics of the Machines - Art and After, Aalborg University, Copenhagen, Denmark, 15 - 17 May 2018*. Electronic Workshops in Computing (eWiC), BCS (British Computer Society): The Chartered Institute for IT, UK, 9 pages.
9. *Veenstra, F., *Jørgensen, J., and Risi, S. (*: shared first authors). “Evolution of Fin Undulation on a Physical Knifefish-inspired Soft Robot.” In *GECCO '18: Genetic and Evolutionary Computation Conference, July 15–19, 2018, Kyoto, Japan*, Jennifer B. Sartor, Theo D’Hondt, and Wolfgang De Meuter (Eds.). ACM, New York, NY, USA, 8 pages.
10. Jørgensen, J. “Appeal and Perceived Naturalness of a Soft Robotic Tentacle.” In *Proceedings of the Companion of the 2018 ACM/IEEE International Conference on Human-Robot Interaction, Chicago, IL, USA, March 2018 (HRI'18)*. Association for Computing Machinery, p. 139-140. 2 pages.
11. Jørgensen, J. “Interaction with Soft Robotic Tentacles.” In *Proceedings of the Companion of the 2018 ACM/IEEE International Conference on Human-Robot Interaction, Chicago, IL, USA, March 2018 (HRI'18)*. Association for Computing Machinery, p. 38. 1 page (abstract)

12. Jørgensen, J. "Perceptions of a Soft Robotic Tentacle in Interaction." In *Proceedings of the Companion of the 2018 ACM/IEEE International Conference on Human-Robot Interaction, Chicago, IL, USA, March 2018 (HRI'18)*. Association for Computing Machinery, p. 377. 1 page (abstract).
13. Jørgensen, J. "Leveraging morphological computation for expressive movement generation in a soft robotic artwork." In *Proceedings of the 4th International Conference on Movement Computing (MOCO '17)*. New York, NY, USA: Association for Computing Machinery, p. 20:1-20:4. 4 pages.
14. Jørgensen, J. "Prolegomena for a Transdisciplinary Investigation Into the Materialities of Soft Systems." In *ISEA 2017 Manizales: Bio-Creation and Peace: Proceedings of the 23rd International Symposium on Electronic Art*. University of Caldas, 2017. 8 pages.
15. Beloff, L. & Jørgensen, J. "The Condition: Towards Hybrid Agency." In *ISEA 2016 Hong Kong CULTURAL R>EVOLUTION: Proceedings of the 22nd International Symposium on Electronic Art*. School of Creative Media, City University of Hong Kong, 2016. 6 pages.

Peer Reviewed Teaching Materials / Communication Articles / Art Criticism

1. Jørgensen, J. "Laser Cut Molds for PneuNet Bending Actuators" In: *Soft Robotics Toolkit*, 2018. Online: <https://softroboticstoolkit.com/laser-cut-molds>
2. Jørgensen, J. "Parametric Tool to Generate 3D Printable PneuNet Bending Actuator Molds" In: *Soft Robotics Toolkit*, 2018. Online: <https://softroboticstoolkit.com/parametric-tool-3d-printed-molds>
3. Jørgensen, J. "Mimetic Entanglement and Other Anthropocentric Myths in Ian Ingram's Next Animals." In Stina Marie Hasse Jørgensen and Ian Ingram (eds.): *Ian Ingram. Next Animals*. Copenhagen: Nikolaj Kunsthall, 2015. Online: <http://www.nikolajkunsthall.dk/>
4. Jørgensen, J. "Social praksis for robotter, dyr og mennesker" ["Social Practice for Robots, Animals, and Humans"], *KUNSTEN.NU*, January 13 2015, Online: <http://www.kunsten.nu/artikler/artikel.php?ian+ingram+next+animals+nikolaj+kunsthall>
5. Jørgensen, J. "Drømmer androider om elektriske malerier?: Om at bruge robotter i billedkunstundervisningen." ["Do Androids Dream of Electrical Paintings? On Using Robots in Fine Arts Teaching"] In *Tegn. Tidsskrift for kunst og design*, no. 2., 2014.
6. Jørgensen, J. "A book can tell a story, but can a piece of wood? (Im)material history and aestheticization in Ulrik Weck's *Found* series." In Ulrik Weck and Jonas Jørgensen (eds.), *Ulrik Weck. Found*. Revolver Publishing by Vice Versa, Berlin, 2011.
7. Jørgensen, J. "'In the right light, at the right time, everything is extraordinary' - Om æstetiseringstendensen og det hverdagslige." ["'In the right light, at the right time, everything is extraordinary' - On the Tendency Towards Aestheticization and Everyday Life."] In *Æstetiseringen af hverdagslivet*, publication from the Department of Arts and Cultural Studies, University of Copenhagen, 2010.

8. Jørgensen, J. “Process and presence.” In Troels Sandegård (ed.), *Troels Sandegård. The Traces*. Revolver Publishing by Vice Versa, Berlin, 2008.

CONTRIBUTED TALKS, WORKSHOP, DEMOS (PEER-REVIEWED)

- Jørgensen, J. “Enacting and Encountering Soft Robots.” Talk and workshop given at the Robot Art Forum, *International Conference on Robotics and Automation (ICRA) 2018*. Brisbane, Australia. May 24, 2018.
- Jørgensen, J. “Enacting the Soft Automaton.” Paper presentation at *Politics of the Machines – Art and After (EVA Copenhagen 2018)*. Copenhagen, Denmark. May 15-17, 2018.
- Jørgensen, J. “Appeal and Perceived Naturalness of a Soft Robotic Tentacle”. Poster presentation at *The 2018 ACM/IEEE International Conference on Human-Robot Interaction, (HRI'18)*. Chicago, USA. March 5-8, 2018.
- Jørgensen, J. “Interaction with Soft Robotic Tentacles.” Demonstration at *The 2018 ACM/IEEE International Conference on Human-Robot Interaction, (HRI'18)*. Chicago, USA. March 5-8, 2018.
- Jørgensen, J. “From Soft Sculpture to Soft Robotics: Retracing a Physical Aesthetics of Bio-Morphic Softness.” Paper presentation at *RE:TRACE – 7th International Conference for Histories of Media Art, Science and Technology*. Danube University Krems | Goettweig Abbey | Austrian Academy of Sciences, Vienna. Nov. 23-25, 2017.
- Jørgensen, J. “Leveraging morphological computation for expressive movement generation in a soft robotic artwork.” Paper presentation at *The 4th International Conference on Movement Computing (MOCO '17)*. Goldsmiths Univ., London. June 30, 2017.
- Jørgensen, J. “Prolegomena for a Transdisciplinary Investigation into the Materialities of Soft Systems.” Paper presentation at *the 23rd International Symposium on Electronic Art ISEA 2017 Manizales: Bio-Creation and Peace*. University of Caldas. May 20, 2017.
- Jørgensen, J. and F. Veenstra. “Soft Robotics Workshop: An Introduction to the Methodologies in Soft Robotics” (together with Frank Veenstra), *Pixelache - Festival for Electronic Art and Subcultures*, Helsinki, September 24-25, 2016.
- Beloff, L & Jørgensen, J. “The Condition: Towards Hybrid Agency.” Paper presentation at *ISEA 2016 Hong Kong CULTURAL R>EVOLUTION*. School of Creative Media, City University of Hong Kong. May 16-22, 2016.
- Jørgensen, J. “Doctor Maggoty is Anxious About the End of the Human Era.” Panel paper presentation at *Aesthetics, Ethics and Biopolitics of the Posthuman*, Århus University, Denmark. December 10-11, 2015.
- Jørgensen, J. “‘How to use the market to circulate a more interesting product’. Post-growth issues in the art of Tino Sehgal”. Paper presentation at *Organizing for the post-growth economy* conference, CBS (Copenhagen Business School), May 8-9, 2014.

INVITED TALKS

“Soft Robot Aesthetics”, NYU Shanghai (May 2020)

- Invited talk (virtual) on course “Extended Cognition” (by invitation from assoc. prof. Stavros Didakis, Interactive Media Arts master program).

“Soft Robot Aesthetics”, University of Southern Denmark (Feb. 7, 2020)

- Invited seminar talk under the SDU Biorobotics Seminar series.

“Soft Robotics Beyond Art and Technology”, Aalborg University (Sep. 20-21 2018)

- Invited lecture and two-day workshop under the *Art and Technology* BSc program

“Beyond Digital – Towards Biological”, Chronus Art Center, Shanghai (December 20-21, 2017).

- Invited panel talk as part of research residency

“Bløde robotter i forskning og kunst”, Vartov, Copenhagen (April 21, 2017).

- Invited talk on soft robotics, a soft robotic artwork, and select prototypes. Part of “Vartovs Videnskab” public talk series.

ART EXHIBITIONS

- “The Shape of Things to Come: Technology, AI and the Human”, AGUSI (Aoyama Gakuin University Singularity Institute), Tokyo, Japan, Nov. 16- Dec. 15 2019. Collaboration with Susan Ploetz.
- “Open Labs”, Science Gallery Dublin, March 15 – June 3 2019. Collaboration with Laura Beloff.
- “Beyond Digital – Towards Biological”, Chronus Art Center, Shanghai, China, 16 Dec 2017 - 21 Dec 2017. Collaboration with Stavros Didakis, Laura Beloff, Stig Anton Nielsen, and David Kadish.
- “Kulturnatten”, IT University of Copenhagen, Copenhagen, Oct. 13, 2017.
- “Vartovs Videnskab: Menneskekroppen 2.0”, Vartov, Copenhagen, April 21. 2017.
- “Hybrid Matters”, Forum Box, Helsinki, 25 Nov 2016 - 18 Dec 2016. Collaboration with Laura Beloff.
- “Hybrid Matters”, Kunsthal Nikolaj, Denmark, 20 May 2016 - 31 Jul 2016. Collaboration with Laura Beloff.
- “Hybrid Matters”, Kunsthall Grenland, Norway, 19 Mar 2016 - 7 May 2016. Collaboration with Laura Beloff.

GRANTS

- *Christian og Otilia Brorsons Rejselegat for yngre videnskabsmænd og -kvinder*. DKK 15.000 received to support visiting stay at Centre for Cultural Studies, Goldsmiths University of London, 2016.

HONORS AND AWARDS

- “The Condition” (artwork by Laura Beloff and I) was recommended for the *STARTS Prize 2018* (Grand prize of the European Commission honoring Innovation in Technology, Industry and Society stimulated by the Arts) by one of the award advisors (February, 2018).
- “Perceptions of a Soft Robotic Tentacle in Interaction” was shortlisted among the top three **best videos** of the **HRI’18** conference and featured on IEEE Spectrum Robotics Video Friday (March 10, 2018) and the Newsletter of the IEEE RAS Technical Committee on Soft Robotics.

TEACHING

Thesis supervision

- Troels Bregendahl-Rafn “A Soft Robotic Fish Using Adaptive Control” (MSc, co-supervisor), University of Southern Denmark (exp. graduated June 2020)
- Marlene Hammer Jeppesen “Adaptive neural CPG-based control for a soft robotic tentacle” (MSc, co-supervisor), University of Southern Denmark (exp. graduated June 2020)
- Mads Bering Christiansen “Soft Robotics and Posthuman Entities” (MSc, co-supervisor), IT University of Copenhagen (graduated 2018)
- Anne-Sofie Emilie Belling “An Exploration of Human/Nature Interrelationship through Ontological Design: A Sustainable Future?” (BSc, co-supervisor), IT University of Copenhagen (graduated 2018)
- Sofie Glerup Larsen ““Immersive Materials: a material exploration of the relationship between humans and the environment” (MSc, co-supervisor), IT University of Copenhagen (graduated 2016)

Courses

“Programming of Hardware and Robot Technology for Playing and Learning purposes”, Univ. of Southern Denmark, (Sept. 2019 - Jan. 2020)

- BSc level course
- Taught the course together with Jørgen Christian Larsen (half teaching time each) (34 students enrolled)

“Open Hardware / Open Machines”, IT University of Copenhagen and CATCH Centre for Art+Tech, (Spring 2018)

- PhD level course
- Co-organizer (with Majken Overgaard) of PhD course in connection with the *Politics of the Machines (EVA Copenhagen)* conference (5 students enrolled)

“How to Make (Almost) Anything”, IT University of Copenhagen, (Nov. 2017)

- MSc level course
- Two hour guest lecture on molding techniques / molding silicone.

“Creative Digital Practice”, IT University of Copenhagen, (Sep. 2017)

- MSc level course

- Three hour guest lecture on soft robotics and art

“Artificial Life & Evolutionary Robotics: Theory, Methods and Art”, IT University of Copenhagen, (Jan–June 2017)

- MSc level course
- Organized and taught lab part of the course every week together with Alberto Alvarez and supervised term projects (28 students enrolled)

“Digital Experience and Aesthetics”, IT University of Copenhagen, (August–December 2015)

- BSc level course
- Co-organized, lectured, and supervised students every week together with Susana Tosca Pajares (82 students enrolled).

CONFERENCE ORGANIZATION

Co-chair of “Robots in Art”-track, *Politics of the Machines – Art and After* (EVA-Copenhagen) (<http://www.eva-copenhagen.dk/>) (May 15-17, 2018).

Chair of panel on “Hybrid Growth” at Hybrid Matters Symposium (<https://symposium.hybridmatters.net/>), Helsinki, Finland (November 25, 2016).

PEER REVIEW EXPERIENCE

TEI 2020 (ACM International Conference on Tangible, Embedded and Embodied Interaction). Peer review of pictorial.

Politics of the Machines – Art and After (EVA-Copenhagen). Peer reviewer and coordinating review editor of submitted papers for the “Robots in Art” conference track (July-August, 2018).

HRI'18 - The 2018 ACM/IEEE International Conference on Human-Robot Interaction. Peer review of Late-breaking reports. (Feb. 2018).

Journal of Problem Based Learning in Higher Education (<https://journals.aau.dk/index.php/pbl>). Peer review of journal article (Oct. 2017).

MOCO'17 - the 4th International Conference on Movement Computing. Peer review of conference papers. April-May, 2017).

PARTICIPATION IN RESEARCH NETWORKS

2016- Member of **TRANSOR** (Research Network for Transdisciplinary Studies in Social Robotics), Aarhus University (<http://projects.au.dk/transor/>)

2014- Participant in **ROCA** (Robot Culture and Aesthetics) research network, Department of Arts and Cultural Studies, University of Copenhagen (<http://kunstogkulturvidenskab.ku.dk/roca>)

2014- Member of **DASTS** (Danish Association for Science and Technology Studies)

OTHER PROFESSIONAL EXPERIENCE

Consultant, Forlaget Permild & Rosengreen, Copenhagen, 2010 – 2012

- Consulting on art publications, grant applications and press texts.

Assistant, Galleri Christina Wilson, Copenhagen, 2006 – 2011

- Production of exhibitions featuring artists including Sophie Calle, Jesper Just, John Kørner, Kirstine Roepstorff, and FOS. Close collaboration with artists and art institutions on funding applications, project proposals, press and art critical texts.