

Mads Brath Jensen  
Assistant Professor  
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Section for Architecture and Urban Design  
Create Integrated Architecture  
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## Research profile

**Mads Brath Jensen** is an Assistant professor at the Department of Architecture, Design and Media Technology at Aalborg University in Denmark. In his PhD study (2017-2021), he investigated design methods and procedures for establishing a direct relation between creative design processes in the field architecture and interactive robotic fabrication, with emphasis on how cognitive design processes are influenced by interactive real-time human-material-robot processes. Mads received his MSc.Eng. in Digital Design from Aalborg University in 2008 and has been teaching in the field of computational architecture, parametric design and rapid prototyping technologies on both BSc and MSc level (2008-2017). This research-based teaching has resulted in a series of research pavilions showcasing the interconnection between computational form-finding, material behaviour, thermal- and acoustic simulation, and fabrication techniques.

## Work Experience

2022-:	Assistant Professor, Department of Architecture, Design and Media Technology, AAU
2021-2022	Lab Engineer, Department of Architecture, Design and Media Technology, AAU
2020-	Member of the research group Create Integrated Architecture (CiA)
2017-2021	PhD fellow, Department of Architecture, Design and Media Technology, AAU
2017-	Manager of the Architectural Robotics Lab., Department of Architecture, Design and Media Technology, AAU
2014-2020	Member of the research group for Tectonics in Architecture (TiA), Department of Architecture, Design and Media Technology, AAU
2013-2017	Lab Engineer, Department of Architecture, Design and Media Technology, AAU
2012-2020	Member and co-founder of the Utzon(x) Research Group, Department of Architecture, Design and Media Technology, AAU
2009-2011	Research Assistant, Department of Architecture, Design and Media Technology, AAU
2008-2009	Teaching Assistant, Department of Architecture, Design and Media Technology, AAU
2005-2008	MSc degree in Digital Design, Department of Architecture, Design and Media Technology, AAU
2002-2005	B.Sc. degree in Industrial Design, Department of Architecture, Design and Media Technology, AAU

## Publications

1. Jensen, MB & Foged, IW 2023, A Method for Integrating Complex Material Variation in Human-Robot Co-Creation Design Processes. in W Dokonal, U Hirschberg, G Wurzer & G Wurzer (eds), *Digital Design Reconsidered - Proceedings of the 41st Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe 2023)*. Education and research in Computer Aided Architectural Design in Europe, Proceedings of the International Conference on Education and Research in Computer Aided Architectural Design in Europe, vol. 1, pp. 821-830, 41st Conference on Education and Research in Computer Aided Architectural Design in Europe, eCAADe 2023, Graz, Austria, 20/09/2023. <https://doi.org/10.52842/conf.ecaade.2023.2.821>
2. Jensen, MB 2021, 'Co-creative Robotic Design Processes in Architecture'. <https://doi.org/10.54337/aa455012519>
3. Jensen, MB, Foged, IW & Andersen, HJ 2020, 'A Framework for Interactive Human-Robot Design Exploration', *International Journal of Architectural Computing*, vol. 18, no. 3, pp. 235-253. <https://doi.org/10.1177/1478077120911588>
4. Jensen, MB & Das, A 2020, Technologies and Techniques for Collaborative Robotics in Architecture: establishing a framework for human-robotic design exploration. in *RE: Anthropocene. Design in the Age of Humans: Proceedings of the 25th International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA) 2020*. vol. 2, Chulalongkorn University, Thailand, Bangkok, pp. 292-303, 25th International Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA) 2020, Bangkok, Thailand, 05/08/2020. <[http://papers.cumincad.org/cgi-bin/works/paper/caadria2020\\_180](http://papers.cumincad.org/cgi-bin/works/paper/caadria2020_180)>

5. Jensen, MB 2019, 'Robotic Fabrication of Acoustic Geometries: an explorative and creative design process within an educational context', *archi-DOCT - The e-journal for the dissemination of doctoral research in architecture*, vol. 6, no. 2, pp. 34-45.  
<[http://www.enhsa.net/archidoct/Issues/vol6\\_iss2/ArchiDoct\\_vol6\\_iss2%2002%20Robotic%20Fabrication%20Brath.pdf](http://www.enhsa.net/archidoct/Issues/vol6_iss2/ArchiDoct_vol6_iss2%2002%20Robotic%20Fabrication%20Brath.pdf)>
6. Jensen, MB & Foged, IW, *Thermal Tower 2018*, 2018, 2D/3D (Physical product).
7. Jensen, MB & Foged, IW, *Acoustic Wall*, 2018, 2D/3D (Physical product).
8. Jensen, MB, Foged, IW, Pasold, A & Hansson, M 2018, 'Creative Robotics in Architecture – Robotic Brick Stacking', Seventh Annual Aalborg U Robotics, Aalborg, Denmark, 03/12/2018 - 03/12/2018 pp. 25.
9. Jensen, MB & Foged, IW, *Thermal Tower 2018*, 2018, Sound/Visual production (digital).  
<<https://vimeo.com/287128211>>
10. Jensen, MB & Foged, IW 2014, Cellular Automata as a learning process in Architecture and Urban design. in E Mine Thompson (ed.), *Fusion - Proceedings of the 32nd eCAADe Conference*. vol. 1, eCAADe, Newcastle upon Tyne, England, UK, pp. 297-302, eCAADe 14, Newcastle, United Kingdom, 10/09/2014.  
<[http://cumincad.scix.net/cgi-bin/works/Show?\\_id=ecaade2014\\_191&sort=DEFAULT&search=mads%20brath&hits=5](http://cumincad.scix.net/cgi-bin/works/Show?_id=ecaade2014_191&sort=DEFAULT&search=mads%20brath&hits=5)>
11. Jensen, MB, Kirkegaard, PH & Holst, MK 2010, A Morphogenetic Design Approach with Embedded Structural Analysis. in *Proceedings of International Symposium of the International Association for Shell and Spatial Structures (IASS) : Spatial Structures - temporary and permanent: Shanghai, China, November 8-12 2010*. China Architecture & Building Press, Shanghai, pp. 1110-1120, International Symposium of the International Association for Shell and Spatial Structures : IASS 2010, Shanghai, China, 08/11/2010.
12. Jensen, MB, Kirkegaard, PH & Holst, MK 2010, A Morphogenetic Design Approach with Embedded Structural Analysis. in *Proceedings of International Symposium of the International Association for Shell and Spatial Structures (IASS) : Spatial Structures - temporary and permanent: Shanghai, China, November 8-12 2010*. China Architecture & Building Press, Shanghai, International Symposium of the International Association for Shell and Spatial Structures : IASS 2010, Shanghai, China, 08/11/2010.
13. Jensen, MB, Mortensen, HR, Mullins, M & Kirkegaard, PH 2009, Material Systems: a design approach. in G Çağda & B Çolakoğlu (eds), *eCAADe2009 : Computation : the new realm of architectural design: 27th eCAADe Conference, september 16-19, 2009, Istanbul, Turkey*. eCAADe, Education and Research in Computer Aided Architectural in Europe, eCAADe, Istanbul, Turkey, 16/09/2009. <[https://www.scopus.com/record/display.uri?eid=2-s2.0-85128363667&origin=inward&txGid=97cba9e34a752a81a6bb85407f0245df&featureToggles=FEATURE\\_NEW\\_DOC\\_DETAILS\\_EXPORT:1,FEATURE\\_EXPORT\\_REDESIGN:0](https://www.scopus.com/record/display.uri?eid=2-s2.0-85128363667&origin=inward&txGid=97cba9e34a752a81a6bb85407f0245df&featureToggles=FEATURE_NEW_DOC_DETAILS_EXPORT:1,FEATURE_EXPORT_REDESIGN:0)>
14. Jensen, MB, Mortensen, HR, Mullins, M & Kirkegaard, PH 2009, Material Systems: A Design Approach. in *Computation : The New Realm of Architectural Design: 27th eCAADe Conference Proceedings*. eCAADe, Education and Research in Computer Aided Architectural in Europe, eCAADe 2009, Istanbul, Turkey, 16/09/2009.
15. Jensen, MB, Mortensen, HR, Mullins, M & Kirkegaard, PH 2009, Material Systems A Design Approach. in G Çağdas & B Çolakoglu (eds), *Computation: The New Realm of Architectural Design*. Education and research in Computer Aided Architectural Design in Europe, Proceedings of the International Conference on Education and Research in Computer Aided Architectural Design in Europe, pp. 721-728, 27th Conference on Education and Research in Computer Aided Architectural Design in Europe, eCAADe 2009, Istanbul, Turkey, 16/09/2009.

## Projects

### Creative Robotics in Architecture

Worre Foged, I. (PI), Jensen, M. B. (PI) & Das, A. (Col)  
Bolidfonden Kuben  
01/10/2018 → 01/04/2022

### Utzon(x) Research-by-design

Andersson, L. (Project Participant), Worre Foged, I. (Project Participant), Kirkegaard, P. H. (Project Participant), Jensen, M. B. (Project Participant), Parigi, D. (Project Participant), Bosia, D. (Project Participant) & Juel Thiis, L. (Project Participant)  
Det Obelske Familiefond  
01/01/2013 → 31/12/2020

### Acoustic Tectonics Studio 2019

Worre Foged, I. (PI) & Jensen, M. B. (PI)  
04/02/2019 → 26/02/2019

**Whispering Wall**

Worre Foged, I. (PI), Jensen, M. B. (PI) & Pasold, A. (Project Manager)  
01/05/2018 → 30/11/2018

**Thermal Tower 2017-18**

Jensen, M. B. (PI) & Worre Foged, I. (PI)  
01/07/2017 → 31/07/2018

**Utzon(x) Research Pavilion 2017-18**

Worre Foged, I. (Project Participant) & Jensen, M. B. (PI)  
19/08/2017 → 01/06/2018

**Acoustic Tectonics Studio 2018**

Worre Foged, I. (PI) & Jensen, M. B. (PI)  
05/02/2018 → 28/02/2018

**Acoustic Tectonics Studio 2016**

Worre Foged, I. (Project Coordinator) & Jensen, M. B. (Project Coordinator)  
05/08/2016 → 23/08/2016

**Acoustic Tectonics Studio 2015**

Worre Foged, I. (Project Coordinator) & Jensen, M. B. (Project Coordinator)  
03/08/2015 → 24/08/2015

**Parametric Urbanism Studio 2014**

Jensen, M. B. (Project Coordinator)  
02/06/2014 → 30/06/2014

**Aero Architectural Studio 2013**

Worre Foged, I. (Project Coordinator) & Jensen, M. B. (Project Coordinator)  
01/03/2013 → 20/03/2013

**Acoustic Pavilion 2012**

Worre Foged, I. (Project Participant), Pasold, A. (Project Participant) & Jensen, M. B. (Project Participant)  
01/03/2012 → 01/11/2012

**Parametric Urbanism Studio 2012**

Worre Foged, I. (Project Coordinator) & Jensen, M. B. (Project Coordinator)  
16/02/2012 → 09/03/2012

**AP: Acoustic Pavilion**

Worre Foged, I. (Project Participant), Pasold, A. (Project Participant), Jensen, M. B. (Project Participant) & Skouboe, E. B. (Project Participant)  
01/02/2011 → 01/09/2011

**Aero Architectural Studio 2011**

Worre Foged, I. (Project Coordinator) & Jensen, M. B. (Project Coordinator)  
01/02/2011 → 09/03/2011