

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Julia Coolen
Student number	4717406

Studio		
Name / Theme	Explore Lab	
Main mentor	Leontine de Wit	Architecture: Interiors Buildings Cities
Second mentor	[Appointed before P2 by studio coordinator]	[Academic field involved]
Argumentation of choice of the studio	The deaf and hard-of-hearing live in world that, from an architectural standpoint, is designed for hearing people. Which causes a set of challenges and problems. I want to address and help fix these challenges and problems, looking specifically at deaf schools. Within Explore Lab I get the space, opportunity and freedom to do so.	

Graduation project	
Title of the graduation project	Designing deaf schools
Goal	
Location:	Apeldoorn, Netherlands
The posed problem,	<p>The deaf and hard-of-hearing live in world that, from an architectural standpoint, is designed for hearing people. Which causes a set of challenges for the deaf and hard-of-hearing: uneven pavements, unexpected, narrow hallways, poor lighting and glares to name only a few of these challenges.</p> <p>These problems have major effects at schools for the deaf and hard-of-hearing. These schools are mainly located in buildings that happened to be empty or</p>

	that already had an educational function anyway. These buildings have never been specifically designed for the deaf and hard-of-hearing, which causes a problem. If a school for deaf and hard-of-hearing students was never designed for them, how can these buildings reflect and be good for them?
research questions and	<p>Main question: How to design an appropriate school for the deaf and hard-of-hearing?</p> <p>Sub questions:</p> <ol style="list-style-type: none"> 1. What are the problems deaf and hard-of-hearing people can encounter in daily live? 2. What are ingredients for a PvE that can be abstracted from good and bad examples of schools for the deaf and hard-of-hearing? 3. How to translate social and behaviour requirements into design guidelines?
design assignment in which these result.	Designing a deaf school
Process	
Method description	
To answer all the research questions different methods will be used. For the first two sub questions fieldwork will be done at Dutch schools for the deaf and hard-of-hearing by means of observations, interviews and mapping. Next to this a literature study on the deaf community and Gallaudet University and its principles of DeafSpace will take place. This will all lead to the method for the third sub question: a pattern language.	

Literature and general practical preference

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Bahan, B. (2014). Senses and Culture: Exploring Sensory Orientations. In *Deaf Gain: Raising The Stakes For Human Diversity* (pp. 233–254). University of Minnesota Press.

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Cawthon, S. W. (2004). Schools for the Deaf and the No Child Left Behind Act. *American Annals of the Deaf*, 149(4), 314–323. <http://www.jstor.org/stable/26234678>

Edwards, C., & Harold, G. (2014). DeafSpace and the principles of universal design. *Disability and Rehabilitation*, 36(16), 1350–1359. <https://doi.org/10.3109/09638288.2014.913710>

Gaudiot, D. M. S. F., & Martins, L. B. (2018). The Classroom Built Environment as an Inclusive Learning Process for the Deaf Pupils: Contribution of Ergonomics in

Design. *Advances in Ergonomics in Design*, 531–540. https://doi.org/10.1007/978-3-319-94706-8_56

Harahap, R. M., Santoso, I., Wahjudi, D., & Martokusumo, W. (2020). Study of interiority application in deaf space based lecture space: Case study: the Center of Art, Design & Language in ITB building. *Journal of accessibility and design for all: JACCES*, 10(2), 229-261.

Holmes, J. A. (2017). Expert listening beyond the limits of hearing: Music and deafness. *Journal of the American Musicological Society*, 70(1), 171-220.

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Johnson, C. A. (2010). *Articulation of Deaf and Hearing Spaces Using Deaf Space Design Guidelines: A Community Based Participatory Research with the Albuquerque Sign Language Academy*. University of New Mexico UNM Digital Repository.

Napoli, D. J. (2014). A Magic Touch: Deaf Gain and the benefits of tactile sensation. In *Deaf Gain: Raising The Stakes For Human Diversity* (pp. 211–232). University of Minnesota Press.

Padden, C., & Humphries, T. (2006). *Inside Deaf Culture*. First Harvard University Press.

Shaver, D. M., Marschark, M., Newman, L., & Marder, C. (2013). Who Is Where? Characteristics of Deaf and Hard-of-Hearing Pupils in Regular and Special Schools.

Journal of Deaf Studies and Deaf Education, 19(2), 203–219.

<https://doi.org/10.1093/deafed/ent056>

Stebnicki, J. A. M., & Coeling, H. V. (1999). The Culture of the Deaf. Journal of

Transcultural Nursing, 10(4), 350–357.

<https://doi.org/10.1177/104365969901000413>

Reflection

My graduation work is of relevance in the larger social, professional and scientific framework: it addresses the problems the deaf and hard-of-hearing face in the built environment, which are relatively unknown to hearing people, and gives solutions on how to address and help fix them. Thus creating a better built environment for the deaf and hard-of-hearing, which ultimately will result in a built environment that is more inclusive.