Maximilienne Whitby

People and Place Research Cluster Talk 2018

Design for Neurodiversity

Inclusive Design

Accessible Design

Universal Design

Environmental Psychology

Behavioural Psychology

Building Analysis (POEs)

Mental Disability

Neurodevelopmental Disability

Neuroscience

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Overview of Existing Work

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Making Space

2016 Project investigating barriers and spatial needs to use of public buildings for users with lived experiences of Autism Spectrum Disorder (ASD) and Borderline Personality Disorder (BPD) during Sensory Overload (ASD) and Dissociation (BPD).

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Cambridge Workshop on Universal Access and Assistive Technology (CWUAAT18)

Breaking down barriers between disciplines

Breaking down barriers between users, designers and developers

Removing barriers to usability, accessibility and inclusive design

Breaking down barriers between people with impairments and those without

Breaking down barriers between scientists and policy makers

Removing barriers to open data and open government

Recent barriers to effective rehabilitation robotics

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Composite Mapping
for Evaluation of Usability
of Targeted Affordances

The development and use of a composite mapping methodology within the Sydney Opera House sought a greater understanding of potential barriers to use of targeted affordances for public building users with lived experiences of Autism Spectrum Disorder (ASD) and Borderline Personality Disorder (BPD).

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Behavioural Mapping

+

Environmental Psychology Theory

=

Map to measure how usable the case study locations are

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Why does usability matter?

*and also, why is it hard to measure?

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How does the behaviour of other people impact how usable a building is for users with ASD or BPD?

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Public
Semi Public
Pseudo Private
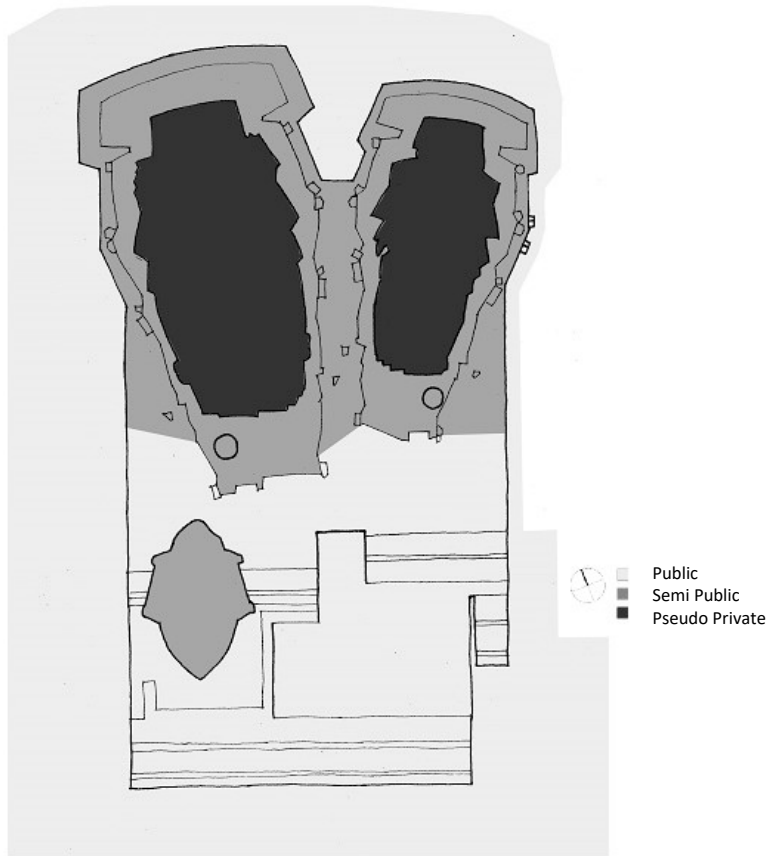
Hierarchy gradient of publicness territorial zones: podium level Sydney Opera House

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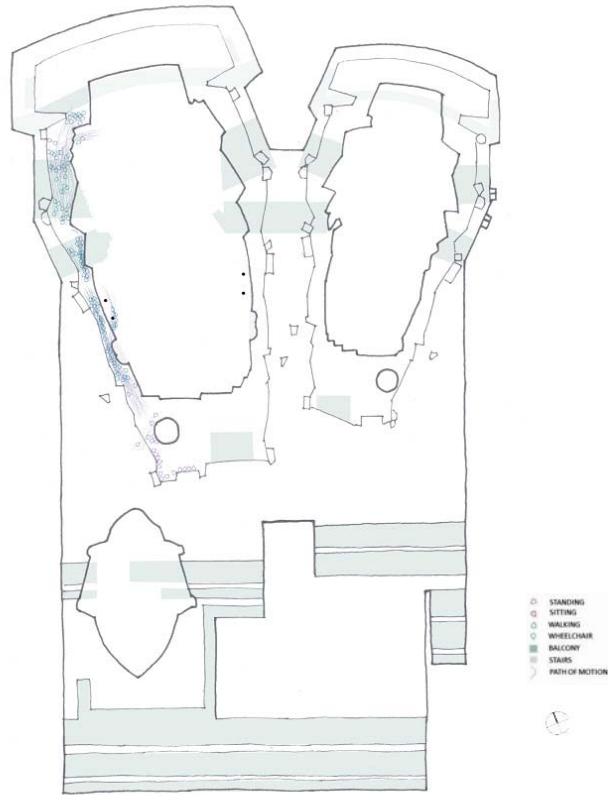
Observational behavioural mapping pre matinee Sydney Opera House

STANDING
SITTING
WALKING
WHEELCHAIR
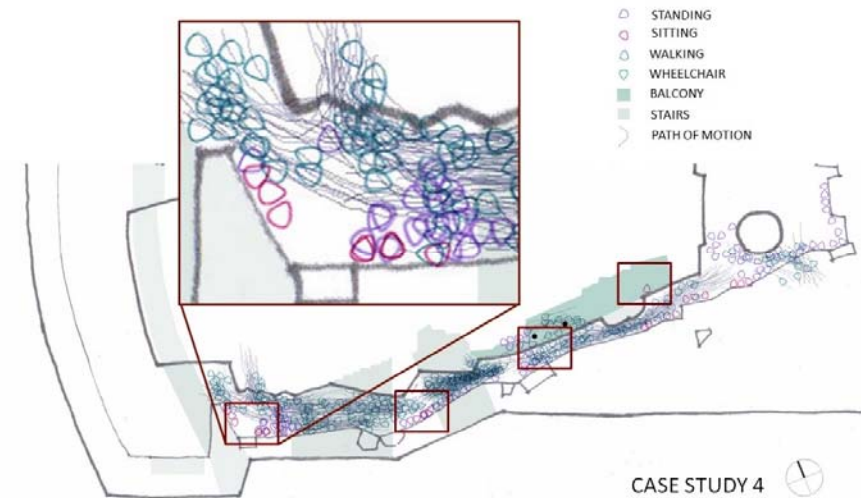BALCONY
STAIRS
PATH OF MOTION

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Composite mapping
matinee
Sydney Opera House

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Case study location 4

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Where can I find the wider results of the project?

Whitby M (2017b) Scoping of Shared Spatial Needs. Journal of Urban Design and Mental Health. Centre for Urban Design and Mental Health

Whitby M (2018) Composite Mapping for Evaluation of Usability of Targeted Affordances, Proceedings of the 9th Cambridge Workshop on Universal Access and Assistive Technologies, Springer, and Fitzwilliam College, University of Cambridge, Cambridge, United Kingdom

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PhD Overview

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Towards Design for Neurodiversity:

Person Environment Fit Implications of Atypical Somatosensory Function in Neurodiverse Adults.

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Overview

Mixed Methodology

Systematic Literature Review

Spatial Precedent Studies

Semi Structured Interviews

Surveys

Card Sort

Object Sort

Key Words

Neurodiverse

Person-Environment Fit

Somatosensory

Inclusive Design

Knowledge Exchange

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Participants

- 45% of all Australians will experience a mental or behavioural condition in their lifetime. (Australian Bureau of Statistics, 2010)

- 17.5 % of Australians experience mental or behavioural conditions at any one point in time. That is over 4 million people right now. (Australian Bureau of Statistics, 2015)

- 14.4% of Adults in Australia have an Anxiety Disorder (Australian Bureau of Statistics, 2008)

- 5.4 % of Australian Adults currently have some type of Depression (Australian Bureau of Statistics, 2008)

- 1.8% of Adult Australians have a diagnosis of a Bipolar Disorder Australian Bureau of Statistics, 2008)

- Between 1-3.5% of Australians over the age of 18 have Borderline Personality Disorder (Australian Government National Health and Medical Research Council, 2012)

- Between 0.7% and 2% of Australians have Autism Spectrum Disorder (Australian Bureau of Statistics, 2017)

Methodology Overview

Systematic Search	Spatial Precedent Scouting	Semi Structured Interviews • Surveys • Card Sort • Object Sort
Phase 1	**Phase 2**	**Phase 3**

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