



Autism@UL Special Interest Group (SIG) webinar series

Autism and the City

Keith McAllister, RIBA

November 9th

1pm-2pm

Email: ulautismsig@ul.ie

Website: <https://ulautismsig.ul.ie/>



Limerick

09.11.22



Autism & The City

context ...

Why have I an interest
in ASC & the Built
Environment?



I am a RIBA
Chartered Architect



I teach at Queen's
University Belfast

and best of all



a father....

of (a wonderful !) son and daughter:

the son whom from the age of 3 has had a diagnosis of ASC, so finds the world a confusing and frightening place....

but who therefore....

has a very critical eye....







*'Daddy (for me) –
the water whispers*

.....but the walls shout.'

HAVING A 'CRITICAL EYE'



Consider :

*Might those with ASC or sensory sensitivity have a critical eye that we can learn from?
Those with difficulty in expressing themselves often have much to say.
This need not only be verbal communication – but can be by their actions and behaviour.
As professionals, we need to develop the skills to observe, listen and learn from others.*

Autism Spectrum Condition (ASC)

Lifelong complex developmental disorder

Characterised by triad of qualitative impairments.
(Wing & Gould, 1979)

**SOCIAL
COMMUNICATION**

**SOCIAL
INTERACTION**

**SOCIAL
IMAGINATION**

The range of the spectrum is such that while some may be able to live relatively independently, others will require lifelong continuous support.

Autism Spectrum Condition (ASC)

Also - sufferers often struggle with sensory sensitivity

This can be to visual, auditory, tactile, proprioceptive, gustatory & olfactory stimuli.

(Hinder 2004)

thereforethe Built Environment can impact markedly upon those with ASC



Autism Spectrum Condition (ASC)

The range of the spectrum is such that while some sufferers may be able to live relatively independently, others will require lifelong continuous support.

Autism Spectrum Condition (ASC)

INCIDENCE

Worldwide – varies : 1 in 300 to 1 in 100.

UK National Autism Society – about 1% of population

In Northern Ireland – 4.5% * of pupils between ages of 5 and 16 years old.

**2021 Department of Health Figures*



GUIDELINES

Currently in UK & Republic of Ireland there are no specific guidelines for ASC

Guidelines tend to be very general and in less detail than other learning difficulties and special needs.

Autism Spectrum Disorder (ASC) + Architecture

GUIDELINES – BB102 (*now superseded*)

Very detailed 194-page book.

Simple layout: calm, ordered, low stimulus spaces, no confusing large spaces;
indirect lighting, no glare, subdued colours;
good acoustics, avoid sudden / background noise;
robust materials, tamper-proof elements and concealed services;
possibly H&S risk assessments;
safe indoor and outdoor spaces for withdrawal and to calm down.

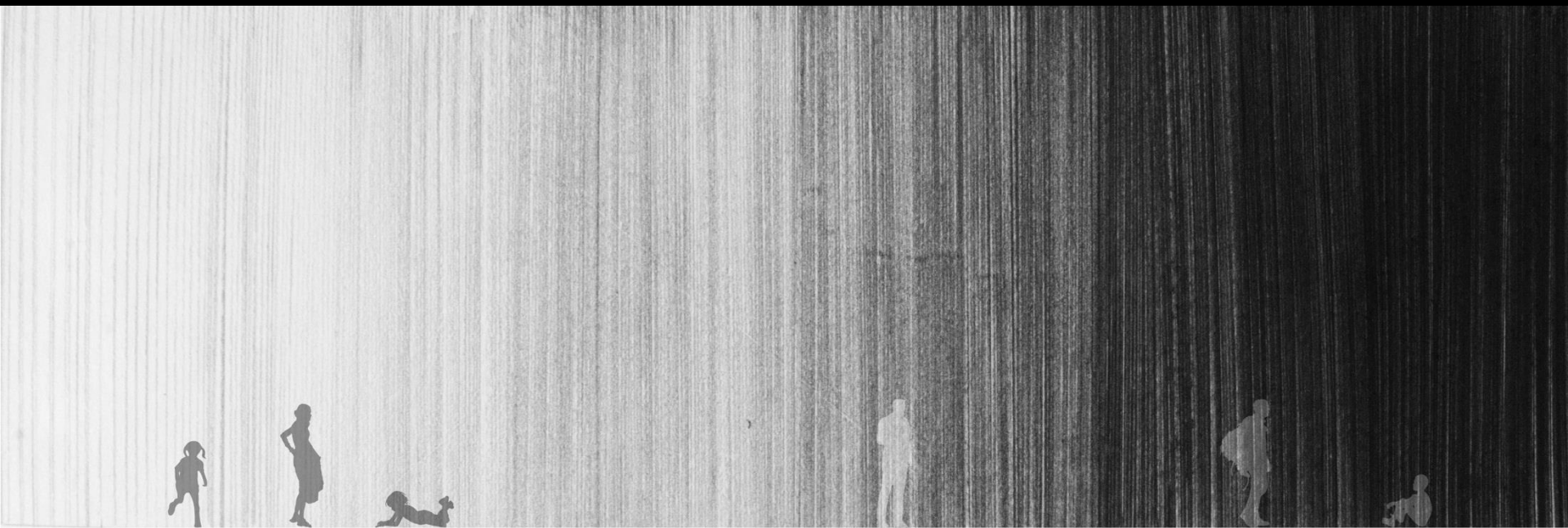


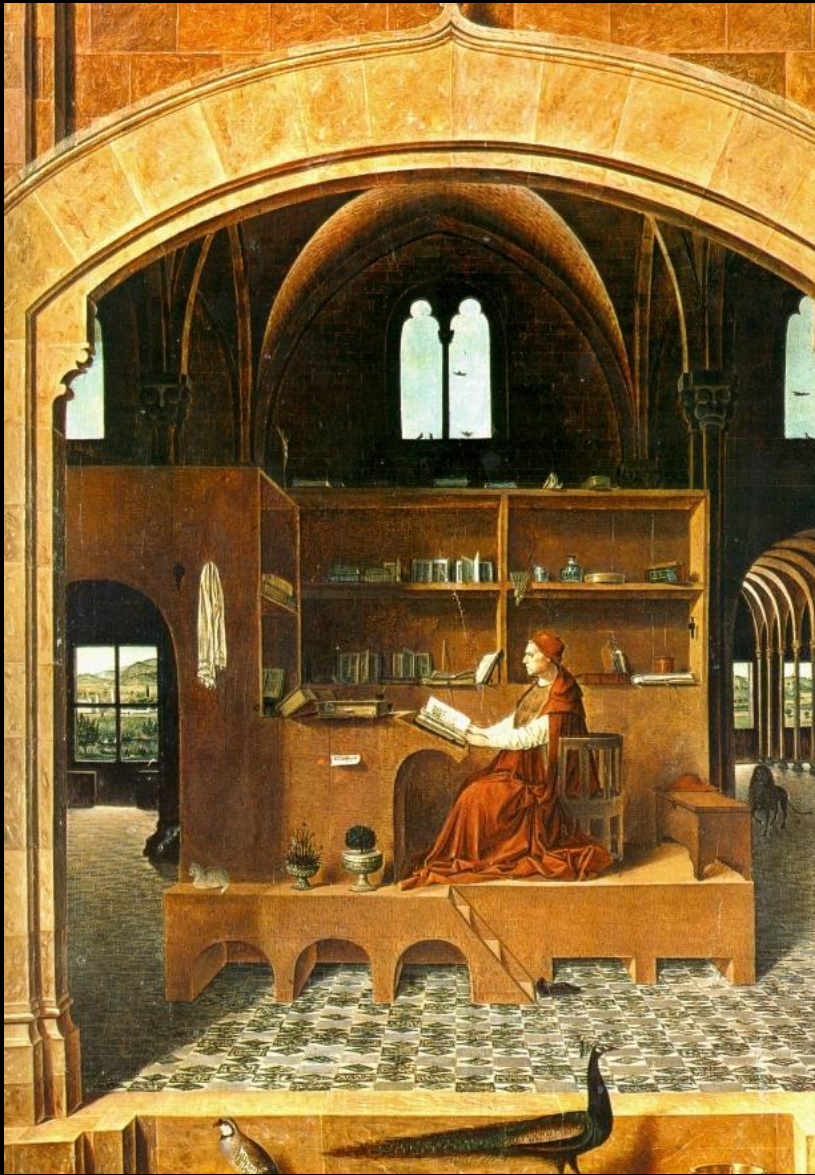
Julia on Sesame Street

Autism Spectrum Condition (ASC) + Architecture

AN ALTERNATIVE (ARCHITECTURAL?) PERSPECTIVE...

remembering that any successful intervention ...
will need a social & spatial perspective





Antonello De Messina St. Jerome In His Study 1475

In effect....the ideal of...

'Providing an environment where one can feel the 'pleasure and protection when the body discovers its resonance in space.'

(Juhani Pallasmaa, *Eyes of The Skin*, 1996)

The reality is unfortunately often far removed from this Ideal.

instead...



La Petit Tour De Babel, Pieter Brugel, c. 1563

Difficulty
Confusion
Threat
Fear
Isolation



Alice in Wonderland, Dir. Tim Burton, 2010

The Built Environment

A place of wonderment...

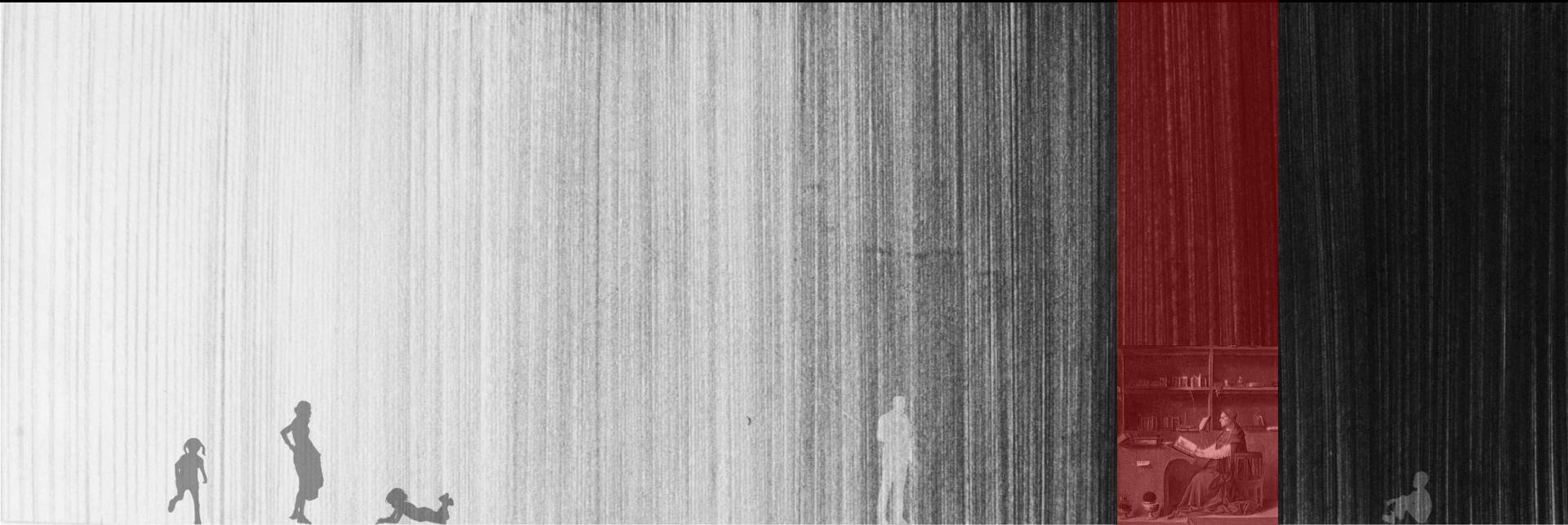
or

a place of dread?

Consider :

Might the spectrum be thought of as an inhabited landscape in which people seek to find their place of comfort?

Our challenge then would be to provide the opportunities to find that place of comfort in our Built Environment for all.







Cinema ...



Theatres ...



Supermarkets ...



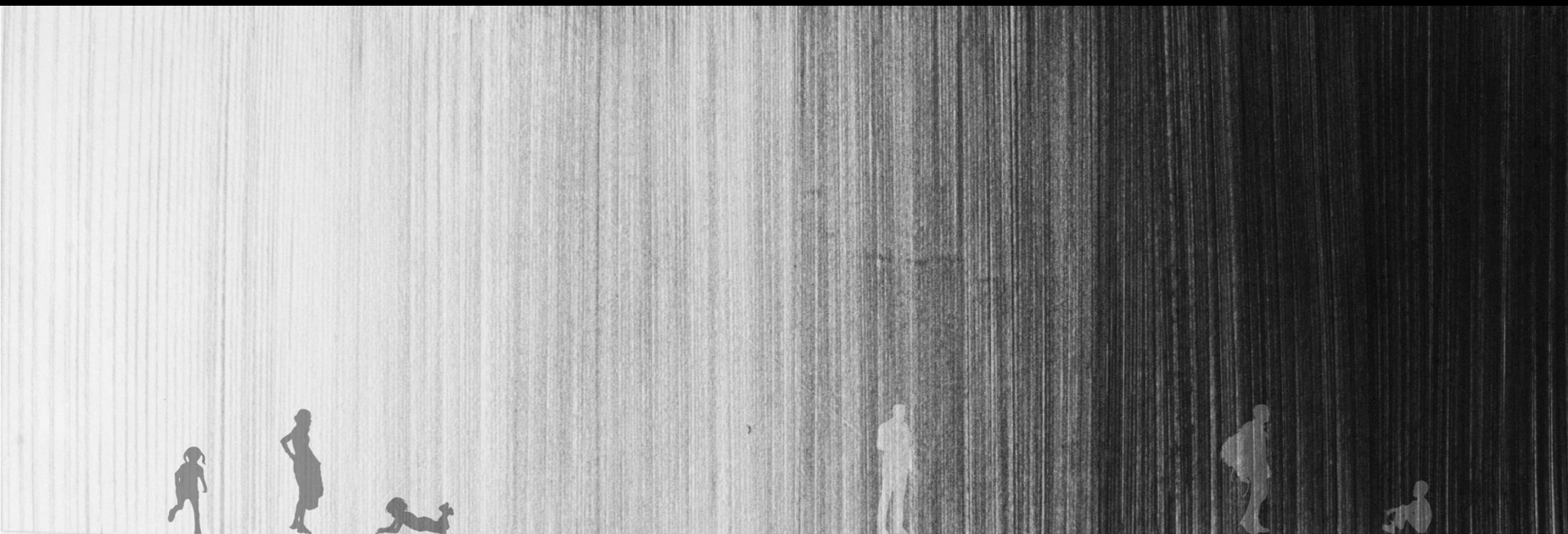
Transfer to the city...

Autism Spectrum Condition (ASC)

& Architecture

....an alternative perspective?

(because 'autism – friendly is an attitude not an aspiration!)

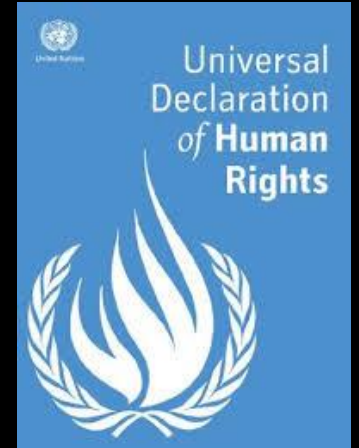


Why is this important?



WHY? 01

A. Equality



+ Article 9 of the
UN Convention
on the Rights of
Persons with
Disability

WHY? 02



Alone + 2getehr
Specialisterne NI & Peter Vermuelen (BEL)

WHY? 02

A. It is what those with autism want



Alone + 2getehr
Specialisterne NI & Peter Vermuelen

WHY? 02

A. It is what those with autism want



Elaine, *My Safe Place 2*, (2010)

Consider Lockdown !!!

A. It is what those with autism want

Lockdown Is Nothing New For Disabled People





Karolinska
Institutet

Tatja Hirvikoski

WHY? 03

A. It impacts markedly upon wellbeing

2,700,000

NEUROTYPICAL ADULTS SURVEYED

27,000

ASC ADULTS SURVEYED



Karolinska
Institutet

Tatja Hirvikoski

WHY? 03

A. It impacts markedly upon wellbeing

16 years

WHY? 04

A. It impacts upon their learning

'There are three teachers of children:

adults,

other children

and....

their physical environment.'

Loris Malaguzzi (1920-1994)



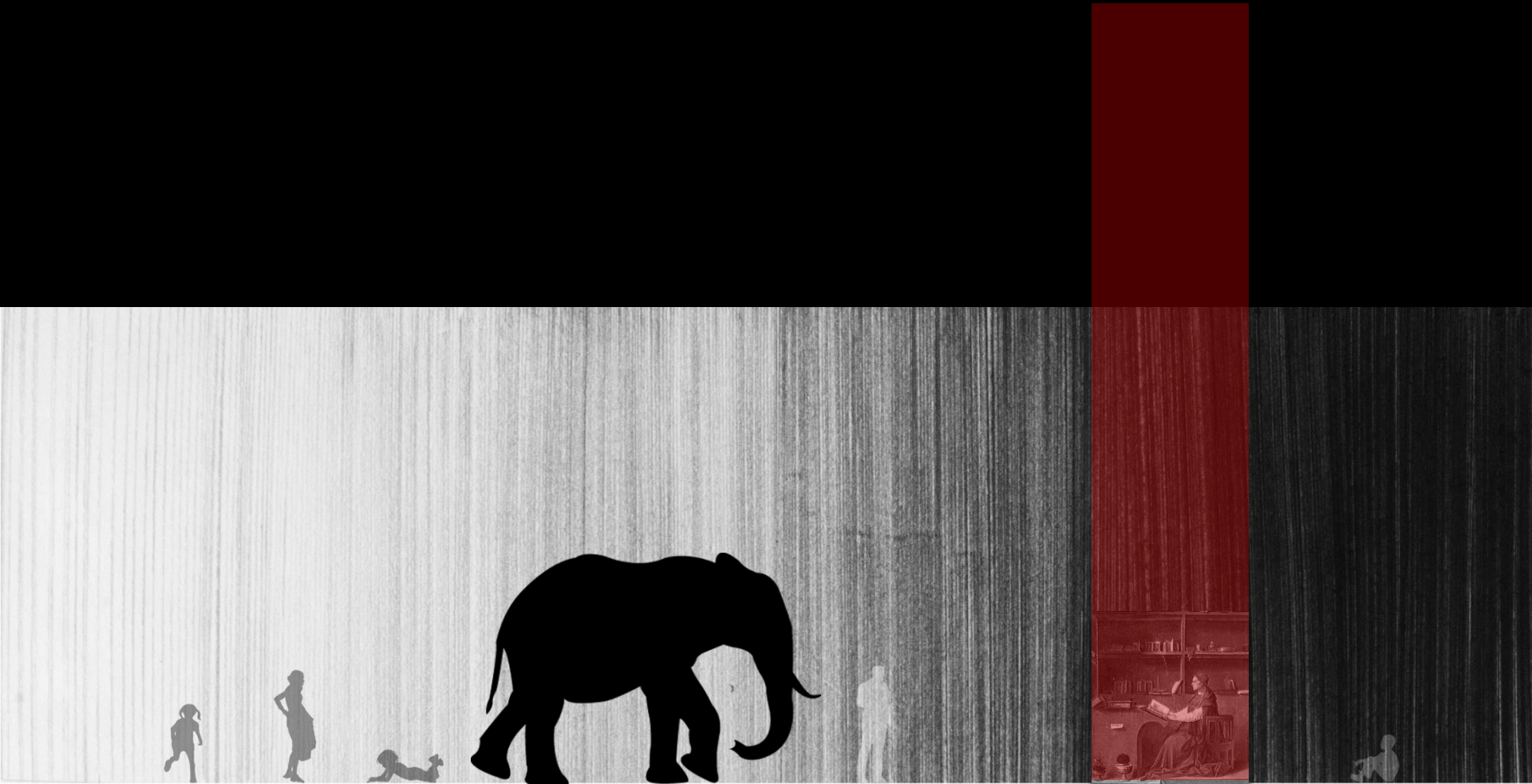
Les Quatre Cents Coups, Dir. François Truffaut, 1959

WHY? 05

A. Everyone benefits



There is of course the elephant in the room...

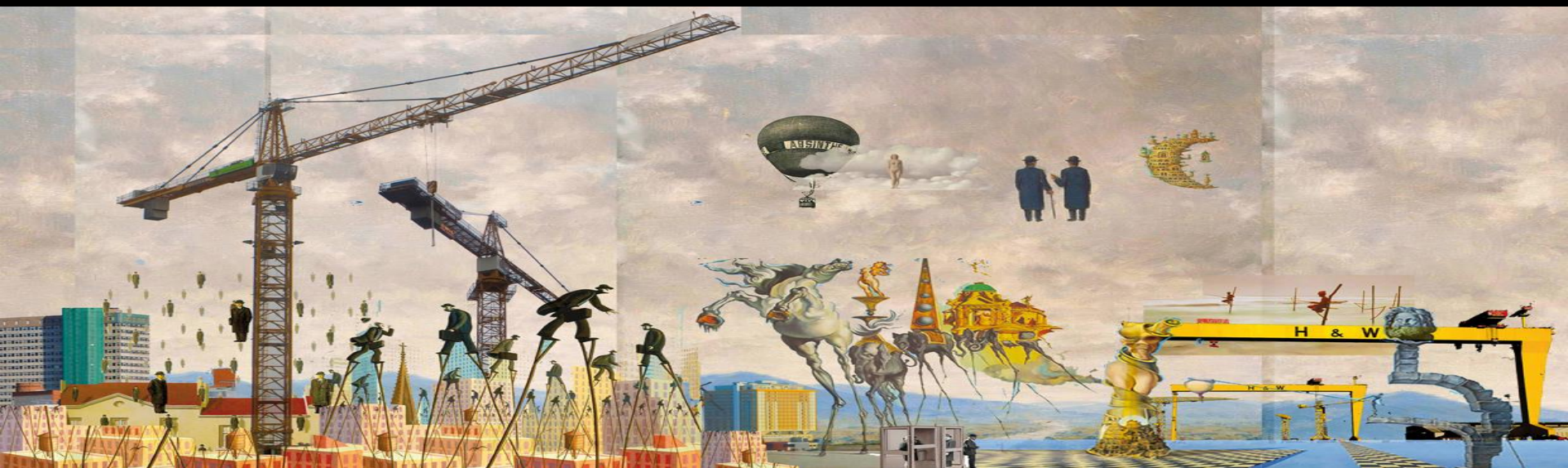


Phil Li & Keith McAllister, *The Spectrum*. (2011)



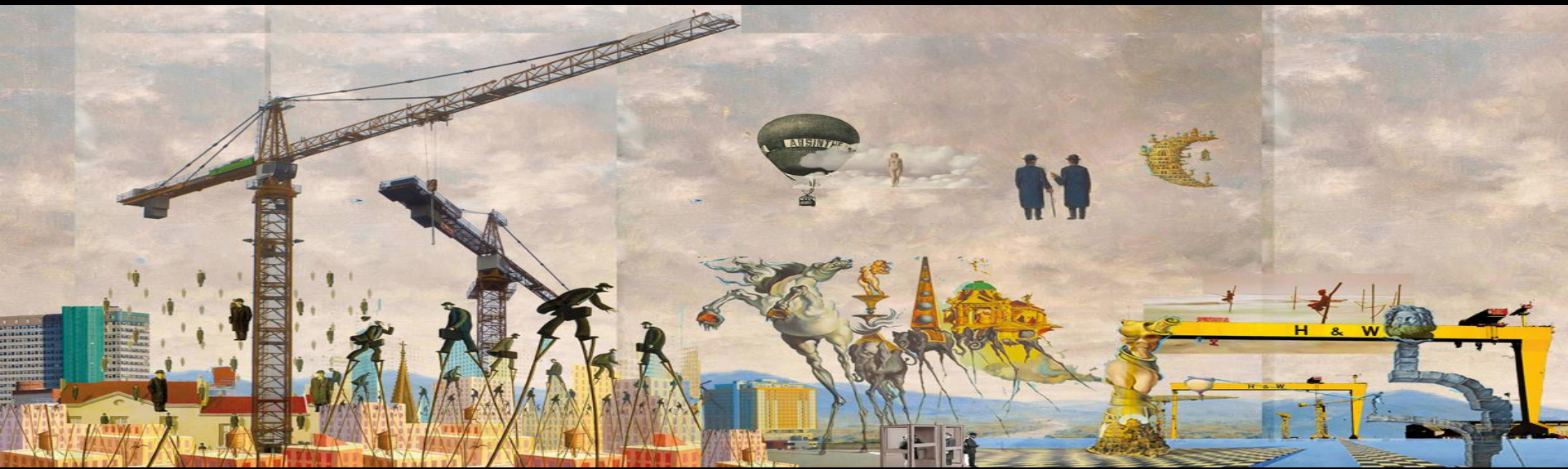
The Ideal City, Della Francesca. (c. 1470)

'I confront the city with my body...'
Juhani Pallasmaa



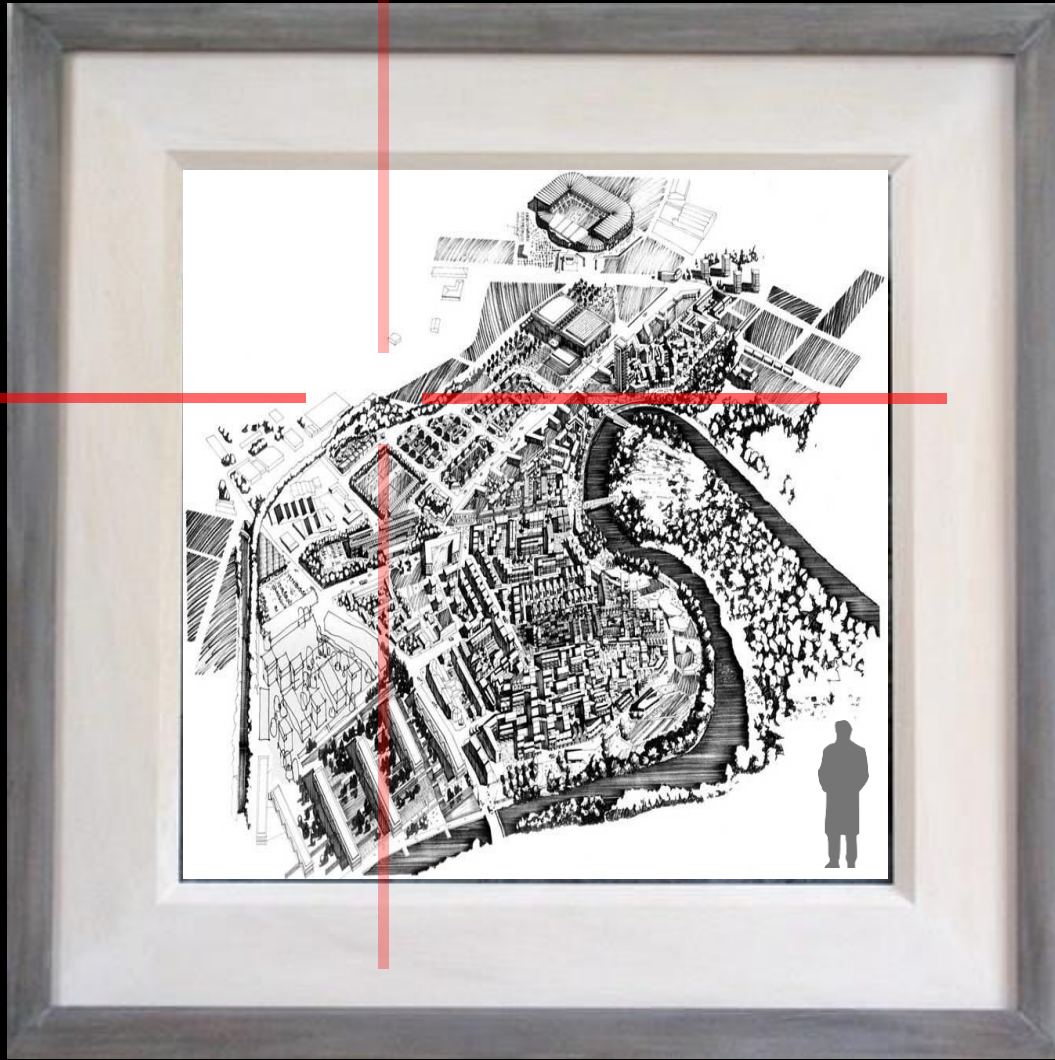
Declan Davis, *The City*. (2015)

NEGOTIATING THE CITY ... IS EFFORTFUL !!!



Declan Davis, *The City*. (2015)

What is needed ?



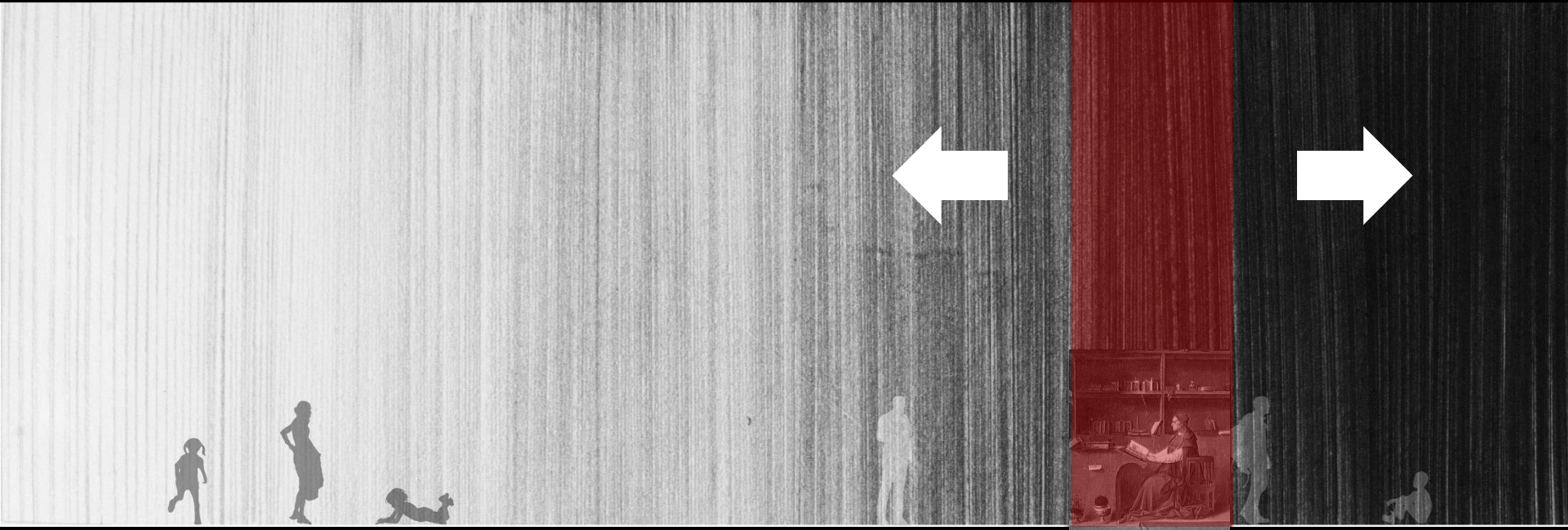
THE PHYSICAL



THE COGNITIVE



THE SENSORY



Remembering that Negotiations can be temporary or permanent

THE PHYSICAL:

Why ?

Possible Considerations ?

STRATEGY:

Promoting
Access in
the Built Environment

To aid with 'walkability'

*as commonly, those with
autism and the elderly have
fine and gross motor skills
difficulties.*

Is there enough space to walk? ...

places to pause, rest, wait
orientate

Are pavements level?

Are pavements clear ?

Proxemics?

Are there options available ?



Ben Stevenson (QUB 2017)



P1
Sloped Curb stone
Time - 15:05
Location - Bedford Street



P2
Street drainage
Time - 15:10
Location - Dublin Road



P3
Stagnant Water
Time - 15:13
Location - Dublin Road



P4
Curb height
Time - 15:15
Location - Botanic Avenue



P5
Material junctions
Time - 15:16
Location - Botanic Avenue



P5
Material junctions
Time - 15:17
Location - Shaftsbury Square

Lauren MacInnes (QUB 2018)



PROXEMICS & PRORIOCEPTION





Ben Stevenson, QUB (2017)

THE SENSORY:

Why ?

Possible Considerations ?

STRATEGY:

Promoting Places of
Comfort in the
Built Environment.

Reducing likelihood
of sensory overload &
unwanted distractions

Noise & Quiet

Traffic ...

People & Activities ...

Advertisements ...

Textures ...

Ground Patterns ...

Smells ...

*as commonly, those with
autism or the elderly can get
distressed and anxious if trying
to cope with sensory
sensitivity.*

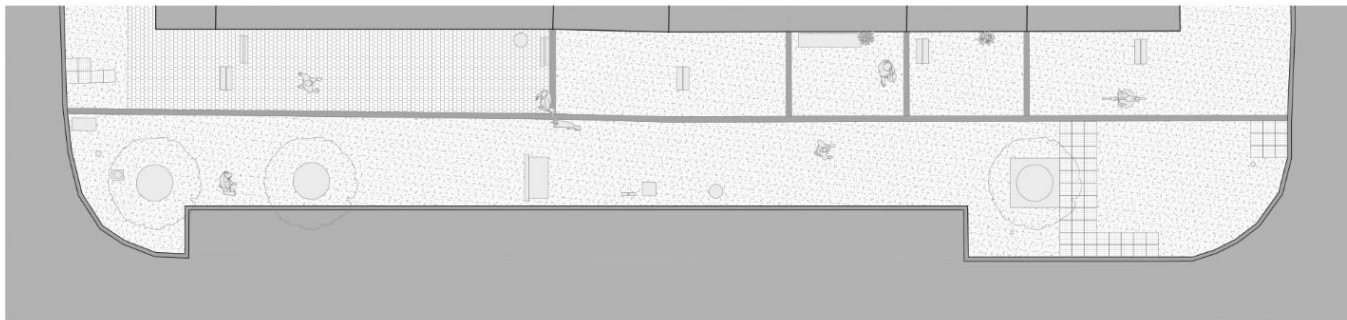




Stranmillis



66 - 80 Stranmillis Road - Elevation 1:300



66 -80 Stranmillis Road - Plan 1:300



Sensory Challenges



Katie Corr, QUB (2017)

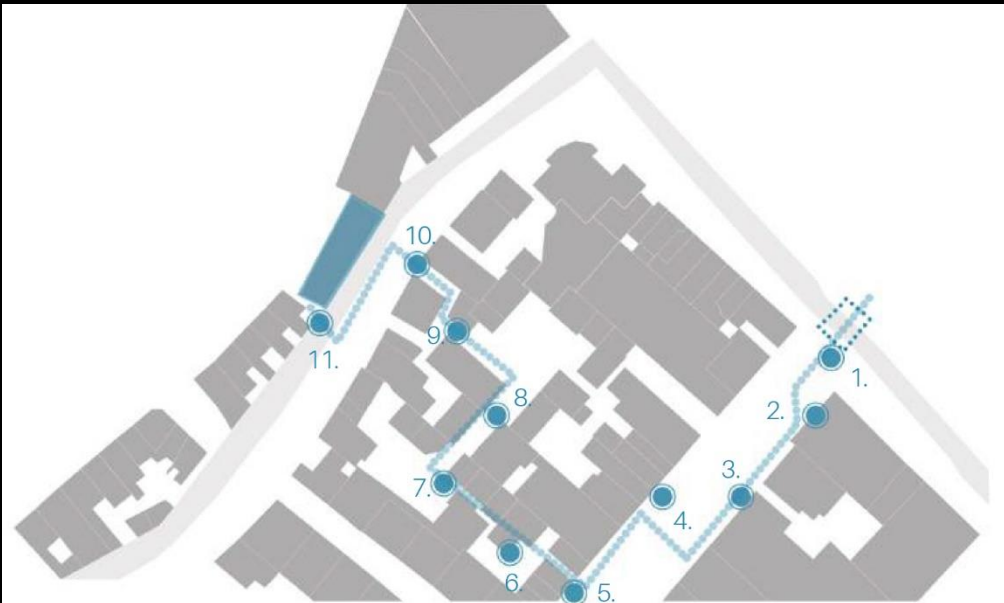


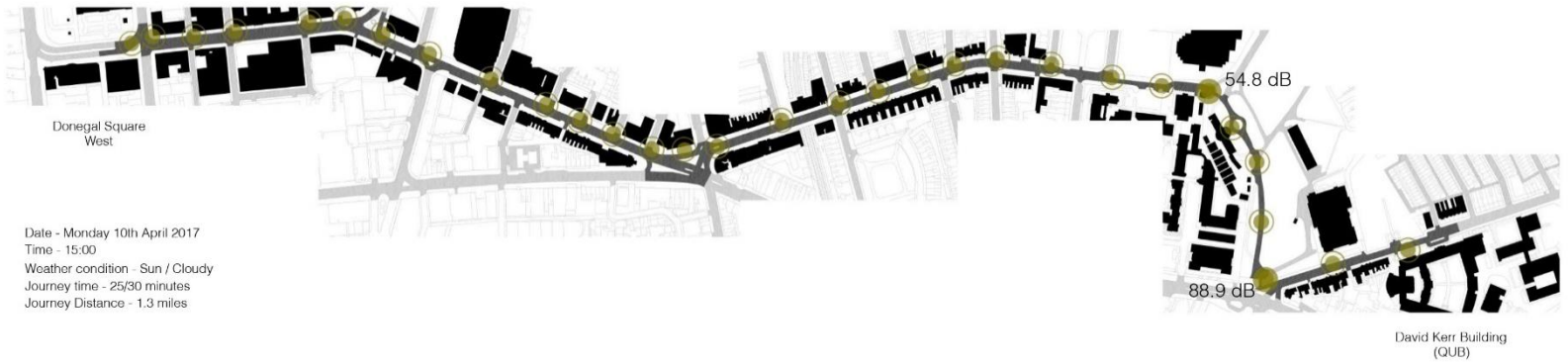
Fig. 17 Locations of Auditory Challenges along Route 1
 Date: Thursday 15th March 2018
 Time: 1:30pm
 Weather Conditions: Sunny with occasional rain

● Location of Decibel Reading
 - - - - - Route Taken



	Shipquay Street					Derry Craft Village				Magazine Street	
	1	2	3	4	5	6	7	8	9	10	11
High (dB)	83.2	79.4	93.2	90.6	81.8	74.5	67.7	62.1	68.5	70.5	72.2
Average (dB)	73.8	71.5	79.4	73.6	69.2	66.1	59.9	56.0	60.1	63.7	63.95
Low (dB)	64.4	63.6	65.6	56.5	56.5	57.7	52.0	49.9	51.7	56.9	55.7
	Shipquay Gate									Echo Dance Theatre	

Sensory - Route Analysis



Date - Monday 10th April 2017
 Time - 15:00
 Weather condition - Sun / Cloudy
 Journey time - 25/30 minutes
 Journey Distance - 1.3 miles

High (dB)	79.5	73.4	71.6	71.0	64.6	67.5	65.1	69.2	69.2	62.2	74.2	71.8	73.3	72.4	70.3	60.7	64.9	57.9	58.7	62.2	65.6	51.4	56.9	54.0	52.9	57.4	57.0	57.0	67.2	63.8	60.7
Average (dB)	81.2	81.4	78.5	78.1	75.8	78.3	73.6	78.2	80.1	72.9	81.3	77.1	79.8	78.5	80.2	72.9	74.9	66.6	67.9	72.5	73.5	55.0	63.5	62.2	54.8	60.6	69.9	59.8	88.9	77.1	68.9
Low (dB)	83.4	89.4	86.3	83.3	84.5	90.4	80.5	82.1	88.3	78.9	85.2	83.8	85.1	84.4	90.0	85.2	82.9	74.5	76.3	77.9	82.7	60.4	72.3	69.0	58.7	71.3	72.4	65.4	110.7	87.4	84.7
	Donegal Square West																	David Kerr Building (QUB)													

Map key - Location of dB reading-

Table key - Lowest dB average-

 Highest dB average-

Ben Stevenson, QUB (2017)

67.2 : 88.9 : 110.7 dBA
 (Low : Ave : High)

THE COGNITIVE:

Why ?

Possible Considerations ?

STRATEGY:

Promoting
Clarity in
the Built Environment

To aid with legibility

Signage

knowing where to go,

Markings

to aid in recognition

Ease of Route / Negotiations

to aid in wayfinding

Entrances

To provide areas of social
inclusion

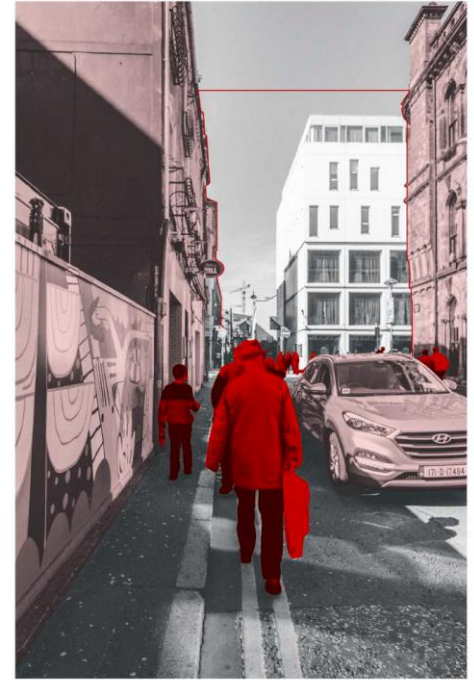
Light levels

Affordances



*as commonly, those with
autism or the elderly can get
distressed and disorientated
when unable to understand
their surroundings.*

Jourdan McKee, QUB (2017)



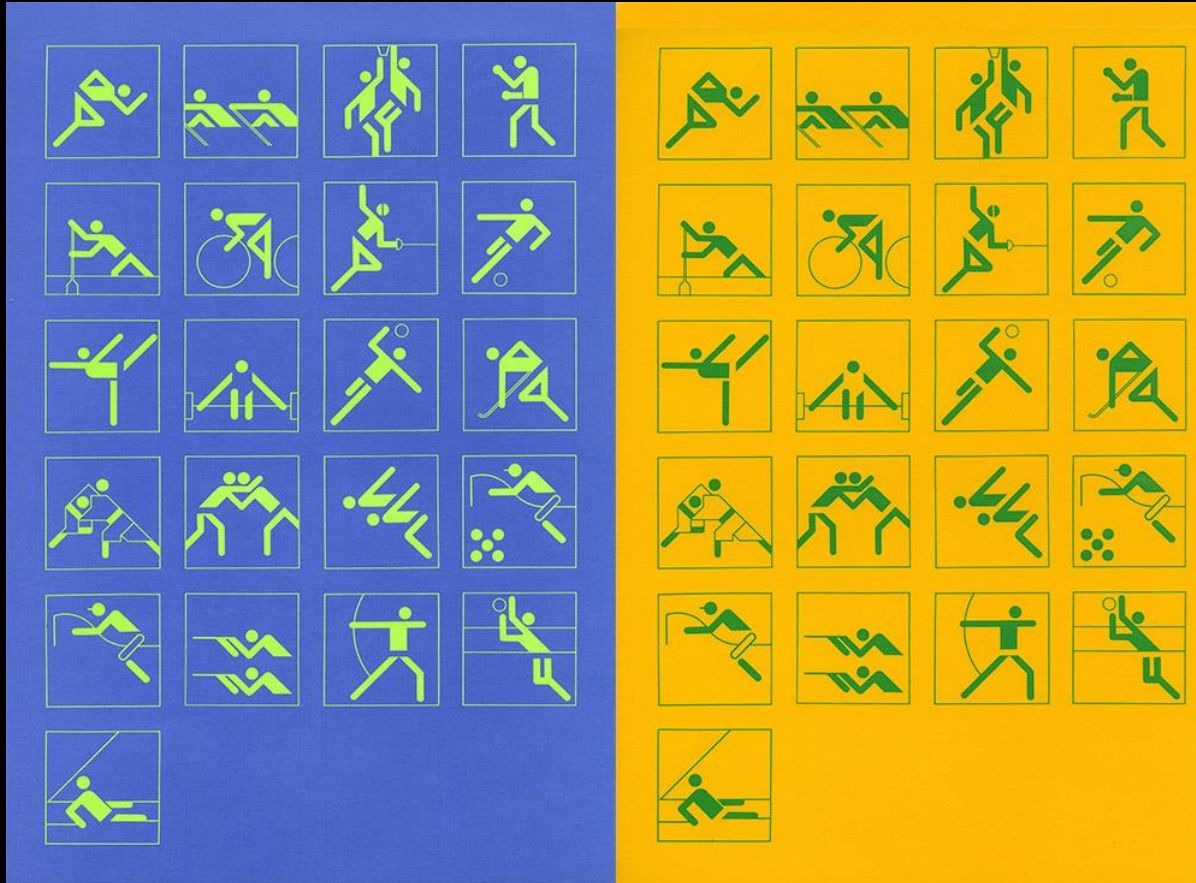
Cognitive Challenges



Madrid Barajas Airport, Richard Rogers (2006)



Soviet Design, 1960's



Otl Aicher, Munich Olympics (1972)



What does it mean ...
to be lost?



Derry / Londonderry



Derry / Londonderry



1689



1870



1831



1905

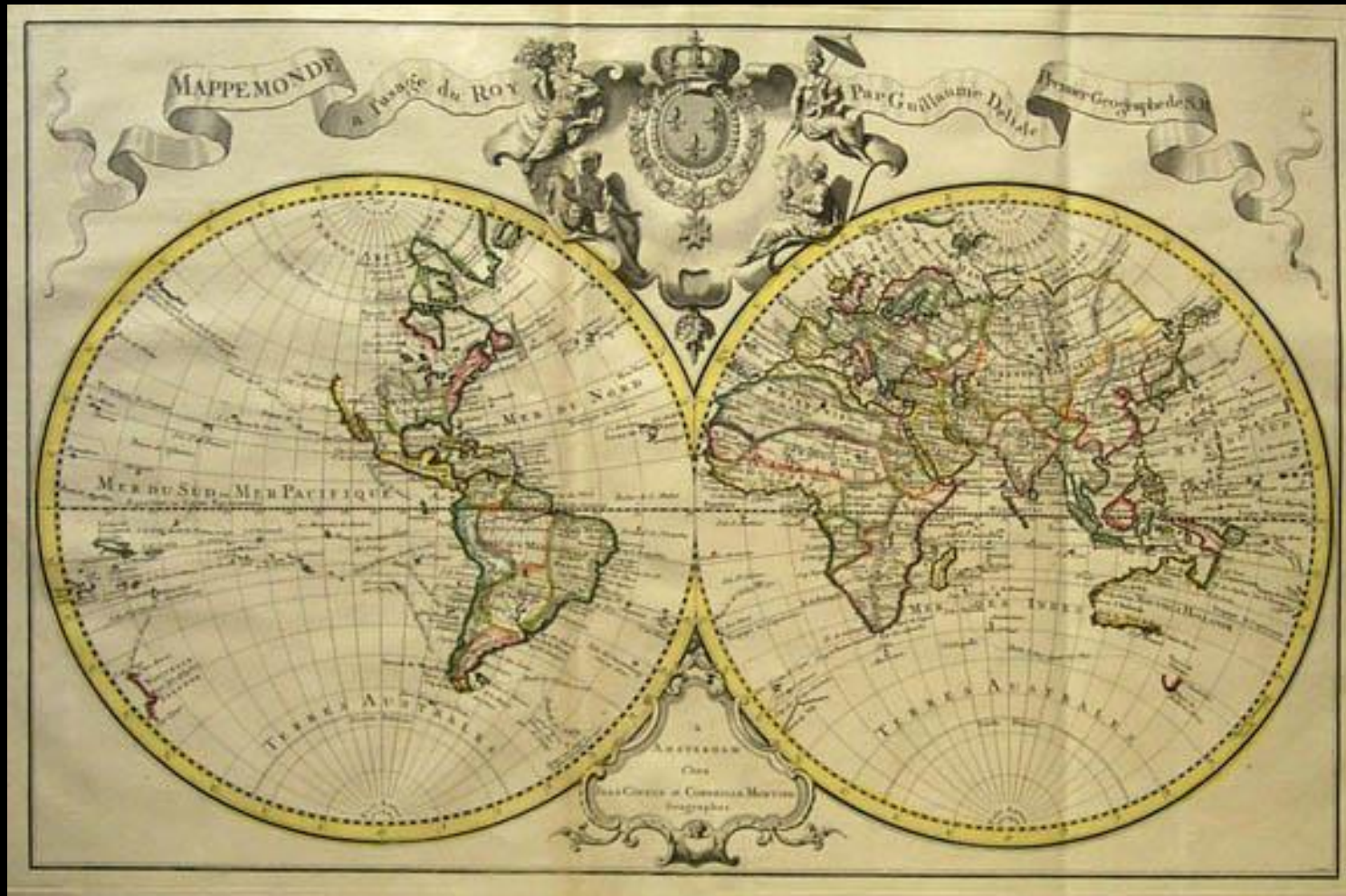






Magazine Gate, Derry-Londonderry

TERRA INCOGNITO.....



Guillaume Delisle, Map of the World (c.1730)

TERRA INCOGNITO.....



Guillaume Delilse, Map of the Americas (c.1730)

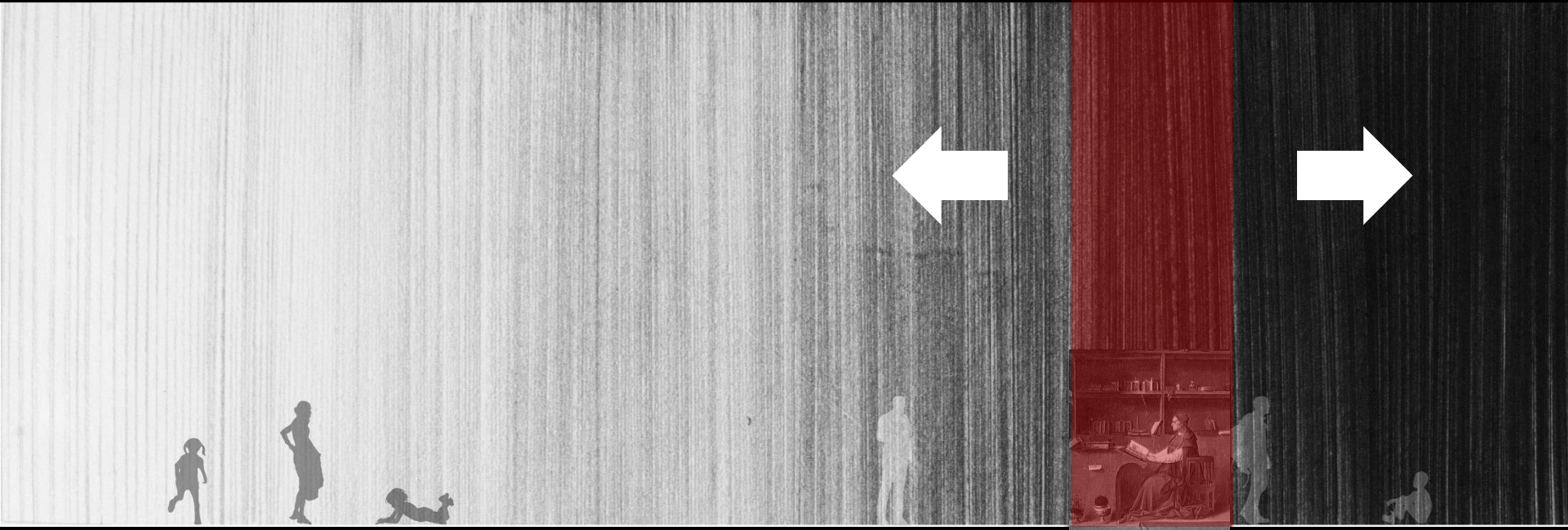
THE PHYSICAL



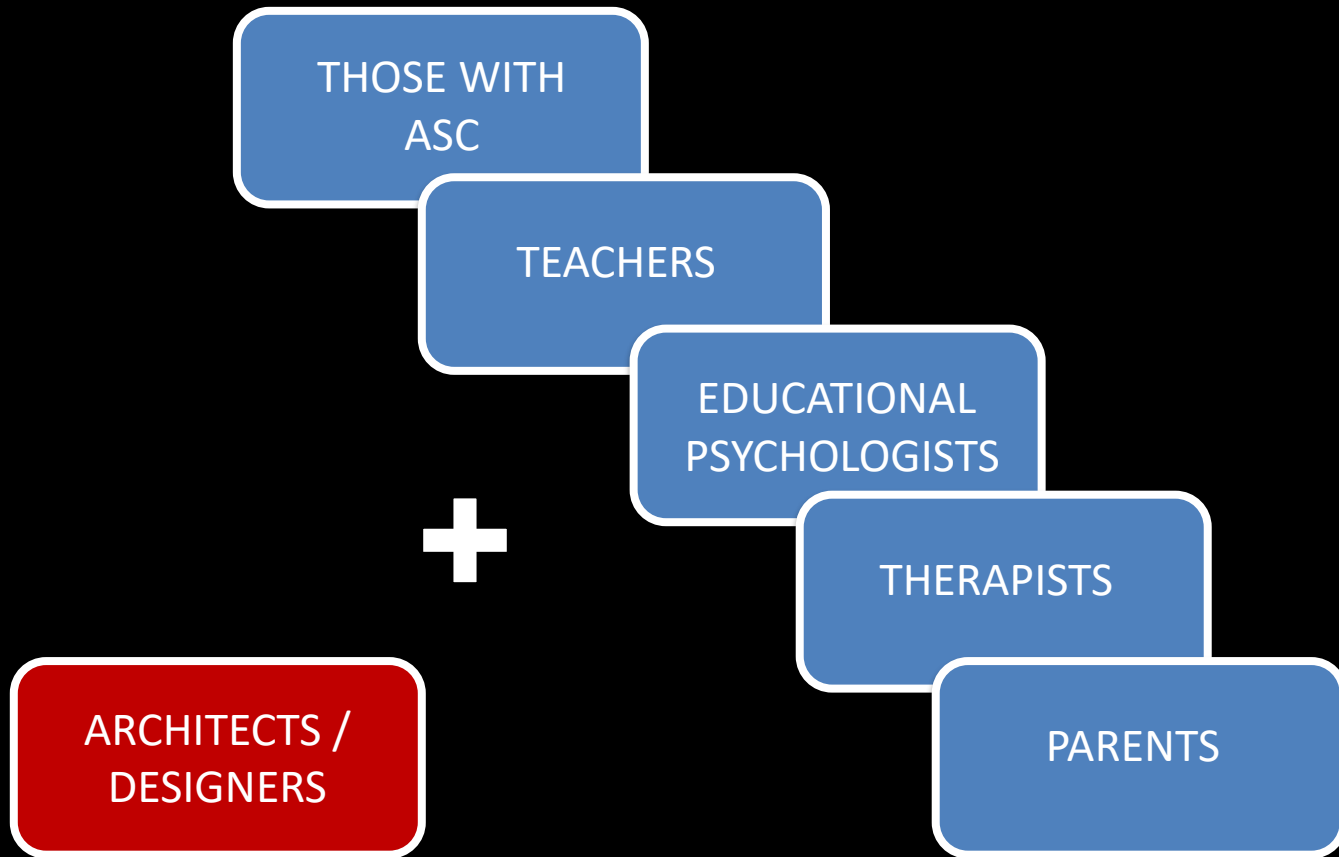
THE COGNITIVE



THE SENSORY



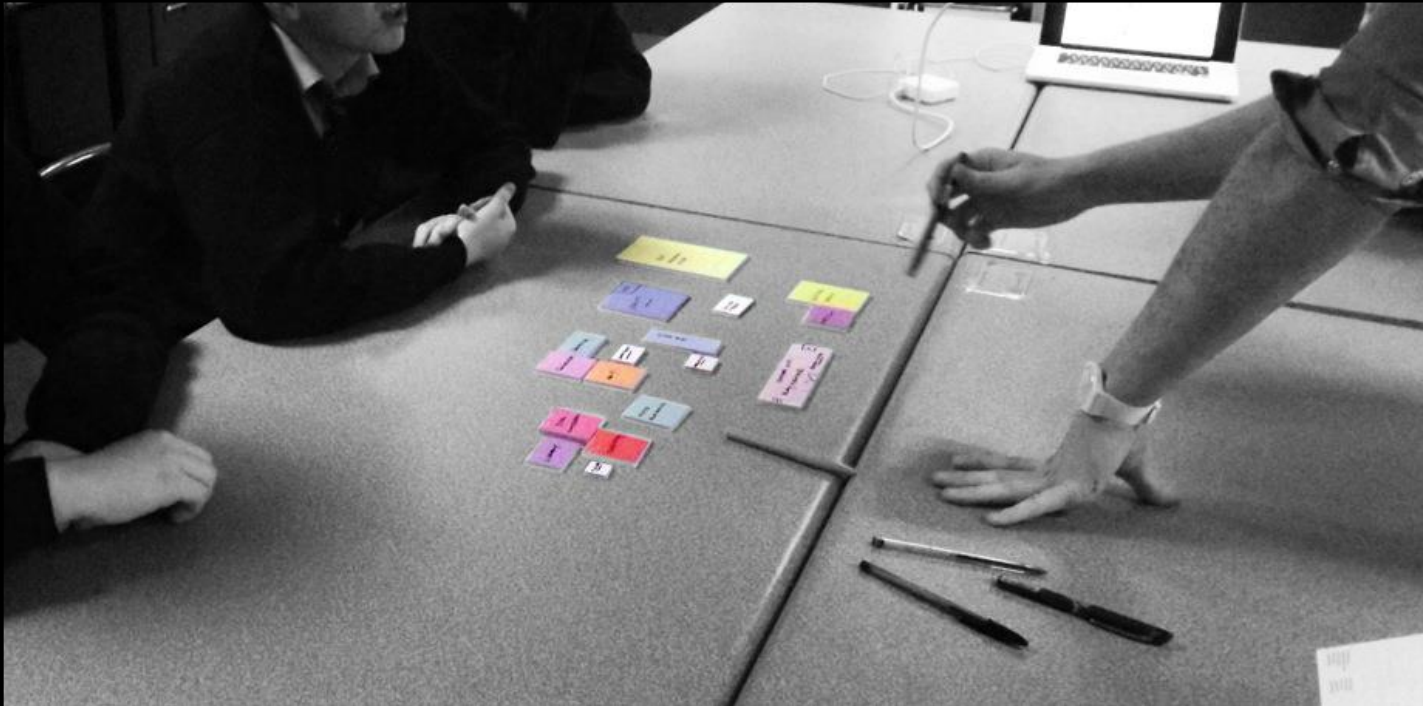
not forgetting ...
if being inclusive ...



Designers are not the experts in this field but need to learn from others.



St Gerard's School & Sean Sloan, QUB, 2014.



St Gerard's School & Sean Sloan, QUB, 2014.



Autism Spectrum Condition (ASC)

Lifelong Developmental Disorder

SOCIAL
COMMUNICATION

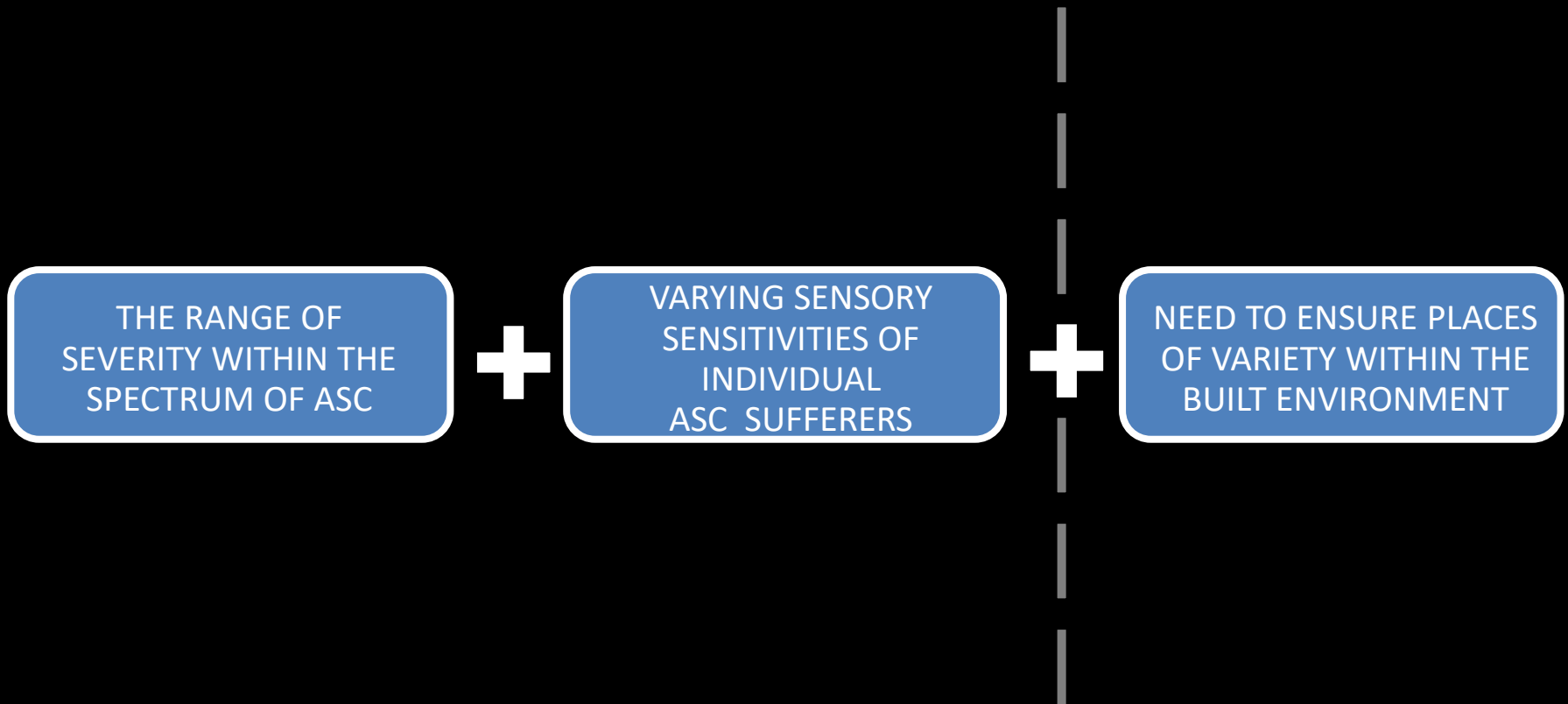
SOCIAL
INTERACTION

SOCIAL
IMAGINATION

Characterised by triad of qualitative impairments
(Wing & Gould, 1979)

Autism Spectrum Condition (ASC)

Triad Of Challenges For The Designer



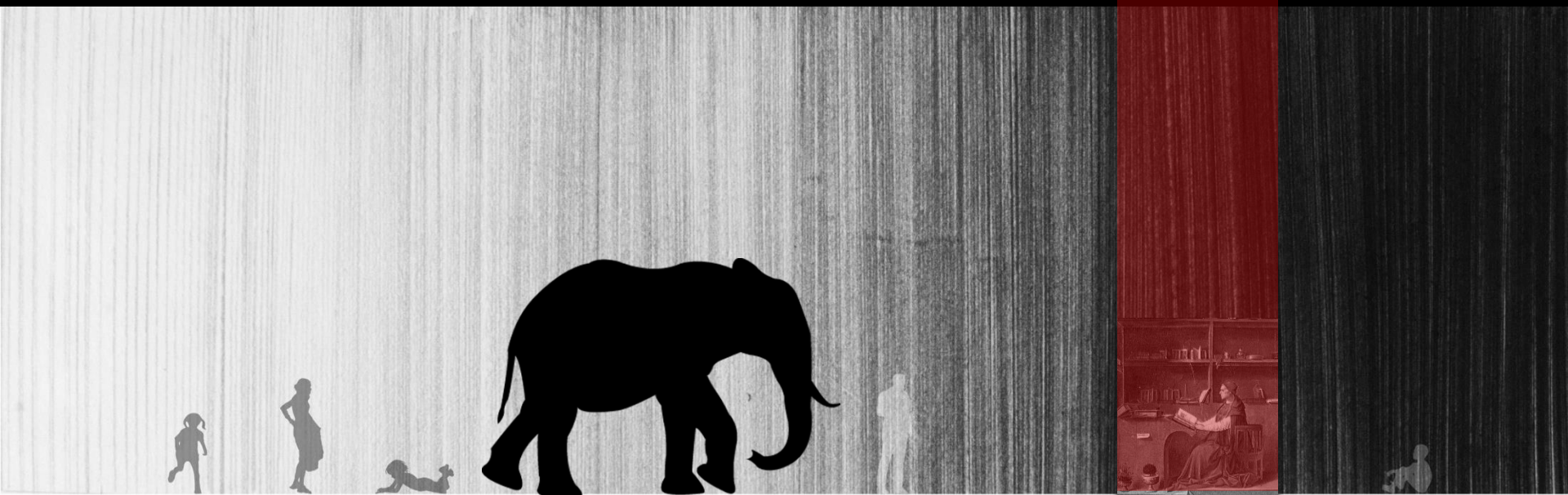
I live in the city... and the city lives in me.
I confront the city with my body....

(Juhani Pallasmaa, *Eyes of The Skin*, 1996)





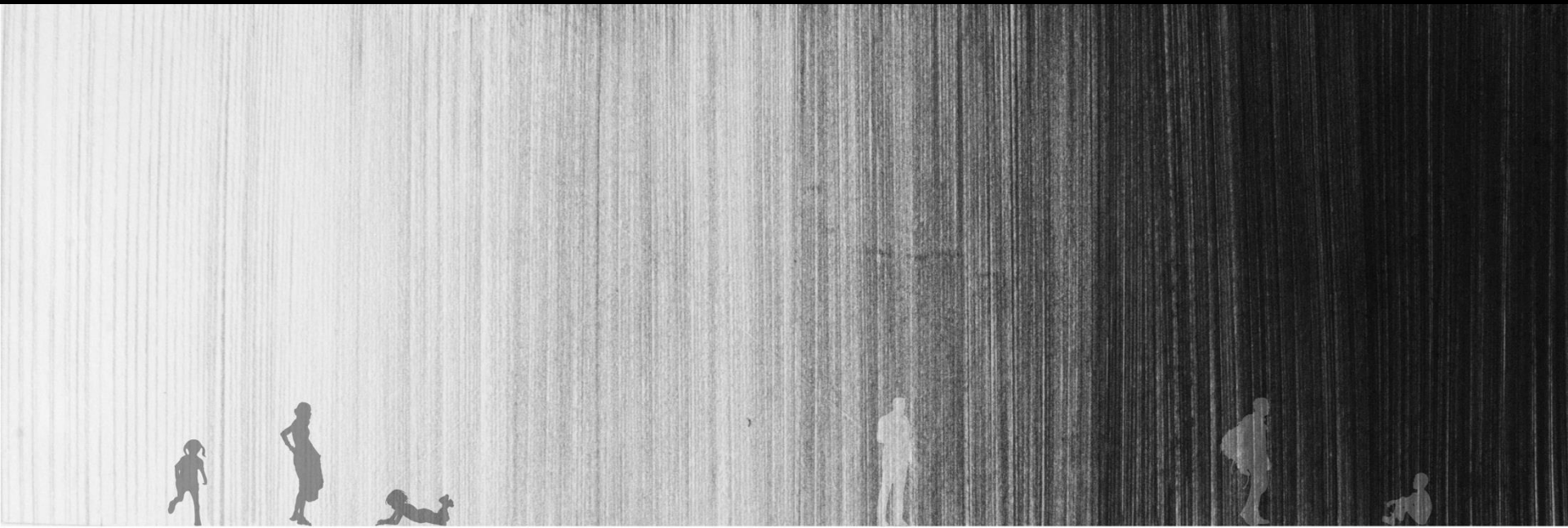
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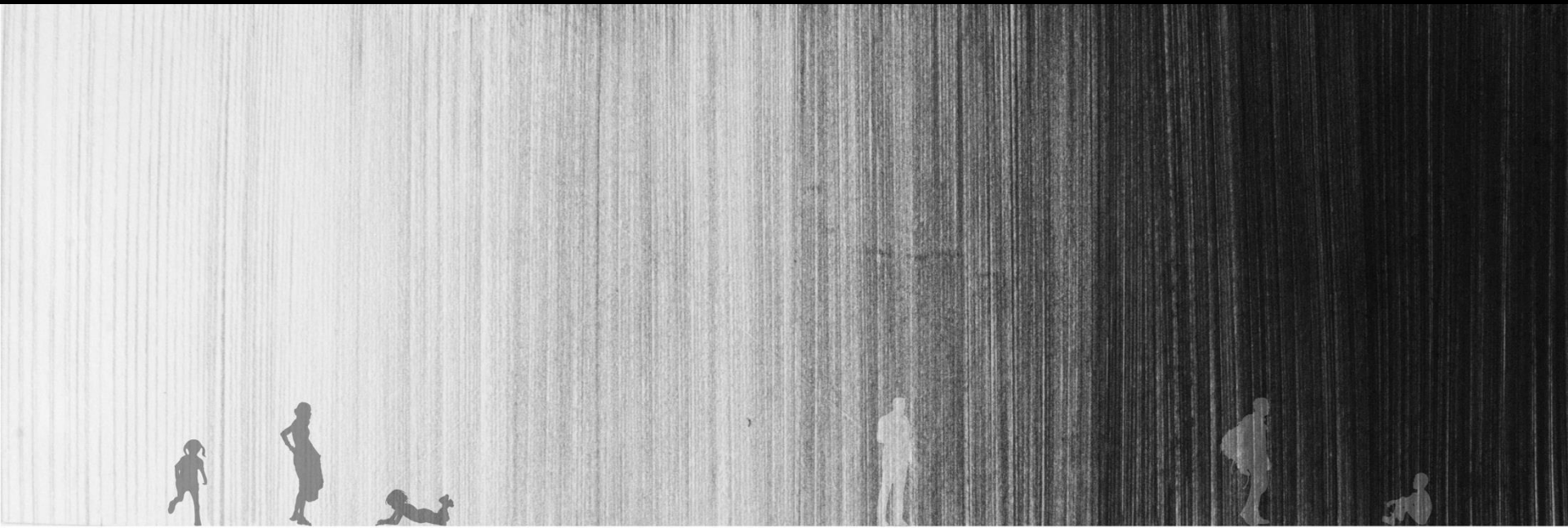
Phil Li & Keith McAllister, *The Spectrum*. (2011)

musings ...

*Whilst we need to remember that first and foremost each person is an individual...
we also need to consider*



a shared landscape





Johannes Vermeer, The Little Street, 1660

THE SHARED LANDSCAPE

“A plan is a society of rooms.”

Louis Kahn



Louis Kahn, Salk Institute (1965)

PLACEMAKING + MEANING

"Whatever time and space mean,
place and occasion mean more."

Aldo van Eyck, 1962



Pieter de Hooch Courtyard of a House in Delft, 1658



Aldo van Eyck, Amsterdam Orphanage (1960)

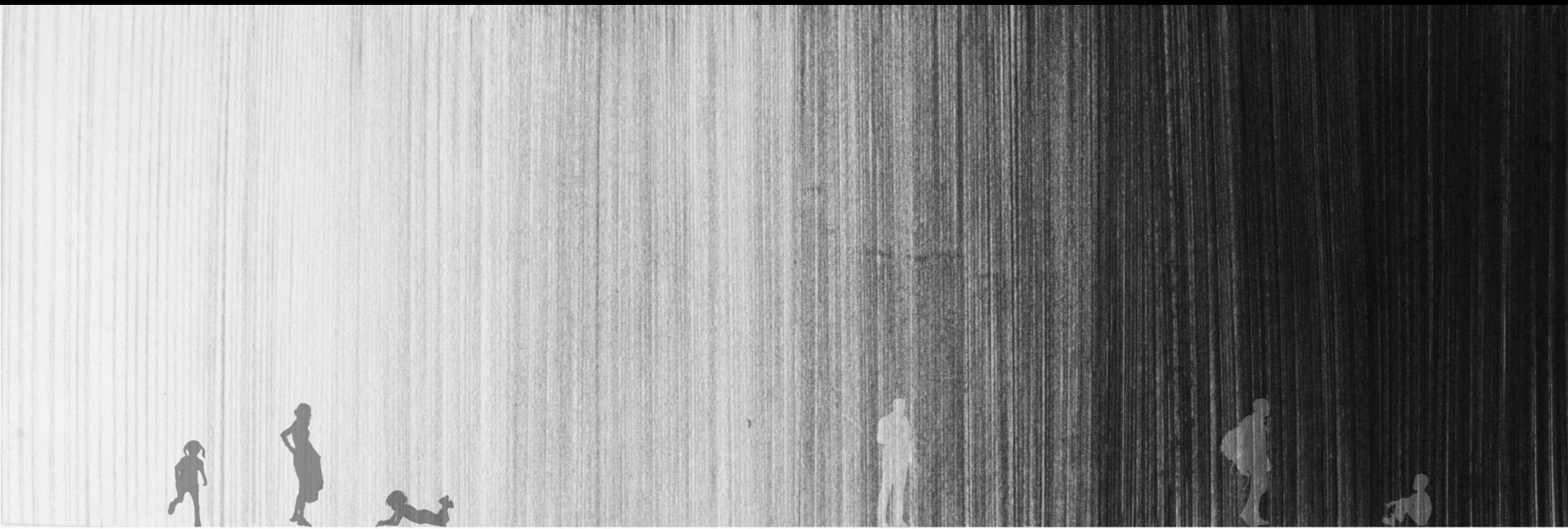
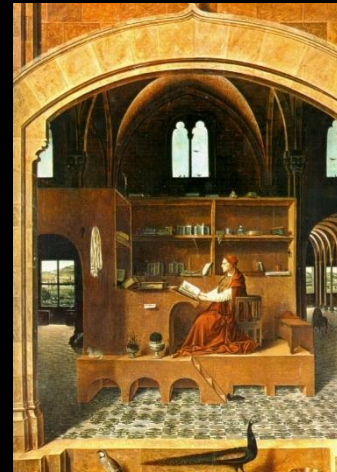
THE MICRO-CITY



Le Thoronet Cistercian Abbey, (1200's)



A Place of Comfort (Philip Li, QUB. 2011)



The Spectrum (Phil Li & Keith McAllister , QUB. 2011

SPATIAL COMFORT

SENSORY + COGNITIVE + PHYSICAL



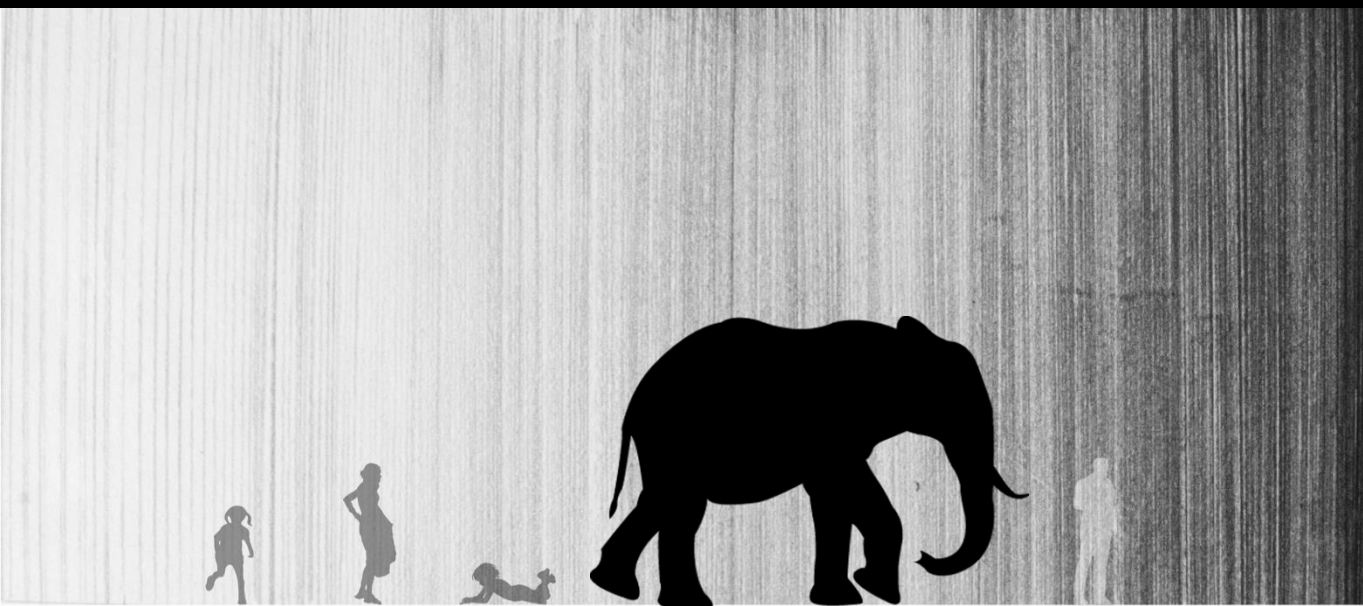
+ THE SOCIAL
&
THE TEMPORAL



Declan Davis, *The City*. (2015)



- o.t.
- shoes off
- O.T. time
- tidy up
- shoes on
- light off
- close door



Phil Li & Keith McAllister, *The Spectrum*. (2011)



DISCUSSION



*'A city is a repository
.....of possibilities'*

Rebecca Solnit

Thank you!

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