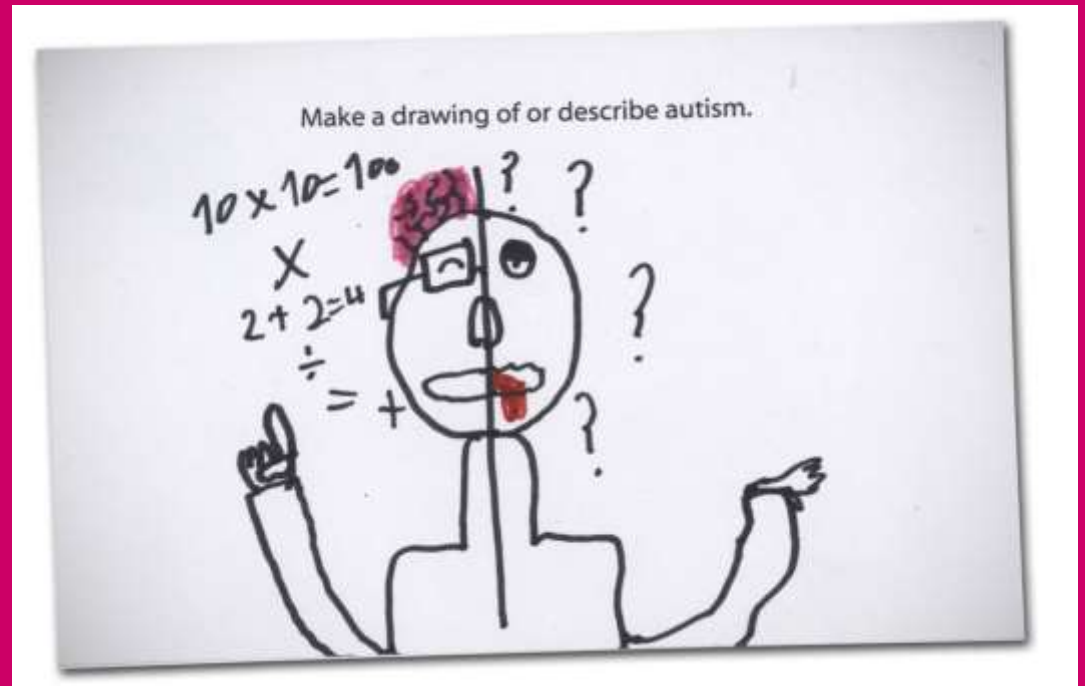


Design and Autism

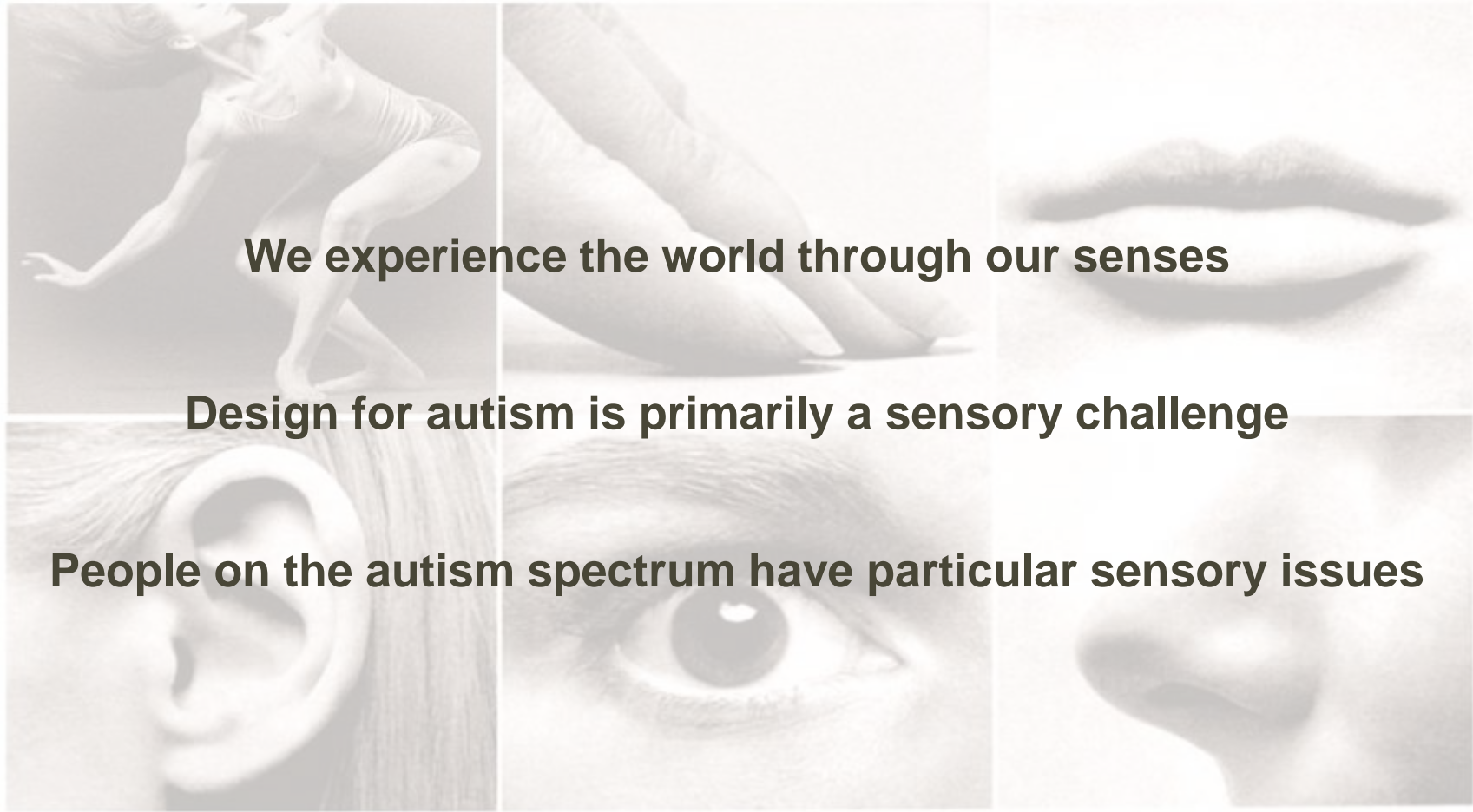
Good practice in commissioning and
designing built environments

Autism



This is a drawing by Charlie, a young adult with autism

Sensory characteristics



We experience the world through our senses

Design for autism is primarily a sensory challenge

People on the autism spectrum have particular sensory issues

Sensory responses



Lights
Walls
Paint
Rug
Floor
Cushions
Pictures
Curtains
Sofa
Table

Even people ...

*Look
Feel
Smell
Sound
Taste
DIFFERENT*

Sensory responses

<p>Hypersensitive</p> <p>Fixations</p> <p>Overstimulated</p>	<p>Hyposensitive</p> <p>Avoidance/apathy</p> <p>Understimulated</p>
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Sensory issues affecting building design

There exists general agreement on many of the issues with the design of accommodation for autism, but not much on the solutions.

‘You meet one person with Autism and you have met one person with Autism’.

Sensory issues

Stimulation Control

- Sensory overloading, processing issues and an inability to 'filter' out
- Sensory seeking
- Anxiety, and frequently a trigger of negative behaviour

Patterns

- Regular routines
- High degree of predictability

	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00
Monday	literacy	IT	maths	lunch	art	music	home	club
Tuesday	maths	PE	literacy	lunch	story	drama	home	club
Wednesday	literacy	maths	IT	lunch	art	PE	home	club
Thursday	IT	literacy	maths	lunch	cookery	cookery	home	club
Friday	literacy	maths	PE	lunch	IT	music	home	club

Sensory issues

Fixations

- Obsessive behaviour
- Repeated behaviour
- Literal understanding



Social Interaction

- Unexpected, sudden or undesired
- Company versus interaction
- Being in control



Sensory issues

Activity Driven

- Easily distracted
- Drawn towards gatherings of people, sounds etc

Situation Projection

- Cause and effect
- Design drawings



A Bit About Building Design & Autism



Education buildings:

The different types of educational buildings

State & independent day schools for 4 – 18 year olds e.g. Forest School

Residential schools e.g. Struan School

Units attached to mainstream schools e.g. Cullum Centres

Colleges for 16 – 25 year olds e.g. Ambitious College

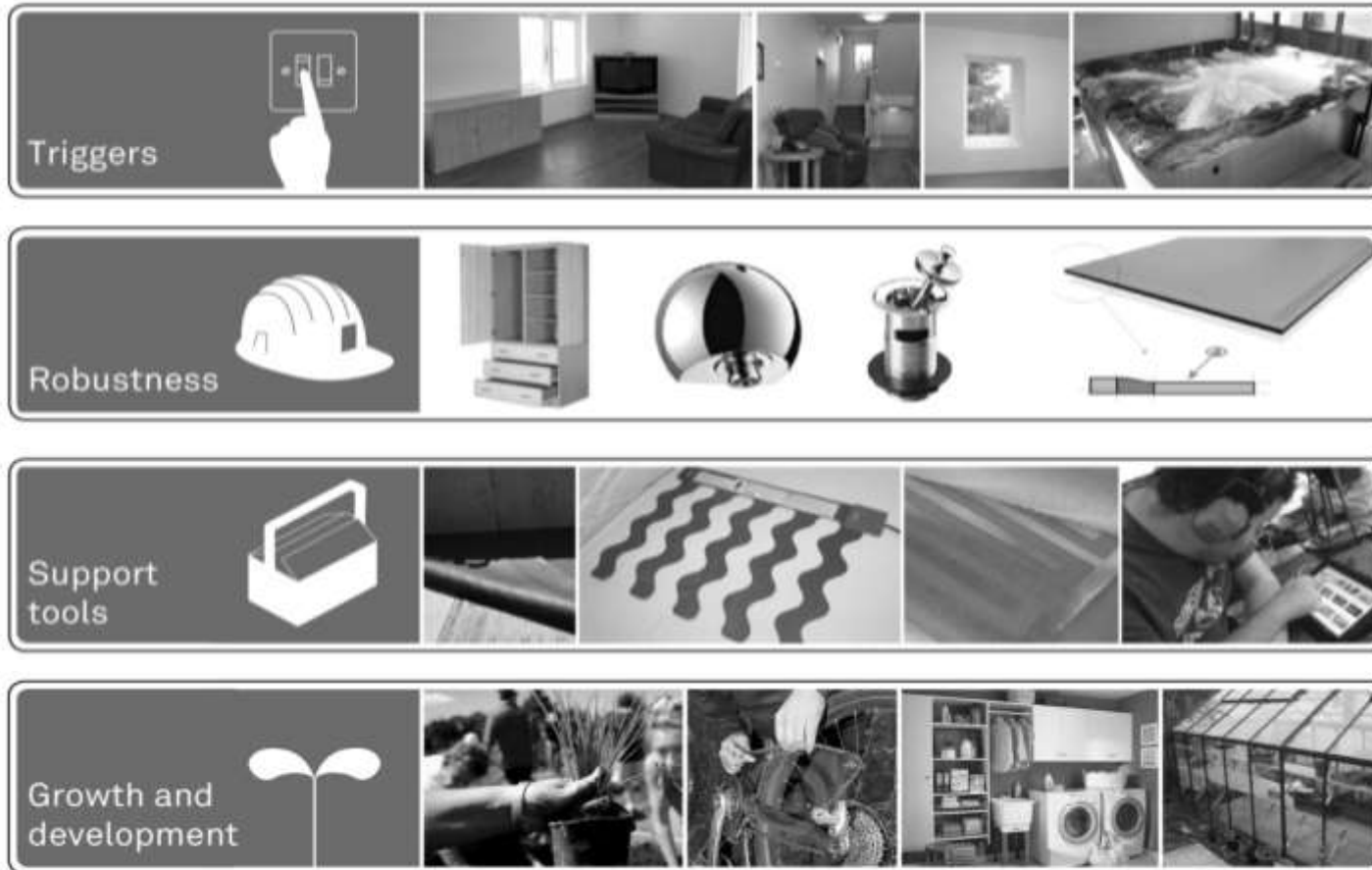
Small unit training centres e.g. Kingwood, Thrive

From outset: identify levels of need of group to use the buildings and level of support

Treehouse School, Penoyre & Prasad Architects
Cullum Centre, Mark Ellerby Architects
Thrive, Battersea Park, Pedder & Scampton Architects



Design Themes



The ideal scheme takes account of all of these
“No right or wrong, a balancing of competing needs”

Site location

Be a good neighbour

Seek:

- Established and stable neighbourhoods;
- Access to transport and amenities;
- Pedestrian and cycle friendly routes.

Avoid:

- Roadways with high volumes of traffic, railways, airport or busy commercial sites;
- Other buildings that allow pupils & local residents to be constantly overlooked or overlooking.

Real World Challenges:

- Site/building constraints
- Budget
- Statutory Regulations
- Unknown neighbours
- Balancing specialist and typical design features
- Be wary of “there was this one time...”

Example: site layout & massing

Forest school, London



- In an existing residential area
- On a busy road but set well back with hedge screening
- Ample space at the front for secure entry & drop off/pick up
- School bus parking
- Separated drop off from staff parking & deliveries
- Domestic scale or long low non intimidating form
- Green roof
- Building orientation
- Large 'meeting' space near main door to enable separate groups

External spaces:

Key Features:

- Security, site entry control
- Site boundaries: security, low sun glare, noise, overlooking
- Separation of activity areas
- Solar shaded areas
- Screening to changes in level
- Semi enclosed areas and shelters

External activities:

- Wander loops
- Swings, bouncing
- Gardening
- Sensory garden
- Care with plant selection

Play area, Forest School



Shelter, Parker House



'Mini shop', Thrive



Internal layout: Entry & circulation



Kingwood horticultural therapy building



Thrive, Battersea Park

Be generous

Be activity specific

Be flexible

Seek:

- To separate areas for differing uses
- Reduce surprise encounters; viewing panels, rounded corners
- Thresholds
- Hall as recalibration area: liminal spaces
- Additional sound proofing
- Floor to ceiling height
- Provide escape

Avoid:

- Institutional look and feel
- Multifunctional spaces can be difficult
- Orientation towards noise & sun



Internal layout: classrooms/educational spaces

Classroom space:

- Larger space standards
- Higher staffing levels
- Defined uses for certain spaces
- Small table individual working with staff
- But also large group activity
- Den spaces



Elements:

- Cupboards, lockable storage, open shelving
- Windows and sun
- Sound



Other room types:

- Exercise/gym
- Cooking skills
- Domestic activities e.g. doing the washing
- Life skills: small office, computing



Internal layout: Support spaces

- Therapy and one to one work spaces
- De stress rooms
- Dining rooms
- Toilets & showers
- Staff
- Communal/parent spaces



Detailing & finishes:

Robust, maintainable & replaceable

Surfaces

- Domestic feel & scale
- Floor finishes: thresholds, cleanable
- Walls: blockwork, curved corners
- Ceilings: acoustics
- Windows: indirect light, protected glazing, blinds
- Doors: vision panels, fixings
- Work surfaces: avoid patterns
- Signage: visual
- Colours

Service installations

- Lighting: flickering, indirect
- Heating: ufh, fast response in some locations
- Ventilation: avoid noisy fans, natural ventilation
- Alarms, door sensors etc





Kingwood
Horticultural
Therapy Centre



Crisis Skylight
teaching rooms



Thrive building,
Battersea Park

