the autism show

The national event for autism (including Asperger syndrome)

THE AUTISM MATTERS THEATRE
Autism and architecture
Simon Humphreys,
Autism Specialist Architect
MY BACKGROUND

My late brother was autistic.

I completed a research thesis paper on architecture for autism in 1989.

Since then I have developed these ideas and implemented many of the concepts into built projects.

As Donna Williams states:

‘as we all know autism is a complicated disorder that affects communication and the senses. We also know that ‘one size fits all’ on the basis of a shared label ASD may not be effective in helping these individuals’
ARCHITECTURE

Architecture can best be described as the ‘art or practice of designing buildings for human use’. It takes account of Form, Function, Construction, Beauty, Convenience, Propriety, Delight, Utility, Durability, Strength, Proportion, Light and Freedom.

It can also be explained in the following way:

You employ stone, wood and concrete, and with these materials you build houses and palaces; that is construction. Ingenuity is at work. But suddenly you touch my heart, you do me good, I am happy and I say “This is beautiful” “That is architecture. Art enters in. (Le Corbusier)
The diversity in personal disposition and spatial interpretation from the user's point of view challenges the architect to pay attention to the way the human mind-in all its various appearances-deals with the environment (Ziesal 2001).

Without efficient filtering and selectivity of attention people with autism find it difficult to make sense of the environment (Bogdashina 2003).
THE DESIGN PROCESS

In architecture the design of spaces can be loaded with the ideas of the designer. The disposition of the architect is interwoven with the whole design (Baumers & Heylighen)

Due to the distinct way people with autism perceive their environment and process incoming information they make sense of their world in a unique way (de Roeck 1997)
<table>
<thead>
<tr>
<th>CONCEPT</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>CALM AND ORDER</td>
<td>Reduce stimulation, back drop for therapy, still point, sameness</td>
</tr>
<tr>
<td>CLARITY AND SIMPLICITY</td>
<td>Symmetry, ease of use, rhythm, routine, sequence</td>
</tr>
<tr>
<td>PROPORTION</td>
<td>The Golden Proportion, abundant in nature, scale, harmony</td>
</tr>
<tr>
<td>RESTRAINT</td>
<td>Less rather than more, limit complexity of detail, calm architecture</td>
</tr>
<tr>
<td>THE SENSES</td>
<td>Good acoustics, even levels of natural light, texture, good ventilation, cool colours</td>
</tr>
<tr>
<td>OBSERVATION</td>
<td>Ability to observe children without intrusion, safety</td>
</tr>
<tr>
<td>CONTAINMENT</td>
<td>Places to escape from immediate demands but safe within enclosure</td>
</tr>
<tr>
<td>DISTINCTION</td>
<td>Simple clear forms, distinction between spaces for work and leisure and living</td>
</tr>
<tr>
<td>MATERIALS</td>
<td>Limit number, durable, good sound qualities calm, natural</td>
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# OVER ARCHING CONCEPTS: DESIGNING FOR AUTISM

<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
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<tbody>
<tr>
<td>Flexibility</td>
<td>Every child is different, proximity, differences</td>
</tr>
<tr>
<td>Inclusive Design</td>
<td>Allow inclusion in both directions, not too special</td>
</tr>
<tr>
<td>Perception</td>
<td>Detail and the bigger picture, how the child with autism perceive'</td>
</tr>
<tr>
<td>Movement</td>
<td>Generous circulation space, proximity, location, orientation</td>
</tr>
<tr>
<td>Harmony</td>
<td>A state recognised as the immediate prerequisite for beauty</td>
</tr>
<tr>
<td>Number</td>
<td>The correct application of number to create acoustically balanced spaces</td>
</tr>
<tr>
<td>Proxemics</td>
<td>The amount of personal space around the body, greater for autism</td>
</tr>
<tr>
<td>Spell</td>
<td>A framework for design</td>
</tr>
</tbody>
</table>
People with autism are bombarded with sensory stimuli. They perceive everything without filtration and selection this leads to the perception of the whole scene as a single entity with all the details perceived but not processed simultaneously (Bogdashina 2011)
CALM AND ORDER

Maintain a stable, ordered secure environment. The autistic child simply cannot function if there are too many daily changes. The autistic child is unable to bring order to his world. You must provide that order in his environment. Autistics might march to a different beat but that beat can be meaningful (Temple Grandin)

John Pawson
CALM AND ORDER
CALM AND ORDER
CLARITY AND SIMPLICITY

The whole place was a mass of corridors; a puzzle in which you had to chose the right door. I liked the banisters, which led to hallways with red doors running off them. I was constantly going into strange classrooms and sitting down before being escorted out and pointed in the direction of my own class. (Donna Williams)
For children with autism to recognise things these things must be exactly the same as when they initially experienced them only then will they know what to do (Donna Williams)
CLARITY AND SIMPLICITY
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CLARITY AND SIMPLICITY
Ancient proportional systems resonate with something within the human mind or heart which recognises beauty in a very direct and intuitive manner. When we see a natural form such as a sunflower we automatically see its beauty. These proportional systems are derived from nature and are abundant in nature. (Michael Manser)
PROPORTION
The Greeks developed this theme given from nature through mathematical equation providing a proportion that humans intuitively find pleasing. It is known as the Golden Proportion. The Parthenon is defined by the golden proportion
PROPORTION
The Fibonacci Proportion is a sequence of numbers which can be applied to music and architecture and is derived from the golden proportion.

Simon Humphreys
NUMBER

The Fibonacci series are the numbers in the following sequence 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55 onwards.
FLEXIBILITY

It's important that spaces are as flexible as possible within the need to maintain sameness.

Simon Humphreys
RESTRAINT

People with autism are extremely sensitive to sensory stimuli and because of the fact they have difficulties filtering foreground and background information they are often capable of perceiving details that are unnoticed by others.
RESTRAINT
RESTRAINT
RESTRAINT
THE SENSES

There is a very strong tendency in vision to grasp and fixate, to dominate secure and control.

Touch is the parent of our eye’s, ears, noise and mouth and seems to be recognised by the age old evaluation of touch as ‘the mother of the senses’
THE SENSES

The eye is the organ of distance and separation whereas touch approaches and caresses. During overpowering emotional experiences we tend to close off the distancing sense of vision

The most persistent memory of space is often smell
THE SENSES

The Key is light and light illuminates shapes and shapes have emotional power (Le Corbusier)

Deep shadows and darkness are essential because they dim the sharpness of vision make depth and distance ambiguous and invite unconscious peripheral vision and tactile fantasy.
Sometimes I heard and understood and other times sounds and speech reached my brain like an unbearable noise of an onrushing freight train. Noise and confusion at large gatherings of people overwhelmed my senses. (Temple Grandin)
THE SENSES

Hans Van Der Laan
THE SENSES
all of us need a private space. Autistic children need their secret places too, in which they can hide and retreat to their own world. After all autism is a withiness disability and autistic children need the security of their own hideaways. I had mine it was a place for me to think and recharge myself.

( Temple Grandin )
OBSERVATION

Simon Humphreys
It is important that an individual with autism is secure and protected but allowed to wander freely within safe known boundaries. This also provides peace for the carer equipped with this knowledge.
CONTAINMENT
DISTINCTION

Simple clear natural forms are understandable.

It is helpful that there is distinction between types of spaces for people with autism so that they understand expectations placed upon them.

Simon Humphreys
DISTINCTION

Simon Humphreys
DISTINCTION
MATERIALS

Along side the prevailing architecture of the eye there is the architecture of the muscle and skin. This is the material of architecture.

John Pawson
MATERIALS
MATERIALS
MATERIALS
MATERIALS

Peter Zumthor
PERCEPTION

People with autism have a strong drive for coherence. If one detail is changed the whole scene is different.
MOVEMENT

One of the most influential aspects of architecture is how we experience moving around a building from space to space.
MOVEMENT
MOVEMENT

John Pawson
MOVEMENT
MOVEMENT

Through the Little Door and the Glass Door Barrier (Temple Granden)
HARMONY

For any space to be harmonious it should facilitate not only need but also connect with the outside environment providing a smooth transition.
PROXEMICS

Proxemics is the measure of personal space surrounding the personal body.
The ultimate meaning of any building is beyond architecture; it directs our consciousness back to the world and towards our own sense of self and being and makes us experience ourselves as complete embodied and spiritual beings. (Pallasmaa)

This experience is particularly relevant to people with autism who perceive and experience the environment in a unique and multi-sensory way.

With architecture it is sometimes what you don’t do that has impact for individual’s with autism.

John Pawson
AUTISM & ARCHITECTURE

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