

# SIMON HUMPHREYS: UNIVERSAL DESIGN

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UNIVERSAL DESIGN IS THE DESIGN AND  
COMPOSITION OF AN ENVIRONMENT SO  
THAT IT CAN BE ACCESSED, UNDERSTOOD  
AND USED TO THE GREATEST EXTENT  
POSSIBLE BY ALL PEOPLE REGARDLESS OF  
AGE, SIZE OR ABILITY

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## THE 7 PILLARS

:

EQUITABLE USE

FLEXIBILITY

INTUITION

PERCEPTION

TOLERANCE

EFFORT

PROXEMICS

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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.

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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 )

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IN ARCHITECTURE, ATMOSPHERES ARE THE  
SENSORIAL QUALITIES A SPACE EMITS AND  
ARE AN IMMEDIATE FORM OF PHYSICAL  
PERCEPTION RECOGNISED THROUGH  
EMOTIONAL SENSIBILITY.

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THERE IS A VERY STRONG TENDANCY IN  
VISION TO GRASP AND FIXATE, TO  
DOMINATE SECURE AND CONTROL. TOUCH  
IS THE PARENT OF OUR EYES, EARS, NOSE  
AND MOUTH AND IS OFTEN REGARDED AS  
“THE MOTHER OF THE SENSES”

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## THE 5 SENSES

:

SIGHT

SMELL

TASTE

HEARING

TOUCH

(VESTIBULAR)

(PROPRIOCEPTION)



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CALM, CLARITY & SIMPLICITY  
PROPORTION & PROXEMICS  
THE SENSES & ATMOSPHERES  
TRUST & SAFETY  
MATERIALS  
FLEXIBILITY & ADAPTABILITY  
MOVEMENT & TRANSITION

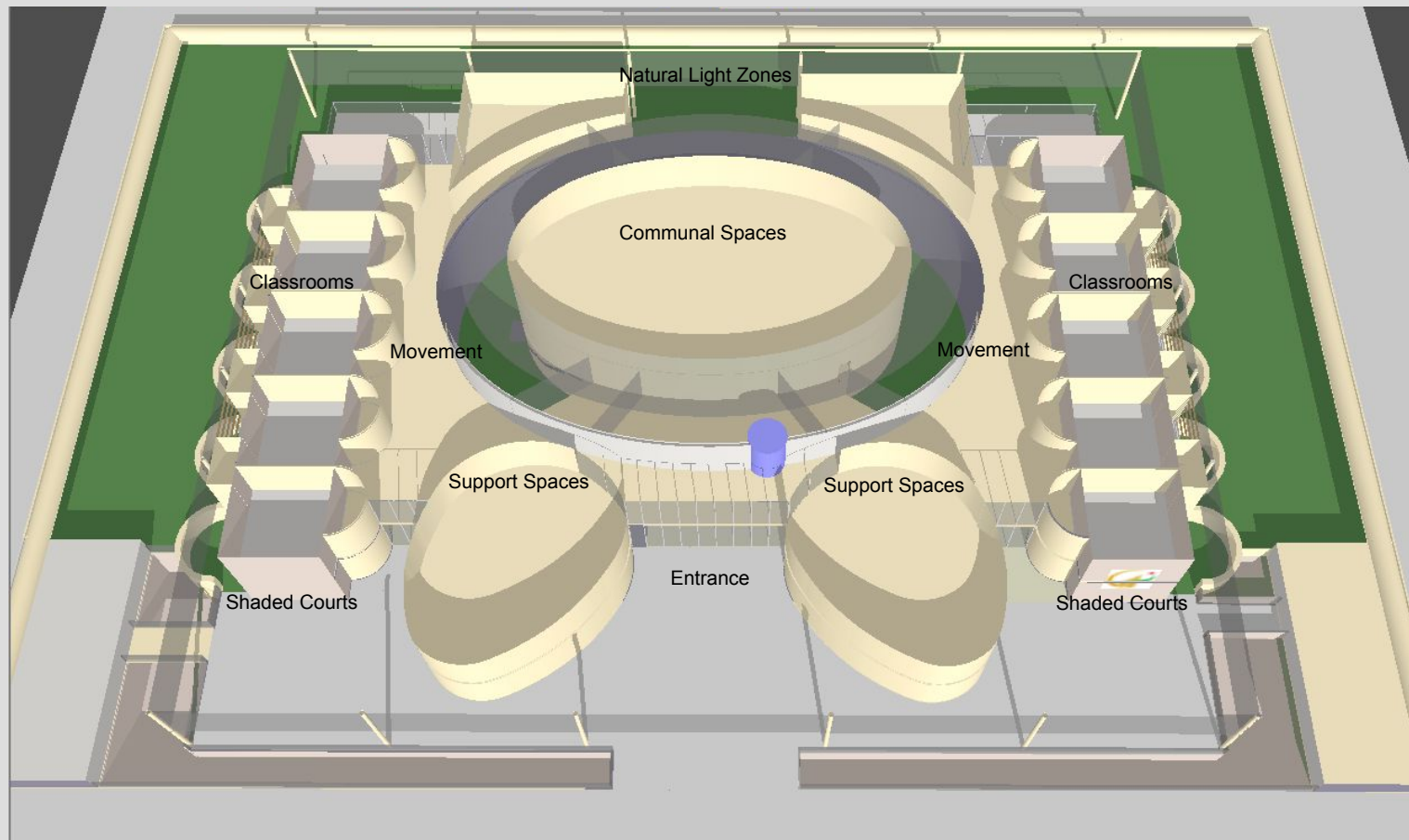
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## CALM & SIMPLICITY

A simple ordered plan provides clarity for the user.



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## CALM AND SIMPLICITY

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 )

The internal spaces at the Abu Dhabi Autism Centre are simple, calm and limited in detail.



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## CALM AND SIMPLICITY

A unified architecture is predictable provides coherence, order and simplicity.



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## CALM AND SIMPLICITY

A calm outlook reduces visual distraction and complexity.



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## CALM AND SIMPLICITY

Shaded recreation courts provide protection from strong sun, glare and complex shadows.



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## CALM IN COLOUR

Limit the pallet of colours into the building





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## COLOUR IS INTRODUCED





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## COLOUR IS INTRODUCED

An interpretation of soft play using a calm colour pallet



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## CLARITY AND SIMPLICITY

For autistic children 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)

The classrooms in the Abdullatif Al Fozan Autism Centre are simple and clear with people and furniture providing sensory stimulation.



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## CLARITY AND SIMPLICITY

Large amounts of storage which can be closed off allows the space to be empty as or when required.



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## CLARITY AND SIMPLICITY

Washrooms are simple, clear and uncluttered with touch free sensor fittings



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## CLARITY AND SIMPLICITY

The same appliances for all no distinction.



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## CLARITY & SIMPLICITY

Autistic people have a strong drive for coherence. If one detail is changed the whole scene is different



John Pawson

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## CLARITY & SIMPLICITY

A naturally lit lightwell provides calm reflected natural light into dark spaces





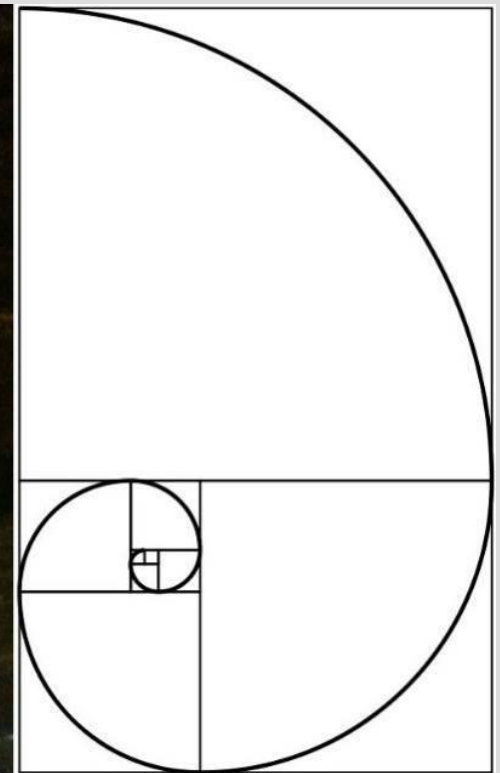
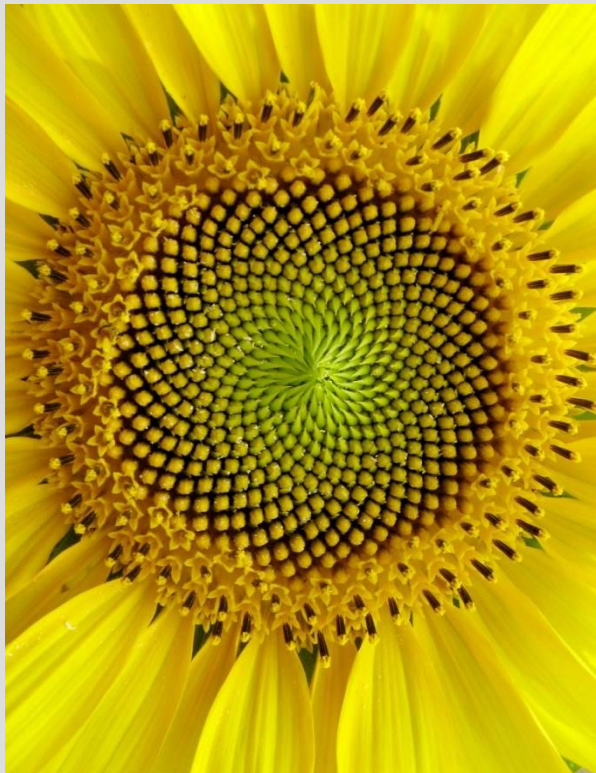
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## PROPORTION & PROXEMICS

Ancient Proportional systems resonate with something within the human mind or heart which recognises beauty in a very direct and intuitive manner.





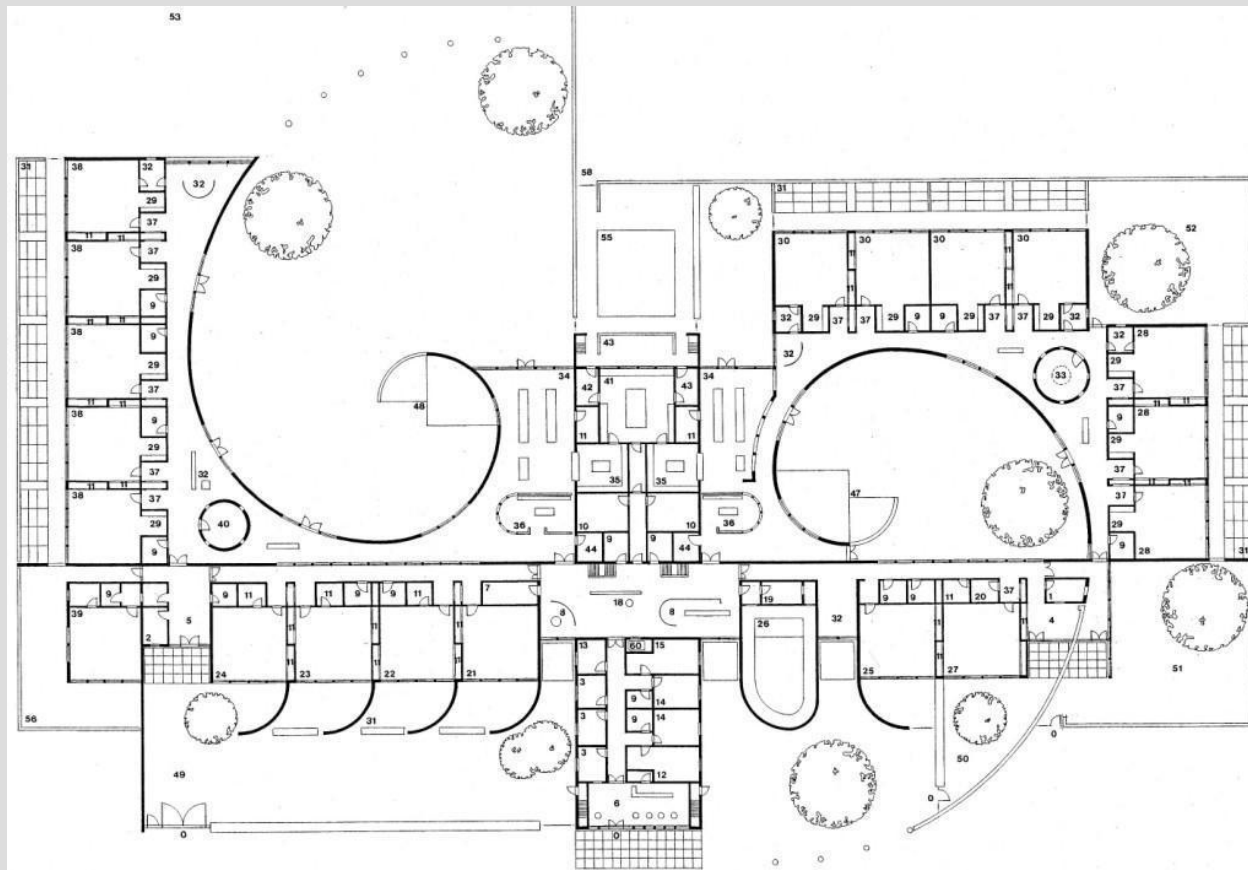
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## PROPORTION & PROXEMICS

A plan for an autism school in the UK based on the Golden Spiral



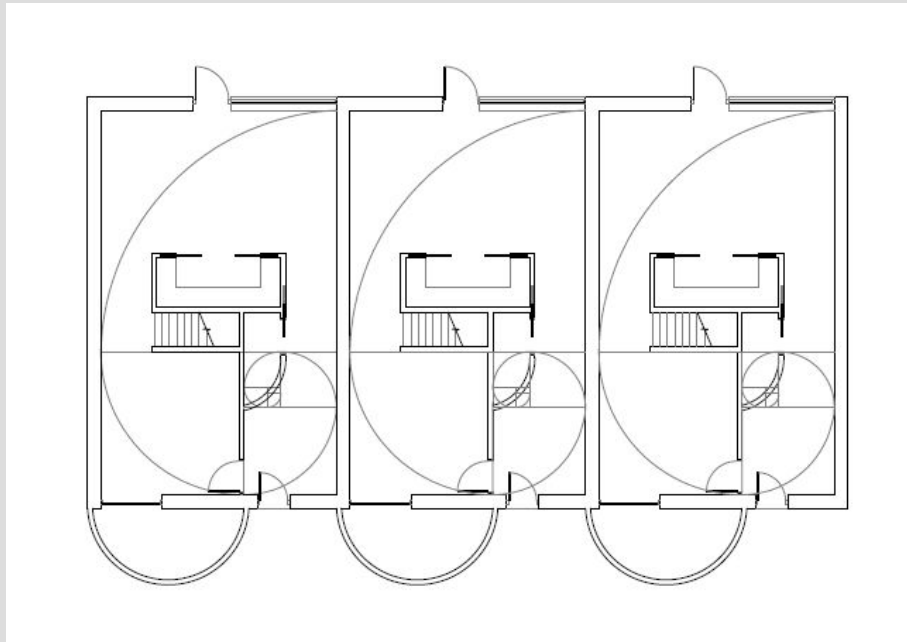
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## PROPORTION & PROXEMICS

A plan for three apartments for autistic adults based on the Golden Spiral



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## PROPORTION & PROXEMICS

All the proportions of the apartments are derived from the Golden Spiral



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## PROPORTION & PROXEMICS

Ample free flowing space is provided in the Abdullatif Al Fozan Autism Centre responding to the proxemics of autism.



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## PROPORTION & PROXEMICS

The Abu Dhabi Autism Centre's brie soliel façade design and overall building is based on the Fibonnacci series of proportion and its detail is limited.





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## THE SENSES & ATMOSPHERE

Autistic people tend to rely upon all their senses, sight, smell, touch, hearing and taste to try to make sense of their world and also struggle to discriminate multi sensory events.

The Abdullatif Al Fozan Autism Centre uses sandblasted limestone as its main material due to its tactile, acoustic and visually soft properties



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## THE SENSES & ATMOSPHERE

The atmosphere of a building can be changed with lighting, stimulation is introduced but not permanent.



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## THE SENSES & ATMOSPHERE

Humans have an intrinsic need for exposure to the natural environment which engages all the senses.  
Living Walls promote this multi sensory connection.





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## THE SENSES & ATMOSPHERE

The scent of a building can reduce anxiety and provide a more pleasing atmosphere



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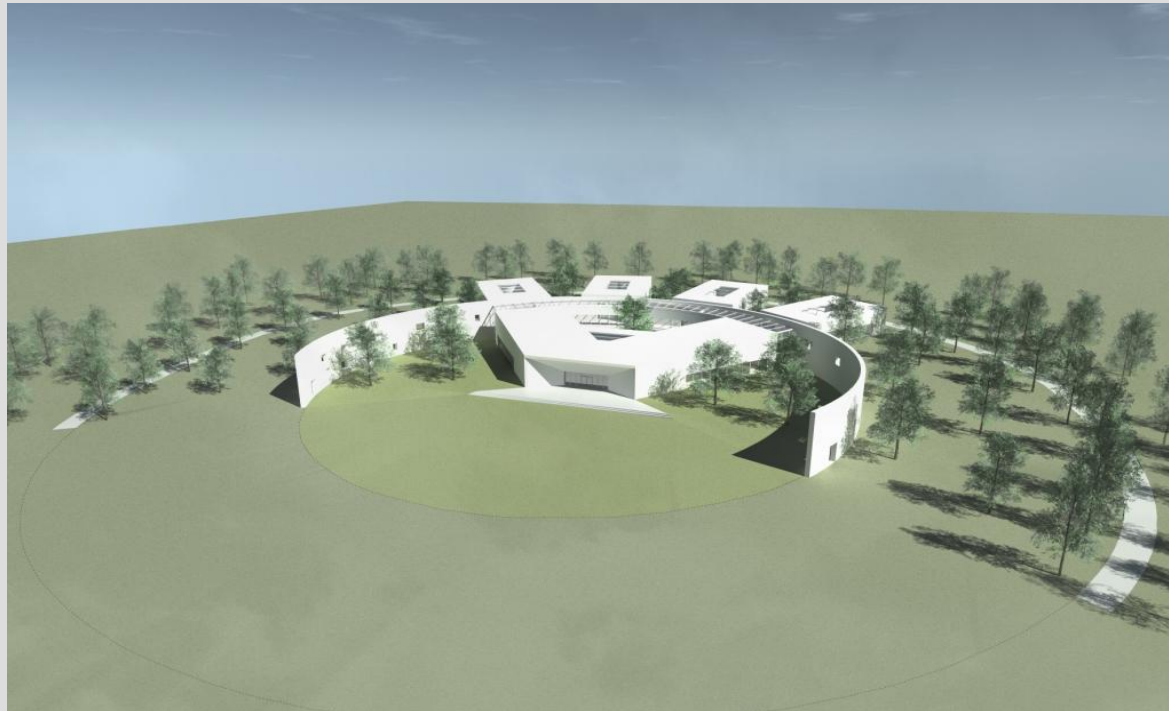
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## TRUST & SAFETY

‘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 withness 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 )

Private separate therapy pavilions provide safe havens for autistic children at the Early Intervention Centre for autism.



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## TRUST & SAFETY

A simple enclosed entrance provides a sense of protection and safety for transition



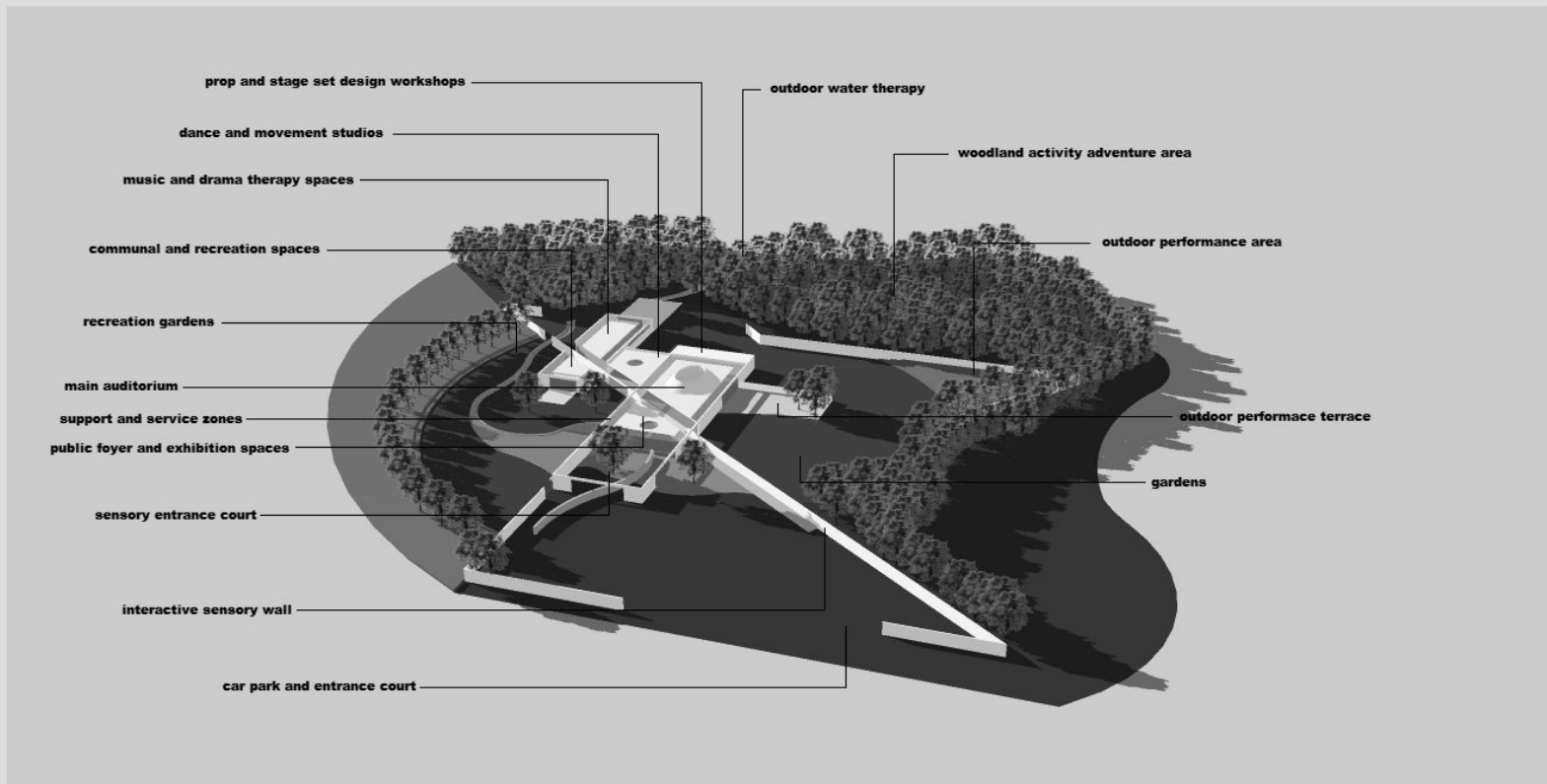
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## TRUST & SAFETY

A performing arts centre for autism in the USA provides safe external spaces for escape and retreat.



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## TRUST & SAFETY

Shaded enclosed external courtyards off classrooms provide for safe play.



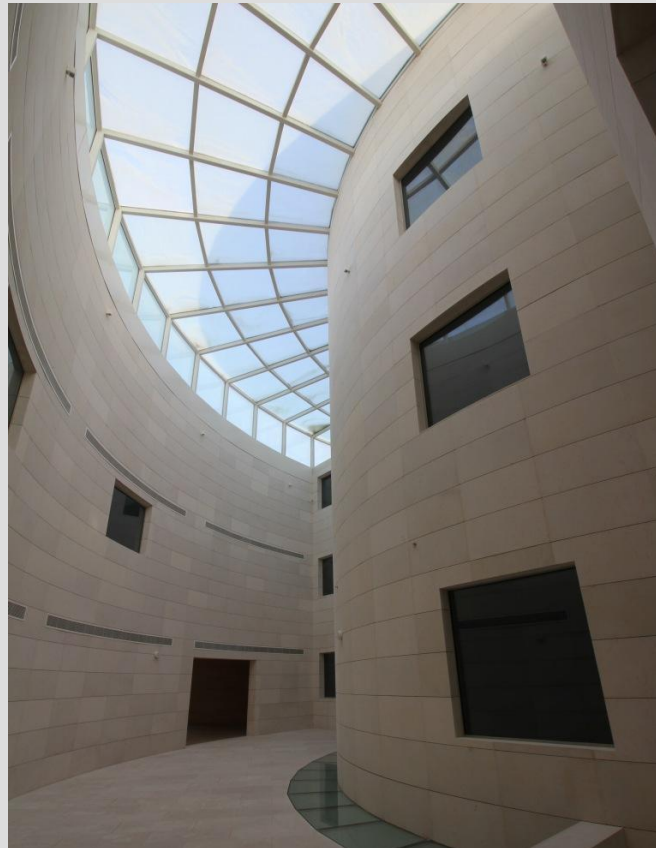
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## MATERIALS

In the Abu Dhabi Autism Centre this sensory stimuli is limited in detail, materials and colour





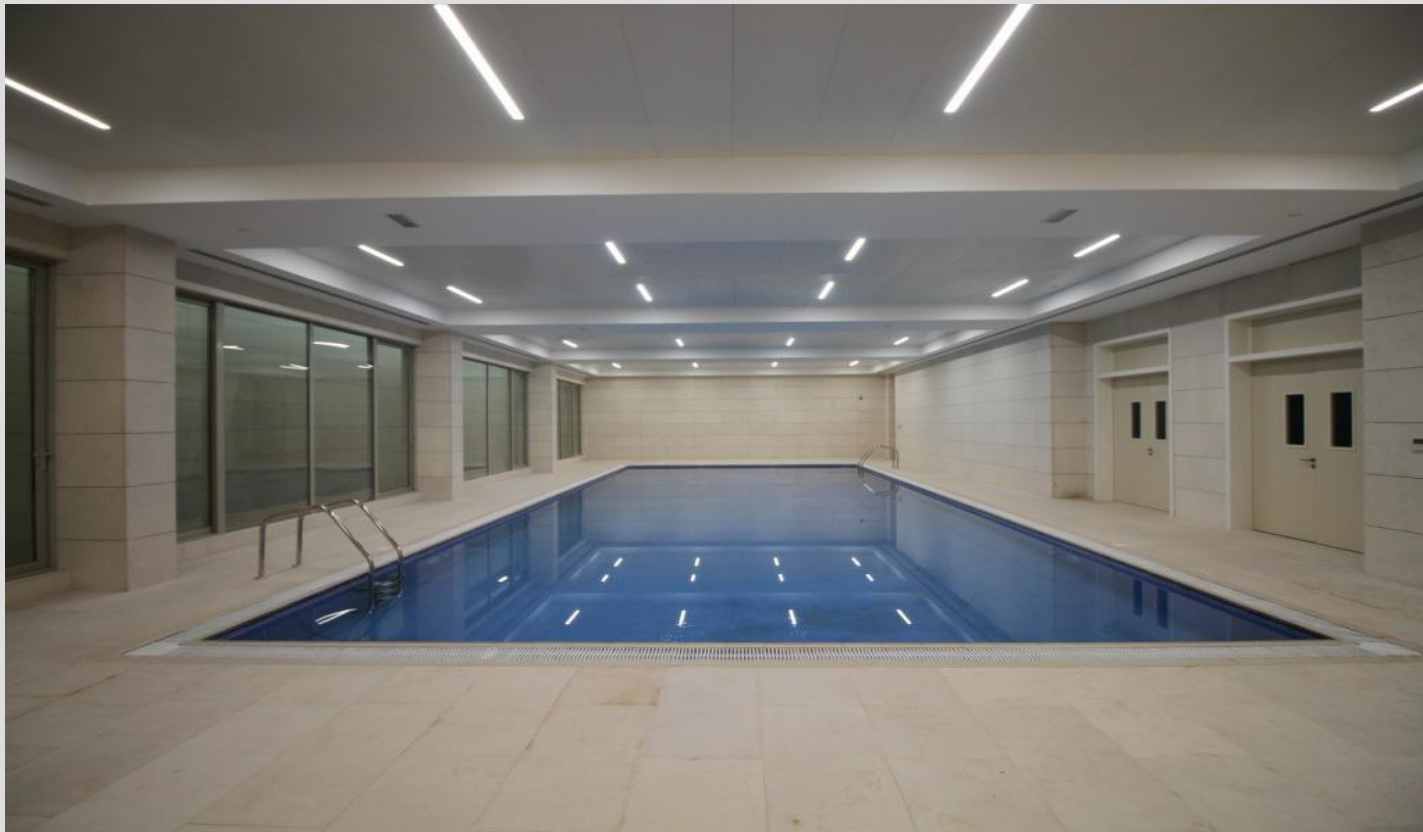
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## MATERIALS

Limited materials in active recreational spaces provide a calm back drop.



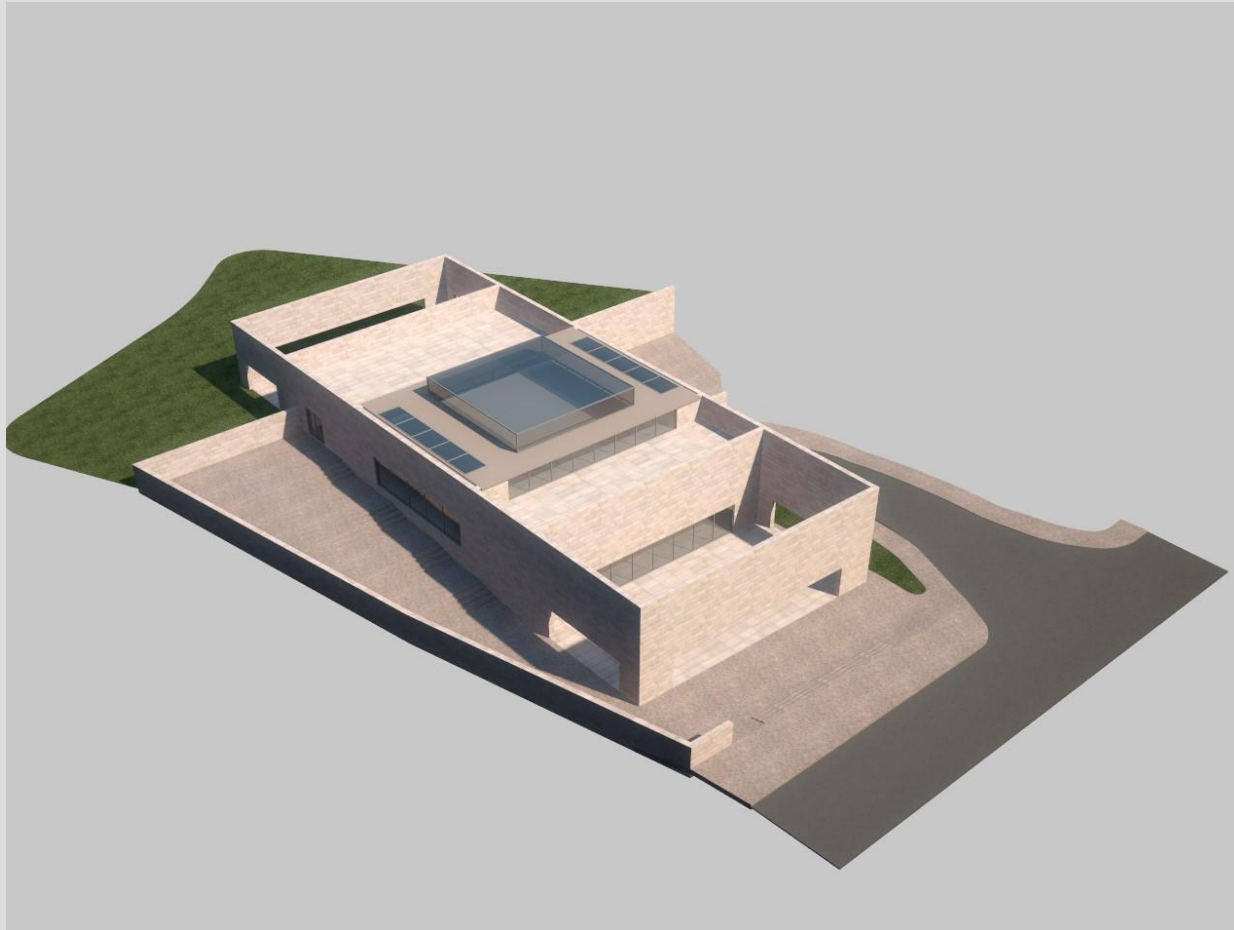
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## MATERIALS

A single external material is proposed for this autism centre in The Channel Islands.





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## MATERIALS

A limited selection of materials create soothing atmospheres



John Pawson



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## FLEXIBILITY

A versatile space provides various opportunities of use in the Abdullatif Al Fozan Autism Centre



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## FLEXIBILITY

The food hall at the Abdullatif Al Fozan Autism Centre can be used for a number of functions



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## FLEXIBILITY

The opening ceremony autism exhibition.



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## FLEXIBILITY IN FURNITURE

Soft and hard, one to one, group work, age scaled and relaxation.



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## FLEXIBILITY IN FURNITURE

Furniture can also provide good acoustic qualities and flexibility.





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## FLEXIBILITY IN FURNITURE

Simple uncluttered furniture design provides options for different use's.



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## FLEXIBILITY IN FURNITURE

Clever detailing can provide ease of adaptation.



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## MOVEMENT & TRANSITION

A seamless floor finish provides easy transition for people from outside to inside without thresholds



## MOVEMENT & TRANSITION

Gentle flowing spaces provide for calm circulation around a building



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## MOVEMENT & TRANSITION

Proxemics is the measurement of personal space surrounding the personal body. For autistic people this personal space can be greater therefore the building should allow for this particularly with movement.

Movement spaces were designed in the Abdullatif Al Fozan Autism Centre to achieve a more relaxed, soothing movement around the building with details providing visual way finding.





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## MOVEMENT & TRANSITION

Large amounts of space between bench's respond to the distinct space needs of autism





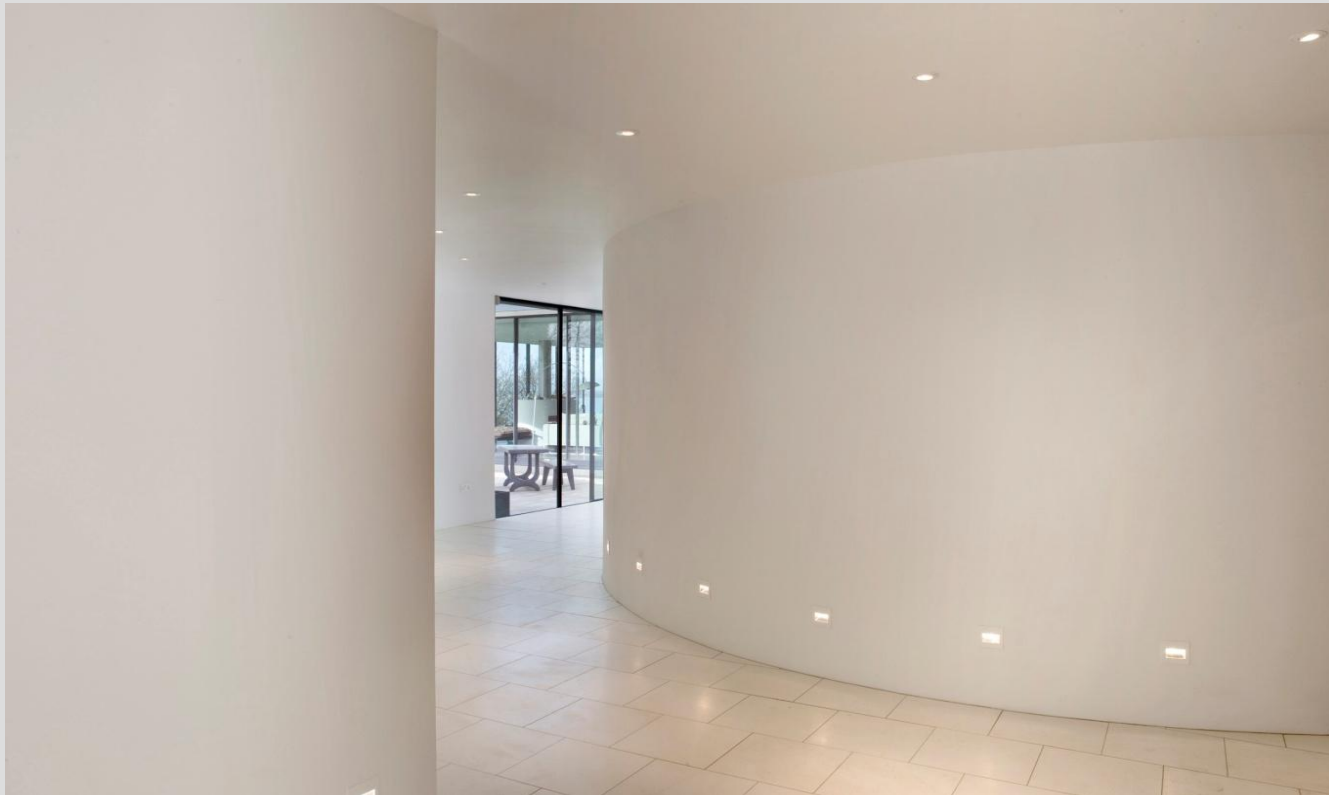
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## MOVEMENT & TRANSITION

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



Simon Humphreys & The Manser Practice

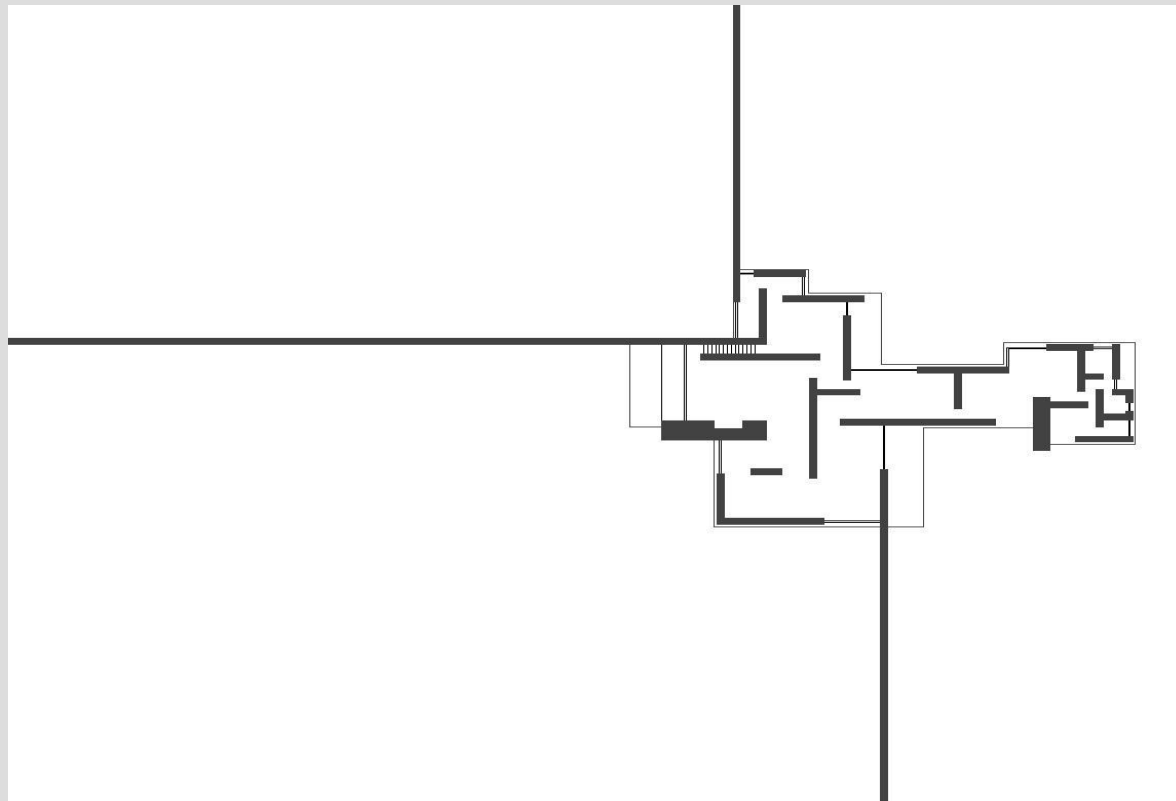
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## MOVEMENT AND TRANSITION

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



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## MOVEMENT & TRANSITION

The seamless transition from inside to outside space.



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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 autistic people who perceive and experience the environment in a unique and multi sensory way, stimulation can come and go.



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In architecture it is sometimes what you don't do that has impact.



John Pawson