

Autistic Accessible Design

{Descriptive Manual}



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Introduction

{Autism: a system-wide difference}



In our work advocating in autistic and autism spaces, it is apparent that persistent understandings of autism, despite the best of intentions, can often be guided by outdated materials and narratives.

Once not long ago, autism was regarded even in research as just a one-way social deficit. The research has come a long way since, and contrary to misconceptions this isn't only a broadening of applicable diagnosis but a much more specific understanding of what autism actually is. Sadly the slow-paced implementation of evidence has a real impact on the daily and long term outcomes of autistic people. At Autistic Haus we prioritise outcomes, so we're glad to share this free resource to help readers understand the relationship between autism and environment as it is understood today.





Operational Differences

A Summary of Evidence for Inclusive Design

1.

If there's one thing readers take from this manual let it be that even aside from co-occurring conditions, autism is a physical condition. We process information differently; from having different rods and cones ratios in our eyes, to not filtering out extraneous input, to generating an additional 42% more information than non autistic people, at minimum! When spaces and infrastructure are designed without this in mind, the physiological BURDEN on autistic people is massive. This has a direct impact on outcomes including behaviour and communication.

Neurotypical Peers are Less Willing to Interact with Those with Autism based on Thin Slice Judgments
Sasson et al 2017

This study is of note as it alludes explicitly not just to autistic processing but actually describes non-autistic processing as being reliant on high speed filters which assist in both prioritising information and eliminating inconvenient input. This is a crucial distinction to be aware of.

Information gain in the brain's resting state: A new perspective on autism
Velazquez and Galan 2013

This is the study which found that, essentially in order to process the greater unfiltered input received in autistic processing, autistic brains generate a significant additional 42% of information even at rest. This is real expenditure which must be accounted for.

A molecular framework for autistic experiences: Mitochondrial allostatic load as a mediator between autism and psychopathology
Mahoney et al 2022

Very recently, studies have indicated that due to these aforementioned processing burdens experienced by autistic people of all support levels, mitochondrial damage can result. This in itself is a devastating outcome and can be linked to the development of serious secondary disabilities, poor outcomes and quality of life and lower life expectancy.

Taken in this order, these studies help us quickly begin to see what autism is on a system-wide level across all support needs and presentations. Now you can see why autistic people have different and specific requirements of their physical surrounds.



Disability History, The Gruen Transfer & Hostile Design: The infrastructure harms autistic people & rentals are inappropriate

2.

Disability history is human history. Remains of humans from at least 31,000 years ago show complex successful surgeries and caring for the survivor throughout months of recovery and lifetimes of disablement. Before economic markets we were humans. As timelines progressed, different cultures took differing views on caring for disabled people which intertwined with the rights that everyday people could expect. In western history the culture shifted with the industrial revolution. Some factions took a punitive stance in workhouses and poor houses while other factions fought to establish dignity and peace for the vulnerable, such as can be seen in historical records of Quaker asylums, firmly focusing on access to natural spaces and dignity before seeking to extract productivity. However as capitalism progressed the punitive attitude of workhouses and such institutions pulled ahead of communal ethics resulting in the ugly laws of the 19th century.

The Ugly Laws were legislation officially enacted in North America between the 1860s to 1970s. If you were visibly afflicted by any illness, disability, or considered to appear strange or unsightly, it was illegal to have access to public infrastructure and to be seen by the public. The punishment varied from fines to incarceration in jail or municipal work farms. This occurred at a pivotal time of societal development internationally, going on to form the bones underlying our infrastructure, systems, and attitudes today. The effect is far from obsolete in this day and age and is actually more relevant than ever. As society seeks to extract ever increasing productivity for less in return, those unable or unsuited to accessing conventional methods of production are again being pushed out as the fight for survival becomes more desperate among everyday humans. We have entirely lost third spaces and commons, to be overtaken by The Gruen Transfer and hostile design.



Disability History, The Gruen Transfer & Hostile Design: The infrastructure harms autistic people & rentals are inappropriate

2.

The Gruen Transfer and Hostile Design define contemporary obstacles facing disabled humans. Named after Victor Gruen who came to despise the practice, the Gruen Transfer describes the moment in which, upon navigating a space designed to burden and disorient, the successive engineered disorientation makes one more vulnerable to implicit advertising and more likely to make impulsive purchases. This describes most public infrastructure now given over to ad space, finishes which amplify and bounce noise and light, confusing layouts, pumped in odours, and contrived canned music. There is a wonderful essay by James Arvanitakis and Spike Boydell, out of Western Sydney University entitled 'The Real Gruen Transfer: Enclosing the Right to the City'. Once we begin to understand and notice the deliberate hostile design practices which go beyond even this Gruen Transfer, together with cultivating an awareness of the violent, pervasive ableism underwriting the structures of modern society and every aspect of our shared daily lives can we begin to observe the extent to which modern infrastructure harms and excludes autistic people specifically.

Modern infrastructure harms and excludes autistic people in almost every aspect of daily life. As autistic people are unlikely to be adequately accommodated in the infrastructure, in employment and in housing, we can observe these factors as terrible outcomes for autistic people en masse and individually. By not keeping up with current research and lingering on the perception of autism as a social deficit in a vacuum, the facilities which diagnosed and undiagnosed autistic people depend on deplete what capacity we have whether high or low support needs. If one takes a quick look at any private rental available to an economically vulnerable person it is obvious that the accommodation is by and large inappropriate and hostile to the autistic residents, robbing them of what capacity they may have and increasing physiological damage and guaranteeing poor outcomes in every area of life, including substantially lower life expectancy than non-autistic populations. And all of it is a choice.

We at Autistic Haus are here to illumine a better way forward.

Autistic Accessibility

The Principles for Positive Outcomes

3.

Foundations

	Textures & Patterns	Autistic people do not filter as much from their environment as non-autistic people, and commonly have difficulties with spatial navigation. Mind should be paid when selecting surfaces with textures or patterning, such as wallpaper or tiling. Avoid glare, or disorienting patterns. Spaces can be lively if that is their purpose if consideration is given to how autistic people process environments.
	Wayfinding	Assist navigation with wide passages and clear wayfinding cues. Avoid crowded or narrow spacing, instead use open circulation and rounded elements of architecture and design for calm and reducing hazards.
	Safety & Autonomy	Thought should be given to providing supervision with dignity and discretion. External views and direct sightlines can provide a sense of safety while respecting space and privacy, particularly for autistic adults.
	Sustainability	Autistic people need dependability, and it would be unrealistic at this time not to consider increasingly severe natural events and climate. Intense temperatures can be very disruptive and accommodation should be built to standards which will safeguard residents through the future they will be facing.
	Universal Design	Autism rarely presents on its own. There are myriad disabilities and conditions which are not at all part of autism but are reliably understood to be frequently co-occurring. As well as this, autism may occur in a person with disabilities not connected to autism.



Autistic Accessibility

The principles for positive outcomes

4.

Design

	Proxemics	The space should communicate its boundaries and purpose through implicit and explicit cues to reduce the processing burden required, with good spacial proportions, colours, lighting, textures.
	LRV Light Reflectance Value	Autistic people are very light sensitive with some studies indicating difference in rods and cones of autistic eyes as well as different processing. It is crucial to avoid glare. All colours can be graded on Light Reflectance Value and highly reflective colours such as white should be avoided at all costs.
	Colour Palette	Research including autistic input recommends a specific preferred palette across autistic respondents. This does not mean the colours should be boring - on the contrary, high saturation can be utilised in conjunction with other design principles such as the LRV and Lighting.
	Lighting	Glare reduction is very important to lower the additional processing burdens experienced by autistic people. Natural lighting should be key, with options for shading. Include dimmable fixtures, warm lighting over cool lighting. The artificial light source/bulb should not be directly visible where possible.
	Acoustics	To reduce the overall impact of high processing burdens from information gain experienced by autistic neurology, it is vital to have robust soundproofing and acoustic considerations included to make a space accessible and not harmful to autistic people.



Universal Design, Co-occurring Conditions & The Gap

5.

Autism can occur alongside a massive range of associated and unassociated co-occurring conditions, and is lifelong so elderly people can be autistic while being less likely to have been diagnosed or supported. In the general community, people may have the expectation that it would be easy to find appropriate supports and a home if one is autistic, but in reality many autistic people are excluded from supports for a range of reasons including facilities not accommodating additional disability or complex presentation. At the same time those with non-complex presentations are assumed to not need support despite facing the neurological disadvantages and burdens explored in this manual. The outcome is that very few autistic people who need help with accommodation and support ever receive it.

Autism is part of every population, including other marginalised and vulnerable intersections across race and gender. As discussed in this manual, the accrued neurological stressors faced by autistic people across the spectrum, as well as intersecting factors, have terrible outcomes across low and high support needs from significantly lower life expectancy, health complications and less security in housing and employment.

Autistic Haus as a foundational homes model will address this major gap, but you can help simply by making your spaces accessible to autistic people, even if you don't specialise in autism. We could be your clients, your colleagues or your customers. Additionally, every autism space should also be universally accessible. Providing spaces which don't deplete our capacity is always appreciated.

Research on autism continues to break new ground and provide ever greater opportunities to improve the lives and outcomes of autistic people. The advice in this manual has grown over 10+ years and will continue to adapt as we learn more.



References, Inspiration & Further Reading

6.

References

- [amputation of a limb 31,000 Y.A](#)
- [The Real Gruen Transfer](#)
- [GA Architects](#)
- [Thin Slice Judgements study](#)
- [Information Gain study](#)
- [Autism Molecular Framework](#)
- [Light Sensitivity_](#)

Inspiration: Other Projects and Orgs we Love

- [Bobby's Tiny House World on Tiktok](#)
- [GA Architects](#)
- [Jo Viney Design](#)
- [Recovery Village](#)
- [Customised Accessibility: Night Sky](#)
- [Neuroniche Design](#)

Further Reading

- [GA Architects](#)
- [Ugly Laws](#)
- [The Gruen Transfer](#)
- [Sarah Barnard ND Design](#)
- [Designing for Autism](#)
- [Autistic Haus Linktree](#)
- [Aspect](#)

Autistic Haus is a registered charity organisation
for more information or to support our work please visit our website



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