



Architecture, Multi-Sensory Environments, and Havens, Oh My!

After reading this brief, you should be able to,

- Define and explore the prevalence of sensory processing disorders
- Detail autism architecture guideline
- Differentiate between multi-sensory environments and sensory havens

Have you ever been in a crowded urban place and seen the new trend – the phoneless phone booth? Since cell phones have taken over our communication universe it's possible you might think of a phone booth as a place for measly humans to morph into superheroes, and not as a place to use a corded telephone that is attached to an inner wall. While the obvious strategy behind phoneless phone booths involves having a quiet place to make a call when surrounded by a noisy environment, they also provide a microbreak from the blitz of sensory input that people experience. Think of phoneless phone booth users who have been photographed quietly and thoughtfully eating a sandwich – not making a call at all - seemingly unaware of the line of people waiting for their turn in the booth.

You don't have to be autistic to find certain aspects of our sensory world to be overwhelming, but a large percentage of autistic people do experience sensory overload. If you explore this topic on the internet, you will find estimates for typically developing school kids with sensory challenges hover around 10-15%. That's about the same percentage of people who are left-handed. While there is no documented relationship between being left-handed and having sensory challenges, you can get a picture of their prevalence with the example. Lefties are everywhere, but not in great enough numbers that the world has made predictable adjustments for them. Think about guitars, drinking fountains, and gas pumps. Lefties can use them, but not

always as well as the righties can. So it is for people with sensory challenges. They live in a world full of people who manage their sensory needs without any problems, but for sensory sensitives, that phoneless phone booth can be a real treat for jangled nerves.

Now, let's turn our attention to the prevalence of autistic people who have sensory differences, and the percentage shoots up to around 90%. We all pick up knowledge from stories and what we see. In some circles it's known as *grandmother knowledge*. The problem is that grandmother knowledge can be flawed and might lead to inaccurate stereotyping and planning. Luckily, there are people out there using rigorous scientific methods to provide information about the emerging field of autism architecture. For that 90%, it is something our grandmothers would be proud of.

Let's take a look at two kinds of autism architecture: one is permanent and involves building or structure that is designed or retrofitted with features that are known to support the everyday lives of autistic people. The other is usually, but not always, a kind of architecture known as a *multisensory environment*, or *MSE*, or in the mother tongue of Dutch, *Snoezelen*. Since most of us are not Dutch, let's run with MSE. As opposed to the autism architecture that determines the design of a building, a MSE is typically a furnished space within a building that may or may not be a permanent installation. In some cases, they exist as part of a treatment facility or educational environment, and in other cases, they are constructed for a special event.

Autism architecture got a formal nudge forward when an Egyptian researcher architect, Dr. Magda Mostafa, systematically developed the *Autism ASPECTSS* concept that details seven unique principles behind designing autism-friendly environments. They are acoustics, spatial sequencing, escape, compartmentalization, transition spaces, sensory zoning, and safety. Each of these reflects a variety of factors inherent in designing for a population that is characterized as being part of a spectrum. Dr. Mostafa has paid plenty of attention to the sensory environment, gradually focusing on creating zones within a structure to accommodate different needs which impact behavior and level of function. As a result, the zones within a

structure can appeal to an individual's needs and preferences, including a sensory neutral *escape space* that offers an opportunity for the user to self-regulate or relax.

In contrast, a MSE is not sensory neutral, but offers multisensory input with a heavy emphasis on vestibular (movement of the body in space), proprioceptive (movement of joints within the body) and tactile (usually deep pressure) stimulation that is known to promote internal organization, or in the vernacular, *chilling out*. Additional essential elements of a MSE usually include auditory and visual input, and less often, things to stimulate the senses of smell or taste. The personality of a MSE varies, but they can evoke memories of discos, spas, and gyms, all rolled together into a controlled environment. While some MSEs are designed to fire up their visitors, others are designed to calm them, and most are set up with the middle in mind. Hence, the term non-prescribed is often used to describe them.

Once you have wrapped your mind around the idea of a MSE as typically being a permanent installment, move your attention to portable or temporary sensory spaces. These are usually set up in conjunction with events that are attended by many people, some of whom are neurodiverse or autistic. Owing to both the excitement and anxiety that accompanies special events, the MSE in these cases becomes a *haven*, hence the frequent use of the term *sensory haven*. It's never a goal to treat or do therapy with people in a special event sensory haven, but it is a goal to provide them with an opportunity to relax or settle down if they need or want it. Many times, if the event is geared toward autistic children, their parents and even service dogs appreciate the calm break!

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Sensory havens are often characterized by their portability. For this reason, flooring is frequently a series of interlocking foam tiles, the structure itself is a series of cardboard house, pop up tents, or portable cabanas, and because suspension hooks for swings are usually not present in the ceilings, furnishings may include portable gliders or rockers, weighted lap pads. Ambience is created by LED lighting arrays, white noise machines, and calming objects. Most of

these items also have the benefit of being easy to clean and lightweight to transport. In the best cases, they are also manned by trained volunteers and helpers.

Sensory havens are an invaluable addition to many community events and can increase the staying power of autistic visitors by providing them with an opportunity to stay centered and calm. The side benefit is that their families also experience a break and time to regroup. The ripple effect can be seen in other visitors and event staff. Everyone is a sensory creature – remember that 10-15% of school kids who report sensory challenges? Think about them in your next event – everybody could use a little sensory TLC!

Want to know more?

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Mostafa, M. (2014). Architecture for autism: Autism ASPECTSS™ in school design. *International Journal of Architectural Research: ArchNet-IJAR*, 8(1), 143-158.

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