

# TAKING OUT DIS IN DISABLED

## Rethinking Equality in Architecture



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### Introduction

On September 29th 2016 I came to realize something which would change the way I define and look at architecture. Through a course at the university of Lund I got to experience the challenges in the built environment which the disabled people have to face everyday. I was seated in a wheelchair to move around in the city of Lund. The roads were not straight and a lot of arm power was forced to be used. I further on came to realize that if I wanted to enter some of the buildings in the city of Lund, I was not able to. The use of wheelchair was not prioritized in the entrance of the buildings but were limited to stairs. I found myself rethinking my perspective on what I consider architecture.

Did you know that around 15% of the world's population live with some sort of disability? That is a whole of one billion people around the world with 80% of these people living in developing countries. (WHO, 2011) This February I went on a study trip to the Philippines and this is where I made my next encounter with the issues of providing for the disabled. Walking on the streets of the city of Manila or even a small neighborhood nearby, I never found any disabled people on sight. It was as if they had vanished or did not exist.

Do we not share this world together? The built environment and architects carry so much responsibility in this matter and as an architecture student I feel this issue is important to write about. In my mind this world should be an equal place for all. This is why I want to write about this, to discuss the importance of the subject, learn something myself and hopefully affect at least one person in rethinking architecture.

# Literature Review and Discussion

## A need for change

Organizations for the disabled existed way back from 1922, but it was not until after world war two real changes happened in the built environment. There were many people that were affected during the war. Many were left disabled and there was a need for a change. (Beckman,1976)

## Urban Law

To be able to have good urban development you need to have a good quality of urban law and legislation. The quality of human settlements and urban governance have an influence in creating quality of life for billions of people. It affects which rules to follow when taking decisions in planning to provide better livelihood and living conditions for many people. It is needed because inequalities and exclusion can occur. The disabled community needs to be seen and cared for in the law to be able to create a better future.

(UN-Habitat, 2016)

According to UN-habitat local authorities and participation by people is very important to create the best solutions for urban problems. Opinions from young and old, women and men, the poor, disabled, migrants, indigenous people and other excluded groups need to be considered. (UN-Habitat, 2016) It is important because their voices can be heard and policies can be changed. This will affect the possibility to change poverty, climate and inequality. (UN-Habitat, 2016)



Inequality in architecture (Agbo, 2017)



(Gragert, 2015)

## Requirements

Together with the right urban law it is also very important to have knowledge and understanding for what disability is. Without the knowledge in the matter it is difficult to create an equal world. The following will include planning requirements for different kinds of disabilities. (Fischer & Meuser , 2009) (Meuser, 2012)

### **Planning requirements for restricted movement**

Exact measurements and barrier-free access to different spaces should be planned out correctly. (Fischer & Meuser , 2009) (Meuser, 2012)

### **Planning requirements for visual impairment**

It is important to create spaces that are bright without glare and shadows. You should be aware of danger areas like thresholds and steps. One should also consider orientation aids such as signs, handles and switches. These should be recognized clearly and have contrasting colors. (Fischer & Meuser , 2009) (Meuser, 2012)

### **Planning requirements for blindness**

Remember potential danger areas as mentioned before. Orientation aids with different floorings. Balanced acoustics in spaces are important. Shatter-proof glass should be used. Instead of visual signals, acoustic signals should be used such as bells, lift signals, etc. (Fischer & Meuser , 2009) (Meuser, 2012)

### **Planning requirements for hearing impairment and deafness**

Following noises and sounds are important for someone with hearing impairment and therefore one should create balanced acoustics. Sounds from traffic should be reduced with good insulation. Furthermore, visual and acoustic signals should be used. Spaces should be built without glare and shadows. Spaces should be bright. (Fischer & Meuser , 2009) (Meuser, 2012)

## Planning in developing countries

Planning and designing in developing countries is a little different. Requirements should be used but there are some hindrances for providing the best environment for the disabled. Social, cultural, economic and technical factors are some of them. There is a lack of financing, legislation and regulations. There is also a lack of construction material and technical solutions. Geographical and climatic factors are also hindrances. There can also

be a lack of knowledge in designing and planning. There is not a lot of research and information about the subject which also creates a problem. (CIB,1989)

## Barrier-free

In the 1990's the "barrier-free building" came into the language of architecture instead of the questionable "building for disabled". (Fischer & Meuser , 2009) One hopes that we one day in the future will no longer refer a building with these terms. The building should be as it is and include all people. We should always assume that we are designing for an unknown person. This means that whatever we design it should be accessible for everyone. Barrier freedom is one of the most important issues in architecture. When we design a space, it should be liveable through all stages and situations in life. We will all one day become functionally disabled. One day we could break a leg and be dependent of a wheelchair. We grow older and might become confused, weak and lose our sight and hearing. Therefore, when we design we should not only design for this age, but for us the future.

## Problems in built environment

Issues that still exist in our built environment are usually found in older buildings and facilities due to the time in which they were built. But there are also issues all around us on an everyday basis. The lack of space creates reduced mobility and makes it difficult for people in wheelchair to move around. Good space is needed in homes as well as in public areas with right dimensions and lifts to non-accessible levels. Dimensions in corridors or doors can be too narrow for entering and the entrances in older buildings and facilities with no lift or ramp exclude people in wheelchairs.

External environment could also be an issue because there might be different levels on the ground which are difficult surfaces to move around on. People on the streets and a lot of traffic could also create an obstacle for the disabled, it can be complicated to find one's way around an environment and specific signs might be missing. ( Beckman, 1976)



Good solution - stairs and ramp (Malhotra, 2017)



Not good, only stairs (Munger, 2015)

## Problems between solutions

Although a solution may exist for people with impaired hearing, an electrical installation in a building could disturb their hearing aids. While people in wheelchair may need pavements without big stones, a blind man needs them as defined edges to be able to distinguish different streets with the use of their stick. A solution for one person could be a problem for another. It may be the lack of knowledge of this matter or simply that it is ignored. It could also be that the designer or planner did not bother or were not able to find a solution although there could be one if they were given one. (Beckman,1976)

## Issues in Developing countries

There are many reasons for why the disabled are not being prioritized in developing countries. As mentioned there are many rules and regulations that have not been set yet. The costs are also an issue. Installing an elevator costs a lot. Having caretakers and establishing care homes also adds to the list of cost. In Sweden, we are lucky enough to have all these things available for us. We have people who can help us when we are not able ourselves. We have care homes for all sorts of life situations. The difference is that in countries like the Philippines, the disabled and elderly are dependent of the people around them. Families and friends become their caretakers when they cannot take care of themselves. Many are often left inside due to the difficulty of moving a person in a wheelchair. In most cases people living in poverty cannot afford a wheelchair due to the

cost, so they have no access to the proper wheelchair we have in developed countries. They have even more difficulty with moving around and are more dependent on families and friends.

## Psychological effects

People being left inside of their homes affect not only the social life but has psychological effects. There is a chance that they are left isolated from the social world when life is not barrier-free. It means that when people go out and meet other people they cannot take part in social and cultural gatherings which are essential for quality of life. Many become dependent on practical help to manage life outside home and this creates a community life which is limited.

## Tourism and Transport

Going away for the weekend and being a tourist is also an issue even if one has help. Questions asked could be “will there be a toilet that can be used?” or “Will it be easy to access the hotel room and restaurant around the area?” We must remember to also be aware of how important it is to create barrier-free tourism. Comparing Sweden and Philippines I can see a great difference in public transport. When I was in Metro Manila I took the bus and it could stop in the middle of the street and we were rushed to jump off. There was clearly no time for any functionally limited persons to go off. Comparing with Sweden, I would say we have to some extent accomplished to create accessible public transportation. People in wheelchair can in most cases enter a bus with the help of a bus driver or another passenger. In the Philippines it was difficult to get around with public transport due to the stressful schedule and crowded seats. The most common public transportation, jeepneys, were not accessible for the disabled.



(Dennise San Juan, 2018)



(Massey, 2015)

# Urban Shelter Design

Reading Charles Correa's text about housing and urbanization I realized that every house being used as an example never mentioned accessibility for the disabled. Some mentioned being made for low-income people but not once did I manage to find a solution for people that have limited mobility. I do understand the circumstances in developing a low-income house. I do know that it is difficult to design both cheap and barrier-free housing. But we must at least try to design some housing that are livable for low-income disabled people.

During our field trips in Philippines, we visited Smokey Mountains upgraded programs as well as Saint Hannibal. Most of the buildings are created to fit a whole family and a loft is required. Our interviews and observations show that the loft is the sleeping area, which excludes people with limited mobility. Most of the buildings consist of two or more stories with only stairs, which also is a problem. For low income housing it is almost never the case to use an elevator. According to the world bank about three billion people live on less than two U.S. dollars. People in extreme poverty live with less than one U.S. dollar. (Jenkins, 2007) This means that people with low-income would not be able to pay a higher bill if an elevator or such would be built.

My suggestion is to at least create functional low-income apartments on the ground floor that are more accessible inside as well as outside. One could create an entrance without stairs and an optional sleeping area on ground level with kids and others on the loft.

In general, we could create floor plans which could be changed at any time. As we know we may all become functionally disabled at one time or another. Therefore, this solution creates possibility to redesign the interior space so that the living area could become barrier-free for the time when one has limited mobility. When designing shopping areas, hospitals and pharmacies we should plan them so that they are accessible with good pathways and locate them nearby the neighborhoods. It is important because that they should be easy of access and clearly organized and locatable.

Obstacles should not exist in the built environment and we should always find ways to make it easier. Barrier freedom is however a very complex term and it truly is difficult to create something that will become barrier-free. There will in some way or another always

be something that becomes an obstacle, whether it is the old buildings or the pavements which are difficult to move upon. But we should always try and design accessible architecture the best way we can.

## The Role of Architects

Initially it all lies in the hands of politicians, economy, authorities, researchers and cultural values for creating a more equal world for all. But, we as architects are called to take upon this challenge and be aware of all the issues when we design. It is a challenge to create a building that at the same time is aesthetic as it is accessible. We must realize that quality of life is far more important than having it “our” way. It is far more important that we include all people in our buildings and invite them to use it fully rather than designing something that is beautiful, at least I believe that.

We must try to not only design for one part of the world but for everyone. It is in fact around 15% people in our world that live with some sort of a disability. That is one billion people around the world and about 80% of them live in developing countries. (WHO, 2011) These numbers are difficult to comprehend. Many of these people are often not prioritized and are left out of the equation. We must speak up and stand up for them in creating their quality of life. We are the makers in taking out dis in disabled. We as architects have the power to change someones life for the better, then why do we not do so? Let us try to take upon the challenge in every project that we work on to contribute to a more equal world.



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