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Architecture for everyone, everywhere... towards inclusive design.

Introduction

At a time of major debates on the "accessibility" laws and the resulting norms and regulations, inclusive accessibility standards seems to be too often perceived as a "handicap" for the designer, an additional difficulty in the many standards and regulations in which it is easy to drown ...

Since 2003, I have conducted research (including my graduation thesis), hundreds of audits, training, information and I can always do the same "observation": accessibility bores, sometimes annoys people ...

But if at Instead of seeing it as an obstacle to design, it was regarded as a challenge and an asset of a more "beautiful" architecture? For all of us ?

In this document I will talk about a "guideline" to allow all designers to design accessible.

It is not a recipe but just a guideline I use systematically.

I established this one from the observations made over more than ten years on my numerous audits and trainings and which - as an architect - allows me to see accessibility as an integral part of the design, as well as functionality, aesthetics, etc ...

Accessibility as aesthetic architecture, felt is a challenge for everyone, an asset for all. This guideline can be achieved in two points:

- to know the handicap to know the man of today

- understand the notion of chain of movement.

The design standards based on old anthropometric are no longer adapted to the men and women of today. The future belongs to an open world without discrimination of use and ways (of life). It's time.

The design of all elements - inseparable from the consideration of "well-being" or "better being" if necessary, takes into account all the senses of man. Inclusive design or architecture is not just limited to mobility. Being able to see, smell, feel is an integral part of the process of living well in one's environment, from the scale of the city to that of the object.

1/ Report to Man, a human size…..

There is no design or architecture without its relation to Man. Remove this link with men and the design loses its meaning:: to create for? The designers of all time have produced projects for the "majority" which has been identified as the Man of about 1m80, standing and having the faculty to use all its senses .... What luck !

But this majority (or the illusion of the majority because disability is not the prerogative of the twenty-first century) with the advance of medicine, the increase in life expectancy, contains a greater multitude of ... singular beings .

The difficulty lies in the design for use by everyone, everywhere. This is the ambitious title given to my lectures. It is in the ambition that lies the research ...

Design by definition helps to improve the lives of everyone. But then, what a responsibility! But also what Nice issue to participate in the well being of all, everywhere. But the question that arises is "how » ? A beautiful intention but what are our tools to work? The difficulty - in my opinion - does not lie in realizing an accessible place or object, but taking into account all the possibilities.

How many times have I met projects with an award of excellence in architecture 'accessible' which were usable by persons with mobility reduced (in a wheelchair) but where the visually impaired person has largely been...... forgotten. Making it accessible to everyone is not about making projects or objects only for a category of disabilities, it is also about thinking about other deficiencies, punctual or eternal, as well as valid people. It would be a shame - to "make accessible" for some, we eventually "make disabling" for others... This is the risk, to avoid ...

A cane, a broken leg, heavy shopping to wear, eyes damaged of seeing too much time pass, a cognitive impairment sign of the effect of time and its moods sometimes sad, all this is a reflection of society of the Man of today. From 7 to 77, as we say, but before and after too, the daily belongs to everyone.

Is there then a solution? The solution ? miracle? responding to all requests is difficult, of course, the plurality of the Being makes this task difficult ... but not impossible. Then the solution is like the recipient: multiple. And to find the solution it seems already important to start by asking yourself the right question again: for whom? I will repeat myself (it happens to me ..): "There is no design or architecture without its relationship to man".

2/ For all.

Valid people, 1m83 (ah ... This 1m83 dear to our predecessors ...). A little more, a little less, sometimes much less, or more ....

People with Disabilities ?

And everyone. I mean, people who uses the object or the daily building, to live, sleep, work, shop, etc ....

Let's go back to the notion of disability. Because it appears frequent (but not systematically) that what befits the most "vulnerable" is appropriate for others (still to doubt but here we stay on this principle .... For now).

Handicap :

Go back in time. The first definition related to the horse world : a horse race in which it reduced the chance of the strongest (by weight or an increase in the length of race) to equalize the chances of each. By extension, he defined everything that makes the action more difficult and is one disadvantage compared to other... The notion of "report to » is important, and even essential.

We do not «treat » disability - the medical profession is doing better and better - we can, however, try to "absorb » this one in use and thus reducing the notion of handicap. Moreover, we do not care at all ... we design or modify (when the space or the object already exists) in a different way, more just for all, more ... adapted to our era. We learn to do it.

To return to the definition, disability(or « handicap ») is the interaction between impairments and the environment. Ok, I'm short. But if it helps to understand and assimilate the basics for inclusive design, then let's go!

Because the goal of inclusive design, inclusive architecture lies in the autonomy of the person and the practice of the use (in all autonomy, in all continuity when it comes to the displacement). We need to understand whats impairments are…

Deficiencies: I'm not abble to give a course in anatomy, my current knowledge (and non-exhaustive probably, we learn every day...) come from what I learned in books, by rubbing associations, in short, by seeking. There are four of them, in broad outline.

Visual, auditory, cognitive / mental, motor.

Most projects that are willing to be "accessible" have focused their efforts on physical disability. This is a first step. Which allows to start a second one, the other deficiencies ....

Visual impairment (or blindness)

Those who are visually impaired or blind. The relationship to space, to the object is then done with the other senses, including touch and sound. For visually impaired people, visual contrast, light

intensity are paramount. People with visual impairments usually use cane. Obviously, we know, so let us remember the design of spaces.

Cane as a link between Man and his environment, it is "logical" , when this environment is a "guide" environment... Florr guide lines are a first approach, provided they are continuous, well located, avoiding and protecting the person from obstacles .... There is still work to be done in the design including blindness ...

Hearing loss

I think it's the most difficult to "absorb" in the design. People who are hearing-impaired or deaf will be guided by visual information (so do not forget to work on the signage so as to make it as clear and simple as possible), direct views. And technical supports ... These supports - essential technological tools - are also used in other cases, let's not forget the blind touch for visual blindness for example. The most used technical support for hearing loss is the BIM: magnetic induction loop. Not to be confused with BIM: Building Information Modeling ... This BIM is a listening aid for the hearing impaired or not hearing aids.

Mental disability, or intellectual disability.

The WHO ((world health Organization)) defines it as a "cessation of mental development or incomplete mental development, characterized by a deficiency of faculties and overall level of intelligence, particularly in terms of cognitive functions, language, motor skills and social performance. ". To reduce this deficiency, it is important to "make it simple": a clear and legible understanding of the space, precise information, succinct and complete at the same time, make it possible to better understand the space. Work on signage with the use of pictograms is an invaluable asset in the readability of the impending space, just as the work on direct views that - sometimes - can be enough to orient itself.

I remember an anecdote that was told to me recently and that I find quite relevant in a form of understanding of the mental handicap, as misunderstanding of the space ....

A traveller who gets lost abroad without knowing the local language or typography may have difficulty finding his bearings. The environment projects in us a form of "mental handicap", we are lost .... This is important to avoid: losing yourself can be a game but can also cause feelings of insecurity. Allowing everyone to find their bearings, to understand the surrounding space is one of the issues to avoid creating a disabling situation and allow the use of the place in complete autonomy ...

Motor impairment:

It concerns people in wheelchairs and extends to all the difficulties of mobility. It's a lot of people ... Mobility difficulties may be permanent or partial .... They may concern the lower and / or upper limbs. They are a hindrance in moving, gripping, manipulation essentially. They give us to revisit the basic anthropometric model. Although ... When we know that a small woman is on average only 6cm more than a tall man in a wheelchair .... It was time to review the old anthropometric models ....

In the term "reduced mobility", we can include the elderly, people suffering from breathing difficulties (and who are rapidly out of breath), people with crutches, with a stroller, a big suitcase (yes, I know that all too well this situation ....) or mobility is made difficult by space.

What are the compensation methods put in place then? They concern first the flatness of the soil, the quality of the coating, its stability. People moving through the wheel, it is important to understand that it must be able to ... roll easily, be trained in a steep slope or blocked by a steep slope. Moving in a chair requires a certain "strength" to take into account. There must be no obstacle, no holes, no jump, you need a path .... The easiest access possible. Knowing that the footprint of a wheelchair is an average of 70 x 130 cm, it is easy to imagine the space we need to allow the movement, the half-turn, the spaces allowing the use of furniture, etc ...

The compensation methods also concern the taking into account of the gripping and reaching levels. Being in a wheelchair means not being able to bend down and up in the same way as a valid person. The movement is different, it is our duty to think about these differences. The physical deficiency is however - in the examples of recent building audits existing - generally well taken into account. Maybe we can identify more easily with this mobility problem. Indeed, who has not had or known someone "stuck" in his movements by a back pain? overweight? by races? I repeat myself a second time .... We are all disabled at some point in our lives.

I think I have succinctly reviewed the deficiencies that can be encountered in the men and women of today. I do not forget the other pervasive developmental disorders such as autism, psychic handicaps, poly - pluri disabilities, etc .... but the object of this article is just a first greater awareness : architecture is for Man, for all men, with or without disabilities, with all its senses, or lack of some, punctual or eternal ... .. The first prerogative (and not "solution" would be a bit of pretentiousness) for universal inclusive design (by the way, is not it a pleonasm?) Is a first knowledge (for an awareness) of impairments to avoid creating a disability situation. To adapt the environment to the man, it was already to know the user of today.

3 / everywhere ...
The second important thing to take into account is the notion of continuous progression in complete autonomy. I have already started to talk about it in the chapter ... .. on disability ... .., but it seems important to remember that to be accessible, a space must be accessible everywhere. Or at least tend towards ... All over. In all spaces, be it its habitat, its place of work, its activities, and the links that unite these spaces ... This is what is called the travel chain. Without continuity, there is no more autonomy. I often met so-called accessible places or some of the accessibility had been forgotten. A ramp to access the front door and two steps in the entrance hall. What a pity to invest in a "semi accessibility" that ultimately does not work.

From the city to the building (s), exterior and interior environment, connecting these points independently is one of the keys to inclusive architecture. Outside, the work will be done on the city, the external paths, the accesses, the transport and access to the transports (intermodality or not), Inside, the work will be done on the projection of possible paths, from the outside to all interior spaces to use. At the scale of the object: design of the city, the building, the object takes its place

everywhere. Urban furniture, or work, controls, lights, technological tools etc ... without thinking about the design of the object, accessibility would be incomplete.

The designer has, we see again, a significant responsibility in improving the lives of everyone. From the scale of the object to that of the city, the chain of movement as a physical "link" is also a "social" link, it allows everyone to participate in the life of the city. So yes, a strong responsibility and a nice issue, a great challenge for all of us.

4 / How?

Taking into account all disabilities and everywhere, seems a somewhat complex exercise. At first. Standards have - in many countries - been studied for all cases and I will not come back to them However, the only knowledge of the standards does not seem to me sufficient to conceive in an inclusive way and explains I think for a large part, the errors I encountered in my audits. A standard is a work medium, it is the book. The knowledge of the handicaps added to common sense makes it possible to take into account the notion of "continuity" is the instructions for use of this book.

So how to integrate the notion of inclusivity in design almost automatically?

I think that goes through several factors:

- Education, training, information

- Creativity, innovation

- Collaborative work.

Education, training, information: to know the senses that inhabit the Man, then in a second time, to understand them .... To know at least the blindnesses, to know to whom is addressed what I conceive. This goes through the information: in schools (how is it that in 2017 few institutions that teach accessibility to anthropology? While it seems obvious that I do not know / understand the addressee of the place or object is to forget part of our work ...), with the public authorities, "contractors", buyers (attracting a larger part of the public may require an extra cost (although the accessibility upstream thinking does not generate huge cost ...) but can be profitable in the number of users ...., all the arguments are not you "good"?).

Conclusion

Creativity, innovation: not to set limits on solutions, to say that everything is possible, once the basics of knowledge on Man as sensory Being acquired, think Globality.

Then creativity is the support of any designer, I will not dwell on it. Exchange, collaboration: I usually say that I learn every day. From what I see, what I read, and others. Who better to talk about blindness than a person whose life or profession is? Who can better communicate what we do not know? And unless I am totally hermetic to one's neighbor, and / or devoid of empathy, collaboration is for me an inseparable factor of well-being for everyone, everywhere. And is not that the basis of inclusive design?

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