DARE TO CARE. Architecture taking care of vulnerable realities.

"There are no small issues. Issues that appear small are large issues that are not understood."

Santiago RAMÓN Y CAJAL, Advices for a Young Investigator

VULNERABILITY AS FRAMEWORK.

Image. Ron Mueck, Spooning Couple.

As a general condition affecting many parts of our world we could talk about vulnerability in many different ways. Trying to avoid rambling, our perspective, as part of a design program, will focus on how the protection of vulnerable realities would require from us a change in our design habits. International standards of design procedures are still having Modernity as a main conceptual and methodological framework. In this introduction, the definition of vulnerability will be therefore inevitably linked to the evolution and influence of Modernity. We will first postulate Modernity has been an important source of vulnerability extracting ideas from authors around "Risk Society" notions. But this production of vulnerability was not a part of Modernity's set of goals. Therefore, while being a major cause, Modernity was not including vulnerability as a language, as a cultural principle or as a sensibility. Maybe only the technical rise of lighter materials and the use of previously considered weak techniques could suppose an attempt to face vulnerability as a main characteristic of the inhabitable world after Modernity. But this shy flirt with weakness is not meaning Modernity could easily evolutes to care vulnerable realities. The first reason we will uphold for this is that in fact Modern traditions are still fighting for a first set of objectives that has never been fully achieved. The second reason is that Modernity is not only lacking anthropological and ecological clues on its route but including logics and thought principles that are directly incompatible with those perspectives. Dare to Care, is a proposal to go beyond modern traditions on design and to face a new set of goals less "manifesto format" and more build up through others' contributions and benefit achievement.

Sources of vulnerability…

We were told modernization aspired to improve well fare state. Paradoxically, following several authors remarks, we could presume that what it has in fact produced is a rise of vulnerability. According, for example, to Giddens since we have reached the End of Nature and the End of Tradition, we are no longer in a time of External Risk but now we live in a time of Manufactured Risk. Essentially Giddens' "Risk and Responsibility" is a discussion on how the threats to contemporary society are a product of science and technology, and in this sense, is based within the notion of the Risk Society. To be more specific, the advances of science and technology and the 'domination' over nature is that it allows us, meaning that ***our environmental worries are no longer about what nature might do to us, but what we are doing to nature****. The modern world seems to harbor notions that we stand outside of nature that we are not embedded in an ecology. Nevertheless news, papers and televisions remember us that we are far to control nature and to totally prevent its risk production. Besides there are still plenty of developing areas in the world for all the previous does*

not apply and in some occasion the radical consequences of this non-controlled areas affect countries and societies that presume to have already reached this End of Nature paradigm. While natural hazards still pose a major threat even in developed world and the new short of self produced risk has been spread all over, the result is that we are substantially more vulnerable.

From Laugier and Tratadism tradition, the origin and main goal of architecture has been supposed to be providing a first basic shelter for protecting human from nature. This radical simplicity should be deeply changed by the appearance of Manufactured Risk, ***should we begin to build shelters to protect nature from Human activities?,*** *are trees, birds, and minerals beginning to required houses and dwellings to be save from industrial storms and economical dryness?.*

Vulnerable realities as ignored parts of the Modern world…

Technification pushed us to hold to the illusion that humans are invulnerable, with our magnificent creations, our cities, our technologies. The resulting system allows economic privilege and the short-sightedness of the economic sphere to overwhelm the ecological and social realities in which we all live. Many threats -such as asbestos, smoking, and poverty-have remained unnoticed or unattended despite being as dangerous as threats which receive publicity and action. Most disasters are local, being the expression of the everyday construction of vulnerabilities, and are therefore unseen beyond the communities affected. These disasters rarely receive the attention given to larger events, even though the accumulation of invisible disasters might equal the impact of these larger events. The idea of "invisible disasters" extends to "invisible vulnerabilities", "invisible risks", and "invisible hazards". The idea of "hidden hazards" extends to "hidden vulnerabilities", "hidden risks", and "hidden disasters". Modernity established as official language based on success, on achieve goals, on the message "everything is under control". Probably the main expression of this tradition on the particular field of architecture is the visual predominance: modern architecture is more than any other thing the visual demonstration of that we can build as we think, as we imagine, and very specially, as we draw.

While amazing personal and professional efforts are dedicated to show the visual performance of the architects ideas, hidden vulnerabilities are systematically ignored. Where does the CO2 mass produced by a building goes?, what has changed in the original place from which we took materials for our construction?, what happen to users that cannot share the architect technical vision for questions coming from age, gender, culture o physical shape?, what happen to other species that use to have same site and plot as their natural environment?, are we a big or a small part of a change in weather?.

Lightness and weak materials as an only attempt to face vulnerability…

Twenty century has only brought vulnerability to the background of architects' community in a technical sense. Weakness and fragility were not desirable structural conditions in a tradition in which FIRMITAS was an undeniable requirement for buildings. Being able to deal with, what in order times would have been considered weak and fragile materials is now a technical task even distinguishing good architecture from mere construction: "anyone can build using a lot of material… Taking weight away from things, however, teaches you to make the shape of structures do the work, to understand the limits of strength of components and to replace rigidity with flexibility…"[1]. There is a whole change of perspective when Ed van Hinte and Adriaan Beukers rise the concept of minimum energy structure. Ed van Hinte has proposed [2] thinking into minimum weight

[1] *Piano, R (1997) Renzo Piano Logbook, p 253*

[2] *Beukers, Adriaan and van Hinte, Ed, (2002) Lightness, The inevitable renaissance of minimum energy structures, 010 Publishers, Rotterdam, p 9.*

structures requires a wider approach than simply reducing the height of certain visible elements. "Making things lighter is not just a matter of choosing lighter materials, for every material entails its own properties in terms of shape and manufacturing techniques. A complex structure consists of a hierarchy of elements. Focusing attention on making just one minor element lighter than it was before, may result in a weight increase for the entire construction. This is caused by the necessity to compensate for weaknesses that are the result of imbalanced weight reduction." Again the predominance of the visible on Modern tradition has transformed into main characters amazingly light canopies, covers and cantilevers which apparent lightness had to be compensate in foundations and hidden structures. A more integral approach, like the one propose by van Hinte and Beukers, will take together into account the trinity: material, shape and process. This takes us to include in the final evaluation of the delicacy of our architecture aspects that are not visible or even included in our final buildings.

Is the weight of light architecture proportional to the weight of its waste?, can we include in this perspective of minimum energy structure a definition of efficiency coming from using staff rejecting by other industrial process?, can we synchronize our design weight and the weight of its footprint during and after its existence?.

Modern design procedures have been incompatible with taking care of vulnerable realities because they have not fully achieved their goals…

Modernity, and most of the design process used in architectural schools and practices, do not include a sensibility of vulnerability. It might be true than modernity was including some goals that could seem close or sympathetic to vulnerable realities but, even in those cases, there are conceptual frontiers that avoid a real familiarity with vulnerability. A first group of difficulties comes from the fact the main goal of modernization is make the word become modern. The scope of this intention is so huge and excessive, that will somehow never been achieved. Let´s take the use of light material as an example. When the use of glass and steel was beginning to get results, Bruno Taut propose architecture should let "in the light of the sun, the moon, and the stars, not merely through a few windows, but through every possible surface"[3]. Obviously any architect could expend his or her professional carrier including new applications of glass, step by step, to any possible surface… he or she will always find difficulties leaving new challenging applications of glass for the future. Modernity, and in its tradition our Design schools, propose an aspiration of technical perfection and radical performance that can keep busy a designer through his own professional life. Architects are somehow kidnapped by their schools' brief, containing enough technical ambition as to focus their attention for ever. This type of education hinders the recognition of vulnerable conditions not included in the architect academic brief.

Can we think of architectural landmarks of the future as those providing more independency to children, more health to elderly or helping intuition be more useful in an interactive environment?, won´t them be different to the buildings we know?, can it happen that real and deep technical, geometrical and spatial innovation could come more easily from these more integral briefs?.

Modern design procedures have been incompatible with taking care of vulnerable realities because they are based in dualistic distinctions…

When you find a whole profession is kidnapped in the impossible attain of modern goals is good to know that others agree that, in fact, "We have never been modern". In this referential book Bruno Latour argues modernity established a dualistic distinction between Nature and Society. Part of the lasting-for-ever condition of Modernism could come from this dualistic perception that, again in

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[3] *Sharp, D, ed. (1972) Glass Architecture by Paul Scheerbart and Alpine Architecture by Bruno Taut.*

accordance with Latour, has in fact never describe reality accurately. Again and again we can think in pure radical goals for nature and society that will never been achieved since these two entities do not exist individually. For example getting rid of FIRMITAS is not only a change of calculating tools or applied materials. Walter Benjamin, gave a major cultural importance to the End of Solidity: "The twentieth century, with its porosity, transparency, light and free air made an end to living in the old sense."[4] Since modernity split the investigation of light structure -bigger spans, complex surface or tensigrities- from the proposal of an anthropological new sense of living, none of them will fully occurred because their real circumstances will always appear mixed, impure and therefore less radical. Including ecology or anthropology in the logic of modernity would require getting rid of its basic process for producing knowledge and action. But contemporary matters of public concern which are signs of vulnerability such as global warming, the HIV/AIDS pandemic and emerging biotechnologies always mix politics, science, popular and specialist discourse to such a degree that a tidy nature/culture dualism is no longer efficient. We need to get rid of pure concepts and procedures. Then, if we are lucky this year, somehow among the many variants with which beauty appears to the eye will be that of fragility: a transitory, immaterial and ephemeral balance between the elements, liable to be upset at any moment, the one we will enjoy.

Were the world's environmental problems the upshot not merely of faulty policies and technologies, but of underlying attitudes to the natural world built into western thought, reflecting the belief that only human beings mattered, morally speaking, in their own right?, if society is not better, is not even different or separated from nature shouldn´t we conserve nature rather than exploit it, not only for the sake of the utility it would have for future human generations but for nature's sake?.

CHANGES IN DESIGN ATTITUDES WE ARE INTENDING.

We provide a list of the design attitudes we will try to promote within a list of propose authors that might help to change previous clichés.

- *We will measure the quality of architecture from its ability to represent the interest and programs of others, being these others humans, non humans, institutions or any other assemblages. BRUNO LATOUR.*
- *Abandon anthropocentrism. Rejecting human activities are more important than natural events and balance. ARNE NAESS.*
- *Accepting and including the legitimacy of different aesthetical repertoires. Tenderness, Cheesiness, Tackiness, Affectation has not been part of the architects official aesthetics but are part of the "structure of feelings" that historical changes are creating. RAYMOND WILLIAMS.*
- *Including the ecological limits and dependence of everything we design. Protecting the context from the damage we are creating using the logic of "Solving for pattern", coined by Berry in his essay of the same title, as the process of finding solutions that solve multiple problems, while minimizing the creation of new problems and maximizing the amount of opportunities. WENDEL BERRY.*
- *The technical perspective on design provides the author with a whole domain and a panoptic view of everything is happening in his deducted hypothesis. We want the student to learn to build clues from observing, participating and experimenting. Knowledge coming from sharing the future performance of our architecture will be postulated as much more reliable than that deducted from theoretical propositions. HAROLD GARFINKEL.*
- *Bathrooms, stairs, kitchens and other rooms considered to be service spaces will now fundamental. In the same way all architecture will deserve our interest not matter how small, peripheral or academically irrelevant seem at first glance. BERNARD RUDOFSKY.*

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[4] *Quoted in Buck-Morss, Susan (1991])The Dialectics of Seeing; Walter Benjamin and the Arcades Project.*

- *We will consider any waste or small part of already used materials as candidates to create new components for our architecture. Feathers, paper, sand has to be rethink as full of potential elements. SARAH SZE.*
- *We want avoid break, mistake or error. On the contrary we will look for creating breakable conditions that not only can be relevant academically, but can ensure reversibility or that stimulate adaptation and change. We will discover new advantages and strengths in apparently weak elements. LE RICOLAIS.*
- *We won´t promote a romantic attitude. Use of every technology will be encourage. The aims and goals for its use would not only include technical demonstration but a real empowering the all users' communities. Digital technology would be a fundamental material to aim the use of intuition in interactive built environments. MORITZ WALDEMEYER.*

PROPOSE METHODOLOGY.

Image. Mat Collishaw Zoetrope.

The brief will focus on achieving what we might call Highly Conscious Design. This means we refuse to arrange periods of the academic year that are purely analytic, because understanding reality requires, in our opinion, the attempt to create a new piece of world. Our products will be designs: neither diagrams, nor data, statistics, nor critics. On the other hand, every single step in design should be deeply informed and should take into account a wide selection of consequences leading to a certain inevitable complexity. Goals and tools would be redefined cyclically.

As a methodology of design we will propose the students the construction of a Concentric Zoetrope. This construction will include all the elements of design that would be required in a building and will, at the end of the working period, produce the design of a piece of architecture. The Concentric Zoetrope must be three dimensional although each student can choose working with model or 3d digital representation. The proposed methodology stimulates a conscious and unconscious incorporation of the previously referred attitudes. Usually there is a big asymmetry between the perception of the building the architect has and the one user´s have. When doing a plan or a 3d model the architect knows all the parts and their relationship while the user will only have partial information. With this process we will begin designing sharing the same amount of information and perspective than potential users. Till the very end authors will not have a total view of spatial result and shape although they could have gone really deep in design and technical details.

1. *FIRST BELT. First design decision will be choosing a member of a vulnerable community. We want the student to choose vulnerable states that are common, that they know or that they will probably know in the future. As looking for increasing the identification between architect and user we are not looking for illness or extreme situations, we are not looking for rare exceptions, we want the students to look at situations they could easily experiment. The first set of designs will be a serious of facilities and items that will increase the protection of the person while doing daily activities. The body of the person will be represented accurately. The activity will be represented accurately. All the average items used in the activity should*

be redesign by the student. In the 3d representation body of the person must be accompanied with the designed elements.

2. *SECOND BELT. Students should begin to design rooms in which the activities would take place. Rooms should be detailed in terms of materials, environmental conditions, light, temperature, shape, technical details… When designing the room the students must take into account all the rest of people and species that share that space with the same and other purpose. Rooms must be a first set for interactions. In the 3d representation rooms must only include elements design by the students.*

3. *THIRD BELT. Exploring different places and architectures around the world students should design outdoor or connection spaces that will be able to provide all requirements to the activities that take place in the rooms. The third belt will include every space or facility require to absorb the ecological footprint of any activity include in the room. Students could include in this belts parts of existing architectures and existing places of around the world.*

   For the three belts we will experiment with 3d representation, photographical description and video recording (can be as simple as stop motion) helping us reflect on the consequences of our design.

4. *UNFOLDING A BUILIDING IN A PLACE OF THE WORLD. Last step on the proposed methodology will consist on choosing a specific context of the world in which there is a vulnerable community with the same characteristics of the studied one and select places in which they do their activities. Over these places we will unfold all the elements of our concentric panoptic creating an architecture that creates a balance with its environment and provide an active protection to vulnerable realities. The program for that architecture should be clearly established. We will encourage the students to design architecture for learning, for living, for producing food… for necessities that are universal, basic and never ending.*

SELF CARE. During the work we will encourage students to experimental with self care techniques underlying the identification between architect and user.