



DESIGN WITH VIZION

2018 ISSUE 1

THE CHALLENGE TO RESTORE EQUILIBRIUM IN TODAY'S WORLD

What is the Challenge?

by M. S. Marquez

There is a direct relationship between what we do as humans; and ultimately how our surroundings (our environment), reacts to the processes of human building, transport, and waste. It's the challenge for Architects and Building designers across the board to improve the quality of life and equally to restore our landscapes to be in harmony with their respective Ecosystems.

So What's The Problem :

The human race has flourished ever since technology took over. The Industrial Revolution really gave human presence a boost. It also created situations most people would not have predicted. We have had the abilities to produce magnificent technological gadgets, our world is more connected than ever before, and population density in our cities worldwide have had exponential growth in recent years.

With all this, we can't help but to create plenty of waste (either in solid or gaseous byproducts). We create waste when we consume just about anything. The building industry is no exception. As a matter of fact, it accounts for double to triple the impact of

vehicles. That's right! There's much energy put into the creating of building materials and that's just the beginning. The environmental impact increases the moment you have to transport these materials. Often times we forget about what happens to buildings when they have served their purpose. Once demolished, all this material and waste has to go somewhere. And of course, during occupancy of the building you'll have impacts of power usage among a host of other things that occur during any occupancy of any building. Quite an enormous eco footprint this industry leaves behind.

So The Challenge :

There's this peculiar thing called data; and looking through the present data by different organizations – the data suggests a correlation between human activity and disruption of Eco Systems worldwide. There's also enough data out there now that we can calculate the negative impacts of each building component on both environment and person. It wasn't that many decades ago that you would walk into a classroom with kids and find things like asthma were not an issue. Today, almost half or more of the kids

in that same classroom would raise their hands if asked who has asthma. We have now learned that our buildings have been making us sick on top of the environmental impacts they produce.

So, the challenge is then, to accept and take responsibility of the choices we are making in design. Most people are busy with their lives and their own challenges. It really is up to design professionals, builders, and planners to put in place the building blocks to a foundation that produce a positive living environment. It all works together. Design Firms like ours are at the forefront of these types of data and solving the various puzzles that produce 'Tug & Pull' between Development / Eco Impacts / and User Goals. You have to use the tools to improve this complex web we call the 'built environment'. Architects are the key-masters to any matrix of design. Educated in History, Theory, Science, and Arts – they are capable of pulling in knowledge across various platforms to guide the growth of towns and cities in the right direction. Still, this could never be a one man show. A truly big collaborative effort by many on many platforms.

No Turning Back :

Our planet truly is at a turning point. Everyday more and more architects re-grow their roots to this notion of symbiosis with our Earth and its elements (sun cycles, wind, rain, shade, etc.); and the alignment of

proper building practices to human health and a healthy population growth. We can't turn back the clock and have a do-over. Our pollution from building production waste is out of control. The time for action is now. Momentum has been gaining for healthy neighborhoods, towns and homes. And in the process restore our lands. We just have to take a couple steps back and reflect on the harm previous choices have made. Some of those choices were made because technology made it easy for it to be. You know what I'm talking about Architects. You have entire time periods of architectural history, development and town planning. Pull from the past, from what was intuitive and to what was right for the occupant, not just the investor. Our responsibility now is to re-capture this harmony between planet and human, while adapting technology and the process of human growth into a coherent network that works the very same way as the human body – that is to say, efficient.

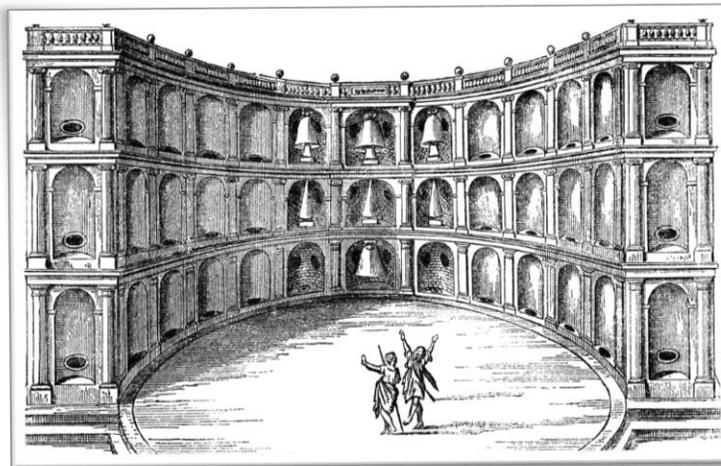


Who is Vitruvius?

by M.S. Marquez

Let me paraphrase on Marcus Vitruvius Pollio:

Regarded to be one of the main founding Architects in Western History, Vitruvius holds legendary status in the architecture world. Vitruvius is known for his classic design principles of Symmetry, Harmony, and Proportion. He was very much involved in the design and construction of treasury, prison, senate house, baths, forum, and temples. An architect who understood project program, its site, how the building foundations would work, acoustics, and all the way down to finishes – stained, polished, etc. These masterful pieces are multi-functional and accomplish design intent on multiple levels. Different forms to create hierarchy of a space. In this example, the columns align in a curved rhythmic pattern that is pleasing to the eye. As beautiful as it looks, the columns also serve as a way to hold up the



next level up; proper acoustics for the space is provided and the architecture expresses the assembly space within. Vitruvius is a Master Architect who was very much in tune and able to harmonize between building – site – and user goals. Architect and designers today should read up on Vitruvius, his methods, his theories, and take a page from his thought process. Younger

generation architects are re-growing these roots and re-aligning with these original principles. It is very important to understand the building environment as a living and breathing thing. Architects are re-capturing these theories of design and construction and you have been seeing it in the last 10 to 15 years. There's a push to create better living

environments, better quality of life, and yet to do so all in harmony of the site and location we are dealing with. We are starting to make design choices that lessen things like SBS "Sick Building Syndrome". As designers we need to have accountability within ourselves for the choices we make every day in building and constructing. Growing towns and their built environments should not be left to a whim. There needs to be vision and lots of care when making these decisions. Architecture is not just about the building. It's about space within the building and outside of it. Architecture is the dialogue it has between it and other buildings. The dialogue that happens between spaces and its pathways. Life is an experience and our architecture, is, the expression of that experience. A careful composition of life, expression, art and science. The next time you're picking up a book, find one on Vitruvius and dive into an architect's mind that dates back to classical times.

LET'S TALK ABOUT SICK BUILDING SYNDROME:

There was a time when things like insulation and gypsum board and so on were not available. Buildings were joined together much more looser than they do in today's age. Over time we have developed ways to stop air infiltration and to create hybrid insulation assemblies for the building envelope. We have made tighter and tighter assemblies while at the same time adding recirculatory systems like air conditioning and central heating. Compound this with the off-gassing of glues and adhesives over the course of decades and what you have done, is to create a chamber of toxins in which you cannot escape. The most common symptom is the sensation of a blocked or stuffy nose without the sneezing and runny nose. Also, consistent dryness of throat, dryness of skin and allergic type reactions within the building. Asthma has also been closely associated to buildings.

Architecture Creates Identity



For some reason the previous centuries of architectural language had been lost or obscured. Right after WWII, "Modern Architecture", which rejected the idea of traditional neoclassical architecture and the Beaux-Arts styles, created an atmosphere of "form follows function"; and in its peak many buildings provided no expression, no delight, and are very boring. Take a look at the Downtowns that were built in the 1960's to 1980's. Big Skyscrapers – Tinted Black Windows – All Concrete or Steel – Very rudimentary shapes like a rectangle extruded up 40 stories. One after another, after another. A sad reality that trashed the idea of building for Human Scale and Human interaction. Architectural language was dimmed to a point of depression. Post-Modern Architects responded to this so-called negligence by creating works that contradicted Modernists. Take your famous Shopping Mall Profiles – which have little function in terms of the way they look – almost a theme park type (perfect example of Post-Modernism). Currently we have entered what's known as "Futuristic Revival Architecture" which seems to be an eclectic proposition of past theories and movements. For Centuries, Architecture defines our environments, our spaces, and our communities. Here's a small list of previous Architecture Time Periods (no particular order):

1. Medieval
2. Romanesque
3. Gothic
4. Renaissance
5. Baroque
6. Palladianism
7. Neo Classical
8. Victorian
9. Modernist
10. Bauhaus
11. International Style
12. Post Modernist
13. Futurism
14. Art Deco
15. Ancient Egyptian
16. Ancient Mesoamerican
17. Ancient Greek
18. Roman Architecture
19. Byzantine
20. Blobitecture
21. Deconstructivism
22. Sustainable Architecture (and more)



The Paula de les Arts

Engineers can learn from Architects. In a world of Cost vs Function vs Expression – Santiago Calatrava is an engineer who doubles as Architect; and has produced some of the most amazing building compositions in what is known as "Futuristic Architecture". Amazing! Playful combination of curves, lighting, façade and hierarchy. A pronounced entry with a reflection pool to capture the visitor and focus the attention to this beautiful play on visual lines over the horizon of the city in the background. A side note: With all the advancements in lighting design – Use it! Buildings come alive at night. Incorporate lighting design into all your Architectural projects and create the ambiance for people to feel. Well worth the design effort.

FUN FACTS

In what year did Reno experience it's biggest growth?

2000

34.84%

At the turn of the Millenia, Reno experience a population growth of 46,630 people (34.84% from the previous year) – bringing the population to 180,480. In 1900 there were approximately 937 people and as of a couple years ago – Reno had reached 245,255 people in its city.

FUN FACTS

The federal Government owns approximately what % of Nevada's land?

87%

87 percent

FUN FACTS

Nevada is home to how many of America's Feral horses and donkey population?

50%

Wild horses and donkeys have a long lifespan and can quickly over populate an area. From this over a quarter million of these horses and donkeys have been adopted by private citizens.

Box Store Closes

In recent days we've heard the news on the kid's giant store "Toy's R Us" closing up shop. I remember growing up with these stores. It was the thing! You had to get your toys from Toys R Us. When they added Baby R Us, they grew from huge to humongous. It wasn't until I was older that I realized that the idea of the big store may not be as conducive to a town as I once may have believed. Here's what I mean: As these huge retailers move in to do business, they're extreme building & vehicle footprint can decimate the human and town landscapes. One big store after another, and with it, the human experience is lost. I think when most people of think of shopping place they think of something like this



Unfortunately, in many cases this is true. Environments that create car jams, frustration, super density and products shipped from all over contributing to our existing environmental impacts problems. Zoning in many towns exuberate the problem by forcing people to live in places completely opposite to their shopping needs. So on a brighter note – here's what happens when a giant retailer in your area is no more: Immediately the effects ebb and flow to your local mom and pop stores across town. This is very good. Your local business is probably making their products locally. Also, your spending dollars go back into your own community. Integration between business and human seems better you as you bring the scale down. Look at this drawing:



These businesses tend to give back to your local communities a lot more.

What a huge difference one picture to the next. Huge vast areas of parking havens? Or places and environments that you can interact with? You'll find your local business owner outside sweeping the fronts and helping upkeep the neighborhood. You may even become friends with business owners. You may walk down the street to drop off your dry cleaning and on the way back grab a bite to eat from your local Café. Perhaps grab some art some supplies from the corner store before I head up to my live/work art lofts above these local businesses. This type of interaction in your environment create what we know as "sense of place". A place that becomes like your home. Familiar grounds with familiar people. Comforting environments, yet entertaining. People are people watchers. People like to sit out on a bench and see all the on-goings of human activities. It's what we do and some towns are better than others at providing this sense of place. A place where you can live and walk, bike and work; have accessibility to local shopping, from produce to near by professionals, and have access to the daily services like a barber, mail service chiropractic, and more within a short distance. Studies show most people will walk between ¼ mile to ½ miles for basic services. This also lessens drive time and gives local community members access to jobs that they would otherwise have to drive quite the distance for. A personal take on these types of built environments : They're fun to be in and function very well.



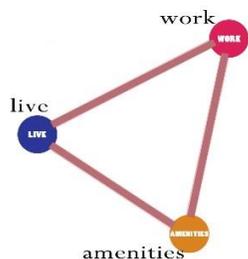
These pictures here are in San Diego. Again; the idea of multi services on ground levels with live/work lofts and living above + social gathering space.



People First in Planning

by M. S. Marquez

There is something about town planning that was instinctively set up to work well with its people throughout history. With a short walk or bike ride you would have access to markets, vendors, tailors, dentists, barbers, eateries and more. Made sense to localize markets and industry where people lived, so that people could have access to these basic necessities. This also created an environment of community. A true community. Not just a big stucco sign at the entrance of a neighborhood in which little of its neighborhood residents know anything of each other. Small towns across America still hold true to this idea. But as towns grow, much is lost in transition. Part of this problem, is a short vision to deal with growth and density; the other – growing towns seem to, all of a sudden have amnesia in respects to town and urban design and building. The simplest of these ideas that can cause some of the most struggles and discontent for city inhabitants is "Zoning". There's a lot of moving parts in planning, but we'll just discuss zoning in this episode. Growing towns today seem to want to separate everything. While in some cases it makes logical sense to separate some things, the idea to separate it all is a huge mistake. Here's how zoning works. One huge area will be zoned for Houses / Residential only. Increasing the load on surface streets, light & sound pollution, and maintenance. Then, somewhere in the far distance they'll place all the shopping centers, and then yet again away from all that, work offices and office parks are placed. See diagram below:



Just this one idea alone is completely opposite of town planning from previous 'centuries'. Where work and amenities used to be easily accessible; now you must get in your car, drive down the street, most likely jump on the freeway, to sit with road ragers who are all trying to do the same. But it gets better. In another decade, this hindrance and the irritation that goes with it will be multiplied as the density increases.



Picture look familiar? Or how about this one ?



It's like we forgot all of a sudden on how to plan a town. I never really understood why we plan and build this:



Instead of creating a coherent experience where we live / work / shop / eat / and access services all in one place.

In my Thesis work during Architecture school I found a lot research that discussed how conditions in our cities effect our human physiology. Even while you are quietly working in your office or shopping for that new dress – there is research to support how, you as person, change behavior without ever knowing it, to the different sounds and stimuli occurring around you. Your body reacting, all while you thought you were ok and calm. Over time, these stresses can link to health issues. There's quite interesting research out in this. In relation to my Thesis work, my work was composed of how to better build an environment that is more conducive to people, not vehicles. To help improve design in growing towns toward a sustainable future and living. An organic but fruitful composition of business, living, and entertainment. A balance that suits all ages, not just one group. While some smaller towns grow outwards, you'll find that many of the already grown cities scramble to figure out how to grow inward. In almost all cases this includes bringing closer proximity and access of services to people. It's a bit ironic, that this is the same thought process we did follow for all humanity until modern times. The problem today is that you have to kick people out of their homes and gentrify communities to accomplish what you could have done from the start. If they just could have foreseen far enough ahead. A city close by to where we live has recently grown in density. Unfortunately, they are following the same pattern as all that has been discussed so far. Your seeing huge developments of residential homes with not a single access to services in walking distance. The roads are getting wider – The speed limits are increasing – more and more dangerous for pedestrians and bicyclists. The idea of mixed use interactions is being lost by the second. A host or chain of events occurring by this one thing called zoning.

We'll close this newsletter with this statement:

In Earth time, we are still just in an infancy. It's never too late to carve out a new future. One that sustains life and eco-systems. It takes all of us to do our part where we can put a future in front of us that flourishes for many generations to come. I found that sometimes, all we need is to be aware of a situation for us to be able to find a positive resolution. It's in our nature to care for the well-being of others and to have prosperity in our domains. There are many professionals across many platforms working together to achieve Sustainability. From Marine Biologists, to Inventors, to Architects. Everyday more and more people become aware and begin their path in uniting to achieve what seems like the impossible.

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