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Planning and Design

Designing for Resilience

Protecting Investments, Decreasing Risk and Vulnerability



The word resilience means that you are aware of what threatens the item in question and it already has tools built into its' design to help it supersede these threats. Resilience also describes a system (or item) that continually changes and adapts in adverse environments while remaining within critical thresholds, maintaining integrity, even possibly flourishing.

Resilience is adapting well in the face of adversity. Resilience is our capacity to identify our strengths that are greater than our weaknesses, while something is hindering or comprising it. Ensuring that your building is planned to be resilient means a firm understanding of opponents and understanding core strengths. We cannot overcome and supersede obstacles if we don't understand who we are and what we want to overcome.

Recover or resist? What is resilience?

When glass breaks, it can not grow it back into one entity. A sheet of glass is broken forever and can not be repaired. If the glass and placement of the glass is designed well it should be resilient to obvious challenges, this would be designed to resist a break to begin with. Resilience as it pertains to de-

sign means that you need to be diligent through each step in the design process and ensure that planning, selection of materials and details are selected with continued success in mind. Resilience also means warding off failure to make way for positive things in the future. It is NOT the ability to recover from but it's the ability to move through challenges with minimal scarring.

Resilience is the ability to be able to cope with crisis and the ability to adapt to changing conditions. A well-designed building can mitigate impact of external threats, such as climate change, the increased frequency of heat waves and cold snaps, drought, pandemics. A resilient building is one that anticipates interruptions and is designed for a dynamic future.

For some reason, articles on this subject are hard to come by, as it pertains to interior design. You can't find an article about this as it is assumed that these challenges / opportunities do not exist. If you follow the logic in form (and aesthetic) follows function the above noted logic should be readily apparent everywhere in the world. 'Good' clothing, cars, etc. should be resilient to obvious challenges. If we want to take a look at resilience and the human body - we

have learned (or it can be assumed) that a healthy-looking person is probably more resilient to certain illnesses, just from their general appearance. The same logic can be used to identify resilience in other forms.

There is often discussions on how a buildings can survive environmental stresses from expected environmental change and disasters (ie. hurricanes) but there is little conversation about how the building can protect the inhabitants from stresses in everyday life, including pandemics and financial hardships. Our buildings should be planned for the worst case scenarios and leave enough room for us to grow to absorb the best that will possibly come. If we are smart, it is possible to create a building that can be resourceful in its own way and transform the adversity into some sort of positivity.

Can the interiors of our buildings change to adapt to different challenges? Is the lobby of the condominium well suited for our cold winters as well as hot summers? In Canada, the forever change of weather is something that will inevitably happen - we should be able to plan for this to ensure resilience in our proposed design strategies.

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The creation of a dynamic environment, that has the ability to provide resilience against the complete failure of one specific program (silo) suggests that it is absolutely necessary to always have an environment that can foster many different kind of programs, or simply become something else. Other programs that surround the area in question have the ability to support this. Example - it is more likely that a retail mall

is profitable if it consists of various retailers. In some cases, it is beneficial for there to be a certain adjacency between certain retailers to ensure profitability (ie. a store for fine kitchen ware and another store for clothes for the older adult are directly across from each other. Both retail locations cater to one specific user group and ensure financial profitability). Additionally, the retail entity can be assured further success it is surrounded by different real estate asset types – such as residential and commercial.

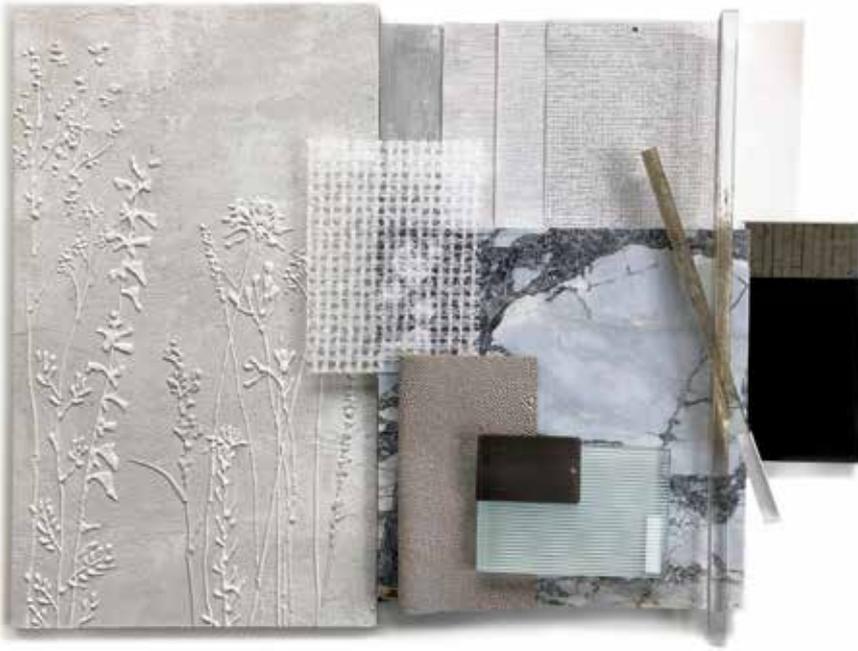
When speaking about how this relates to a typical condominium, it is more complicated. There is little ‘financial return’ in the way how a building is planned, so monetary resilience as it pertains to financial gain can not be used. There is however, a cost to operating the amenity spaces so it is possible to consider keeping monetary loss (or operational cost) to a minimum. Ways to do this are as follows; Ensuring high used spaces are cleaned often in an efficient manner (ie. Having a janitor’s closet in the lobby to clean up salt in the winter). Ensuring that all spaces in the building have numerous uses so that it can be used by various people and programs at various

times of the day. As an example, a party room that can also function as a games area or dining room, dance floor assures resilience as it pertains to function.

If the common spaces in a condominium has the ability to provide resilience against disease it gives the spaces a greater opportunity to be used. I am not a scientist, but there are numerous studies that show that increased ventilation, operable windows, sunlight, views to the exterior all augment quality of life and can decrease certain illnesses. Impervious surfaces that can be cleaned easily are also a plus, for obvious reasons. Upholstery that is both comfortable but yet impregnable is a good choice when it comes to upholstery in public areas.

While a space should be resilient against obvious detriments to human health, it is important to look ahead and beyond the obvious challenges and provide room for positive growth. Instead of ensuring that spaces that we design are less likely to get sick in, it is best to provide spaces that can foster creativity, positivity, connectivity. Mental health and wellness is often times not directly associated to interior design as one is invisible but the other one highly





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visible. One can be easily quantified, the other not. That being said, I think this blindness describes a certain level of ignorance on our part. All things such as sunlight, fresh air, noise, size and complexity of spaces influence us greatly and it is possible through design to foster positive individual thoughts and interactions.

Spaces also need to be made resilient against inevitable change. Ensure that you are building for change and that the space has the ability to grow with the inhabitant is exceedingly important. In new condominiums, amenity spaces are often designed to suit a specific demographic that is based on marketing research. As an example, new condominiums in suburban areas are often

built to appeal to a first time home buyer, like a young family. In these condos, it is almost expected to have a children's play area. But what happens to this room after 8pm? Or after all of the children in the building grow up and move away and the building is inhabited by residents at an age of 60+? Should the room be designed initially to simply host one function, or should it be resilient and be able to host more functions?

Also – it is important to note what the *disruptive factors* are in each space that are so that we can design the space to *not be disrupted* (hence, designing the space for it to be resilient). In a lobby where you have a host of functions – the reception desk, the valet, residents and guests entering and existing

the lobby, people sitting in the waiting area, residents retrieving packages, etc. etc..... maintaining a sense of calm and letting each space function seamlessly independently of each other is beneficial. This being said, some functions do compliment each other and have necessary adjacencies. A sustainable environment that is resilient is desired in this case – ensuring positive growth but also ensuring that it deflects the negative attributes that come with inevitable challenges that come with growth and change.

Creating a flexible design that has various options can create resilience and value. As an example, it is better to have a theater in a building (that is placed alongside the glazing in a building) that integrates windows in the design. If the theater desires darkness, then the curtains can be closed. This gives the theater to possibly be used for other functions, such as a lecture hall.

When we are speaking about the supply chain, it is important to select products and material that have a steady supply chain or that can be easily interchanged with another. From an aesthetic perspective, interior design should be resilient to opposing ideas and to replacement. It should have a strong enough concept so that it cannot be beaten down and should exude its intentions. The creation of a strong, visual concept can have the ability to guide us through times of adversity. With vision, we are more likely to move forth with positivity.

Resilience looks ahead and ensures success. **CV**