

# Fractures within Society and Reality.

Between People, Place, Real and Virtual.

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## **Credited Illustrations**

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1/ The Perception of Space Authors own diagram

2/ The Production of Space: Authors own diagram

3/ Sleep Deprived: <http://kenaykash.blogspot.com/2011/12/proprioception-drawings.html>

## Question

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How can architecture respond to the growing segregation between people, society, real and virtual spaces.

## Emerging Problem

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From my continuing investigation into the topic of a "fractured city", I have exposed an issue which divides people and pushes them away from the real world into abstract spaces known as virtual space.

The issue manifests itself in the form of objects such as electronic screens, books, headphones and synthetic connections such as mobile phones and the internet. All of these may seem harmless but in fact they shift peoples perception and conscious mind away from the real dimension we physically occupy.

This social fracture is the focus of my exploration, there are a number of sociological impacts; primarily, as the users mind shifts attention away from reality, their physical bodies essentially become unoccupied, resulting in an uncommunicative society. Further more, people often prefer this 'alternative reality', regularly prompting them to return and continually neglect reality.

This is a growing issue which electronic devices have recently accelerated and perhaps technology is also part of the solution as Gustavo Fricke (2009) explored in his thesis project.

Despite this problem diminishing certain aspects within society, the idea of artificially shaping peoples perception of an entire reality could be an incredibly powerful ability for architecture.

## Definitions and Explanations

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According to the Oxford Dictionary;

Virtual can be defined as “almost or nearly, but not completely”; it is simulated.

Real can be defined as “actually existing”; it is physical, tangible and true.

Space can be defined as “the dimensions within which all things exist”.

Therefore virtual space can be defined as a simulated dimension, this is called virtuality.

Real space can be defined as a true dimension, this is called reality.

Reality is (supposedly) a physical and tangible space which actually exists. This is where our physical bodies occupy and which we consciously perceive through our human senses. Reality follows the many laws of the natural world such as; time is continuous and permanent, physical space is made from 3 dimensions, cells are the basic unit of life and energy is never lost, just transferred.

Virtual space is a simulated and abstract space which can be presented in many way such as digital or dream space. It has the possibility of numerous layers of reality within it (Inception, 2010) and generally speaking virtual space exists in our subconscious mind away from conscious awareness, existing in such a space normally results in a disconnection from reality. For example, in reality you are reading a book, but whilst reading, you are not aware of the physical space which you exist in, instead you are transported into an induced internal space existing within your mind, away from conscious reality.

The possibility of multiple levels of realities within other realities, such as a dream within a dream, further obscures the individual’s sense of what is real and what is virtual. This is because the deeper the level a person theoretically exists in, the further away they are from our real world. From this we can conclude that each level is also a level of consciousness and of real awareness. This is because the depth that information must penetrate in order to be recognized by the user at their current (virtual) location increases with each layer. You can visualize awareness as a connection, transferring information between different levels of consciousness and realities. The further your awareness is away from our reality, the harder it is for information to transfer.

Although virtual space is not physical or material, architects could still shape it as much as they can design physical space. However, this idea of integrating virtuality and reality into architecture has one distinct advantage to the conventional production of virtual space; the space is shared between several people at once. So what is fundamentally and currently confined to peoples intimate minds, could theoretically become part of our shared reality. By skewing peoples conscious awareness in a considered and subtle way, the occupants could feel that they exist in a virtual space, they could believe they are dreaming and they could begin to question what they define as ‘real’. (Tierney, T. 2007)

“12 all connected” ... “They come everyday to share the dream” ... “Why do they do it?” ... “They come here every day to sleep?” ... “No, they come to be woken up, their dream has become their reality, hmm, who are you to say otherwise huh?” (Inception, 2010, 42:40 - 43:35)

## Perception of Space

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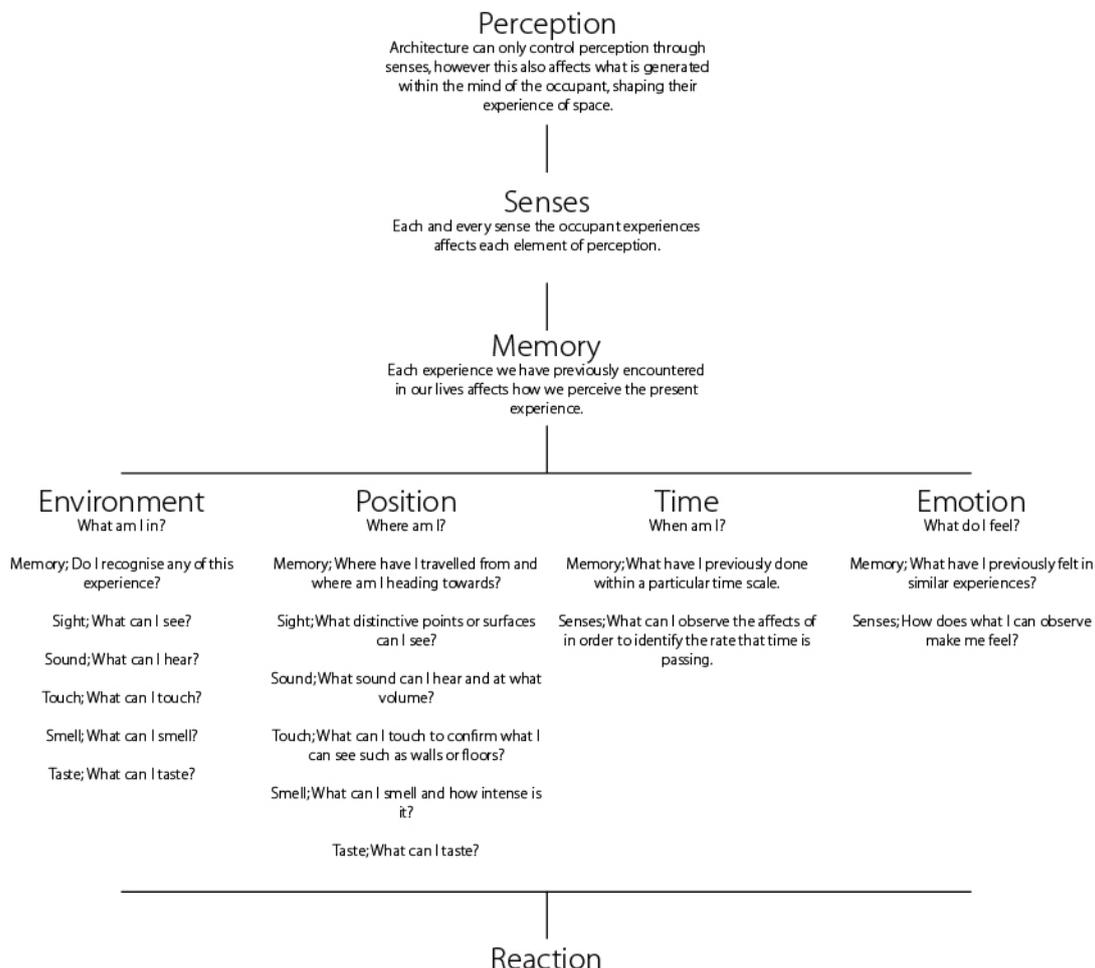
*Questions of Perception* presents a well-informed investigation of how human beings sense and generate an individual perception of the space we occupy. This is the first step to understanding how architecture is consumed. For the purpose of this short document and to provide clarity, I have consolidated the elements of this perceptual process.

**Sense;** the first stage of the process is the use of the five human senses which include sight, hearing, touch, taste and smell. Each sense the occupant experiences builds up information for interpretation, this is the initial, physical part of perception. Every fully able person experiences this sensual stage the same and it is important to note that removing any part of this dramatically changes our perception. For instance visually impaired people would sense a space differently.

**Memory;** the second stage of the process takes the information we have experienced through our senses and provides a much more individual perception as our memory is searched for recognizable experiences which will take into account how a person has previously felt. All of this information accumulates to form a complete perception.

Breaking down the perception from our senses and memory into key regions establishes useful areas for later investigation of the production of space. These areas are; environment, position, time and emotion. Environment is the space we exist in, for example physical space, materials, activity and light. Position is our location within this environment and relative to the outer context. Time is our position and duration within an order of moments. Emotion is our intimate feelings.

The last stage of the process of perception is our response; how we react.



## Production of Space

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Now we can understand how space is perceived we can begin to investigate how it is produced from an architectural perspective and the key elements within this process. This allows us to identify the influence that each element has on the perception of the space and guides the design process. For clarity and the purpose of this short document this is a consolidated text which includes; activity, movement, volume, light and time.

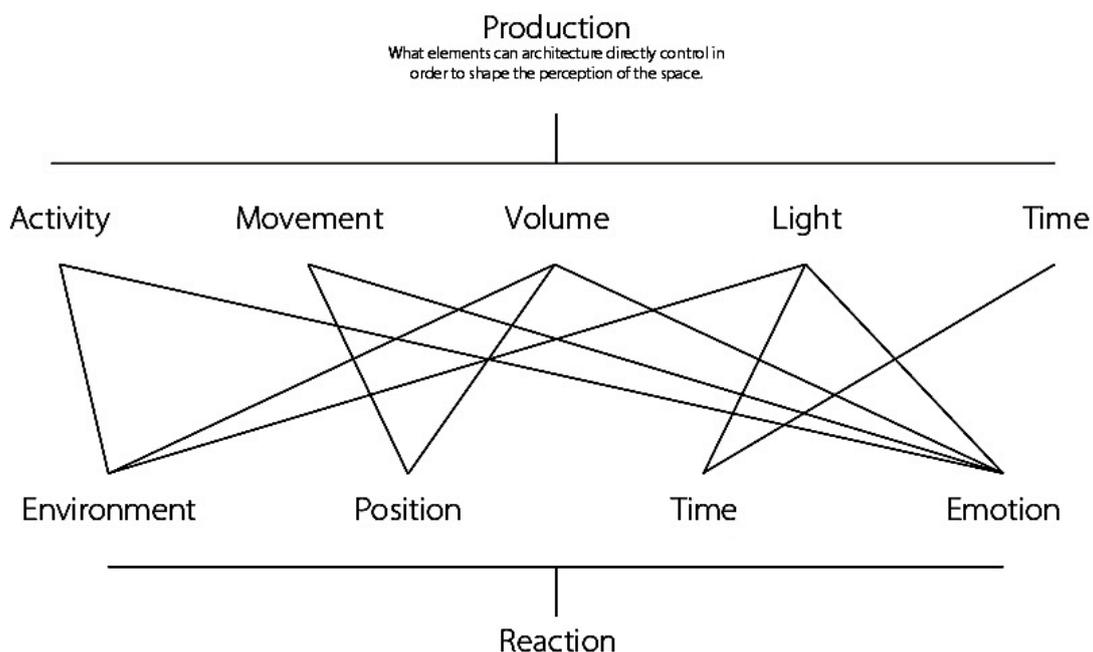
Activity refers to the function and occurrences within a space which in turn affects countless other design aspects such as materials, fixtures, fittings and the whole fit out of an interior space. The design of the activities would primarily affect the perception of the environment and emotion.

The movement through a space refers to the circulation between environments such as rooms, levels, buildings, inside and outside. This affects the perception of the occupants position as well as emotions.

The volume of a space refers to the boundaries of an environment such as walls, ceilings, floors and could mean visible or invisible boundaries. This influences how the occupant perceives their environment, position and emotion. (Holl, 2006, p113)

Light refers to the method which light is introduced into an environment and the balance between artificial and natural light. The occupants is affected by their perception of their environment, concept of time and also emotion. This primarily relates to their sense of sight; what they can and cannot see, as well as their circadian rhythms, informing their body when to undertake tasks such as sleep. (Holl, 2006, p63)

Time is not something which can be directly altered by architects and we do not directly perceive time. It is a subliminal perception which we generate through our senses and memories, therefore in order to manipulate time, we must carefully manipulate the sensual and lived experience. Light is the most important factor here as our bodies are affected by the cycle of light and darkness without even thinking about it. (Holl, 2006, p74) (2PM Architects)



## Architectural Response

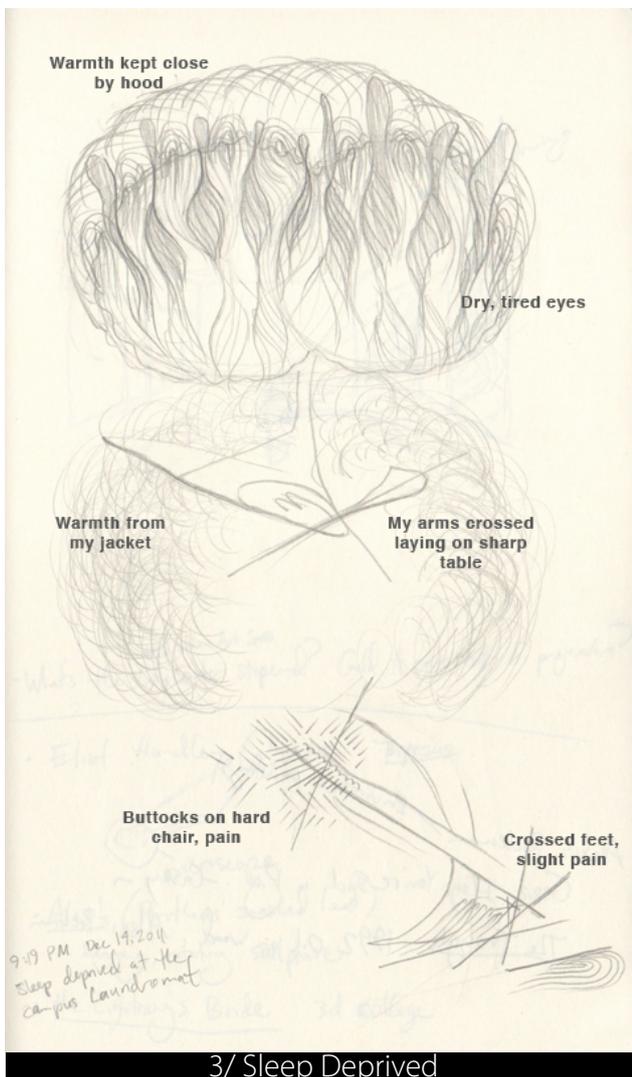
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I set out to observe an intense social mass through various types of media such as photographic and the Lincoln highstreet proved to be suitable as this led to me gaining awareness of this social fragmentation. I investigated the interaction and proxemics between people and place, this is how people interact with themselves, each other, and the space around them. This unearthed an interesting factor; that in fact these virtual spaces are induced and heavily rely on our psychological perception.

This first stage of the research shown that this problem is more universal than specific to the highstreet of Lincoln. However, to provide a response to the problem the next stage was to work within a site, so I focused back towards the highstreet seeking a space to exploit.

I undertook an analysis of the entire highstreet, these studies included the proxemics from space to people, views through time, materials, volumes, surfaces, movement of people, 24 hour sounds and lighting. This led to me understand the physical as well as soft-space I was working with.

The next and current stage of the project is creating the architectural response. Making use of the elements of perception and production as previously discussed. I feel strongly that the production of an alternative reality should not be an architect's representation, instead it should be generated in a mixed scientific and intuitive manner using data and information to generate the architecture (Lally, S. Young, J. 2007). It is important to look beyond the physical and media surface and consider the phenomenological and psychological consequences of each design decision.



Communicating experiences and perception can be difficult, even when all the necessary design information is displayed, the viewer may not be able to imagine what it would be like to experience the space.

Kenay Kash (2011) presents a compelling method of emotional representation in a series of 3 quick sketches.

The design proposal intersects the site in a subtle manner, gently disrupting the surface and seducing people into the lower levels.

It has a social heart where a cafe, bar and restaurant are situated, this is a reminder . Gallery spaces act as a transitional journey from the reality of the highstreet, gently descending down through various installations towards a mixed reality. This contains a combined cinema (virtual) and theatre (real) arranged in 360 degrees so the inhabitants are more participants rather than observers.

## Hypothesis

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This research in practice demonstrates how architects can respond to the forming segregation between people and place. The idea of designing an alternative reality is not a solution but in fact a powerful method of exploiting the vulnerability which has been exposed from this emerging problem and that there are very real strategies for architects to manipulate.

End



## Extended Thoughts

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The idea of sharing a generated space such as a dream is, scientifically speaking, impossible; at least with today's technology. However in the field of philosophy, even reality could be considered to be simulated as we cannot definitively prove that this dimension is absolute. This is called the dream argument. With this in mind who can say whether this 'reality' we all share is real, perhaps it is a shared dream.

Space provides people with an orientation, it allows people to generate a path from where they have come from to where they are headed. A successful mixed reality would require some confusion from the person and to allow them to begin questioning the path they are following. By skewing this perception of direction, people begin to induce the space they exist within, instead of remembering it. Orientation relies on the visual perception of space, with surfaces and distinctive points. Therefore, in order to alter this perception it would seem necessary to distort these surfaces and points, away from the regular right angle walls, floor and ceilings, to a more scattered volume. This is the first step towards generating a mixed reality.

Light and time are closely connected, to considering one without the other is impractical. Our real world's time cycle revolves around the sun with a 24h daily cycle. We think of light as daytime and darkness as nighttime and our bodies and mind adjust to this. For architecture to create an alternative reality, the architect must think about an alternative time cycle and how to indicate this through lightness and darkness. For example the space could have its own 5 hour cycle of lightness and darkness, this would affect people's perception of time by creating the simulation of a faster time as the cycles would be quicker than that of reality.

Sounds are also an important element of reality for sounds immerse you into the world and also give a sense of time. In the Nottingham gallery there is a large main window at the front where you can observe the exterior life visually but completely disconnected from the sound. This provides a timeless quality to the space and instead of immersing you in the experience of the exterior life, you observe it from an alternative angle. The way sounds are perceived affects the experience of space.

Virtual space knows no boundaries and is a continuous void in which the only limits are our minds. The way boundaries are introduced into an architectural design are normally physical limits such as walls, ceilings and floors. Skewing these surfaces blurs the boundaries from the obvious to the unpredictable. Alternative boundaries can be created with attention to darkness, reflections and views.

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### **First hand sources**

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Email contact with Mathew Byron from 2PM Architects;

"If you are interested in the project then I would recommend that you do some reading into chronobiology, light therapy and circadian rhythms, (which were emerging areas of study back in 2003 when I did my project, but which I imagine now are much more well established). I was able to gain a lot of insight from reading around those subjects, as well as the 24 hour city and the idea of buildings / spaces / places being connected with uses at certain times, and certain rhythms, and how adjusting those could adjust their relative perceptions."