

Digital Space and Analog Place: A Shared Reality

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While waiting for a medium coffee at the counter of my local Starbucks, I noticed a *Pick of the Week* card, a free music download from the Apple iTunes store. In that moment I recognized not just how obsolete the music store as a physical place had become, but the destruction of the music as a material object itself. Rather than feel nostalgic for the end of an era, I thought to myself, "Why didn't I see this coming?" This makes sense because the immaterial quality of music can be translated into a digital format that is distributed along an electronic network to a device that converts it into an analog signal for my consumption.

Although, through the use of electronic media, I lose the experience of buying music at a store and leafing through the liner notes, I gain more music that I enjoy. Through connectivity to a ubiquitous network and the content it affords, I am provided access to music that is not available locally, can buy a hit song without having to pay for the remainder of the album, and become aware of new music that I otherwise would not have known. As my enjoyment of music stems from listening to the music, talking with friends about music, discovering new bands, and going to concerts, I relish the capabilities of electronic media and do not mind losing the physical experience of the music store.

The previous experience of buying an album at a music store was a clear endeavor in terms of time and place. Upon entering a music store, the possibilities for discovery seemed infinite, and the only way to find something that you wanted was to physically browse the selection. If one place did not have what you wanted, it was off to another store to continue the search. Once you did find that cherished piece of music, it was played on systems that were limited in their mobility and needed a material medium to be read.

The contrast of obtaining music digitally or physically exemplifies the relation of the material context between the digital electronic and the analog physical worlds. Electronic media immaterially extends people to places with great speed and precision, providing a perceptive experience that is not equated with direct physical correspondence. However, within the experience of the use of electronic media a denigration of awareness for the immediate environment occurs and our sense of touch is challenged.

Architecture, materially immersive, immediate, and contextual by nature, can help society face the challenges of electronic media by asking, Where do the digital and analog worlds intersect?, Where does architecture intersect with the digital world?, and How can architecture mediate the two worlds to create a sense of physical place?

This paper employs the concepts of theorists such as Marshall McLuhan, Walter Benjamin, and Jean Baudrillard to explore the implications of electronic media and its separation of the individual from direct engagement with the physical world thus pushing society into a reorientation process. This reorientation process between the digital and analog worlds presents a challenge to architecture. Within the exploration of the relationship between electronic media, place, and architecture, contemporary architectural characteristics emerge that have the potential to become stabilizing entities mediating between digital spaces and analog places.

MAN, MEDIA, AND McLUHAN

Perception is a combined endeavor of mental insight and physical sensation that arises through the comparative contrast of things in space.¹ The result of perception is an orientation to a place, which is an act of appropriation acquired through

use and experience.² This is the development of place, which is contextual in that the physical sensations of touch are local and meaning is personally situated due to biographical experiences and prevailing social and cultural norms.³ Here we see that the meaning of a place is generated through physical contact with the surrounding environment in conjunction with mental interpretations dictated by time and place.⁴ However, this amalgamation of physical contact and mental interpretation, in order to create a perception of place, does not require an equal input of information. For example, the use of media separates the direct physical engagement between the body and its environment, placing more emphasis on the mental arena of perception and initiating a hierarchy of the senses in order to develop a sense of place.

20th century media philosopher Marshall McLuhan coined the phrase 'the medium is the message.' Using this phrase in the opening sentence of his book, *Understanding Media: The Extensions of Man*, McLuhan laid the foundation for his study of media, which he encapsulates when he states,

"This is merely to say that the personal and social consequences of any medium –that is of any extension of ourselves – result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology".⁵

By arguing that media is an extension of the body, McLuhan implies that all media filter the organic human experience thus divorcing the senses from total sensual engagement with the immediate surroundings of the body. In turn, the capability of the body increases, physically and perceptively, beyond its previous capacity. The total sum of the changes in society attributed to the new technology is the message of a medium.⁶

The message of a medium is revealed overtly through use and covertly through societal attitudes. A consideration of how a gun is an extension of a fist provides an example of medium messaging. The gun extends the fist, which is a solid object used to apply focused pressure, in the form of the bullet. When an individual shoots a bullet from a gun that individual is, in essence, throwing a high-impact fist. With the gun serving as an extension of a fist, the sensual experience disequilibrium is expressed in the distance separation allowed by the bullet. For a fist to be effective, the combatants must be in close

proximity to each other, however this is not necessary for people shooting bullets. The gun, as an extension of the body, is a virtual version of the fist, via the bullet, as the two have the same effect, but the bullet hits harder and faster than the fist. The overt message of the gun is that more damage can be done more quickly without increasing the level of personal physical involvement. This increase in effectiveness of the body without increasing physical involvement forces an increase in the mental mechanisms of perception to understand the physical ramifications of shooting a bullet. Meaning that a person must make a mental leap to make sense of their act. This mental leap is marked by the individual's interpretation of what society judges as right and wrong, which, depending on the views of a given society and the situation of those involved, maybe a clear or ambiguous place. Here in lies the covert message of the gun, that being, society dictates the gun's appropriate use.

THE SIGNIFICANCE OF TOUCH

The fist-gun example presents the fundamental relationship of the virtual and physical worlds, the separation of time and place afforded by a medium, creates a reorganization of the senses and alterations in perception. In the virtual world, activation of the senses is mediated and perceived as touch, meaning we have moved away, or partly lost touch. This is significant because touch provides us with vital information about the immediate environment, providing a context for our relation to the world.⁷ To move away from touch, is an act of disorientation.

When a new medium, or technology, enters society, humanity experiences a reorientation process in an effort to regain its identity. This reorientation process expresses itself through the medium's use as a function of the capabilities that the new media provides, as well as a change in social attitudes that evolve from increases in the level of perceptive involvement demanded.⁸ Walter Benjamin, aware of the physical and perceptive changes in society caused by the new technologies of the Industrial Revolution, explains how to navigate the adjustment process when he wrote,

"For the tasks which face the human apparatus of perception at the turning points of history cannot be solved by optical means, that is by contemplation, alone. They are mastered gradually by habit, under the guidance of tactile appropriation."

CHALLENGE TO ARCHITECTURE

Electronic media represents the most significant new medium introduced into society over the last 150 years. Its acceptance has been widespread and has penetrated all aspects of society. The most visible, and possibly the most influential, are those technologies associated with electronic communication, namely the internet and its associated mobile devices. Together they provide the world with a cacophony of words, images, and sounds that are instantaneously transmittable. Through the combined effect of ubiquitous connectivity to the network, nearly limitless mobility of devices, and overload of content, the impression, in day-to-day life, is that time has accelerated, space has increased, and we are a witness to the world.⁹ By distorting our sense of time and place, electronic media has created a worldview where familiarity is portable, social space is individual space, and 'real' experience comes in a package.

Electronic media has drawn new and ambiguous boundaries that present, as Peter Eisenman explains,

"... a powerful challenge to architecture because it defines reality in terms of media and simulation, it values appearance over existence, what can be seen over what is. Not the seen as we formerly knew it, but rather a seeing that we can no longer interpret."¹⁰

To meet the challenge posed by electronic media, architecture would benefit by attempting to develop an understanding of the shared reality between electronic media and the physical world. By developing this understanding, architecture can begin to define its role as a partner in society's adjustment to the effects of electronic media. The interaction between electronic media and the physical world is difficult to ascertain and any exploration can easily descend to the level of abstraction due to the complexity of the subject. A concrete line needs to be drawn to act as a vehicle for exploration that can lead to an understanding of the nature of the relationship.

LOST IN TRANSLATION: HYPER-REALITY AND HAPTIC GEOGRAPHIES

In order to locate the intersection of electronic media and the physical world, the two need to be separated in a distinct way. This can be done by

defining a characteristic that is unique to each. A point of great contrast between the electronic and physical worlds can be found in digital code and the analog signal. Digital code is the language of electronic media, while the analog signal is the *modus operandi* of humans and the physical world.¹¹ It is the conversion of information from digital into analog that marks the point of intersection between electronic media and the physical world. The point of intersection can be defined as the interpretation of content through use and perception when translated from one space into another. In essence, the relationship between electronic media and the physical world represents the meeting of different cultures of information exchange. Each culture, here defined as the digital and analog worlds, has characteristics that are unique to them.

By its nature, digital information can only provide a fragmented and packaged experience. As a result, digital information is exclusive in its presentation of information. Sensually speaking, this exclusivity is apparent when the digital information is translated into the physical world by focusing on the sense of sight and sound. The digital concept of touch is ethereal and immaterial. The analog world is the world where people reside and exist. This consists of the physical environment and the lived experience. The flow of information is complete and continuous making the analog world an inclusive experience of information. The analog world provides information for all of the senses through direct material engagement with the human body, making the analog concept of touch material.

The mode of digital materiality is expressed by the "hyper-reality" described by Jean Baudrillard, where "... the real is produced from miniature units, from matrices, memory banks and command models – and with these it can be reproduced an indefinite number of times."¹² The result of this reality posited by Baudrillard, is a reality where simulation is neither true nor false, a reality that is self-referential and reproducible – a world without origin.¹³ The digital world, through electronic media, is an enabler of "hyper-reality". In his book, *Sensuous Geographies: Body, Sense, and Place*, Paul Rodaway explains that through its packaged content, hyper-reality upsets the human sense equilibrium by limiting and heightening the senses, confusing the sense of time and place, and making it seem as if experience is something that

can be bought and sold.¹⁴ "Hyper-reality" makes place in the analog world difficult to decipher as it severely limits the mechanics of the haptic system. The haptic system is defined as the total physical and mental material, or touch, experience of the analog world.¹⁵ A severely limited haptic system is disorienting because, as Paul Rodaway explains,

"Touch literally concerns contact between the person and the world. It is participation, passive and active, and not mere juxtaposition. The haptic system gives us the ability to discriminate key characteristics of the environment and our place as a separate entity in the environment or world, but it is not just a physical relationship, it is also an emotional bond between ourself and our world. Touch is a kind of communication between person and world, a corporeal situation rather than cognitive positioning."¹⁶

Here we see that, in regards to human orientation being a process of physical experience and mental perception, a material gap exists between the digital and analog worlds.

Though a material gap exists between the digital and analog worlds, they do have two qualities in common: Each can become an immersive space, and they share the same source of information, that being the analog world. Though different in the material experience of information, the digital and analog worlds become immersive in their engagement as a function of the content provided. To engage with the content provided, the digital and analog worlds utilize different aspects of the human condition. The digital world asks for deeper involvement of thought and emphasizes emotion. The analog world asks for deeper involvement of the body and emphasizes the senses. Though different in experiential approach, each provides a version of the analog world. Though this is obvious for the analog world, the idea of the digital world presenting the analog world may need explaining. Digital technologies have the ability to send images and sounds across the world as well as provide measurements with great precision. The content of these images, sounds, and measurements is always a packaged version of the analog world. This means that the digital world is an exploration of the analog world. By understanding that the digital and analog worlds use the same content, can achieve a state of immersion, are materially separate, and place different demands on perceptive capacities, it becomes possible to see that a clearer translation between the two is needed.

IMPLICATIONS FOR PLACE AND ARCHITECTURE IN AN ELECTRONIC WORLD

A survey of how electronic media is applied by society shows that its integration into the analog world has resulted in new ways of social organization and a change in attitudes. These alterations in the social fabric have implications for the concept of place and the role of architecture. These implications are illuminated by considering the following relationships: the use of electronic communication devices by people in space, the places that result from the use of electronic communications devices, and the integration of electronic media devices into architecture.

The use of the electronic communication device, in regards to the experience of a place, is a relationship defined by the dynamic movement of people while the idea of place remains stationary. The use of electronic communication devices, such as the internet, the cell phone, or the iPod, results in a place that is primarily located in the digital. This means that although the devices are used in a physical place, the person becomes engaged in the digital space. This relationship has given rise to the concepts of 'distributed home' and 'connected presence', which has made familiarity portable. Familiarity through 'distributed home' is found in the relationship to places on the internet that can be visited regardless of physical location.¹⁷ In this we find that traditional analog places of social interaction, such the 'town square', 'meeting hall', and 'main street', have been transferred into digital space. The ability to stay in touch with family and friends through nomadic technologies has created what Christian Licoppe, calls 'connected presence', which strengthens our ties to family and friends through a constant feeling of connection.¹⁸ Although our sense of the familiar has been extended, our sense of physical place is diminished when people become deeply immersed in the electronic world when the communication devices are in use. This pushes the surrounding environment into the background and isolates the user from other people who are sharing the same space. In this scenario, architecture becomes, at best, a supportive element. An example of architecture as a supportive element can be seen in the design of the Stata Center by Frank Gehry, where the main design concept was one of hybrid space, which emphasized nooks and crannies for ad-hoc assembly over formally enclosed spaces.¹⁹

The places that result from the use of electronic communication devices are the places we are made aware of by the content afforded by the medium and aided by the mobility they allow. These places exist in the analog world and represent the freedom to roam, choose, and imagine. When people are free to roam, the unique qualities of a place take on added importance when deciding where to go. William Mitchell explains that,

“. . . ubiquitous and efficient networks – particularly digital telecommunications networks – produce the commodification of accessibility. This reduces the capacity of places (both physical and on-line) to distinguish themselves simply by virtue of superior accessibility. To be competitive, they have to provide something that you cannot find elsewhere.”²⁰

Anywhere can become a place if an individual perceives the qualities of a place worth their effort. This means that the activation of a place, and its subsequent meaning, is an individual determination. As an individual determination, the evaluation of place and architecture becomes an indeterminate process. One could hear a story on the radio about a barbeque place in Texas, build an image of the place in their mind, based on memory and imagination, and decide whether or not to go for a visit.

The integration of electronic devices into architecture refers to the capability for physical interactions of electronic media to take place in space. In other words, the place is analog, but the surroundings are integrated with electronic technologies. Here architecture becomes an activated element that can become a sensual experience that provides a contrast of the digital and analog worlds through the functioning of components in spaces. In a world where people choose places based on unique qualities and their attention is often away from their local context, sensuality and interactivity in architecture takes on value as a means to differentiation and awareness of place. An analogous situation can be found in the “Experience Economy” in capitalist society, where the general idea, as explained by James Gilmore and Joseph Pine in *The Experience Economy: Work is Theatre & Every Business is Stage*, is that,

“. . .when a person buys a service, he purchases a set of intangible activities carried out on his behalf. But when he buys an experience, he pays to spend time enjoying a series of memorable events that a company stages – as in a theatrical play – to engage him in a personal way.”²¹

The key words that speak to differentiation and awareness are ‘memorable’, ‘theatrical’, and ‘personal.’ These are concepts that can be attributed to architecture and can be enhanced through the integration of electronic media. One such place that is enhanced through the integration of electronic media is the ‘Lightstreet’ project by the Acconci Studio. Here the space is lit a blood red, except for the white lights that are activated by the movement of objects through the space. The activation of white lights follows the moving object through the space. This alludes to an architectural value that is measured by looks, use, and experience, which turns the focus on the perceived qualities of visual, spatial, and tactile sensations.²²

AN ARCHITECTURE THAT MEDIATES BETWEEN THE DIGITAL AND ANALOG WORLDS

Architecture does not exist in a vacuum. By using the latest technologies and responding to current social, cultural, and economic milieus, architecture becomes a benchmark of historic time and specific place. Architecture of the early 21st century has the potential to relate to the affects of electronic media in an effort to reorient society during a time of great ambiguity in context. To relate to a reality where individualism manifests physically and mentally and ‘experience’ is expected to be a simulated package of the analog world, architecture should strive to mark the presence of people through creating interactive environments that are ‘Personable and Memorable’ and ‘Dynamic and Adaptive’. ‘Personal and Memorable’ attributes provide context and create sensual experiences. ‘Dynamic and Adaptive’ attributes, systemized and modular in their construction and use, speak to the application of digital technologies. By integrating the capabilities of electronic media and accepting the changes in societal organization, perception of time and place, and use of public space due to electronic media, architecture can offer a translation for the information exchange between the immaterial digital world and the material analog world. An architecture that is interactive evokes audience participation and restores immediate touch by making the user aware of local time and place. To reinforce time and place is to mediate between digital space and analog place.

FUTURE PREPARATION

Though the relationship between the digital and analog worlds is complex, the current contrast between the two is relatively sharp in comparison to what the future holds. It seems inevitable that the digital and analog worlds will continue to converge as research into 'augmented reality' and 'ubiquitous computing' strives to further embed electronic technologies into the physical world. By attempting to interpret the current state of the shared reality between digital space and analog place, when it can be said that things are comparatively more clear, architecture can, in some sense, prepare for future realities as well. Returning to the original example pertaining to the consumption of music, the only part of experiencing music that is restricted to time and place in the current version of the digital age is concert-going. In time, I imagine electronic media will find away to provide a concert-going experience without actually being at a venue, complete with sight, sound, smell, taste, and haptic sensations.

ENDNOTES

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