ABSTRACT

Both art and architecture appeal to a certain state of mind. With these emotive qualities each communicate simultaneously on several levels. The following thesis will investigate into what power does a designer have to evoke a response from the viewer by making a space interactive both physically and physiologically.
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BIBLIOGRAPHY
It would be unfair to say that Architecture is just a space; it is however, the relationship between the object and its user. Often in our lives, we walk into spaces where we feel like those spaces generate an unexpected emotional response. It almost feels like, these architectural codes are much deeper than just elements of design. As a result these Architectural codes improve our experiences; from what we see to what we feel. Architecture can also be perceived as mental reflection of a built form, the experience of space and time, and the interaction of environment and memory. Similar to any art, architectural spaces attempt to articulate and express the human existential experience; this can also be deliberate to create a more fundamental, physical and psychological metaphor. The experience of a particular space involves many things. The way the space smells, the way we are introduced to different textures, the sounds we hear, the things we see, everything adds up to an experience which is more than a mix of tactile and material imagination. What becomes hard to understand is why; why do we find it easy to let go of our logical reasoning and get immersed in an ocean of energy that evokes the emotive quality it possesses?

As human beings we undergo a radical shift in the state of mind. But as designers, we get the power to manipulate the user’s perception towards making a space alive. What elements combined, give the architect/designer the ability to generate a thinking architecture, a space so distinct that it speaks?

RESEARCH METHODOLOGY

My attempt with this thesis is to investigate how a designer can harness the control a space may possess over the user? This includes a broad contemporary and historical analysis. Through a concentrated study of how various design aspects appeal directly to the human psyche and instincts, I will be able to understand the subliminal codes behind a space of encounter. To further understand the phenomenon I will also delve into a detailed study of architects like Daniel Libeskind, Maya Lin and Tadao Ando. Since experiences shape human perception, I also plan on getting into case studies of different architectural spaces, where a certain feeling or emotion was intentional on the designers behalf.

“Characteristics of rationalized building work towards a weakening of sense of place on human scale: over-scaled building complexes, excessive repetition, standardization dictated by production techniques, a lack of spatial organization due to need of flexibility, a flattening of shapes and surfaces called for by functional and economic considerations, and an overall erosion of form. Finally, an overall monotony of lighting, a lack of texture and the eradication of individual detail complete the loss of sense of place.”

THOUGHT PROCESS
A few years ago during my undergraduate course in architecture, I was introduced to some amazing books. This led to my interest in the study of understanding various architectural structures. As I went through them, I began to develop a sense of appreciation for the industrial age. Looking at formidable steel structures and designs that challenged the mind, I came across the Eiffel tower in Paris. The images started to speak to me, telling me stories about its intricate design and perfection in engineering.

The author was good in describing the Eiffel tower to me, but I couldn’t help but feel like a third party. I never came out with an understanding for what it would be like if I were standing right next to it. Looking up at it.

This is where my curiosity began for how a space affects our senses to create an experience. As fate would have it, a year later I ended up standing right under that structure which I had just seen in pictures. That’s when it struck me. The experience of standing there was nothing like what I had in mind when I saw images and read the book. The grandeur of the space, the scale, the detail, the smell of banana crepes, the chirping of the birds, people laughing, the sunlight, the wind, the actual feeling of the towers leg by touching it, all added to an experience that enhanced my appreciation for The Eiffel tower.

This is what I want to ponder about, Experience? Experience; is a strange thing to deal with. Before going to the towers, the Eiffel tower meant something else to me, and after me being physically there, the same tower mutated into something a lot more than a picture. If I see a picture of it now, it speaks to me with a thousand different words, and I can even feel the breeze and start smelling the crepes. It’s like the very same image I looked at before and read about before, started to speak in a different language. It was something much more subliminal.

“In 18th century architecture was understood as a self-evident language transmitting ideas carved in stone. The architectural writing if the late 18th and early 19th century regarded the language of architecture as dualistic. Some writers demanded that architecture should be abstract; it was to be ‘the language of calculation’. Others took architecture to be an imitative art, whose signs of expression came directly from nature.”

Both art and architecture appeal to a certain state of the human mind. The importance of emotive qualities communicate on several levels. My interest in this topic led me to explore, how experience plays a large role in forming a connection between the user and its space, I intend on considering design as a responsibility to create a space, which interacts with the user in just not its physical existence but something quiet subliminal and psychological.

“Through memories magnifying glass we can recall places and things that vary in locale and scale including countries, regions, neighborhoods, houses, furniture, and even objects of special significance.”

The following are taken from the book ‘Some place like home’ where Israel concluded the four forms that make the basis of childhood's place attachment: 4

- Affection—the most common form of attachment associated with family, love, and security, creating a sense that “this is my place in the world”.

- Transcendence—places remembered as an unforgettable living presence in themselves, exciting all five senses and inspiring exuberance, calm, or awe.

- Ambivalence—when attachment is associated with pain and pleasure, i.e. a place stigmatized by society as a ghetto of poverty or racial inferiority thus a place where tenderness for home place is mixed with vulnerability and entrapment.

- Idealization—where a place is invested with elaborate national, religious, or racial values and mentally inhabited his idealized place is an alternative to inadequate circumstances.
"I create places in which to think, without trying to dictate what to think."  

It was the work of Maya Lin, a renowned architect and an artist, which caught my eye. I was amazed how she dealt with the extreme details of creating a subliminal experience.

Lin on Vietnam Memorial Park:
"I think the piece… it was for the veterans but it was also if anyone who goes in there."  

In the case of Vietnam Memorial Park, Maya Lin’s most famous work that she described as a memorial, Considers it to be “about universal loss.” She tried creating an experience for both the people connected to the background of the war and people who had no connection to it at all. In her lecture at De young Museum, Lin talked about her observation on group of school kids who were visiting the park for a school trip while she was there. She explained how they had no specific background with the war. She said, “You know, they were just kids, having a good time. The minute they started walking into it the teacher didn’t have to say anything, they just quiet it down.”

The understanding of connecting with the user by making the architecture an expression of art, maybe even universal, thus perceived differently for different individuals, is the basic characteristics of Lin’s design Philosophy.

“One thing that I am really interested in exploring in my work is how…we really learn and learn to look when we are children. And we are looking for the first time at things. And we are paying attention. As we get much more of a knowledge-based, we begin to stop looking because we already know what it is.”

ARCHITECTURE OF THE SENSES
ARCHITECTURE OF THE SENSES
PERCEPTION OF SPACE

The growing curiosity about experience and encounter of a space led me into reading more about the fundamentals involved. This is where I started studying more about senses, perception and responsive environments.

Architect Colin St. John Wilson responding to certain deep impact buildings; "It is as if I am being manipulated by some subliminal code, not to be translated into words, which acts directly on the nervous system and imagination, at the same time stirring intimations of meaning with vivid spatial experience as though they were one thing. It is my belief that the code acts so directly and vividly upon us because it is strangely familiar; it is in fact the first language we ever learned, long before words, and which is now recalled to us through art, which alone holds the key to revive it..."  

As human beings we undergo a radical shift in the state of mind. But as designers, we get the power to manipulate the user's perception towards making a space alive. What elements combined, give the architect / designer the ability to generate a thinking architecture? A space so distinct that it speaks?

Often in our lives, we walk into spaces where we feel like it generates an unexpected emotional response. It almost feels like, these architectural codes were much deeper acts than just elements of design. As a result to which they improve the experience from what we see to what we feel. Architecture can also be perceived as mental reflections of built forms, the experience of space and time, and the interaction of environment and memory.

On reading Questions of Perception by Juhani Pallasmaa, the book talks about the phenomenology of architecture, it perfectly explains how similar to any art, spaces attempt to articulate and express the human existential experience; this can also be deliberate to create a more fundamental, Physical and a psychological metaphor.

There are two main parts to architecture- the architect and the user. It would be unfair to say that architecture is just a space; it is however, the relationship between the object and its user.
During my research I realized that the experience of a space involves many factors. The way the space smells, the way we are introduced to different textures, the sounds we hear, the things we see, everything adds up to an experience which is more than a mix of formal and material imagination. What becomes hard to understand is why---Why do we find it easy to let go of our logical reasoning and get immersed in an ocean of energy that evokes the emotive quality it possesses?

This started with a simple investigation into the observation of our everyday life. It felt ironic, how as adults we feel most comfortable when we’re wrapped up in a warm blanket, on a small bed curled up into a ball? For nine months a mother’s womb is an infant’s universe. Despite us being exposed to so much diversity in the world, we notice that there is a certain amount of universal trait, humans possess. We label these traits as instincts. Instinct in its true form is free of worldly conditioning. It does not know a language, it does not know race, it does not know foe from enemy. No matter how much we learn and educate ourselves, the human instinct always will be the underlying substrate of a human.

Both art and architecture appeal to a certain state of the human mind. The emotive qualities communicate between them, on several levels. My interest in this topic led me into investigating more on how experience holds an important role of a designer/artist into making a connection between the user and its space. This is where, I intent on considering designers responsibility to create a space that actually speaks to the user in just not its physical existence but something quiet subliminal and psychological.

“The basic architectural experience is best understood as verb forms rather than nouns. Authentic architectural experiences consist, for instance, of approaching or confronting a building rather than the formal apprehension of a façade; of the act of entering, not the static appreciation of the visual image of the door; of looking in or out of a window, rather than the window itself.”

The dominant sense, 'Vision' no doubt is the first source of than the other senses combined. Orientation in space is achieved visually. Vision is active and searching: “we look; smells and sounds come to us.” Visual perception is highly complex, relying on distance, colors, shape, textural and contrast gradients etc.\textsuperscript{11} 

To understand a space’s essence and how sense of sight helps build an attachment with it, I referred to the book “The image of the city”. In this book, Kevin Lynch, the author and a city planner, used people’s mental maps to identify a city’s essence. He also found that when creating mental maps, people were consistently giving examples of what he identified as five key elements of the city form. These key elements are as follows: \textsuperscript{12}

- Paths—which provide access from one part of the city to another i.e. pedestrian or car byways;

- Edges—those parts of the city that serve as boundaries—riverfronts, waterfront, roads on the edge of a town.

- Landmarks—simply defined physical objects i.e. buildings, parks, statues, often used to help people find their way around a city or tell people where to go;

- Nodes—points in the city that serve as major transitions from one activity to another i.e. railway stations, bus, airlines or subway terminals.

- Districts—relatively large areas, which are recognized as having, some character.

This suggests that the vision or sight is the most dominantly used sense for experiencing a space. It is rather a matter of convenience. The visual perception is all about the ability to identify a space because of its visual order of array of things, including colors, textures, symbols, patterns, artwork, craftsmanship and beauty. So it basically accounts for the face value of a space. Thus in most of the cases, Designers and architects take advantage of this visual quality and give room to identifying the space solely on vision.

\textsuperscript{11} Pallasmaa, Juhani. "Encounters". Edited by Peter Mac Keith. Finland, 2005.

Sound has the power to effect people in the most phenomenal ways, for example any kind of music. Music as observed drastically effects people's mood and mood affects performance. Therefore, environmental sounds play an important role in creating a stimulating ambiance, something that can help enhance or depreciate the value of a spatial experience. Hearing is a basic need; our whole world is filled with different and unusual sounds. If we stop for a while and just focus on hearing all kinds of sounds that are around us, we will be amazed on how many things add up into our perception of space and a subliminal experience.

Juhani Pallasmaa, describes in his book 'Questions of Perception' that, “We can recall the acoustic harshness of an uninhabited and an unfurnished house as compared to the affability of a lived home in which sound is refracted and softened by surfaces of numerous objects of personal life. Every building or space has its characteristic sound of intimacy or monumentality, rejection or invitation, hospitality or hostility.”

He also explains by giving examples and suggesting that, “Sight makes us solitary, whereas hearing creates a sense of connection and solidarity”. His observations thus prove how essential the role of acoustics is in experiencing any kind of space. He says, “The live reflection of echo and re-echo within a stone cathedral increases our awareness of the vastness, geometry and material of its space. Imagine the same space with carpet and acoustically softened...a spatial and experiential dimension of architecture is lost.” He states that the a space can be redefined by shifting attention of the user from visual to how it is shaped by resonant sounds, vibrations of materials and textures.

For example the use of water, hearing water splash somewhere in the background or even adding water as a design element is a very soothing yet purifying experience. It is something very psychological thus helps associate with a space with a universal understanding of water and what our brain reminds us of it.
It’s amazing how you enter into the hospital clinic even with your eyes closed and you know that it’s a clinic because of that specific spirit smell in that space. It’s almost like when people are drawn as if they’re being hypnotized towards the smell of a bakery because of fresh bread or coffee shops with the aroma of coffee beans or even Chinese restaurants down the street. Smell is one of the most neglected natural senses in architecture. Even though every user experiences smell in one way or the other, every single space has its own odor and aroma.

Studies prove that every human being breathes approximately 30,000 times per day. 30,000 stimuli per day and yet almost no architect contemplates these as an intrinsic creative aspect of architecture. Well at least not intentionally, thus it caters as an important feature in encountering a space.

The most commonly and maybe problematic smell is the smell of the fresh new paint in an environment. Where these smells become a distaste, designers can definitely add some favorable scents to enhance an experience rather to depreciate one, depending on the kind of space being designed.

The haptic realm of architecture is defined by the sense of touch. When the materiality of the details forming an architectural space become evident, the haptic realm is opened up. Sensory experience is intensified; psychological dimensions are engaged.  

The total perception of architectural space depends as much on the material and detail of the haptic realm as the taste of a meal depends on the flavors of authentic ingredients—so in architecture the specter of artificially constituted surroundings imposes itself.  

The texture of a silk drape, the sharp corners of cut steel, the mottled shade and shadow of rough sprayed plaster or the sound of a spoon on a concave wooden bowl, reveal an authentic essence, which stimulates the senses.
“the experience of a place in an industrial culture, and the affinity between man and environment, are disappearing at the level of both local identity and man’s sense of place on a human scale.”

As observed, there are many other senses involved in experiencing an architectural space that include more than just the traditional five human senses. This may include the sense of rhythm, the sense of harmony, the sense of balance, movement, warmth, self and many other that are beginning to get recognized in the psychology discipline nowadays. All of these senses are directly or indirectly related to each other. It goes the same for use of light in any form. It can either be utilization of maximum natural light to the exploitation of artificial means.

Architecture is a curious activity in which each building maintains its own characteristic. Light acts as an element that can generate a specific kind of mood to respond to a certain kind of space.

Architecture is a multi-sensory experience where each design element connects with the other to enable a realistic extract of a space by stimulating a response.

I came across a very interesting case study in the book “The Architect’s eye”, where Taylor described the work by Charles Moore. He explained,

‘In designing a multi-sensory house by a well-known American architect, Late Charles Moore, a house was built specially for a partially sighted client in upstate New York. The biggest challenge was to design a space for someone who lives in a haptic world of surfaces. The project was a mix of Olfactory clues and auditory messages with the help of textures, smells and water elements that helped the user to define his space according to memory cues. The house was oriented in series of room directed by an array of scented plants, that gave you smell. A few water elements were also included that made a specific noise. Within the house were these textures that were elements used to create a sense of touch so that they could remind you of each space and act as cues or landmarks.’

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STEVEN HOLL
PROGRAM: NYU Department of Philosophy Faculty Offices and Graduate Student Offices, Seminar Rooms, Periodicals Library and Lounge with a Ground Floor 120-seat Auditorium to be used by the NYU Faculty of Arts
CLIENT: New York University
SIZE: 30,000 SQFT
STATUS: COMPLETED

Steven Holl is an American architect and a watercolorist. He is best known for his work in Finland, Kiasma Contemporary Art Museum and controversial 2003 Simmons Hall at MIT. 16

In short Steve wants architecture to inspire us. To do that it must, he believes, be inspired by new insights and revelations. This design is for the complete interior renovation of a 1800 corner building at the NYU department of philosophy within a concept which organizes the new spaces around light and phenomenal properties of materials.

‘A new staircase below a new skylight joins the 6-level building vertically with a shifting porosity of light and shadow that changes seasonality. The ground level, utilized by the entire university, contains a curvilinear wooden auditorium. The upper level floors contain faculty officers and seminar rooms that are done in different shades and textures of black and white, according to the texts in Ludwig Wittgenstein’s book “remarks on color”. Holl created a series of polarizing bars in each level which create the entire color spectrum from the rays of natural light that pour into the building in which no other color is in use. These shafts of light penetrate the central floor space through a series of perforated planes tilted gently at unexpected angles.’ 17

According to this project the combination of antiquated walls and a modern patterned staircase explore the idea of a composition. When sunlight is irradiated in an interior space, the reflection of the sunlight is caused by a series of repetitive and hierarchal folded structures.

Steve goes beyond Mie’s, “God is in the details.” 17

Keiichiro Sako, a Japanese architect is a pioneer of architecture in China. In China a lot of things work in a different way to Japan. ‘The scope that is given to me as an architect combined with general appetite for what is new—these are all things which improve the status of architecture.’ 17b

This is an interior design boutique for the Romanticism fashion label in Hangzhou. The impressive entrance already prepares shoppers for the visual experience, which awaits them. ‘As if it were sucked in by the interior of the building, an organic net is drawn from the façade through the entire interior of the boutique, adapting itself to the individual sections of the space and functioning as a room divider, presentation area, counter, seat and railing. The elaborately modeled, bone-like structure consists of a net made of reinforcing steel, which is sheathed in polystyrene foam and finally covered in laminate painted white.’ 17b

SHA- ALPHASPHERE

Sha, is a Vienna based European artist known for his research work on perception all around the world. His 10 years of exploration and curiosity of the human mind and body has led him to design amazing art pieces. One of which is the Alphasphere, very popular in the Spa world globally. 19

Sha describes this piece of furniture as the spaceship for the inner journey. He started off with the vision of designing an instrument that not only is a kind of perceptional ritual but also activates all the senses in a more innovative and creative way. 19

‘His work got recognized in the United States when he introduced his spa-treatment alphasphere the very first time at the International Spa Association conference held at the Venetian Hotel, Las Vegas fall 2008.’ 20

‘Sha describes the Alphasphere as not just a furniture for spa treatment but also as a multisensory experience, connecting a unique quality of deep relaxation with inspiring and energizing effects: color, shape and light play together with sound, vibration and warmth, and so meld into one holistic Perception-Furniture of a new generation.'20

“I am driven by the infantile exploratory urge: the phenomenal examination of people’s perception marks the beginning and the end of my creative processes.” 19
Architecture is a result of a multisensory experience. It is a basic responsibility of a designer to create a space that embraces the experience of its diverse users.

Artistic expression is the main key for an architect in designing a space. This expression is the desire for the designer to communicate ideas about the nature of human activities, not simply to house them or reveal them to basic functions but something more than that, something that is more conceptual and adds to the ideas and associations of a designer’s mind.

Experiencing a space is a curious activity where the building maintains its own identity by following few design fundamentals in detail. These include sense of rhythm, harmony, balance, movement, warmth and many others that help create a thought out space.

Architecture is a multi-sensory experience where each design element connects with the other to enable a realistic extract of a space by stimulating a response. It is just not a physical response but something, which possesses more than that.

“Characteristics of rationalized building work towards a weakening of sense of place on human scale: over-scaled building complexes, excessive repetition, standardization dictated by production techniques, a lack of spatial organization due to need of flexibility, a flattening of shapes and surfaces called for by functional and economic considerations, and an overall erosion of form. Finally, an overall monotony of lighting, a lack of texture and the eradication of individual detail complete the loss of sense of place.” 20

In light of the research I have conducted, architecture appears to be very strong in a visual environment. It caters to haptic experience which has a tactile presence. There feels to be a great need of space that caters to vision as well as all the other senses. Thus making the space a sensible design by providing an experience to a diverse range of users. So much of space is designed around the visual environment. I am dwelling the prospect of designing a space that caters to not just the visual environment but also enhance an experience if vision is removed.

In response to my research and conclusions, I propose to create House Of Senses. An exhibition space that acts as a Research area for scientists and students and also acts as a space for the users, able to use and experience their senses. This is proposed in the University City Science Center of Philadelphia that will be designed for understanding all the 5 senses of the human body. Currently the neighborhood provides many science outlets that cater to both physical and psychological needs of the people. There are many scattered research labs, turnkey management services and industry expertise to life science and technology companies. The area also maps many research labs, medical schools, clinics and hospitals in the vicinity. Thus proving it helpful for a need of a project being more effective that deals with all the senses. Since the study of senses needs to be understood by observing people in general, this place also appears easily accessible by a diverse range of users.

On investigating the types of programs and research centers available in the University City area, I observed that this is a growing community that is encouraging the growth of such specialized spaces. Thus helped me to propose that there is an essential requirement of a research center that provides services to the scientists, medical students and creates a learning environment for other diverse users. A space, which provides a connection between senses and human body in both a physical and psychological environment that, will help both the users and the researchers/ scientists for their study.

The Science Center on Market Street also offers, both the surrounding universities and medical buildings around the city, an expressive outlet. The only thing it lacks is an opportunity for recognizing the positive contributions that these scientists and researchers are making. This can be best felt when the users other than the patients are made part of such a space, thus evolving an everyday person into a much responsive and a learned user. I call this an Experience Center, a building that will create a spatial environment for both study and exhibit.
The (HOC) House Of Senses is run by a non-profit organization owned by Maestro Zubin Mehta, which establishes the modern, interactive sensory museums all over Europe. It is a private initiative to gather public funding for the development of the museums. What moved him to do so is the cheerful and direct presentation of content that people with diverse backgrounds and experiences can bring into conversation, which arouses interest in dealing with scientific topics related to the senses. He believes in, “Send yourself on a journey to discovery.” Here the scientific documentation of the different senses is also made accessible to the general public. The main goal of the organization is to make the general public aware of the different prospects of understanding the Basic Human senses by providing them with interactive exhibition space. The aim is to impart knowledge and understanding of openness and enthusiasm in dealing with sensory experiences.

The numerous interactive elements and creative exhibition areas in the House Of Senses offer new, innovative approaches to exploring and experiencing the different senses. A unique sensory experience in a modern educational prepared review.

A group of five European Universities, two foreign universities, Scientists, a young team of students, artists from the multimedia and other fields, engineers, architects and designers are involved in the development of the House Of Senses everywhere. In means of growing the experience Zubin Mehta along with different universities, team of enthusiastic students, scientists, research scholars and companies is planning on making their first North American Chapter of HOS, based in Philadelphia.
The program for the space is divided into 5 sensory rooms. These are then further categorized into Public, Semi Private and Private zones. I will first define the zones:

- **PUBLIC SPACE**
  - Entrance
  - Lobby
  - Welcome desk
  - Sound Gallery
  - Touch Gallery
  - Restaurant
  - Reading Area
  - Archives Gallery
  - Multipurpose room

- **SEMI-PUBLIC SPACE**
  - General Support
  - Computer Labs
  - Perception Labs

- **PRIVATE SPACE**
  - Admin offices

The program is then further broken down into a matrix with approximate square footage and area requirements on the basis of sensory experiences.
## EXPERIENCING ARCHITECTURE
### PROGRAM

<table>
<thead>
<tr>
<th>ROOM</th>
<th>QTY</th>
<th>SIZE</th>
<th>SQFT</th>
<th>DESIGN QUALITY AND REMARKS</th>
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<tbody>
<tr>
<td><strong>VISION</strong></td>
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<tr>
<td><strong>ADMIN</strong></td>
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<tr>
<td>director</td>
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<td>10 X 15</td>
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<td>that will be housed in a more private zone.</td>
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<td>10 X 15</td>
<td>150</td>
<td>Investment clients or Public relations</td>
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<tr>
<td>outreach coordinator</td>
<td>1</td>
<td>10 X 15</td>
<td>150</td>
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<td>10 X 10</td>
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<td>100</td>
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<td>150</td>
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<td>shop</td>
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<td>600</td>
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<tr>
<td><strong>SOUND</strong></td>
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<td>1</td>
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<td>1500</td>
<td>the spaces related to sound.</td>
</tr>
<tr>
<td>sound gallery</td>
<td>1</td>
<td>25 X 32</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>evolution machine</td>
<td>1</td>
<td>25 X 32</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td><strong>TOUCH</strong></td>
<td>4200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>perception lab</td>
<td>1</td>
<td>25 X 32</td>
<td>800</td>
<td>The exhibition space is divided into</td>
</tr>
<tr>
<td>equipment room</td>
<td>1</td>
<td>15 X 20</td>
<td>300</td>
<td>sub-categories or smaller areas to define</td>
</tr>
<tr>
<td>stimulation</td>
<td>1</td>
<td>30 X 50</td>
<td>1500</td>
<td>the spaces related to touch.</td>
</tr>
<tr>
<td>touch gallery</td>
<td>1</td>
<td>25 X 32</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>tactile machine</td>
<td>1</td>
<td>25 X 32</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td><strong>SMELL &amp; TASTE</strong></td>
<td>3100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>entrance</td>
<td>1</td>
<td>10 X 10</td>
<td>100</td>
<td>This will be a full running restaurant</td>
</tr>
<tr>
<td>welcome desk</td>
<td>1</td>
<td>10 X 10</td>
<td>100</td>
<td>available to public</td>
</tr>
<tr>
<td>restaurant</td>
<td>1</td>
<td>50 X 40</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>kitchen</td>
<td>1</td>
<td>36 X 25</td>
<td>900</td>
<td></td>
</tr>
<tr>
<td><strong>MULTI-SENSORY</strong></td>
<td>3800</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>entrance</td>
<td>1</td>
<td>10 X 10</td>
<td>100</td>
<td>This will act as a free library zone which</td>
</tr>
<tr>
<td>welcome desk</td>
<td>1</td>
<td>10 X 10</td>
<td>100</td>
<td>will help diverse users to get information</td>
</tr>
<tr>
<td>archives of the senses</td>
<td>1</td>
<td>50 X 40</td>
<td>2000</td>
<td>and do their own personal research on the</td>
</tr>
<tr>
<td>computer labs</td>
<td>1</td>
<td>25 X 32</td>
<td>800</td>
<td>different observations and research done</td>
</tr>
<tr>
<td>reading room</td>
<td>1</td>
<td>25 X 32</td>
<td>800</td>
<td>by the Center.</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td>21050</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>circulation</td>
<td>6315</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>gross total</strong></td>
<td>27365</td>
<td></td>
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</tr>
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</table>
The ISI building, located in the inner city Research park was built as a basic loft building of its era with applied decoration on the facade. This decorative pattern on the façade was supposedly inspired by the punch-card patterns used to run computers (a technology still in use since the 1970s).

This building was conceived as a new corporate headquarters for an international scientific information services corporation that uses advanced computer technology. The site fronts on a major thoroughfare. The client desired “a building that everyone would recognize as a lively and distinctive contribution to the community and to the information industry.”

The original established program for this building mandated a flat, square building; thin, strip windows; and the location of core elements along one side of the building for future expansion. In addition, the building had to meet the exterior design requirements of the research park.

The architect explains that, “This exterior design distinguishes the building from its surroundings by imposing on the facade a geometric pattern of colored brick and porcelain panels. The tight, rigorously coded pattern of the overall facade is relieved by the juxtaposition of large abstracted flower forms marking the main entrance to the building. The freshness of the solution and its contribution to its street brought to one critic’s mind the young Louis Sullivan’s description of a house by Frank Furness, as “a flower by the side of the road.”
THE SCIENCE CENTER is headquartered along a section of Market Street in Philadelphia known as the Avenue of Technology. This park houses 15 specialized buildings totaling over 2 million square feet of area.\(^\text{21}\) The ISI Building selected is surrounded by the Science Research Park, which holds the easy access to the rest of the University City and Center City. Filled with students, shops, restaurants and nightspots, University City is a vital, growing area that is attracting companies and residents from around the world.\(^\text{21}\) Along with different specialized research laboratories, medical centers and hospitals this location is also close to major universities like University Of Pennsylvania, Temple, and Drexel University.

Providing a platform for scientific research this location caters to different clinics and research laboratories that are open to students and visiting scientists from all over Philadelphia and other cities.\(^\text{21}\) Thus making it a vibrant, pedestrian friendly Science Hub.

Because of this unique location it allows an easy participation in academic enrichment and other special programs at the surrounding institutions, thus becoming an important part of the regions largest community of researchers.

INTERIOR ANALYSIS

The current occupancy type for the ISI building is Business based. Thomson Reuters, worlds leading source of intelligent information company, currently occupies the ISI building.

It can easily be categorized as, at present, being business-based occupant. Approximately 95% of the floor plan is flexible a space. The open planning and an open grid system for the structural columns help provide an easy accommodating interior space.

EXPERIENCING ARCHITECTURE
SITE ANALYSIS

All the main service core and plumbing is oriented mainly towards the right side of the plan. Grid division for windows helps provide a big Lit-up loft space inside, thus maximizing daylight accessibility.

SITE CONSIDERATION
Along with the ISI building in University City Science Center area, the Hagerty Library and Bossone Research center on Market Street at Drexel University were also considered. On an extensive site analysis, the location of the ISI building proved to be the most appropriate for the proposed House of Senses.

CODE ANALYSIS

OCCUPANCY LOAD
USER GROUP: Business(es) & Assembly (A3)
OCCUPANT LOAD: Per floor; 221 people

CONSTRUCTION TYPE
2A

MEANS OF EGRESS
NO. OF EXITS: 2
TRAVEL DISTANCE FOR SPRINKLE SYSTEM:
Max. 75’ for A3
100’ for B
TRAVEL PATH: Clear and Unobstructed
WIDTH: Min. 44”
EXIT ACCESS TRAVEL: Max. 300’

ACCESSIBILITY/ ADA
CORRIDOR WIDTH: Min. 44”

INTERIOR SPACE DIMENSIONS
MIN. ROOM WIDTH: 7’
MIN. CEILING HEIGHT: 7’6”
BIBLIOGRAPHY


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31. Sha (present). Sha-art, from www.sha-art.com


