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Photographic Representations of Interior Space- Part 3

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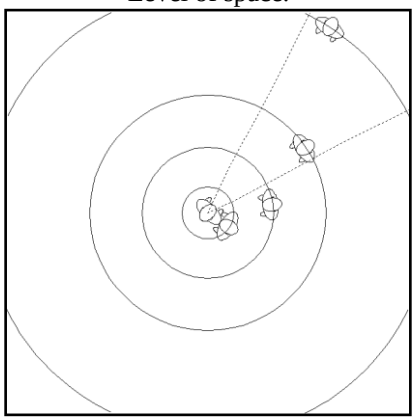
I. INTRODUCTION

Level of space.



Perception of real space can only be understood by exploring the human response to environment and this can be complex. The picture above illustrates the levels of space; in the centre is the most intimate of space that involves emotional and physical interaction. The next space after that is personal space which is only for selected friends and peers, the level after that is social in which temporary contact is made, the last level of space is public which does not require any direct contact.

How one responds to their environment is understood in three psychological stages, perception, cognition and spatial behaviour. "**Perception** of the environment, in its most strict sense,
refers to the process of becoming aware of a space by the acquisition of information through the sensations of sight, hearing, smell, touch, and taste. **Cognition** is the mental processing of this sensory information. This may involve the activities of thinking about, remembering, or evaluating the information. **Spatial behavior** refers to responses and reactions to the environmental information acquired through perception and cognition".[1]

Key words: Aesthetics, Techniques, Elements, experiencing, Acoustic privacy, Group dynamics, Environment.

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[1] http://www.google.co.uk/#hl=en&xhr=t&q=Real+space+and+represented+space%3A+Cross-cultural+perspectives&cp=61&pf=p&sclient=psy&site=&source=hp&aq=f&aqi=&aql=&oq=Real+space+and+represented+space:+Cross-cultural+perspectives&pbx=1&bav=on.2,or.r_gc.r_pw.&fp=a77a2d291f34908d date 22-05-2011.

PERCEPTION PLANNING

In this part, in regards to human perception that is how the eye perceives a space and the depth of the object that the eye is able to recognize. But in an image an objects depth is not clearly possible to bring out in photographic images. Only if we are able to make a 3D model we are able to utilize human senses. I did print selected images according to the scale and ratio to which we want to build the 3D image.

When paper models are made, the exact materials to be used for the real space should be printed or pasted on to the 3D image. In this way by viewing a paper model, which has the elements of 3D, one is able to experience the actual space.

REALITY PAPER MODELING

In general there are two techniques for 3D paper modeling:

1. Using human senses
2. Real but not real space.

For each viewpoint, it is possible to create these reality papers modeling in a way that one is able to use their senses and respond to the space as if they are in a real space and experiencing real space.

The photographic images must be done in a proper way and then the exact space must be scaled done according to the model with the correct height, colour and depth and then pasted on to the model in order to provide an experience of real space although it is not the real space.

Through this small-scale 3D model, which has the right materials, depth, height and colour, one is able to experience the actual space even though they have not viewed the real space.

It is not possible to produce 3D image through any computer software to replicate a real space with the accurate measurement. But through the 3D image one is able to make the image larger or smaller in a scale, which is why it is never really possible through 3D images that the actual experience is conveyed.

There are three different types of architectural design models:

1. **Proposal or idea design model**. During the initial stage of design ideas, it can be helpful to see the beginning form and shape. While a 2D sketch is how most designers start the first phase of design, a basic model can offer a different perspective in the design process. Conceptual models are often made out of inexpensive materials like wood or foam and quickly put together.
2. **Working design model**. Once develop a fuller idea of what creating, now can turn it into a working design model. If encountered any flaws or issues with your initial design, building the design model can help you address them, and possibly shed light on new, innovative ideas you can implement. Model makers commonly use sturdier materials like wood, concrete, and metal to create a working design model.

3. **Concept presentation model**. A presentation model has a higher level of detail than your initial physical model that better reflects your finished product's materials and scale. Concept presentation models are for when you're ready to present your ideas to your client or the public. Model makers use high-quality materials like resin or even a 3D printer to create a presentation model.[2]

RESPONSE TO THE INTERIOR ENVIRONMENT

Each person responds uniquely when confronted with specific situation or experience. These responses fall into three categories—sociological, psychological and physiological—all of which are influenced by factors within the interior environment.

Sociological determinants relate to the social needs and problems of the occupants. Factors that pertain to these sociological responses, including group dynamics and communication, should be considered during planning.

Group dynamics (the interpersonal relationships among members of a small group) are a result of the personality and cultural backgrounds of the individuals involved, their task, and the nature of the physical setting. Spatial arrangements in small groups are functions of environment, task, and personality. Various cultures respond differently to the amount and arrangement of space.

In determining the physical arrangement of an interior space, the interaction distances between work groups and the tasks to be performed are very important to successful communication and social relationships. The study of small group ecology is important not only from the standpoint of understanding the impact of social relationships, but also from the practical standpoint of designing and maintaining a variety of functional spaces in which various relationships can be promoted.

Studies of communication reveal that, in conversation, people prefer to sit across from one another rather than side by side. If the distance between conversing people becomes too great however, they will usually choose to sit side by side rather than across from one another.

The scale of a room—its size relative to the occupants— also influences conversational distance. As room scale diminishes, people tend to sit closer together. Likewise, increased noise levels and distractions drive people to sit closer together.

Psychological determinants in the planning of an interior environment relate to the psychological needs and concerns of the occupants. Visual privacy, acoustic privacy, and aesthetic factors are key determinants to be considered.

Acoustic privacy in an interior space results from effective treatment of the acoustic environment as an interrelationship of many components: ceiling, partitions, furniture, equipment, and floor. A complete acoustic system will generally provide adequate speech privacy. Speech privacy is achieved when there is sufficient acoustic shielding to allow conversation to be unheard beyond the participants of the conversation. A high quality of speech privacy will contribute significantly to a desirable level of communication, social interaction, and productivity. An appropriate relationship between background noise and that produced within the activity space is conducive to speech privacy.

Aesthetic appreciation is both expressed in and influenced by the environment. To define aesthetic qualities, the designer needs to understand that the concept of beauty differs with time and place, purpose and context. Values captured under the label "aesthetic" can best be understood at a universally comprehensible level. These aspects of a design go beyond the functional and constructional concerns, and are associated with the specific way the design presents itself to the human senses. The designer uses an object to serve some need or want. When we look at an object, its physical appearance causes a sensory experience in us above and beyond its mere utility. The designer's appreciation of this experience helps him to communicate his intent and understanding to the user.

Physiological determinants relate to physical needs of the occupants. Factors to be considered during the planning phase that deal with physiological responses include functionality, ergonomics, life safety, and health concerns.

[2] https://www.masterclass.com/articles/how-to-make-an-architectural-model

Functional efficiency relates to the degree to which physiological needs are supported in the interior space plan. These needs, which are physical in nature, relate to human body requirements. Interior environments must respond to basic human functional needs—vision, hearing, stability, and mobility—to achieve both comfort and efficiency.

The ability to comprehend one's environment as well as to perform tasks within it is strongly dependent upon vision. The critical variables in human vision are visibility, legibility and recognition. Hearing is critical because it not only affects ability to communicate but also the general capacity to perform other tasks. The critical variables in human hearing are audibility, intelligibility, signal-to-noise ratio, and noise annoyance.

Stability refers to elements that support individuals as they walk and move about or perform functional or manipulative tasks. Some of the elements that need to be considered in terms of mobility include slope of floors, width of walkways, depth of stair treads, location of handrails, and height of door thresholds. All physiological needs affect how a person perceives and reacts to an environment. When these needs are appropriately met, the user will perceive the environment as successful.

Studies show that a worker's productivity increases with an improved environment. Emphasis upon the following specific environmental conditions contributes to improved worker efficiency.

• Proper illumination.

• A suitable acoustic environment that allows ease of communication, limited intrusive noise (and resultant distraction), and protection from ear damage where appropriate.

• Facility interface features designed to be used within human mobility and strength limits. (Special attention should be given to the removal of accessibility barriers for the handicapped worker.)

• Physical features of the facility those are compatible with typical human expectations and comprehension.

• A plan that conserves human energy.

• An environment that allows workers to function within their most productive range of motion.

Ergonomic design recognizes that the environment significantly influences and impacts human behavior.

Each aspect of the interior design—including space, furnishings, and environmental variables such as temperature, sound, humidity, and ventilation—needs to be carefully assessed in terms of its compatibility with the purpose for which it is intended: to conform to the human body. The challenge is to plan for the intended activities, furnishings, and finishes that are appropriate for the purpose of the expected user.

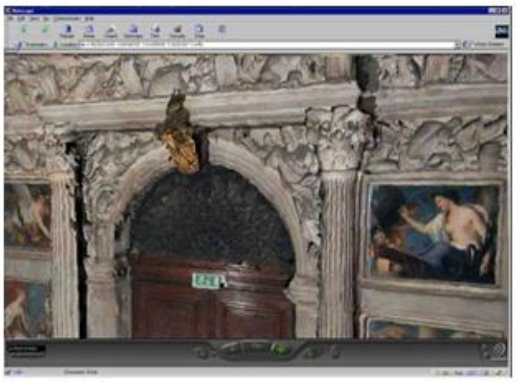
Ergonomics combines anthropometrics (human body measurement data), physiology, and psychology in response to the needs of the user in the environment. The designer to create interior designs, which are both humanistic and functional in nature, uses this data.

The achievement of any design depends upon the degree to which it creates an interface between users and the environment.

Life safety and health concerns are primarily focused on human response to negative motivations; the natural responses when an individual sense danger—generally referred to as fight or flight. Life safety centers on the ability of an individual to vacate a facility in a timely manner when necessary.

Generally this is accomplished through an assurance of adequate travel path capacity for the occupants of the space, and a clear indication of a safe means of egress. In a panic or emergency situation, people generally do not have the opportunity to decipher codes, which may indicate safe passage at an abstract level. It is imperative that the guide mechanisms be highly visible and clearly stated. Obviously this impacts the designer's desire to control the visual environment as completely as possible.

3D model of the "Sala dello Scrutinio", Doges' Palace, Venice



BENEFITS TO BE OBTAINED FROM THIS RESEARCH:

Through this type of modeling an interior architect is able to provide a client wherever they are in the world with the 3D modeling with accurate space with senses, which is not just possible through photographic images. In this way, one is able to experiment with the change in colour, texture, materials, and lightings of the interior space more speedily.

A client is visually able to recognize this and make decisions much more speedily. One is able to use the replicate of any material and use it in their 3D model image. Through the replicate of materials, one is able to use it in their models and provide the client with what the experience or feeling or touch may be with a certain material.

Architects through 3D paper model would be able to perceive through their own eyes the side view, measurement, depth, height, light changes, size and senses and these are not possible to convey in just photographic images but through the use of 3D modeling that one is able to view this.

EXPERIMENTAL RESULT

In this section, we present process results obtained using 5 different models, see Figure 1. For each of the parts represented by one of the models, we selected images, which were not used for their creations in order to verify the proposed method for process. I am trying to match each images to every available model. For these experiments, I am survey 4 nearest spaces such as Births Museum, Victoria and Alvord Museum, Tate Modern and St. Pacers Station for assume a lower bound of 50% on the inlier ratio, in order to guarantee a limited number of iterations. The results of these experiments are visible below.

All the images were conveyed to their corresponding models and no process happened. The run-time of the approach is limited by the extraction of photography; experiments were run on a single.

(Image to Match) **(Matched to Image)**




(Image to Match) **(Matched to Image)**




REPRESENTING SPACE OF IMAGES







Experienced the different ways the photograph can be taken. As it was interior space, natural light was not the focus of the image. Firstly, experimented with a of perceive and use of purposed and the reason why did that was because the area or composition was working with was square and therefore could not work out what would be the best way to explain the story of space.

The other focus was on the subject matter and choosing a right viewpoint especially as was taking photograph of an immovable subject and therefore I needed to choose the right angle. Although is taken from the opposite direction to all the photographs, it still does not make an excellent photograph because there is a lot of space that is not filled in with the subject matter. If look at images, I fill in the whole area with subject such as people, lighting and natural light and not just floor space. Image 1 represents the right composition consisting of viewpoint, subject matter, and

the right shot being landscape and also the photograph does not just focus the subject in the center but positioned correctly on the intersection.

II. FINDINGS OR OBSERVATION

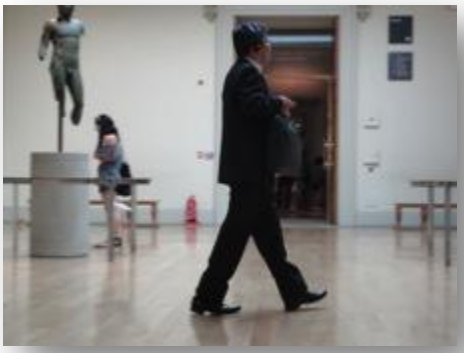
The findings will give me an insight into answering my research question as to whether a still photographic image produced by recording radiation on a photo- sensitive medium can communicate the possible expressions such height, colour, texture, light, proportion and senses used by the creator.

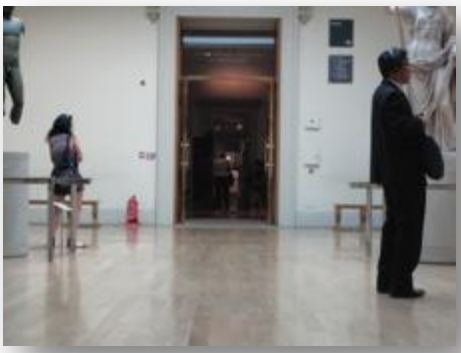
When a person views a same or continuation of the same work for example a interior wall with the same brick work or same colour it becomes boring for one to view.

However if a wall has bricks with two different color the person viewing it will observe with more interest.

This will allow them not to just view it in a lazy way just for the sake of looking.

When a person is in a interior space such as public gallery, British Museum, or Tate Modern they would usually stop and follow movement or motions of people.





This may be of other people who are also viewing interior spaces. When making observation with your eyes you would follow that full movement or motion, for example a person walking in an interior space.

What we do not is capture a still image of that movement or motion.

However when representations are made in the form or photography images can be captured.

But what is impossible is capturing the length of the movement or whether the person working or running at a high speed. When viewing this photographic representation we would have to use are phycology in order to imagine whether the person is working, running, length, distance, speed.

When we observe an interior space, people usually notice the following in the interior space, including space colour, light, texture and materials etc. Likewise when one views a photographic image of interior space, they observe the same thing. When we observe real space through our eyes, our feelings, experience and senses like sight, touch, hearing, taste and smell, we are able to make use of these senses. But when we are viewing a photograph it is not possible to use these senses.

"Don't shoot what it looks like. Shoot what it feels like." - David Alan Harvey

Figure 1

Figure 2

Figure 3

Figure 4

The movement of people would not have been captured in one photographic image. We can only understand that these people are walking because four different photographic images show their relative movement in relation to where they are on the stairs when they are walking.

In carrying out this project intend to make analysis of photographic images and carry out research into the choices a photographer makes when taking the images, for example the use of landscape or portrait. If a person looking at the photographs of genteel Victorian opulence, one will starkly notice that there is a contrast in the images, if the landscape image was taken as a portrait it may not be a bad image but it may not fit the wide subject.

III. CONCLUSION

Have to admit that at first was skeptical about my research proposal and questioned whether I will be able to produce a viable hypothesis and use the appropriate methodology to come to some sort of conclusion. At one point, changed my research proposal all together, but thought hard about my intention to study and decided that can produce a viable research project.

In carrying out this research was able to understand and conclude that difference between camera and eye lenses and how human senses produce representation in images, whether it is possible to representation human senses in photographic images. When viewing photography we will try to look at the depth of photography. How we view through our eyes and whether a camera lenses is able to produce representation like the one viewed by eyes. In order for a camera to produce representation there are certain techniques such experience, feeling, emotion, composition, camera, photographic techniques which assist in producing such representation. More want to find out how we can manipulate these techniques in order to produce representations, which do not distort the real experience and view. Failure in using such techniques when taking images of interior space means that the image will lose proportion and the actual feeling of space.

This research is focused on the exploration into how close the relationship is between real and represented space and for the part of my project I would like to explore this avenue. Want to be able to expand on both real and represented space as being two distinct elements and carry out further tests as to why they are two distinct as opposed to one convention.

FUTURE RESEARCH WORK PLAN

After this research come out the future plan is that when work with the next interior space design, would make use of photography techniques, human senses and experience. If person is able to utilize their senses then they view a quality photograph. When the image is taken it should not just be photographic document. If they are able to experience and imagine something without losing interest then this is real photography. In the future want to be able to show others work of interior space so that even if someone has not been able to view a particular interior space with their own eyes, my photographic image should get some of their senses to work and convey some experience.

However this research is based on photography and real space. In the next plan what want to explore is how experiences can be portrayed in real space and photographic images. Have found out how light changes, depth, colour value, seasonal changes, movements on people in the space cannot be portrayed in photographic images. So question is why this is not possible. That is why next study was on how experiences and senses used in viewing real space can be portrayed in photographic images.

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