

INTERIOR PORTRAITS

REVEALING HIDDEN ATMOSPHERES CONTAINED IN SPACE

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*To Nano with all my love,
for waking me up every day with a smile.
You deserve this Masters as much as I do.*

IMPRINT

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Silver gelatin print (2014)

ABSTRACT

INTERIOR PORTRAITS moves beyond historical and contemporary ways of interior architecture representation and aims to simultaneously reveal multiple layers of information, conditions and atmospheres contained in a single space.

These numerous spatial readings are achieved by constantly portraying the domestic interior through a collection of different analogue and digital photographic techniques. My research aims to change the perception of the interior space by capturing the immaterial and visualizing the invisible.

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"Any room can become a camera". Abelardo Morell

CHAPTER ONE

Introduction

INTRODUCTION

Space-Time and Image

The purpose of this thesis is to explore the multiple readings and atmospheres contained in interior spaces and its relation and consequence to image representation. I'll be using photography as my representation tool, which I believe, has the potential to play an important role in the development of new ways of studying and experiencing the Interior.

The representation of interior space by the use of image has been a major subject matter throughout history, nevertheless when considering all fields, questions are multiplied because of the number of ways we can define space and image.

In the case of my thesis I would focus on the notion of space viewed from an interior architecture outlook considering it as a three-dimensional extension determined by physical parameters.

Throughout my experiments and reflections, I would like to explore the different layers of information and atmospheres contained in the interior space that are normally not visible to our eyes. In my research I will try to unveil these scenarios that simultaneously exists by deeply studying and documenting the same domestic space during a period of 6 months with the use of diverse photo cameras and image making techniques. While this collection continues to grow, new ways for perceiving and experiencing the interior might be revealed and provoke new ways of representing and understanding space.

Knowing that the concept of space can refer to a broad range of meanings and contexts I would like to address the term space by narrowing down its definition to what is relevant to my thesis.

The Encyclopedia Britannica defines space as “the boundless, three-dimensional extent in which objects and events occur and have relative position and direction”. This definition, although quite general, is evidently borrowed from physics.

Physicists nowadays prefer to speak about *space-time*, which is a mathematical model that combines in one range the one time-dimension and the three space-dimensions currently used to observe the universe. Not only physicists, but also sociologists and researchers that approach space from the humanities, now consider it strictly related with time. Henry Lefebvre expresses this idea in his book *The Production of Space* when he mentions, “Space considered in isolation is an empty abstraction; likewise energy and time.” H. Lefebvre, *The Production of Space* (1991); pp. 12

The slightly artificial separation between space and time dimensions that was introduced to facilitate the study of both is abstract and this abstraction makes it difficult to understand the nature of space and time. One of the reasons why physicists and other scientists choose to introduce the term *space-time* is that a direct relation between time and space has been observed in different occasions. For instance, time appears to slow down in different spatial conditions. Also our perception of time is strictly linked with space, in the sense that we cannot see time but only what happens over time, in space. As George Kubler observes:

“Time, like mind, is not knowable as such. We know time only indirectly by what happens in it: by observing change and permanence; by marking the succession of events among stable settings; and by noting the contrast of varying rates of change.” G. Kubler, *The Shape of Time* (1978); pp.68.

An inverse concept is also true: our perception of space happens over time, both short-term through our movement in space and long-term in the form of experience. Although the definition of the term space is appropriated from physics, Lefebvre strongly criticizes models of space that originate in theoretical physics in reference to social studies of space. In my thesis I will consider space from a slightly different perspective, since I am more interested in the study of image and perceptive experience of space.

When referring to image, its term can also refer to a broad range of meanings, contexts and techniques. Although the use of image as method of representation has been extensively explored in the field of interiors, my approach to image is studied mainly from a photographic outlook. According to the Encyclopedia Britannica, the general definition of image is “a visual representation of the external form of something”, but this term in relation to my thesis can be narrowed to “An optical appearance or counterpart produced by light from an object reflected in a mirror or refracted through a lens”. This definition suggests the use of a camera to create an image, but at the same time implies something that goes beyond materiality. When

exploring other definitions related to image in photography, the term Portrait is explained as “an image that displays the expression, personality, and mood of the subject”, (*) referring to features that go beyond the physical representation and moves towards characteristics that are not perceived as material; they are subjective and could radically change depending on the viewer.

In relation to image, the creation of atmospheres and its connection to space-time, I would like to introduce the concept of Heterotopia. This concept elaborated by philosopher Michel Foucault is used to describe places and spaces that function in non-hegemonic conditions referred as spaces of otherness. In relation to my investigation the term Heterotopia describe spaces that have more layers of meaning or relationships to other places than those that immediately meet the eye. In general, Heterotopia can be described as a space that is “neither here nor there and is at the same time physical and mental”, meaning that a single real place can be juxtaposed by several spaces.

Taking in account this framework, I would like my project to open questions around contemporary forms of representation and introduce a visual tool that suggests the use of different photographic techniques in order to expand the possibilities of reading a space. Capturing and revealing simultaneously more layers of meaning could achieve new ways of experiencing and understanding the complex interiors we inhabit.



Fig. 1. Printing process of silver gelatin images (2014)

RESEARCH QUESTION

Although photography intends to be a faithful representation of reality, my interest in this field lies in the subjective qualities that the image can contain. I am deeply fascinated with its technical principles and how light, as an immaterial element can leave its trace in the photosensitive surface. I am interested in the relation between this principle and interiors, but mostly how we, the inhabitants, also leave our traces in space.

My research is based in the different readings that image making, particularly photography can generate. Understanding the multiplicity of events happening simultaneously and visualizing what is not possible to capture with our eyes is the main motivation for this project. I am interested in the way the inhabitants of an interior alter and transform the space and how visualizing their traces can inspire new ideas. I am also interested in the relation between interior and exterior spaces and the possibility of eliminating the separation between both by visually merging one into the other to create a new type of space that is neither inside nor outside. As an architect and photographer my aim is to make a connection between these two fields in order to question today's image representation of interior spaces and eventually create other alternatives that might develop different ways of conceiving and understanding the places we inhabit. My objective goes beyond documenting interiors as they are in reality and thus I intend to focus in the atmospheric qualities and invisible aspects contained in space.

I believe that image has a strong power that can generate multiple perceptions and interpretations, therefore I question; are there hidden atmospheres contained simultaneously in the same space? If there are, would it be possible to visualize all these layers of meaning and would photography be able to capture the invisible?

I consider that photography is the ideal tool for analyzing the space in depth. Its principles related to light, time and exposure could capture and reveal, not only the material, but also the immaterial qualities of interior spaces. Would it then possible to transform an interior without the use of physical interventions? Visually altering the image of the interior can modify its perception to a point were the space is no longer recognizable. Can these multiple readings of the same space trigger new discussions around today's representation of interiors and could this be used as a tool to inspire new way of understanding and experiencing the spaces we inhabit?

I would like to divide my research in two phases. For the first part of my project I'll explore numerous photographic methods to read interiors and focus on creating a collection of images that document the same interior through different techniques.

My objective through this collection is to explore how the space can be read in numerous ways and how it transforms each time, meaning that the spatial perception can change completely just by altering its image. On the other hand, the second part of my research focuses on how these images not only change the perception of the space, but also reveal aspects and atmospheres of the interior that are normally not visible. Through my design proposal I would like to recreate a multidimensional visual experience of all the atmospheres that are simultaneously contained in my domestic interior and display them in a public space.

METHODOLOGY

I started my research by taking my own domestic interior as the case study for developing a detailed visual analysis. In order to explore different techniques for image transformation, I chose photography as my research method tool. The camera is known as an apparatus that captures and fixes particular moments of reality, but is also considered to include a subjective outlook, not only depending on the viewer but also affected by the angle and frame that the photographer chooses to shoot the picture, leaving an open path for different interpretations of the same image.

My methodology has an experimental approach to the physical principles of photography as capturing light, time exposures, reflection and the Camera Obscura effect with the intention of discovering different visual methods and techniques that could transform the perception of an interior space.

My domestic interior as the *subject* to be documented became my inspiration and case study for exploring and discovering the space's materiality as well as capturing its immaterial features and potential atmospheres.

The visual research starts by documenting the space with an analogue camera and develops the images with traditional printing techniques. Exploring the dark room allowed me to apply different light exposures and printing procedures, as well as experimenting with various chemicals to achieve unexpected results. Other experiments as introducing the camera obscura effect and exploring digital alterations are added up to many other experiments that will contribute to the construction of a visual catalogue that explores different ways of reading interiors and reveals multiple atmospheres contained in the same space.

My design method is based on "research through making" as a system to explore and construct a theoretical background while the experimentation continues to develop. Discovering different theories and meanings behind every image makes this method very diverse conceptually. Every technique applied revealed a complex amount of theoretical knowledge that leaves wide possibilities to continue their development over time.

CHAPTER TWO

Theoretical Research



Fig. 1. Inside the House of the Tragic Poet in Pompeii (1828)

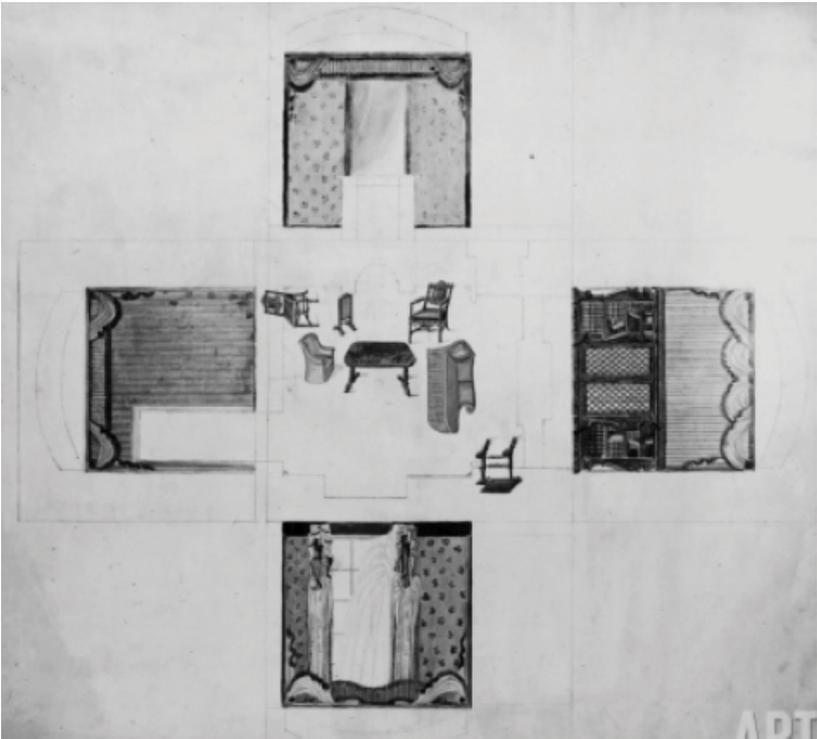


Fig 2. Furnishing for a small room (1750)

INTERIOR SPACE AND PHOTOGRAPHY

Image as representation of Interiors

When discussing the representation of the interior spaces throughout history, we can go back to the murals of Pompeii and the fascination of the Romans for enhancing the space of their windowless rooms (fig. 1). During this period the idea of bringing the image of the exterior to complement the interiors already suggested an approach of interior representation. The drawings of the murals depicted the interior as separated surfaces and indicated a notion of interior space as more than a place for shelter. Also there are similarities concerning this topic in renaissance art in the use of perspectival techniques to create the illusion of three-dimensional space on the walls of their villas to visually enlarge the spaces (Tyler & Ione 2012).

Charles Rice in *Emergence of an Interior* argues that during the 16th century the room became a problematic subject for architectural drawing, meaning that the drawing was not likely to capture the unity of the room as a coherent interior and struggle to reach an overall representation. Examples such as Gillows & Co.'s drawings for their furniture catalog (fig. 2), illustrates an interior space dissected into separate surfaces in order to accomplish an overall view. In this case the furniture detaches from the walls and starts occupying in multiple ways the interior space.

The word interior was first introduced in 1802 with the publication of Thomas Hope's book *Household Furniture*. By this moment, the concept of interiors starts emerging as an additional practice to architecture as well as an "independent structure that manages life" (Rice 2006). From this moment the interior starts gaining a domestic meaning and a conceptual overview as an artistic affect.

Walter Benjamin in *The Arcades Project* describes the nineteenth-century bourgeois interior as a hard shell lined with velvet, in which a complete separation from the outside world was the ideal. The threshold dividing the domestic interior from the outside world engaged the notion of comfort, one of the most complex and key aspects of the interior. At the beginning in the eighteenth century, both architects and inhabitants placed importance on both defining and obtaining comfort within the interior. Over time, thresholds exhibited shifting levels of permeability that produced new alternatives to the concept of comfort with intrusions into the traditionally private realm of home. By the middle of the nineteenth century the blurring of the threshold between inside space and the outside world became very common especially by interiorizing gardens and other public, nondomestic spaces.

In relation to the threshold and its image, Catherine Murphy in her master's thesis *Transitional (Object) Space*, defines thresholds as "ambiguous and time-based constructs, referring to both physical and psychological states of being." She argues that some can be transgressed by the body and some, although they are translucent and purely visual are dominated by the gaze more than by bodily spatial experience.

Photography as a tool

Reflecting on the representation of interior space and its relation to photography, I would like refer to the *Camera Obscura* (fig. 3) as an element that connects both notions of photography and interior space. It has been known at least for two thousand years that when light passes through a small aperture into a dark enclosed interior, an inverted image appears on the wall opposite to the aperture. This physical principal later adopted by the developers of the photographic camera was first explored as a tool for observation and image representation. Between the 16th and 18th century the Camera Obscura was widely used for explaining human vision through its structural and optical principles as well as for exploring the representation and relation of the observer towards the unlimited extension of the exterior world (Crary 1992). As described by the *Encyclopédie des sciences, arts et des métiers* from 1753, "The Camera Obscura represents images perfectly resembling their objects and represents the colors and movements better than any other sort of representation is able to do"; but beyond the visual spectacle, many other descriptions of the Camera Obscura consider it as a tool used by artists for copying, tracing and making permanent images in an extremely accurate way. Such is the case of Dutch artist Johannes Vermeer whose paintings of interior spaces (fig. 4) done with grate attention to detail, accurate perspective and precise light representations were attributed to the use of this apparatus. The construction of portable versions of the Camera Obscura made the apparatus an interior experience itself complemented by the projection of the

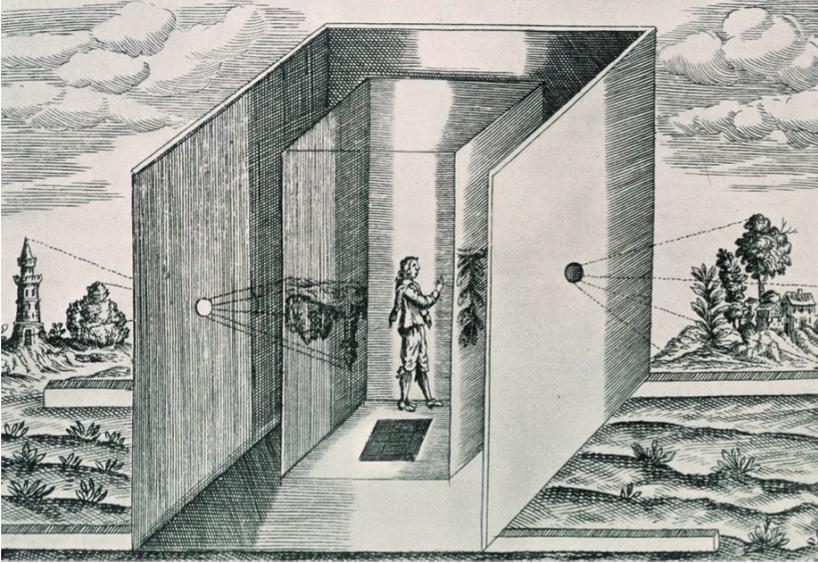


Fig. 3. Large Portable Camera Obscura



Fig. 4. Music Lesson (1665)



Fig 5. First Daguerreotype (1835)

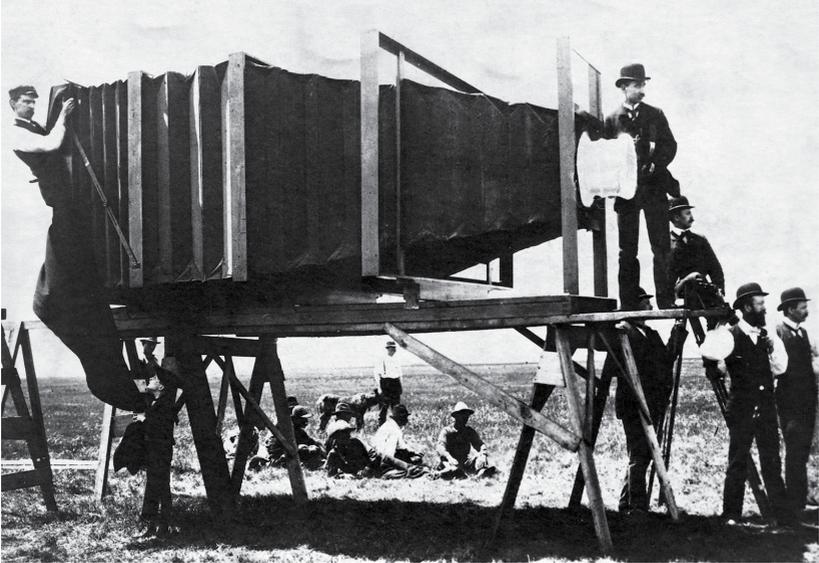


Fig. 6. Large Kodak Camera (1850)

exterior, which constantly changed according to its location.

The Camera Obscura effect can only be produced by being enclosed in a dark interior; meaning that the first notion of photography was strongly linked to the space itself. Turning the space in an apparatus for capturing exterior images had certain consequence in the interior in the sense that it had to be experienced in complete darkness. Understanding these optical principles transformed the Camera Obscura into an apparatus. The interior space was reduced to a smaller black box with the purpose of being transported between places and document different scenarios.

Louis Daguerre in 1835 introduced the Daguerreotype (fig. 5) making possible to permanently capture images and opening a complete new way of representation that quickly expanded and was available for everyone to use. Some of the first cameras were extremely large and demanded several people to carry it around. Additionally, long time exposures were needed for capturing each image (fig. 6).

With time, new optical studies and chemical developments made possible more stable photosensitive materials and shorter times of exposure that allowed the cameras to reduce their size. This “shrinking process” obtained by new technologies transformed the camera to a small and portable shape, allowing it to finally return to the interior but this time, to document it.

Portraying Interiors

Although in the beginning photography was mainly used for portraits and journalistic documentation, the introduction of the camera in the domestic interiors became a new subject matter in photography. Interior photos with subjects created a new type of family portrait that documented the domestic comfort of people involving simple activities within their private environment. It is said that through the frame of image making we begin to understand how we see ourselves as subjects inhabiting interiors, theory that is studied by Walter Benjamin and Sigmund Freud who argue that photographic representation of interior spaces explore a sense of self-identity that characterizes what we are and how we live, and further the way we see ourselves and read our own behavior through the objects within the interior (Rice, 2006). As mentioned by Walter Benjamin in this book, *The work of Art in the Age of Mechanical Reproduction* “The camera introduces us to unconscious optics as does psychoanalysis to unconscious impulses.” (Benjamin, 1936).

Similar to the purpose of a portrait, photographing an interior could unveil a predominant expression and display the personality and essence of the inhabitant transmitted into the space.

At the beginning of the century, portraits of families in their homes became more popular. Different from the traditional studio portraits whose space didn't transmit any sense of identity to relate to, the idea of portraying the family during their daily

activities (or at least pretending), suggested a more natural approach to their life style. Most of these images reflected the families identity, the way the saw themselves and the way they wanted others to see them. In photographs as Walter and Ise Gropiusv (fig. 7), the Bauhaus idea of interiors and architecture is clearly transmitted. They look comfortable in their modern furniture in a bright clean room with large windows. Their lifestyle and domestic intimacy is displayed to the public and at some level seeks to transmit the desire of inhabiting a similar space. In this case the photograph becomes a sort of showcase for the Movement by inspiring others to follow the same type of lifestyle.

This successful combination of image and physical space was not always the case. The differences between architecture and its photographic representation at the beginning of the 20th century became a constant reflection for architects as Le Corbusier and Adolf Loos. They claimed that though the photographs were well done, “the effect was always distorted and offensive to the eyes of those who have seen the original places” (Colomina 1987). It seemed that the photographic representation of their spaces were incapable of reaching the level of the actual design (fig. 8).

Although the spaces were physically designed to transmit a certain type of experience, the photograph was actually distorting the designer’s objective. Through photographic representation, a new type of experience was perceived and opened discussions around the interior space and its different levels of interpretation depending on its representation. Photography somehow was altering the space in a way that was changing the perception of the interior, making it difficult to recognize even by its creators.

Alteration of perception

The use of photographic images to alter perception as a way of artistic expression was widely explored through the 20th Century. Dadaist, Surrealists and Bauhaus movements experimented with photograms, photomontage, double exposures, and radical perspectives to question interpretation, perception and to evoke the union of dream and reality through images. The artist Man Ray explored unexpected effects of negative imaging, juxtapositions of identifiable objects and variations in the time exposure with the use of photograms (fig. 9) which are images done by exposing elements directly to the photographic paper, without the use of a camera . Another exponent of a similar methodologies was the architect Moholy-Nagy who explored new dimensions through photomontages and image experimentation. In his book “*The New Vision: Fundamentals of Bauhaus design, painting, sculpture and architecture*”, he introduces the term “The New Vision” for his belief that photography could create a whole new way of seeing the outside world that the human eye could not.



Fig 7. Walter & Ise Gropius (1930)



Fig 8. Khuner House (1930)



Fig 9. Rayograph (1930)



Fig 10. Untitled (Multiple Portrait), 1927

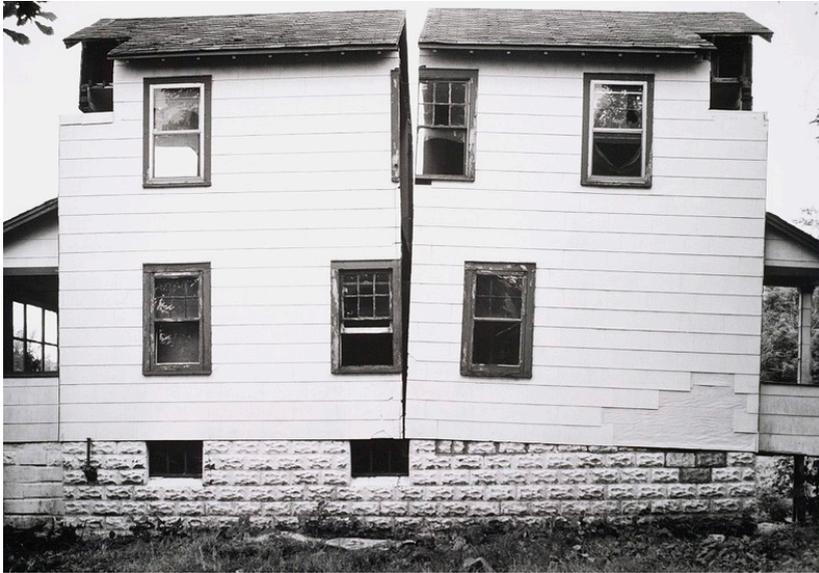


Fig 11. Splitting: Four corners (1974)



Fig 12. Conical Intersect (1975)



Fig 13. Interior Design Magazine 2014



Fig 14. Interior Design Magazine 2014

As an example, a photograph exposed multiple times showing the portrait of the woman from four different angles in one single image (fig. 10).

In the work of Gordon Matta-Clark, the photographs of his short-term interventions as cutting building in ambiguous spaces took a new approach that went beyond a simple need for documenting inaccessible site works. He questioned our perception of spaces such as “the house,” by deconstructing their function. In his work *Splitting: Four Corners*, (fig 11), is revealed the strong relation that exists between the kinesthetic experience of space at the level of perception and the ideas and concepts related to it at the level of practice.

Matta-Clark’s approach to the photograph revolved the impersonal style that had been present between the event and its representation (Westgeest & Crow 2009). His photo documentations offered vividness and condensation to compensate for the absent object (fig. 12). This became essential to his art pieces in the way that he was using image to communicate to the viewer the experience of a physical space through his own particular angle and frame.

While photography through history has offered multiple layers of expression, interpretations and representation in interior spaces, it seems that today’s approach to interior photography has become banal in the sense that it appears as a generic showcase for the promotion of commercial products. Contemporary interior design magazines document the interior of homes often in a highly staged format and normally do not feature people with the intention to make the viewer focus on the furniture and decoration (fig. 13, 14).

Back to Benjamin and Freud’s reflection on photography as a way of identity, we could then discuss that today’s artificial representation of interiors reflect how is our society and the way we are indirectly being told what is the ideal image of our interiors and the way that spaces should be inhabited.

Proposing an opposite methodology to the way some magazines document space could generate broader ways of reading interior spaces through photography. This could help understand through image representations the way space is actually occupied by its inhabitants and visually generate a more complex spatial experience that could inspire the creation of future interiors.

CHAPTER THREE

Design Research

READING SPACE THROUGH MULTIPLE PHOTO TECHNIQUES

The Uncanny Dark Room

I started my design research by documenting my own domestic space with an analogue b&w film camera. The absence of color made me more conscious of the light and spatial qualities of the interior I inhabited. The images captured started turning towards a more personal and intimate point of view by including my regular domestic activities and my neighborhood's surroundings. This is one of the techniques that made me aware of the potentials of photography as a tool to explore other qualities of space that are normally not visible to our eyes. The monochromatic image helped me analyze in depth aspects of light and how it changes the space through time, as well as a more detailed observation of the textures and shades present in the interior. These aspects are commonly unnoticed by the viewer because of our capability of seeing always in color.

Using the images as my material and experimenting with images exposed to different times and chemical processes, opened multiple possibilities for exploring new effects. The amount of light during exposure and developing processes within the darkroom affected density, contrast and brightness of the same image frame but made them visually different between each other (fig. 15).

Physical interventions to the photosensitive surface such as cuts, folds and the use of mirrors and lenses during the dark room processes, revealed some distortions, flare and blurs to the image producing a mysterious atmosphere only visible and sensed through the pictures (fig. 16,17). Caroline Van Eck argues on her article "*Empty spaces haunted by presence*" that though the architectural uncanny is triggered by spac-



Fig 15. Silver gelatin print - No fixer



Fig 16. Silver gelatin print - Lens over image



Fig 17. Silver gelatin print - Cut and reassembled image

es and experienced by the beholder, the effect is always achieved by the medium of image representation. She claims that though the light represented in the image normally play tricks on the viewer, sometimes the power of the image can almost suggest that the photographed space is on the way of becoming alive (Westgeest & Van Eck 2009).

In the relation to this argument, the experience of being in the darkroom also allowed me to detail each image as it was processed. Seeing the photograph appear before my eyes was almost a surreal event. From shooting the photo to looking closely to the negative, defining the size, frame, focus and time of exposure gave me the time to inhabit once again that interior but from an other angle. As I was printing and manipulating the photograph, a new level of appropriation of the space and its image was suddenly growing stronger.

Material spaces, Immaterial traces

"To live is to leave traces". Walter Benjamin

These uncanny impressions produced by the first set of photographs motivated me to continue in the search of different methods that could generate unexpected effects on the images. With the use of long exposure techniques it is possible to capture the impression of time passing into one frame. I explored then, the possibility of registering the traces of movement in the interior space produced by the inhabitants during their activities.

In the work of photographer Michael Wesley the passing of time is clearly visible in one single shot. His photographs of buildings under construction, reveal the increase of volume as if the photo was a three dimensional sculpture (Hermason 2004). In his photographs taken for as long as three years, the parts of the building exposed the longest, appear darker and clearer while the newer parts seem more ethereal (fig. 18). The traces of the sun and the evolution of the city are evidenced in the single frame, although is curious the complete absence of people.

What is remarkable of long time exposure images is that the subjects or objects in movement are not captured in full form. What is captured is their traces in the space, meaning that though the image of the subject is not visible, it doesn't mean that the subject is not present.

The artist Gabriel Orozco in his work *Cosmic Matter and Other Leftovers* defines *"a trace is ephemeral, a locus of ambivalence suspended in the unstable space between construction and dispersal, presence and absence. A trace is very little, almost nothing. But it is also an index of life."*

Traces and presence could also be studied though Avery Gordon's book *Ghostly Mat-*

ters where the author demonstrates that past or haunting social forces control present life in different and more complicated ways.

In relation to these terms, when using long exposure techniques in the interior I find interesting the relation between the materiality and statics of the built spaces and the vulnerability and temporality of its inhabitants. The architecture remains, but its occupants are always changing. The built space might remain physically unaltered but what changes through time is the way the same space is occupied. Documenting the traces of the inhabitants might reveal an invisible layer of information related to motion that could change the reading of the interior according to its users.

A similar example of capturing motion is the work of photographer Hiroshi Sugimoto in which he photographs American movie theaters during screenings (fig. 19). The exposure time used for capturing the photograph corresponds with the length of the film projected. This allows him to save the duration of the entire film in a single shot. What remains visible of the film is the bright white screen of the movie theater that illuminates the architecture of the space. The film's time-compressed content is captured in the white background making the actual film a piece of information shown in the space. As a result, the film presents itself as the relationship between time and spatial perception.

As in Sugimoto's photographs, by using long exposure photography I can capture all the subjects and objects movements during a considerable amount of time in one single frame. The information of "my movie" captured through time is almost imperceptible. It is actually spread around the whole image of the interior space but condensed in one single frame (fig. 20, 21). I believe that by materializing the immaterial, understood in this case as motion, the interior reveal through these images, a juxtaposed layer of atmospheric perception normally invisible to our eyes.

Camera Obscura: Fading the interior

With the determination of unveiling additional atmospheres present in the space, I decided to explore the relation of interior and exterior by introducing the Camera Obscura effect in my domestic space. I was first inspired by the work of photographer Abelardo Morell in *Camera Obscura 1991*, where he studies the fusion of outdoor elements with domestic scenes, allowing the viewer to see the existing reality outside the window and altering the perception of the room.

The density of his images converge both interior and exterior in the same frame (fig. 22) and claims that any room and any space can be turned into a camera were "the weird and yet natural marriage of the inside and outside can be seen".

Taking this technique to my own living space helped me achieve the effect of trans-

forming the interior into a completely different experience. The projection of the upside down exterior in full color and motion on the interior's walls creates a dramatic effect that transforms the way the room is perceived and lived (fig. 23, 24). The physical space is turned into an oversized pinhole camera and the few spots brightened by the small hole in the plastic are the focus of the illusion. Meanwhile the rest of the house is lived in complete darkness waiting for the long exposure digital camera to capture in one single frame, the whole atmospheric effect that blends the visual representation of material and immaterial elements.

What is interesting for me is to think what does this intervention mean in terms of perception. How does the inhabitant experience an interior which only source of light is a frail projection of what is happening in the exterior? How does this effect changes the experience of being inside while the only thing visible is what is outside? This effect basically erases the idea of interior by virtually invading it with the projection of the exterior. It blurs all the lines of separation and produces a certain flow between both realities. Exterior invades the interior, however the exterior is also invaded by the interior in the sense that the inhabitant takes a place as a hidden observer with access to the biggest indoor screen, gazing toward the exterior without anyone noticing his or her presence.

Like in the Panopticum (fig. 25), the guard is in a power position where no one knows for sure if he or she is observing them. The Camera Obscura allows a similar effect. In a contemporary version we could refer to surveillance by CCTV cameras in public spaces as an example of a technology that brings the gaze to someone who remains in an interior space, and observes into the daily lives of the population without being noticed (fig 26).

Interior Photograms

While experiencing the interior with the projection of the exterior, I noticed that the interior was actually turned into an enlarged version of a pinhole camera.

The Camera Obscura allows a larger panoramic visual of the interior's surroundings and context and generates a wider-angle view of the exterior projected through the smallest window.

Understanding the space as a camera, led me to the idea of materializing the effect of the Camera Obscura. Normally taking a picture is about bringing the camera into the space for documenting it. In this case I inversed the process of taking a picture by transforming the house into the camera and using its window as the lens. The walls then, became the photosensitive paper that recorded the traces of light and documented the image of the exterior from the inside.

The final *photograms* are unique copies that cannot be reproduced. Different time



Fig 18. Allianz Arena (1997-1999) - Michael Wesley



Fig 19. Theater Series (1988) - Hiroshi Sugimoto



Fig 20. Long exposure: Bedroom - 5 mins (2014)



Fig 21. Long exposure: Dining room - 25 mins (2014)



Fig 22. Camera Obscura NYC (1991) - A. Morell



Fig 25. Panopticom



Fig 26. CCTV Surveillance Cameras (2012)



Fig 23. Camera Obscura: Bedroom (2014)



Fig 24. Camera Obscura: Dining room (2014)



Fig 27. Photogram: Projection in Bedroom (2014)



Fig 28. Selective Light: Living room (2014)



Fig 29. Artificial Light: room (2014)

exposures were tested to explore the images saturation and contrast. An upside down, blurry and negative version of the exterior was captured as an actual image but without the use of an apparatus (fig. 27).

These images don't talk specifically about the interior. However, by documenting the surroundings the images communicate the interior's context. Although these images don't represent anything that is part of the physical interior, by using the house for capturing the photograms, there is a clear sense of appropriation of the exterior.

Artificial light and space

Returning to the idea of exploring other photographic techniques that might juxtapose additional information and alter the reading of the domestic interior, I also explored visual illusions inspired by effects produced with reflections, shadows and magic lanterns such as the ones used during the *Phantasmagoria* theater shows of the 18th century.

By turning my interior completely dark and with the help of a small lantern, I was able to "paint" certain corners of the interior with light (fig. 28). By capturing these light motions with a digital camera set in long exposure timing, the elements that where shortly pointed with the lantern appeared visible in the image, while the rest of the interior remained invisible.

The outcome of images where very interesting and changed the perception of the interior space dramatically. A complete new atmosphere was revealed when capturing the traces of the flashlight. In some outcomes the light is traced as lines or small spots, while in other images the spotlight brought forward certain elements while erasing the remaining space. The different effects are achieved depending on two factors. On one hand it depends on how fast is the motion of the light and on the other the amount of time the lantern illuminates each element. However this technique is completely subjective, meaning that the result depends entirely on the person holding the light and his (or her) decision to point at the select the elements.

For this reason I explored a similar technique that also involved light and space, but this time the light sources were part of the interior itself. I did several tests in the complete darkness and only turning on one of the light sources in the room.

In some cases this light source was produce by a T.V screen, while in others it came from a small table lamp. The idea behind this experiment was to see how this single light source affects the interior space. For this, I used once again long exposure photography in order to capture the effect (fig. 29). The results where also variable, taking in account that each light produces a different color and has a different intensity. In some cases the final images resulted very bright with a large effect on the

rest of the interior, while in others the impact of the light in the space was almost imperceptible.

Image, Space and Memory

As objects, photographs literally give something to hold on to. Blending once more the material (photo) and the immaterial (memory) into one.

It is said that “to look at a photograph is to look at the past” but pictures seem more to collect the sum of everything retained by the mind as traces of our memories.

The idea of making a collection of the same memory represented throughout a space was explored by overlapping an older b&w image into the present space. The idea was to document the “new scenario” from the same angle but this time with the use of a color digital camera (fig. 30). The combination of different photographic mediums helped stress on the idea of time. A clear recollection of memories inspired in domestic interiors, where physical and mental element are simultaneously combined. Susan Sontag in her book *On Photography* explores the concept of past, present and memory by stating:

“As photographs give people an imaginary possession of a past that is unreal, they also help people to take possession of space in which they are insecure...Photographs are a way of imprisoning reality...One can't possess reality, one can possess images. One can't possess the present but one can possess the past”. (*Sontag, 1978*).

With this technique time is not represented as a ghostly trace of movement capture through long exposures. These images represent time as an overlap of different events and moments that were experienced in different times but in the same space. Juxtaposing this *multiplicity of events* in the same image creates a nostalgic atmosphere loaded with intimate meanings and memories that are associated to time passing.

The idea of this overlapped past and present photographs continue to grow by adding more images to the same frame with the intention of recreating an endless inception of memories in relation to spaces.

Digital Realm

Although throughout my practical experimentation I tried to stay away from altering the images with digital tools, I felt curious to explore new technologies that could push a bit further the way these distorted images might transform perception and transmit a different visual experience.



Fig 30. Time and Memory: Living room (2014)

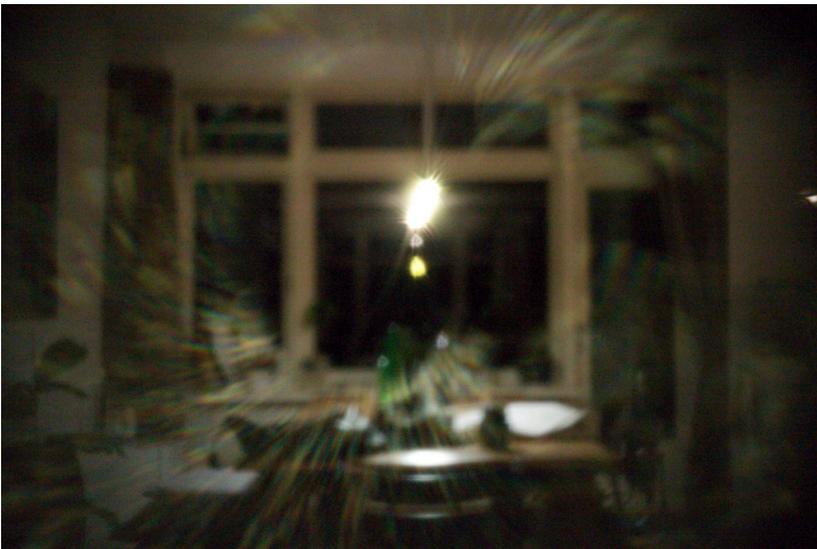


Fig 31. Digital Pinhole: Dining room (2014)



Fig 32. Digital Collage (fragments): Living room (2014)



Fig 33. Cinemagraph: Living room (2014)

While searching for the definition of the term *image* in a technology and media context, I found that it can be defined as a picture that has been created and stored in electronic form. An image can be described in terms of vector or raster graphics, that when stored is sometimes called a bitmap. An image map is a file containing information that associates different locations on a specified image. These terms though not easy to understand, lead me to think about the concept of image as a virtual element in the sense that it is not fundamentally material.

I started a slow transition to approach the new techniques by turning my digital camera into a pinhole camera. This technique works with the same principles of the analog pinhole, only that in this case, the aperture was opened in the lens cap and the images, instead of being printed on paper, were digitally captured. Though the results resembled the effects of the original pinhole images, with this technique the differences laid on shorter time exposure and full color *positive* images, different from the original black and white negatives obtained with the pinhole. For some reason the digital pinhole was unable to get in focus and instead, captured the lights in the interior as radial traces giving the space in the image, a completely new atmosphere that could not be produced via analog methods (fig. 31).

As another process for analyzing the space, I started studying the interior by “dissecting” it into separated fragments. With the use of a zoom-in lens I shot several images of the space from one single point of the room, trying to capture every corner and angle visible to my eyes. Afterwards I reconstructed the large collection of images into one frame. As a result, the digital image presented small changes in angle, perspective and subtle modifications on light and exposure, similar to a cubist collage (fig. 32).

Image as a spatial experience

Although the images of my interior can visually transmit a great amount of emotions that connect our perceptions and impressions to our other senses, I felt that my project had the need to transmit to the viewer the experience of being part of it.

I researched different digital methods to create more vivid images that would somehow engage the viewer deeper in the space represented. The idea of turning the image into a three dimensional experience was difficult to achieve; however the first step for accomplishing my objective was the use of *Cinemagraphs*. This technique is possible by applying an inverse process for image making. Instead of capturing still images, the process starts by filming a short video clip of the scene. Afterwards the video is exported as an image and the elements in motion are selected (or discarded) in order to continue their movement while the rest of the image remains static. The animation of this image is only visible by using a digital screen or projection. This is

an image that exists only in the digital realm. The moment the image becomes materialized, though the general representation is basically the same, the animation is stopped. With the subtle movement the image starts speaking for itself and engages the viewer in a deeper level of recognizing the interior space (fig 33).

The combination of image and motion made me realize that this could be the best medium to show all the used techniques and reenact the images of the domestic space in a three-dimensional manner.

I looked into the *360* virtual tours* that are nowadays very popular in the retail sector and decided to build my home's own 360 tour. This effect is created by taking several panoramic images of the space and merging them together in a way that a 360* circle effect is created (fig. 34). When seen in a computer screen, you are allowed to freely navigate the space and zoom into the details. This technique can be uploaded online, meaning that this work would let any viewer virtually appropriate and explore my interior space from any place in the world.

This last experiment leads me to my final design, that more than a product is a method to showcase all the previous visual research under one purpose: *Revealing hidden atmospheres simultaneously contained in space.*

CHAPTER FOUR

Design Outcome

REVEALING HIDDEN ATMOSPHERES

Exhibition Design

Interior Portraits is about capturing the material and the immaterial, is about seeing the invisible.

It is about revealing multiple layers of information and atmospheres contained in the same domestic space by constantly portraying the interior through a collection of different photo techniques.

For the exhibition of my work, the purpose is to build a prototype to translate the visual research into a spatial experience. I based my idea on recreating a virtual projection of the interior space that simultaneously reveals all readings and layers explored to the viewer. With this element, I want the spectator to visualize how the interior transforms, moves, deconstructs and rebuilds itself every time in a different way.

The prototype proposes the combination of several of the methods explored. On one hand, the space is photographed again through some of the techniques, but this time the images captured will be merge to create a 360* panoramic image. Afterwards, the different panoramics of the same room will be edited into one single animated video that shows the transitions and overlaps of the same space while seeing it transform form one visual atmosphere to the next. While this transition occurs, the video will be *panning* in order to recreate a virtual tour around the house with the idea of having a closer three dimensional experience of interior space.

By doing this, the privacy of my domestic interior is opened and displayed in a public space for everyone to walk in and experience it. The boundaries of interior and exterior, and private and public are no longer present. Therefore the idea of "Interior" basically disappears.

On the other hand, the final video will be projected on a set of concave screens that enable the viewer to feel summarized in the interior. The screens are constructed with a translucent material and layered one after the other with the idea to multiply the projection of the video and by that means, generate a powerful illusion of depth and fragility that speaks about atmospheres and invisible matter in the interior space. Through all the photographic and video techniques used to analyse the interior, my aim with this exhibition medium is to illustrate how the space becomes simultaneously physical and virtual. I want the viewer to experience all multiple levels of meaning and atmospheres that simultaneously exist in the same space connecting my exhibition design to Foucault's the concept of Heterotopia.

Catalogue Design

To complement the exhibition space, I would like to design a printed catalogue as my final outcome. My aim is to design a visual template that collects my body of work, and eventually continues to grow by adding new image-making explorations. The images in this book are all based in the same domestic interior reflecting the different approaches of image representation and the in-depth studies of the space. Through the selected images, multiple atmospheres contained in the same space are unveiled, and through each one of them, the interior is presented in a completely unique way.



Fig 34. Still from video - Overlap of spaces



Fig 35. Still from video - Overlap of spaces



Fig 36. Panoramic for Virtual Tour 360°

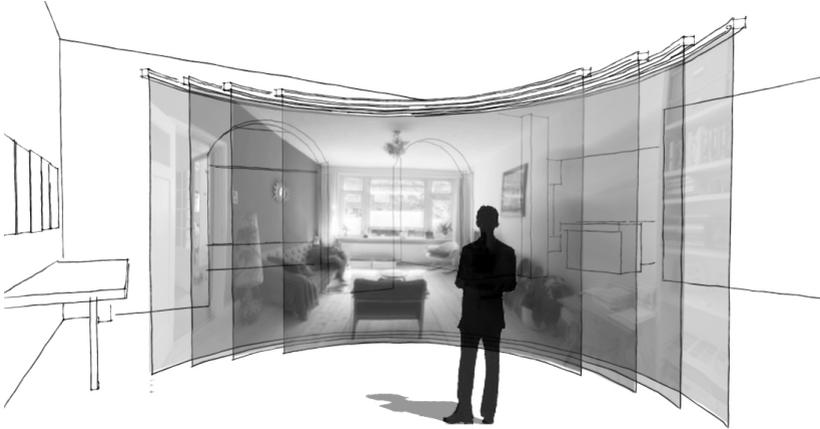


Fig 37. Screens for video projection - Spatial experience

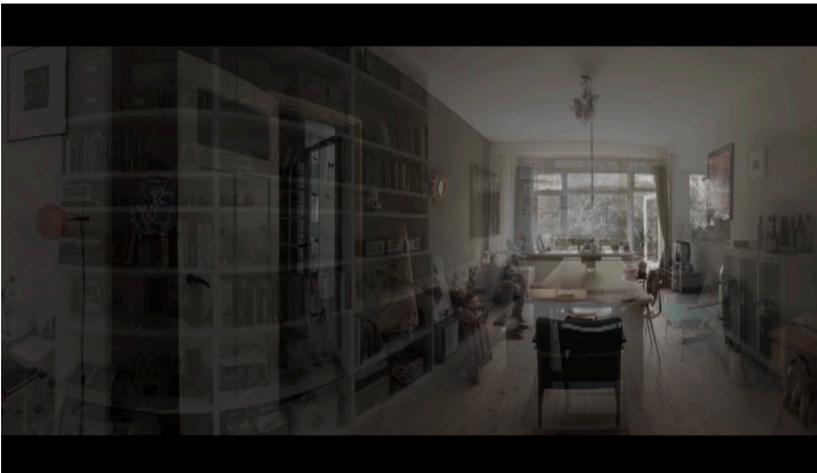


Fig 38. Still from video - Image over 360° panning

CONCLUSION

I believe this research tackles many themes that might eventually be taken as an inspiration. By unveiling the atmospheric qualities and invisible aspects contained in space, the final catalogue (as the object that remains and grows over time) could be seen as a tool for architects, designers, artist and photographers interested in atmospheres, visual representations of space and alternative possibilities for rethinking the physical interiors.

My interest in the different readings that photography could generate helped me reveal and visualize what is not possible to capture with our eyes, and further, appreciate the multiplicity of events happening simultaneously in the same space. This project also discovers the way the inhabitants of an interior alter and transform the space and how visualizing their traces can inspire new ideas. As well as the relation between interior and exterior and the possibility of eliminating the barrier by visually merging both spaces.

As an interior architect and photographer I think by biggest contribution to our field is to open a discussion around today's image representation of interior spaces. On the other hand, through my research, different alternatives for representing and studying interiors are proposed as a starting point for future visual explorations of interiors that might contribute to a better understanding of the places we inhabit and further, it might benefit the future development of our professional field.

This project is not necessarily about fabricating a new atmosphere, is about revealing the atmospheres already present in the space. It is not about creating a new experience; it is about revealing the present space as an exciting experience itself.

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- Reproject: The Art of Camera Obscura: <http://www.youtube.com/watch?v=-cr5YW>
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