

# Fieldwork: The House as a Camera

*“...For the house furnishes us dispersed images and a body of images at the same time...”*

— Gaston Bachelard <sup>1</sup>

This paper presents a collaborative design-build project between a photographer and an architect known as the Cloudhouse. The idea was to explore technologies and design moments that would complement each other in such a way that photography would not be secondary to architecture. Taking inspiration from Gordon Matta-Clark [sculpture], Vilhelm Hammershøi [painting], and Carlo Scarpa [architect] the design reexamines a house from 1919, cutting out sections and adding two additions.

Just like the Rietveld Schröder House, in Utrecht, Netherlands we wanted to create a house that related to the horizon. Completed in 1924, the Schröder House, is one of the best known examples of De Stijl-architecture. The rectilinear lines and planes of the facades create a collage of elements that is balanced in extraordinarily beautiful compositions. The Cloudhouse is situated in Fargo, North Dakota in a surprisingly similar landscape to the Netherlands. The original house was constructed in 1919, but like the Schröder house it was quickly surrounded by new development, eliminating its connection to the surrounding prairie landscape. Therefore we introduced elements that, in their proportions, suggest a link to the horizon. Limited by an existing building we could not create dynamic, changeable open zone floors like in the Schröder House, but we could alter facades and reform interior edges of the existing dwelling, adding two new additions in 2012.

The prairie horizon is the strongest landscape feature surrounding the city of Fargo. As we photographed the region impressions of the landscape were carried into the house and the photographic recordings became subject for alterations of the openings. In most cases we did not look at the house from outside. Instead, like using a camera, we altered the framed views from the inside. The windows in the Schröder House are designed in such a way as to limit views of the house's facades so that every window can interact solely with the horizon. To give a similar feeling we eliminated all window frames in the new additions. With a careful design all glass was mounted so that, when viewed from the inside, the inhabitant can not see the

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1

frame holding the glass. Architecture is never framed but it does frame our views, much like the ground glass on a camera.

*"...There are many reasons for an architect to take an active interest in photography. Photography can serve as a tool to record the surroundings, in which one wishes to take architectural action. It can capture impressions, atmospheres and spatiality's as a basis for inspiring, discussing or criticizing the design of our physical surroundings. Needless to say, it can also document the results of the architect's work..."* - Claus Peder Pedersen: Tilfældets Tektonik <sup>2</sup>

## THINKING WHILE BUILDING

Photography was essential to the design process. Although we began traditionally with a set of drawings the camera soon replaced the model as a design tool, informing alterations throughout the construction process. We realized under the demolition and construction that this house wanted to become a sequence of moments. We live in such a way that we always cross thresholds of doors or gaze through windows. However, how would we create moments? As we photographed during the construction, reviewing the images as we went, we realized that the camera was a very powerful design tool.

In the beginning we placed the camera in such a way that it would record the construction of a wall or a new room adjacent to an existing one. In some cases we would record the demolishing of a particular wall. Then we constructed new walls and stepped back and took a new series of photographs. At first this was a simple documentation but we quickly realized that the images suggested something else, so we developed a system of methods to address tools for image capture and camera placement.

Depending on the situation a range of cameras were used to make the recordings: digital, analog, 4x5, 35mm, and polaroid. For a fixed vantage point where we were using the camera to replace an inhabitant the choice was always a large camera on a tripod. In this situation the camera was operating as an object containing a void in relation to a room containing another void. Conversely, if the experience was that of a glancing eye, or to simulate the feeling of passing through the room, a smaller, more readily accessible device was the obvious choice. The camera was often placed perpendicular to walls or openings but in a few cases we used a 45 degree approach as seen in some of Frank Lloyd Wright's designs for a number of domestic dwellings. This became essential when approaching a spatial study of a room when looking at the corner and how this might correspond to other rooms or views of corners meeting corners. One example is the entrance to the Cloud. This particular addition was a major objective in the design-build process and the camera became an important vehicle for thinking while building, as a series of alterations of the design were made based on photographic studies.

The Cloud is a black cube attached to the Cloudhouse, hovering above the entrance, balanced on one column. The dimensions are 10x10x10 feet. You enter the room from the existing building at the second floor. The windows in the Cloud are pushed out towards the very corners of the cube, up beyond the structure of the ceiling. This decision was vividly discussed in response to photographic studies made with the camera. We knew that a 45 degree view to the outside was possible from the position of the original master bedroom through one of these corner windows, but only if a new door was cut in the opposite corner of the Cloud. This door would have to negotiate an existing staircase and be positioned so that it did not cut into

Figure 1: Cloudhouse with horizon window

the existing roofline, which could easily be solved by altering the stair with a new landing. We first studied this in plan and section, but it was a camera placed on a tripod that best responded to the possibilities of space and view. This vantage point became the key for the design and directed further decisions regarding the finishing details. While constructing the threshold into the Cloud we initially designed a transitional, tunnel-like space to negotiate the progression from old house to new room. In the moment the threshold was complete we realized that the 45 degree view from the existing room had unfortunately been eliminated. In plan the decision was acceptable, however, it was the camera “remembering” the view from the existing room that altered our decision. Fortunately we had taken photos after the opening was made in the existing wall, before the threshold was constructed. After the view was lost we altered the panel obstructing the favorable view, creating a shift in the tunnel as a kind of mirrored “P” as seen from inside the cloud. This shape reintroduced the view that the camera originally recorded. When the inhabitant now enters the original master bedroom the 45 degree angle and view towards the horizon emerges again in the existing bedroom, leaping over the new landing and existing staircase, cutting through the existing wall with the new door, passing under the existing roof, continuing into the Cloud and out of the large window placed in the corner framing a tree, a river, and finally the exceptionally flat and perfect horizon of the Great Plains.

The project became a kind of loop as the architecture suddenly wanted to be framed. With the feedback from the imagery we altered finished walls after we realized that the previous photos had captured moments like a Hammershøi painting. The Danish painter carefully studied the nature of how walls, doors, and windows alter



2

Figure 2: The interior of The Cloud



3

and transform filtered light, often recording rooms as a succession of doors, one framed within another. In one particular moment within the Cloudhouse a window that once looked onto the backyard was transformed into a door, leading into the new master bedroom. When viewed from the new space the door frame revealed this “Hammershøi moment”. A space that once contained a dead end transformed into a progression of space and succession of doors, one room spilling into the next. Hammershøi was painting images of interiors with photographic qualities that subliminally inspired us. To our surprise the camera revealed these qualities in our work, reaffirming our decisions.

The tool of the camera captured many moments that often went unseen during the initial design process. This was not a question of inspection. We had constructed those walls ourselves but strangely the drawings could not capture certain dimensions, like a view of a tree framed by studs or a view to a river while sitting down. While building we realized that the drawings were like a musical score without interpretation. We needed the camera to fine tune the project. This was not our intention in the beginning. We discovered this simultaneously while building. Is this secondary association the reason that Carlo Scapa was never in the studio but always on the site? In the beginning there was the camera that recorded and the house that wanted to become a house but the project ended up with a camera that informed a house, and function became more a vehicle for moments within.

Figure 3: *I heard myself close my eyes, then open them.* Polaroid by Meghan Duda

*“...Simple gestures spacial complexities and admitting new light...”* - Gordon Matta-Clark<sup>3</sup>



4

### CAMERA OBSCURA

Of the many interior alterations, the strongest relation we created to the prairie horizon was with the new kitchen countertop constructed in the northern end of the main floor. Working like Gordon Matta-Clark, architect and sculptor, we began one summer day to peel back a horizontal section of the north facade between the surface of the counter and the base of the kitchen cabinets. Matta-Clark began his training in architecture at Cornell University, but left before his final year to pursue a life of art. Best known for his alterations of abandoned architecture, Matta-Clark made precise incisions into building facades, floors, ceilings, and walls reorganizing space, exploring the implications of vantage point, all the while using the camera as his expressive tool.<sup>4</sup>

To emphasize our own incisions we placed four windows in this new negative space, transforming the once portrait window into a panoramic horizon. The four individual windows are each separated by column-like dividers, but the countertop links them together so that they balance on the very edge of the countertop, emphasizing the link to the horizon. Viewed from inside one gets the impression of looking through the viewfinder of a Cinemascope camera. In this moment the Cloudhouse looks back onto the street where visitors arrive, and when invited inside the extreme wide aspect of the windows brings the gaze of the inhabitants back to the horizon of the Great Plains.

Here we truly found ourselves channeling Matta-Clark and we came to see the demolition of selected walls somehow like a shutter within a lens, admitting new

Figure 4: *I find myself defining threshold as being the geometrical space.* Polaroid by Meghan Duda



5

light into the heart of the building.<sup>5</sup> Suddenly there was this moment that the aperture was fully opened, filling the interior with light, flooding the once dark space [camera obscura]. In this moment we realized that the house was in turn becoming a camera.

First, let us break down the camera into basic elements. To begin with there is the structure, a box for example. This box can have any shape or size, but must be light-tight. In the moment one punctures a hole in any of the opaque surfaces the space is filled with a projection created by exterior light passing through the ideally small opening.

Next, let us suggest the objective of a camera. At it's most basic a camera is a tool for capturing light. Dating as far back as the 5th Century BCE, the camera obscura ["dark room" in Latin] was used as a tool for observing the world. Chinese philosopher Mo Tzu reflected upon the nature of light as it passed through a small opening, carrying an inverted image which landed on an opposing surface. Aristotle used the magic of the camera obscura to observe a solar eclipse, later including the concept in his curriculum. Stories abound of desert nomads applying the same principles to observe the surrounding desert landscape, watching for enemies as they rested in their dark tents during the heat of the day.<sup>6</sup>

These early stories recount the capturing of light, but the world was transformed in the moment Nicéphore Niépce placed a silver coated plate on the opposing surface

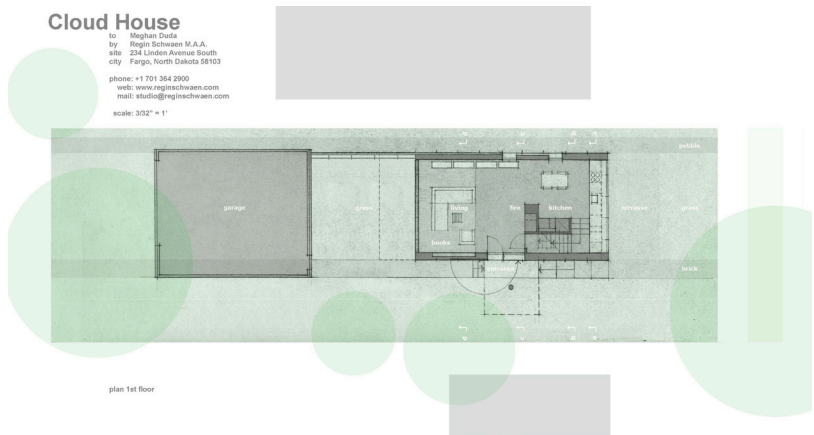
Figure 5: *An organized surface in black and white.*  
Polaroid by Meghan Duda

and fixed the light, recording an extended moment in time. Here we come to the purpose of the camera, capturing and recording impressions, freezing moments in time.

Which brings us to the element of memory. Each moment captured is a memory of something, be it place, time, circumstances, or situations. Over time the camera was refined to fit a variety of purposes - scientific study, recordings of various spaces, places, objects, and non-objects, as well as a vast range of commercial and fine art applications. Whatever the scenario in front of the tiny aperture the magic of the camera obscura unfolds constantly within the small box, but in the moment one places an element upon the opposing surface that can objectively record the light passing through the small opening, the click of the shutter freezes the memory in time.

These three basic elements can easily be applied to the house. In its structure a house is a box with openings in an opaque surface. Varying in shape and size, to the designer the house begins as an empty box, but is soon punctured by windows and doors to admit new light which is then captured by the house. The house has many purposes, offering shelter and warmth, a place of rest and reflection, but above all a collector of memories, the inhabitants acting as the recording device.

*"...The field of architectural photography is specialized, as is its audience and increasingly, the computer screen. Its practice is largely the domain of professional specialists. Its subjects are buildings, their interior, and occasionally, their contexts. Its task is to describe, define and represent its subjects through their depiction..." - Mark Pilot<sup>7</sup>*



6

**A PORTRAIT OF INTIMATE SPACES**

The results of the design process took on an entirely new meaning once the project was complete. The range of tools resulted in a range of images, from the clean, specialized images normally associated with architectural photography, to rough snapshots taken on the fly with a polaroid camera. The former certainly have their place in the world, but the images from the latter, a format so readily attached to memory, turned out to be so much more. After they informed the design process the polaroids were often dismissed, placed in a pile on the office desk and forgotten. Over time we returned to the rough images and soon discovered that, although we did not realize it at the time, the snapshots were in fact portraits of intimate moments within the home where family memories were being formed. They came to describe the house in a wholly unexpected way.

Figure 6: Plan of the Cloudhouse with countertop on the right and elevated Cloud floating over the main entrance

The Cloudhouse, in becoming a camera, transformed our perception of architectural photography. In the course of the project the subject was turned upon itself. The architecture no longer the subject but the specialist, depicting the space in moments. In his treatise, *The Poetics of Space*, Gastard Bachelard argues that the house is the most important collector of memories, “is one of the greatest powers of integration for the thoughts, memories and dreams of mankind.”<sup>8</sup> The moments created throughout the construction process became the representations [memories] recorded by the house [camera].

To better understand what Bachelard suggests, consider your first home, the house your first memories were formed in. Remember the entrance, the feeling of the scratchy rug on your feet, the release as you move from the entrance into the main room. Do the floors feel different on bare feet then in socks? What about the warmth of the sun streaming through the large windows? Can you recall how it felt on your face as you climbed into the couch? Can you place yourself back at the breakfast table, peering over the kitchen counter through the panoramic window to the street beyond where the neighborhood children are playing? Do you remember climbing the steep wooden stairs, one giant step at a time, then reaching the top, peering through the secret slot to the entrance below? Can you recall the joy you felt as you launched yourself into the bag chairs in the Cloud, the loud crash they made as they caught you on all sides. What about the feeling you had gazing out the large window into the trees, watching the fragmented light as it danced across the soft, wooden walls? This same window could be seen clearly across the hall from your bed, so the dreams of the trees were carried from day into night.

“...Hammershøi’s bare rooms have gripping psychological power, both when a single figure is present and, even more, when there is nothing left but the domestic skeleton without its living flesh...” - Robert Rosenblum<sup>9</sup>

## ENDNOTES

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