

WALLS || MEMORY

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requirements for the degree of

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useless

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ABSTRACT

We are all influenced by memories when we pursue acts of creation. However, these reminiscences are often fleeting and elusive; they rarely are formalized, nor are they explicit in the final artifact.

This work is based on a concrete representation of a childhood memory: the map of a city. The thesis explores ways to design and construct a place where others could, in turn, create their own memory. This place is located in Alexandria, VA, on South Fairfax Drive. It is an integrated mixed use program (Retail on the lower and ground levels, and residences on the 2 upper levels).

This experimentation invites further questions. How strictly should the concrete representation of the memory guide the design? What are the qualities of the spaces resulting of such rules? How to engage in the tension between the explicit memory's realm and the contemporary world? How to express their respective materiality?

|From| Memory of Walls |to| Walls of Memory...

Acknowledgements

I dedicate this work to our three children, Tais, Teah-Lou and Matteo. I gave you life one day, you give me life every day.

I also want to thank my committee members, my accomplices. Paul, you have been a mentor, a guide and an inspiration. Your astute eyes showed me where to look, your benevolent voice comforted me when no one else understood, your mind lifted me where I didn't dare to go.

Jaan, you have challenged me, never let me take the easy path. Thank you.

Susan, your sharp critical sense, your precision with words and your humor have been essential to my growth at the WAAC.

Don, you have been of palpable influence. May the Gap always be with us.

Carolina, life around you is a constant wonderment. You have touched me so deeply!

I want to thank my friends who provided the logistical and moral support: Kristen, Sally, Kathy, Jen and their families. John, thank you for the Monday bistro lunches, for your love and support.

Un clin d'oeil à distance à mes parents et à mes beaux-parents.

Finally, I want to thank my husband.
Yannick, je t'aime. Merci...



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From this, one can make a deduction which is quite certainly the ultimate truth of jigsaw puzzles: despite appearances, puzzling is not a solitary game: every move the puzzler makes, the puzzlemaker has made before; every piece the puzzler picks up, and picks up again, and studies and strokes, every combination he tries, and tries a second time, every blunder and every insight, each hope and each discouragement have all been designed, calculated, and decided by the other.

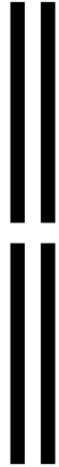
Georges Perec

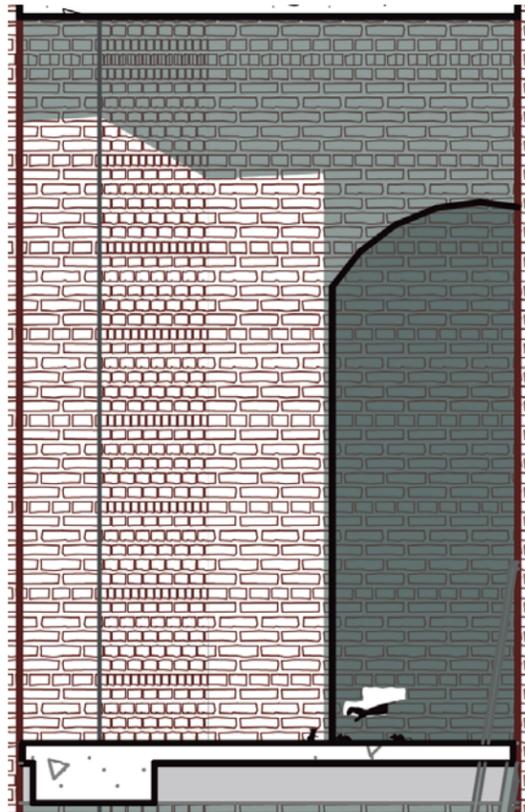
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There was a time when I experienced architecture without thinking about it. Sometimes I can almost feel a particular door handle in my hand, a piece of metal shaped like the back of a spoon. I used to take hold of it when I went into my aunt's garden. That door handle still seems to me like a special sign of entry into a world of different moods and smells. I remember the sound of the gravel under my feet, the soft gleam of the waxed oak staircase, I can hear the heavy front door closing behind me as I walk along the dark corridor and enter the kitchen, the only really brightly lit room in the house.

Peter Zumthor





Useless Room Bricked Opening - Close-up, under the flap of N-S Section, in the back

The Hole

I am sitting on the steps "that go nowhere," in the back of our house, watching and poking at a column of ants bringing back crumbs of my snack to their nest inside the wall. Or is it behind the wall? All I see is a tiny hole, too small for my finger, between the brick and the mortar. I want to see where they are going, what an ant nest looks like, so I grab a stick and poke and push more around that tiny hole. Low and behold, the mortar crumbles and the brick starts to move. I can now put my finger in the hole. The ants run amok. I keep nudging and nagging my stick in the hole. The mortar is falling apart like the dry cookies from the lunch line.

Oh, no! The brick just fell in! Apparently, there is a concrete floor: it resonated when the brick hit the ground. The brick next to the hole is now as wiggly as my brother's front tooth! I pull it out and I try to look inside. It is pitch black. A musty cold smell reaches my nose. I gather my courage and put my hand in the gaping hole.

I didn't hear my older brother approach. He startles me and I scratch my arm while pulling it out of the hole. I can see he's curious and dying to ask me what is going on, but he can't pass the opportunity of scolding me!

"Dad's gonna kill you! You're destroying the house! And the ants... He's gonna be mad!!"

Yes, Dad owns a pest control company. So he takes pride having no living creatures in and around the house! He is definitely going to be angry.

As for the hole, my brother is already on his knees, trying to see what's inside. For the next hour, we elaborate on many hypotheses ranging from a civil war hideout, to a slave's quarter to a free mason secret gathering place. The history of Old Town Alexandria, VA is fertile enough to keep us guessing. Our next problem is the missing brick. Before we figure out what to do, my little brother shows up to call us for dinner. No amount of pinkie promise will keep our secret safe now, so we hope for the best and climb back home.

Indeed, at the dinner table, Dad is not yet seated and my little brother is already explaining that the house will soon collapse as there is a gigantic hole in the back. My older brother tries to re-establish the truth of only one brick missing, and I deflect the

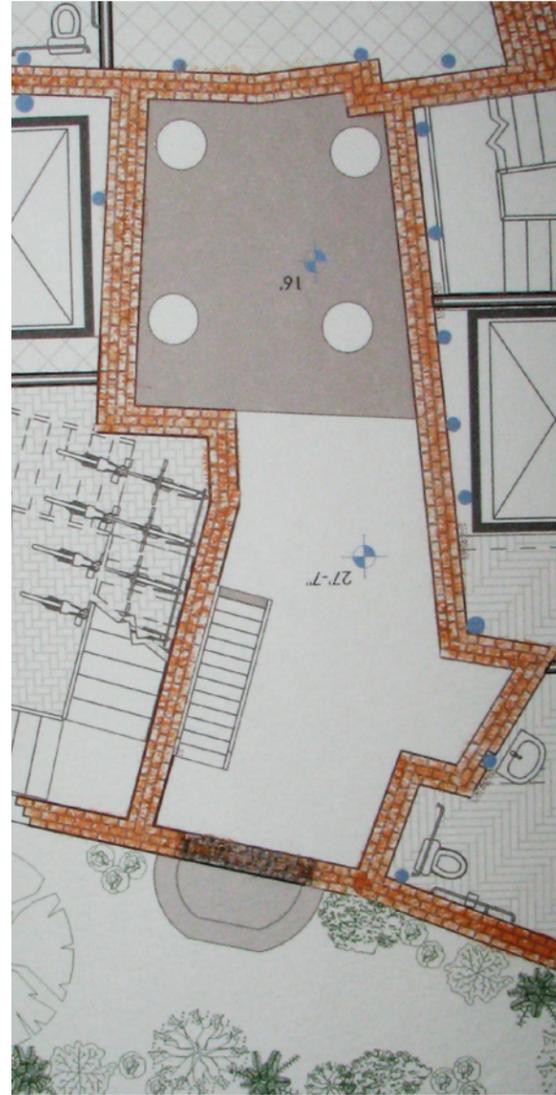
vandalism lesson by pointing to the ants. The rest of the dinner is silent.

When the table is cleared, we have to show Dad what we have done. He kneels, asks about the missing brick, looks through the hole, feels around in the hole for the thickness of the wall and stands back. He is unusually calm. He almost has a smile on his face. I follow his finger tracing an imaginary line in the air. He turns to my Mother and asks:

"Do you see?"

"Not sure what you're talking about." she replies.

It's late and we are sent to bed. While I brush my teeth, I catch snatches of their discussion: a line in the bricks, a secret door, a sledgehammer, walls that don't make sense anyway... I think to myself that my Dad should be a writer instead of a pest control guy!



Floor Plan - Rez-de-Chaussee (Close-up on the Useless Room)

The Sledgehammer

The next day, when I come back from school, my one-brick-hole has turned into a doorway. Bricks lay everywhere and Dad is dripping with sweat. The sledgehammer is standing against the wall, outside. Although the hole is much larger than yesterday, the inside still appears dark and cave like. I approach, watching where I step. To my surprise, the edge of the doorway is well finished. No bricks are broken. The arch looks rather grand, standing like a gateway to a new kingdom. I realize at this instant that what we had called "the steps to nowhere" actually lead to this mysterious room.

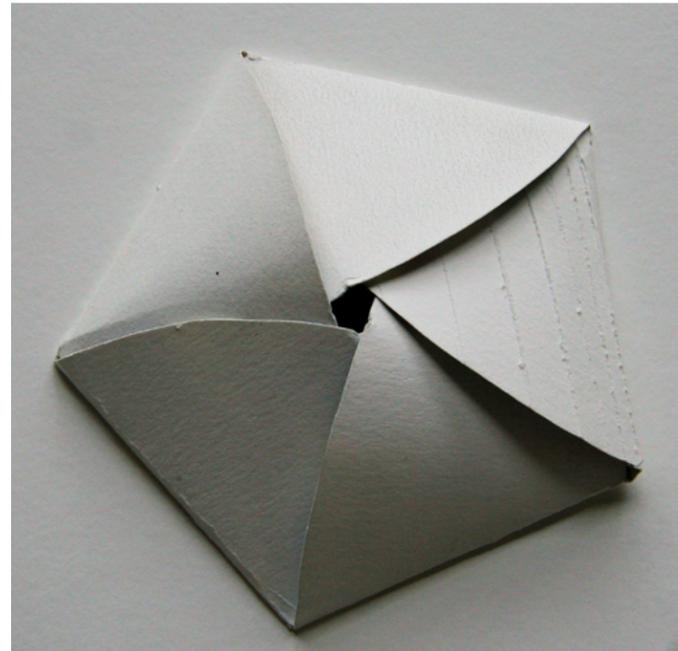
I run home to get a flashlight. Dad has started piling up the bricks on the concrete floor inside the room. I can discern some kind of posts. I switch the flashlight on. Dad is standing beside me. We can see deeper in this two-story room. But even with the light on, nothing makes sense. There is neither door nor window. The walls are made of bricks. The floor is bare concrete. There is a steep stair or ladder going to the lower level. The posts I saw earlier hold the railing of the ladder, but there is no railing at the edge of the balcony looking down. I point the flashlight to the lower level and we can see four concrete blocks with some fittings. I look at Dad. He seems to make sense of some of it. He tells me that the walls in the back are adjacent to his store, and to his storage area in the basement. He thinks that the wall on the right must be adjoining the wall of the accessory store next door. We climb down the ladder. The musky smell is quite strong down here. There are stacks of bricks, and a bag of cement in a corner. I can feel some sand on the concrete floor.

There is no treasure, no slave shackle, no antique guns.
I am disappointed.
Just a useless room...

I climb back home to do my homework. My older brother gets home from practice and asks all about the discovery. He doesn't believe me, when I say that it is just a useless room. He drags me there to explore it. We each have a flashlight. His excitement is palpable and he manages to revive mine. We climb down the ladder. The room is cold

and moist, but the bricks make it somewhat welcoming. I could imagine the masons laying them one by one. My brother reaches the corner with the brick stacks and shines his light. Apparently, something catches his eye because he starts unstacking the bricks. He finally reaches for what seems to be a white box. It's dirty and almost falling to pieces as he manipulates it. He puts his flashlight down and I get closer to illuminate the box. It's made out of paper. It's a pentagon in shape and five flaps fold under each other to close the box. The inside of the box is printed with pictures of hands, airplanes and places. The box also protects pieces of paper. One is handwritten, the others are printed. We can't decipher the handwritten one, and the printed ones look like letters, but they are addressed to a building! Who writes to a building?!

After some deliberation, we decide to involve our Mother. However, her curiosity doesn't seem to be picked because she locks our treasure in a Ziploc bag and sends us finishing our homework. No words are pronounced about the letters later that night, as if they are cursed.



What seems to be a white box...

Alexandria, September 4th, 2014.

Dear unborn building,

You will be walls. You will exude duality as in the play between both sides of a wall, as the dichotomy between the public and the private realms a wall can create, as the polarity of a boundary.

You will be walls. You will bring people together, create neighbors while keeping them apart.

You will be walls. You will tell stories of spying, complicity, opposition, and refuge.

Listen to me! I feel I'm talking to a wall!

But I know walls have ears!

You will be walls, I say! Solid, load bearing, worthy of a medieval castle!

You will be walls. Enveloping like a delicate curtain, layer after layer, worthy of a modern skyscraper.

You will be walls. And you will be architecture; details that will give me pleasure. Connections that will make you whole.

I don't know you yet, although I know you are somewhere inside me, and everywhere outside.

I don't know you yet, but just like all your parts will collaborate to make your whole, I will also have accomplices helping me. Shsh... listen to their footsteps on the other side... Together, we will leave traces, lines, poches...

You will be walls. Be patient.

You will be walls...

Your omniscient architect and accomplice.

Caroline Ford

Paul Emmons (chair)

Jaan Holt

Lusan Piedmont Paladino

(and Carolina Gayer).

Alexandria, October 7, 2014

Dear awaited building,

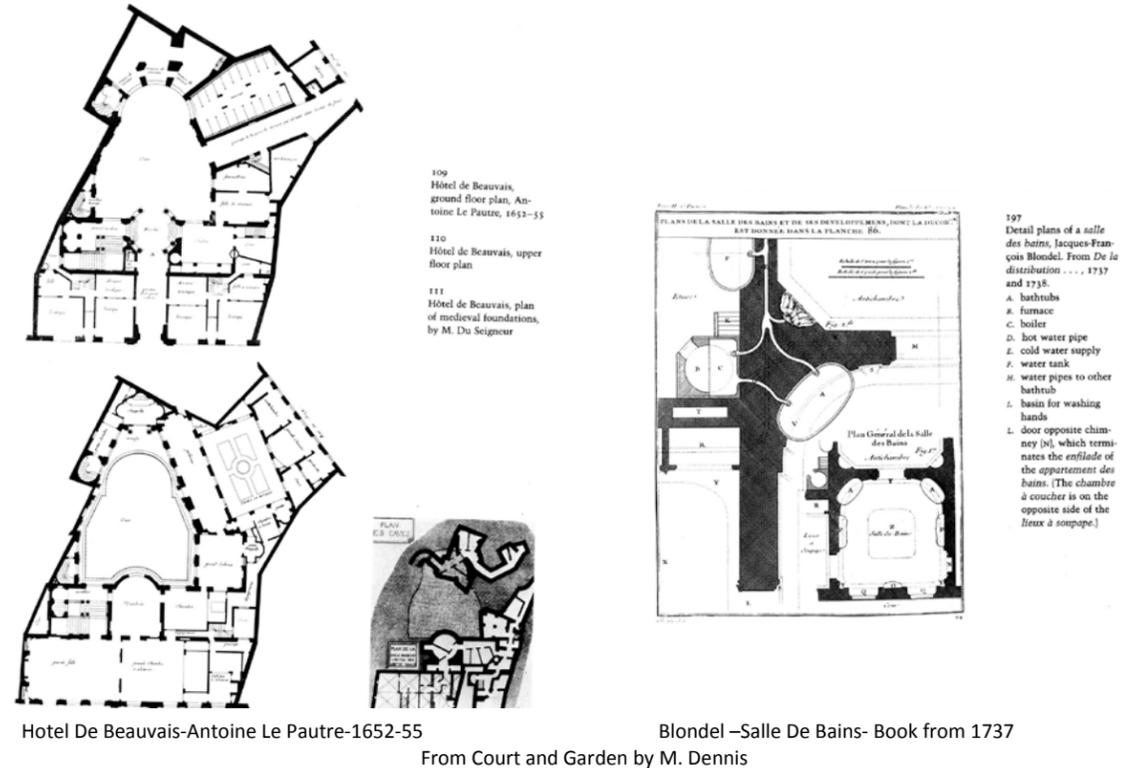
I have drawn a little, walked some, but mostly read and thought. Maybe too much! However, you know I need to understand your essence before I can materialize you! So here is a recap of my line of dispersed thoughts from these past weeks.



On Paul's recommendation, I read Court and Garden by Michael Dennis. I have been motivated to read this book as it explains some of the history and evolution of your grand-father, the apartment where I grew up in Chambery, France. Chambery grew from a small city in the XI century, to the capital of the House of Savoy in 1295. The Duchy of Savoy became a sovereign state in 1416. Consequently, the city

developed and a new nobility took residence there. Hotels particuliers flourished in what is now the Old Town. I used to live in one of them. In 1600, while Henry IV's army captured Chambery, he partied in the Hotel of the Count St Laurent, the hotel facing my bedroom window. In 1731, Jean-Jacques Rousseau was hosted by Mme De Warrens in the building where I grew up. Only now that I am studying architecture do I appreciate the history of my childhood residence and the typology of the hotel particulier throughout the ages. I strongly believe that this place has influenced my design and my perception of architecture. To me, the essence of the wall lies there as well, and so does yours.

In his book, Michael Dennis formulates this notion of gap or discontinuity in the urban fabric. He presents it as inevitable by the virtue of the evolution of architecture in the city, the cumulative quality of the city. He explores this discontinuity mostly between the public and private the realms, between the street system and the organization of the hotel particulier. He reveals how this discontinuity is the site of ingenuities such as secret passages, cabinets de commodité or dégagements. This discontinuity or gap is the site of the exception.

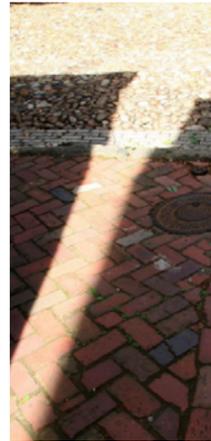


Hotel De Beauvais-Antoine Le Pautre-1652-55
Blondel -Salle De Bains- Book from 1737
From Court and Garden by M. Dennis

This made me think back to Don Kunze's class. He talked about the Gap as well. Although, Don would rather that he be kept in the shadows, I need to cite him in order to explain where I am taking you. Don presented the gap as the remainder of the reversed predication process, which we can never fully complete. It is the resistance, an error or an internal defect. He associated the gap to the figure of speech metonymy, which can be more widely conceived as a collage or juxtaposition of fragments. Magdalena elaborated on visual metonymies in her Palimpsest class as well. There arises the problem of interpretation. But Kunze says that "the gap is in a sense the essence and basis of subjectivity". I went on to read some of Merleau-Ponty's definition of the "réversibilité". He describes it as the basis of subjectivity as well, as the relationship where what is felt and who is feeling are inseparable. In this relationship, we see the identity of each part (the touched and the touching) but also their unity. This reveals the chiasm of subjectivity, the unity by opposition. Merleau-Ponty also calls it "écart" or "dehiscence", meaning a unity that breaks up in duality.



"Cadavre Exquis" with Yves Tanguy, Joan Miro, Max Morise and Man Ray, 1927.



King St - C. Morel

I believe that in the wall lies the architectural essence of this gap, of this "écart".

The wall is a site of chiasm: it starts as a material unity and creates a duality when it separates each side. The façade wall divides the private and the public realms. The party wall restricts the spread of fire between adjacent properties and is effectively in common ownership. Defensive walls protect us from them because we are neighbors. The wall also offers another duality: the foundation vs. the top.

Graphically the wall is also source of chiasm. Indeed, it has led to the figure ground representation, the poché. It reveals the unity by opposition of solid/void, object/space no matter the scale, no matter the intention.

However, the wall is never the symbol of either side, it is not a mid-ground. Rather, it is the site of the exception, the place of non-coincidence.



Poché – Place Vendome
From Court and Garden by M. Dennis

Actually, you know what Building, I could just say that the wall is the symbol of this conflict, of the duality and be done. But that would be lying to you and to myself. I would be reducing your unborn structure, your unborn essence. This point of view would prevent me from revealing the dichotomy rising from the wall. I should be considering the wall as the site of the break in the chain of the symbols between each side, rather than as the symbol of the tension itself. It is in this break, in this "écart" that I will find experiences, feelings, desires...

Here is an example: When I am in the street, in the public realm, I can look wherever I want. My gaze lies on the window of a residence. When I look through, I am transported in the private realm of this residence. At that time, the public symbols of that façade and of the sidewalk are shattered by the symbols of the privacy. The chain is broken. This only can occur through the façade wall. Only the presence, the unity of the wall allows me to perceive the difference, the duality between private and public.

Now what happens when there aren't any openings in that wall? Well, I still know there is another side to the wall. But the duality of the wall is transformed into duplicity: the

quality of the wall is still twofold, but a deceiving dimension is also introduced. This negative modality is what gives the wall (the gap) even more power to reveal virtually anything I want. At that point, the wall which was the site of chiasm (unity leading to duality) becomes the site of complicity (unity leading to multiplicity, complexity, and therefore complicity).

I believe that architectural sections are an excellent way to illustrate this idea where the wall is this gap and source of complicity. This leads me back to Don's presentation of the metonymy as the gap's rhetorical "front office". Through the wall can we juxtapose fragments, and open up alternatives.

As you can see, I started at the beginning, where I grew up. I have always felt I lived in a wall, but it took Magdalena's class for me to realize it. In her class did I also realize that I had incorporated my childhood living wall in many of my studio projects. It was only natural to go back to it. Between this exploration through drawings and my loose reading, I get a better theoretical sense of the wall. I know these few words and this scattered train of thoughts aren't probably worthy of a graduate student and should be expanding and supporting more, but I am satiated so far.



King St - C. Morel

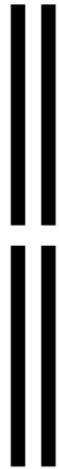
I have started looking for a place for you, on Susan's recommendation. I walked Prince, King, Cameron and Princess so far. I even took the kids with me! I found a couple of options, but I will keep at it.

You are in my thoughts and drawings,

Your omniscient architect and accomplices.

Caroline Morel

Cc: Paul, Jaan, Susan, Carolina and Don





13c Rue de Boigne, Chambéry, France.

Street and building where French philosopher Jean-Jacques Rousseau lived, hosted by Madame De Warrens.

Childhood house of the author many years later.

The First Two Letters

When we come back from school the next day, we are intrigued by the mountains of papers on the dining table. We recognize the letters we found the previous day, but there are also maps and pictures.

After a snack and without our homework done, Mother starts telling us about her research. She compares it to assembling a puzzle! She is excited and her excitement is contagious!

She reads the handwritten letter first. We stop her many times to ask about the meaning of words we don't understand. After enquiring what "omniscient" means, I ask why the letter is addressed to an "unborn building". As Mother stays silent, my little brother interjects:

"It's just a building that's not been built yet. They're just thinking about what it could be. It's like the letter you guys wrote to me when I was still in Mother's tummy! 'Member?'"

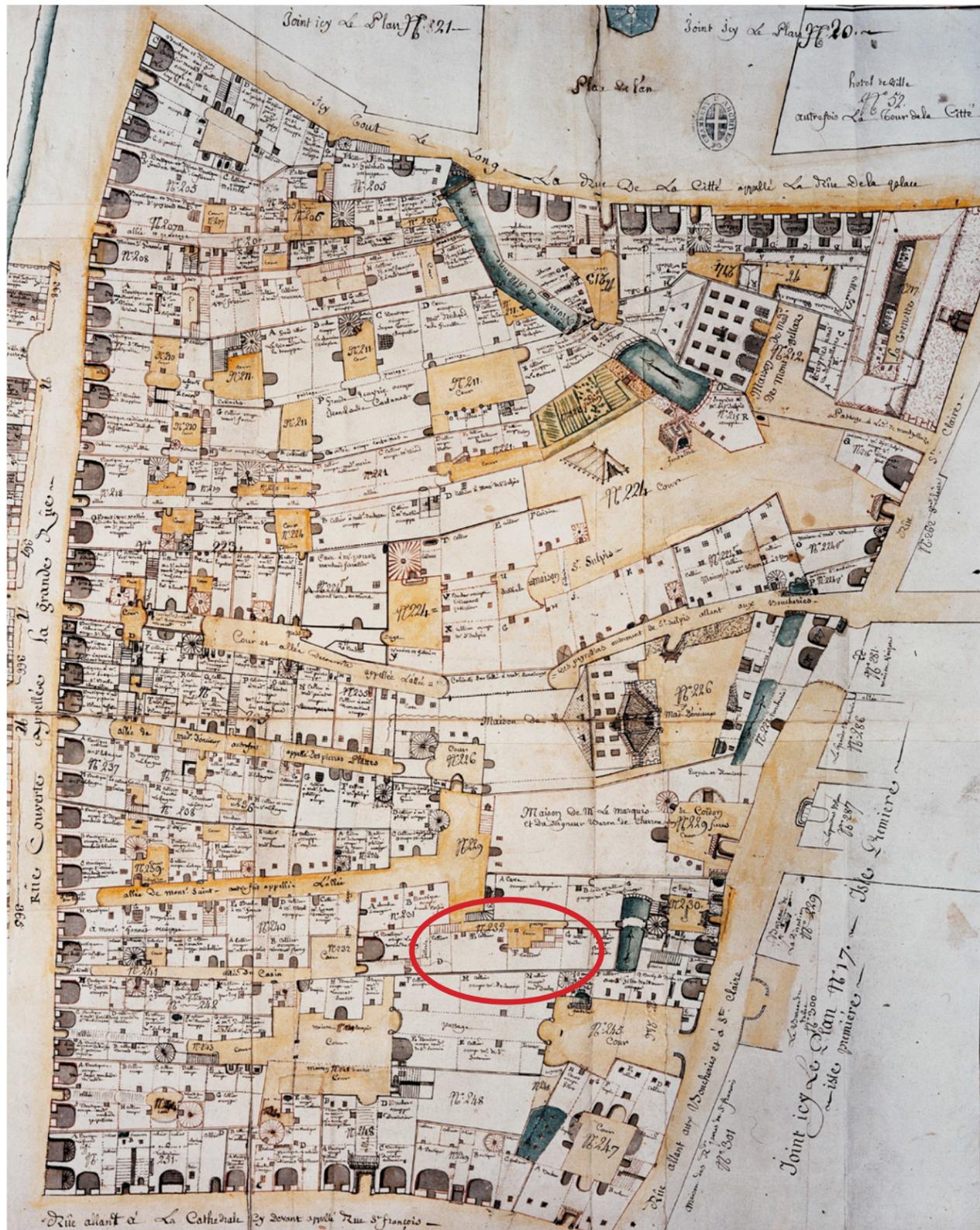
It slowly starts to make some sense, although we remain contemplative. Mother interrupts our thoughts by reading another letter.

It talks about Chambéry in France. Luckily, Mother speaks some French. She says that by some miracle, she could talk on the phone with a city archivist in Chambéry who emailed her different maps and pictures of the city.

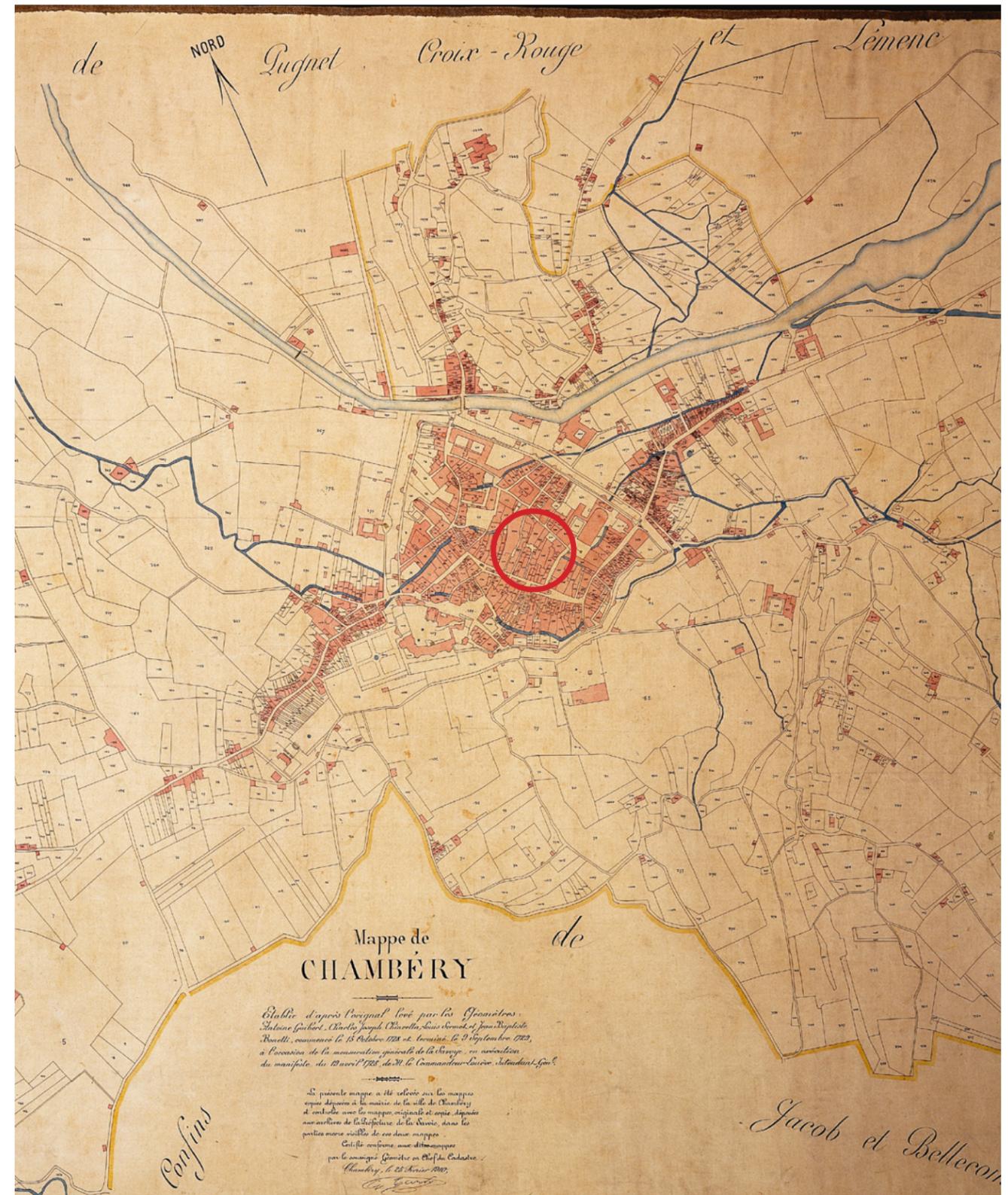
We explore the prints, the old maps and current pictures. This city doesn't look like Alexandria, VA at all. The pictures depict an old, dirty and tortuous city. The photographs of the street and building inhabited by this Rousseau guy show a dark and decrepit place! Nothing looks straight either! But somehow, the history that our Mother is narrating, as well as the old stones from the pictures make this place quite intriguing, engulfing me in the shadows of these walls.

Mother finishes reading the letter but I barely understand a word. She explains the word "poché" and tells us it's like painting with stencils but applied to maps and architecture plans. But she acknowledges she doesn't get this "gap business". She says she needs to read more and points to a stack of books she borrowed at the library.

I look at the last picture of this letter and promise myself to find out where it was taken.



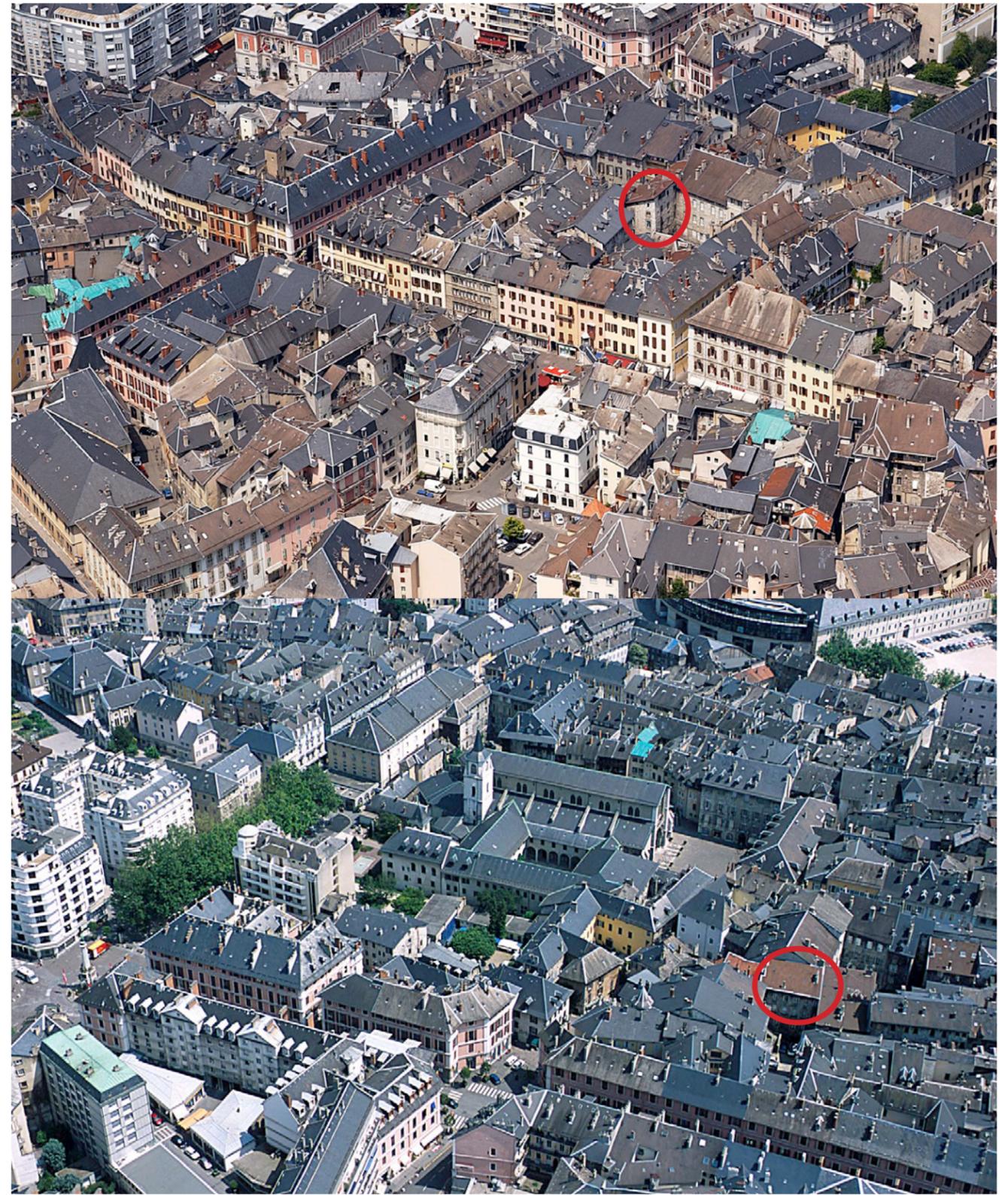
Map of Chambéry, France. Public Domain.



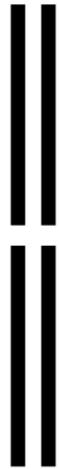
Map of Chambéry, France dated 1729. Public Domain.

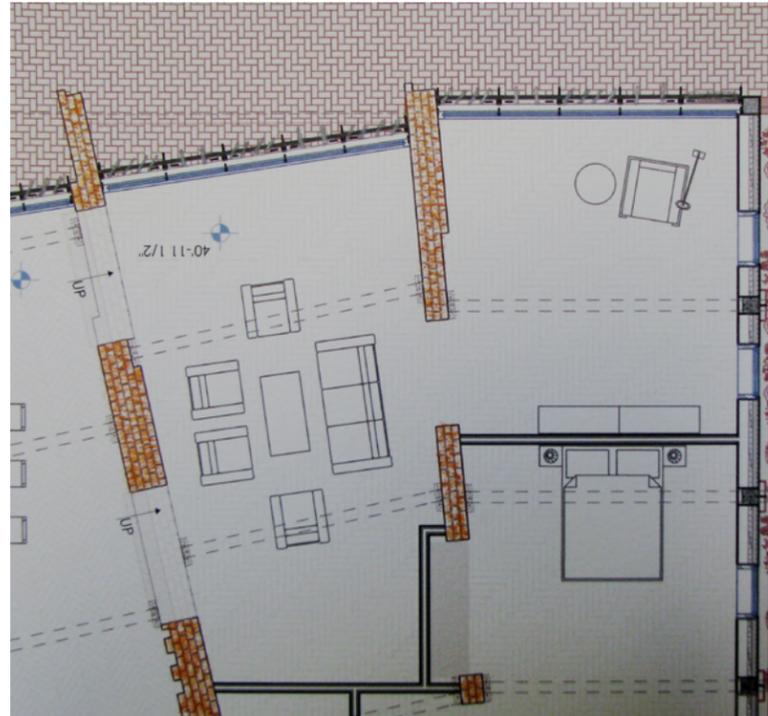


Plan Called "Boiton" of Chambéry, France dated 1901. Public Domain.



Aerial photos of Chambéry, France. Public Domain.





Study and Living room - Close-up from Residence #1 Plan

The Last Letter

It has been a couple days since Mother read the letters to us. I have been looking up information online about the city of Chambéry. They even have a statue of four elephants without their rear end. Mother says they call it the "Four-Without-Asses".

My brothers and I like playing in the new room we discovered. It's cool as the weather is turning muggy and sticky in Alexandria, VA. We keep probing the bricks in the hope of a new discovery!

Dad installed a railing on Mother's insistence and has treated for ants. He's also been taking measurements of the opening to have a door made and electricity installed. Last night, we all debated about how to use this new room. Dad says he'll have to discuss the matter with the other tenants of the building first.

Mother moved the letters and her research material in the study. The opening in the brick wall between the living room and the study reminds me of the opening to the new room. Except that the study is not useless!

I like standing there by the study window, hidden by the louvers and spy on people in the street below.

Tonight, I have decided to read the letters again and try to figure out what it all means! As I look through the papers, I realize that there are pages Mother has not read to us yet. I run to the kitchen and ask offended brandishing the pages why she hid those. Very calmly, she replies that she wanted to understand the first two letters before exploring the last one. She didn't mean to hide it from us. She dries her hands, I call my brothers and we all sit at the dining table.

This letter is even more obscure than the precedents. Mother says she's read some of Georges Perec's book but could never finish the one called "Life – User's manual" because not much action is happening, that it is kind of boring. I am glad to know that Mother would call a book boring! She adds (for good measures, I think) that his other books were quite impressive.

My little brother laughs when the letter mentions the Oulipo group. He keeps repeating "Oulipo" and cracking up!

Then, something surreal happens. The letter states our street address: 112 S Fairfax St.

"Why is it talking about our building?" I ask aloud.

In the split second that follows, we all shout in unison:

"That's because it's about our building!"

As I think I understand it all, many questions flood to my mouth:

"But why are they talking about Chambery in France? And what does this Percec writer have to do with our building? Did he live here? And why do you write to a building?"

My Mother can probably sense that I am getting more and more confused and frustrated so she attempts to explain what she can.

"Well, I think that the architects who designed our house and building probably lived in France for a while, and this is where their inspiration is stemming from. They decided to document the process of design by writing those letters. I agree with you that it's kind of silly to write to a building, but you know architects are like artists: they can do unusual things sometimes. That's what makes our world beautiful, and has made our life exciting this past week, wouldn't you say?"

I nod in approbation, but I can't help reminding her about this Percec guy. She goes on and rephrases the letter for us: George Percec used rules to write his books, and so did the architects to design our house. She shows me the letter and points to the rules.

Dad steps in at that moment. The three of us gather around him and start explaining what we've learned, but he cuts the cacophony by simply saying "I know". He grasps his sledgehammer, which I only notice now, and walks with determination towards the kitchen. We are fascinated by his imposing stature and by the willpower he displays. As he starts swinging his tool, Mother shouts:

"But, what are you doing?"

He lowers the hammer, turns around and with a big grin says:

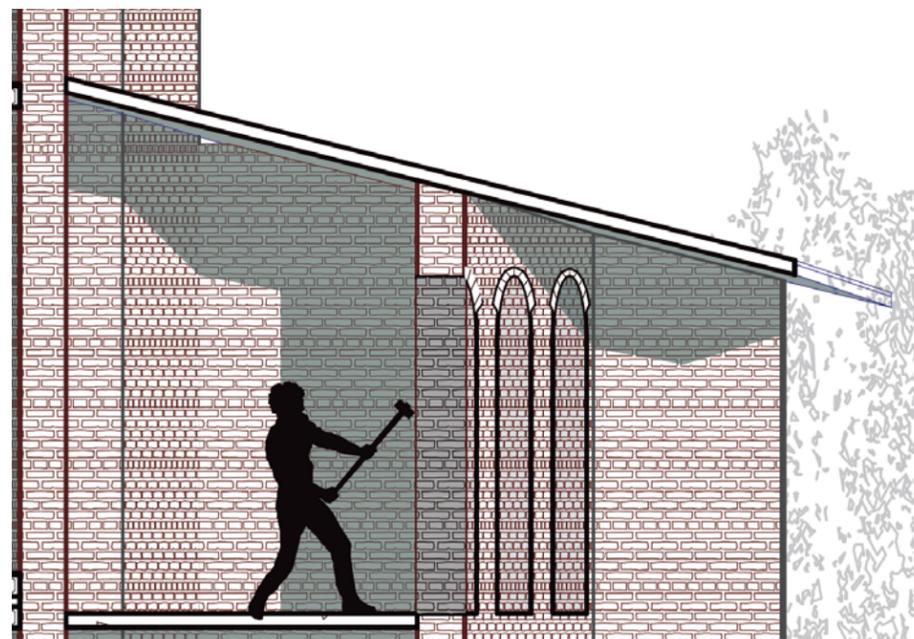
"I'm going to transform this useless room into a patio, Honey!"

"But, what useless room? We have already discovered it downstairs!"

"It's not over yet! There is another room! See the line?" and with his finger, he draws an arch in the air. Since Mother isn't responding, he steps closer to the kitchen wall and follows a line on the wall. The line traces a perfect archway. Mother is up and stepping up to the bedrooms while yelling:

"Wait! Let's cover the floor and the kitchen cabinets first."

My older brother is emboldened by the excitement and asks Dad if he can take a turn



Useless Room Turned into a Patio, Close-Up, under the flap of N-S Section, in the back

whacking the wall. We all want a turn! Dad gives us instructions and slowly we enlarge the opening, always staying within the line. On the other side, we find another dark cool room. Mother jokes with Dad that it isn't what she calls a patio. I tend to agree with her, but apparently I am missing a piece of information because they both laugh at the joke and leave me in the dark.

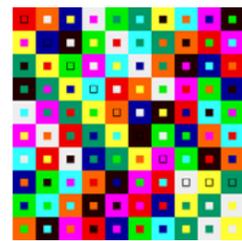
That night, we eat take-out pizza from our favorite King Street pizzeria. I have always loved our house for its nooks and crannies, the misalignment of the brick walls and what I have always considered our secret entrance. The added mystery and hands-on reshaping of this past week have amplified my expectations of what a house can be. I feel that our building is talking to us if we know how to listen!

Falls Church, December 13, 2014, revised on January 12, 2015

Dear unborn building,

Since I last wrote to you, I have accomplished a major breakthrough. You now have commodity!

So far, my main struggle to define your program was my lack of some sort of logic / relationship / explanation. I knew there would be a residence to follow through on my initial research, but I had a hard time being satisfied with deciding point blank what would happen inside you.



Orthogonal Latin squares of order 10

On Paul's recommendation, I researched how Georges Perec wrote *Life – User's manual*. I discovered that he made very arbitrary decisions to build the book and respected them throughout the book creation.

Indeed, he established a set of tight constraints on each chapter and therefore on each part of the building he described (and on its inhabitants).

He set up a pair of 21 constraints that could each take 10 values. For example, a constraint is "position" and the values

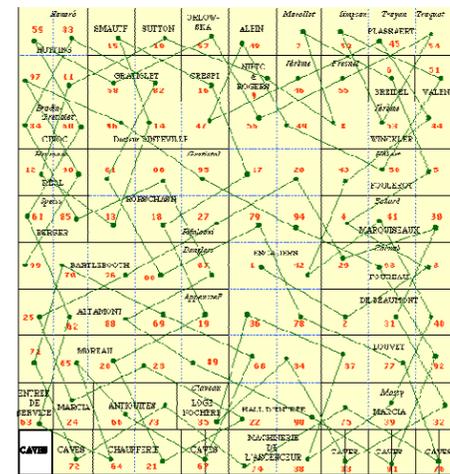
can be "kneeling, lying flat on one's stomach, standing, sitting, crouching..." It means that for each chapter (and therefore each part of the building), he needed to follow 42 constraints.

What is really fantastic is how he interpreted them.

As an example, in chapter III, on the constraint named "age and sex", the value is "new born". His interpretation of that constraint led him to write about the owner of a manufacture of baby clothes in Stuttgart.

In addition, the repartition of the values to constraints in each chapter follows the orthogonal Latin squares of order 10. This allows for single occurrences of each combination.

Finally, he uses an adapted chess knight polygraph to order the chapters in the book. This polygraph is the set of moves that the knight chess piece can make to land only once in all 64 boxes of the chess board. He adapted it to a 10x10 board. He said that he could never have left the ordering of the chapters to pure luck, nor could he have followed a tedious floor by floor arrangement.



Chess Knight Polygraph



Georges Perec

I realized that setting arbitrary constraints doesn't prevent creativity. It can actually even help it flourish by triggering ideas and inspiration. It is what the Oulipo group is advocating. Oulipo stands for **Ouvroir de littérature potentielle**. I could translate that as the "gateway to all the potentialities in literature". This group was founded by R. Queneau in 1960. G. Perec joined it in 1967.

So I may start a new group: OuRchiPo, l'Ouvroir d'aRchitecture Potentielle! OuRchiPo is what we

already do in Academia anyway. It is how most thesis students work: we set up the rules of our game, of our thesis. We choose a site, we choose a program. What I have decided is to add design rules.

Let me compare my approach to chess playing. The site would equate to the chess board. The program could be associated to the chess pieces. In this thesis, I am adding design rules at the same level that we need the rules of chess to play the game. The laws of chess have evolved over the centuries but are quite arbitrary. They are sensitive to the board size or the number of pieces, but they nonetheless are arbitrary.

Thus, this exploration led me to decide how to give you life, dear unborn building. I chose a site, decided on a program and added design rules. These constraints are somewhat arbitrary, but will define how you will be born.

Let me state these constraints.

Site

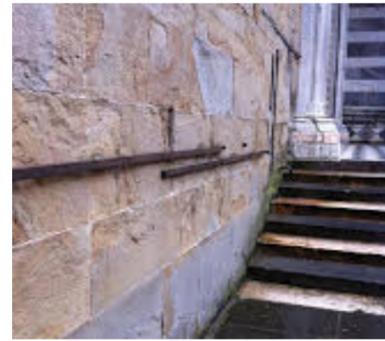
112 S Fairfax St, Alexandria, VA 22314

Program - It will be mixed use.

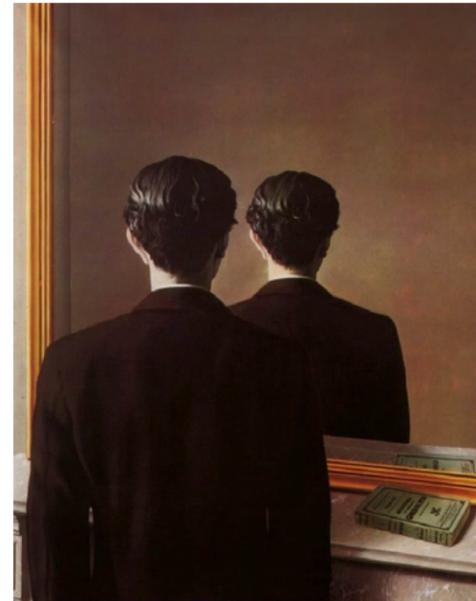
- two residences
- one "wall accessories" shop (selling wall art, tapestry, lighting, shelving, and other wall accessories)
- one tradesman workshop (at my third iteration, it will be a pest control company. My first two options were: carpenter filling up/framing wall openings, and plumber/HVAC routing mechanical through walls)
- one useless room - this room will have no human scale openings to start with and won't belong to any of the other programs (a walled-in room/condemned from the start) but anything can happen to it before the end of the thesis. You will tell me!

This last room is a concatenation of several ideas I have been flirting with. First, I have thought about being walled-in and prisons. Then Carolina recommended the work of Douglas Darden, *Condemned Building*. What stuck with me was that he presented the buildings as being condemned from the start. Finally, in *Especies d'Espaces*, Perec wonders about a useless room. He says that he never reached a satisfactory result thinking about a useless room, but feels that he reciprocally brushed the definition of the Inhabitable...

To me, this condemned uninhabitable unnecessary room should remain a benchmark of the Inhabitable, until we need/want to inhabit it. I see this room as the yardstick of your design.



Church in Bergamo, Italy, where the builders' measuring tools are honored by being placed on the wall. Photo by Carolina Dayer



La reproduction interdite by René Magritte, 1937

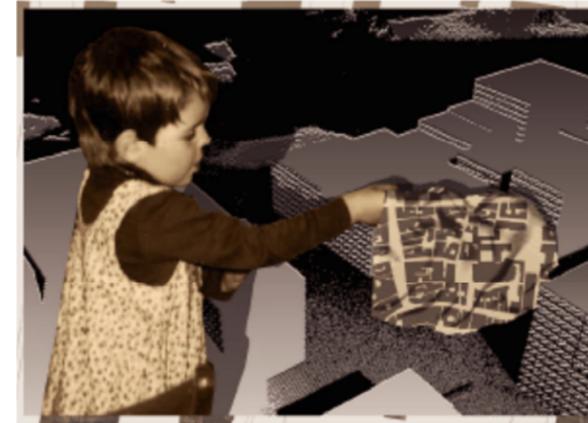
Design constraints

Design for the modern human

As Susan and Jaan have reminded me, I am designing in modern day Alexandria, Va, with trash trucks, cars or modern rain water management practices. It also means using current construction technologies with current materials. It always means designing with the human scale in mind.

In section – Use the site adjacent facades and in general, Alexandria's history to design the walls.

The memory of the City of Alexandria needs to permeate into your structure and your design. So I will start from the surrounding facades to design your outer shell. It will in turn inform the adjacent walls inward. By doing so, even at your most intimate level, you will carry the DNA of your site and your city.



Caroline, at 4 years of age, dropping the memory of Chambery, France in Alexandria, VA.

In plan – Use the map of Chambery to inform the location of your walls.

On Paul's recommendation, I dropped the memory of Chambery in the parking lot in Alexandria. Following the figure ground exercise from earlier, I inverted void and solid in order to inhabit the walls. The alleys, streets and open spaces become your walls. This map needs to be edited and some open spaces may become a low wall (like a table), or a closet in the wall. But

I need to respect the memory and its details, even at the reduced scale.

This rule can seem quite peculiar, as going against the grain of the first design law, where I need to respect the human scale. However, I consider this arbitrary rule as my way to bring a concrete expression of the memory of where I grew up into your design. I take upon the challenge to respect these laws harmoniously and know that my accomplices will keep me in check!

In ceiling and roof plan – Use the stars cosmos

This constraint is probably more lax to interpretation. I am not sure yet, which sky I am talking about... We will see...

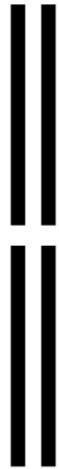
As you see, things are moving and I have started working on your first wall: your northern façade. I am very grateful for the guidance I am receiving from our accomplices.

You will be great walls!

Your omniscient architect and accomplices.

Caroline Morel

Cc: Paul, Jaan, Susan, and Carolina



Tying Alexandria, VA and Chambery, FR

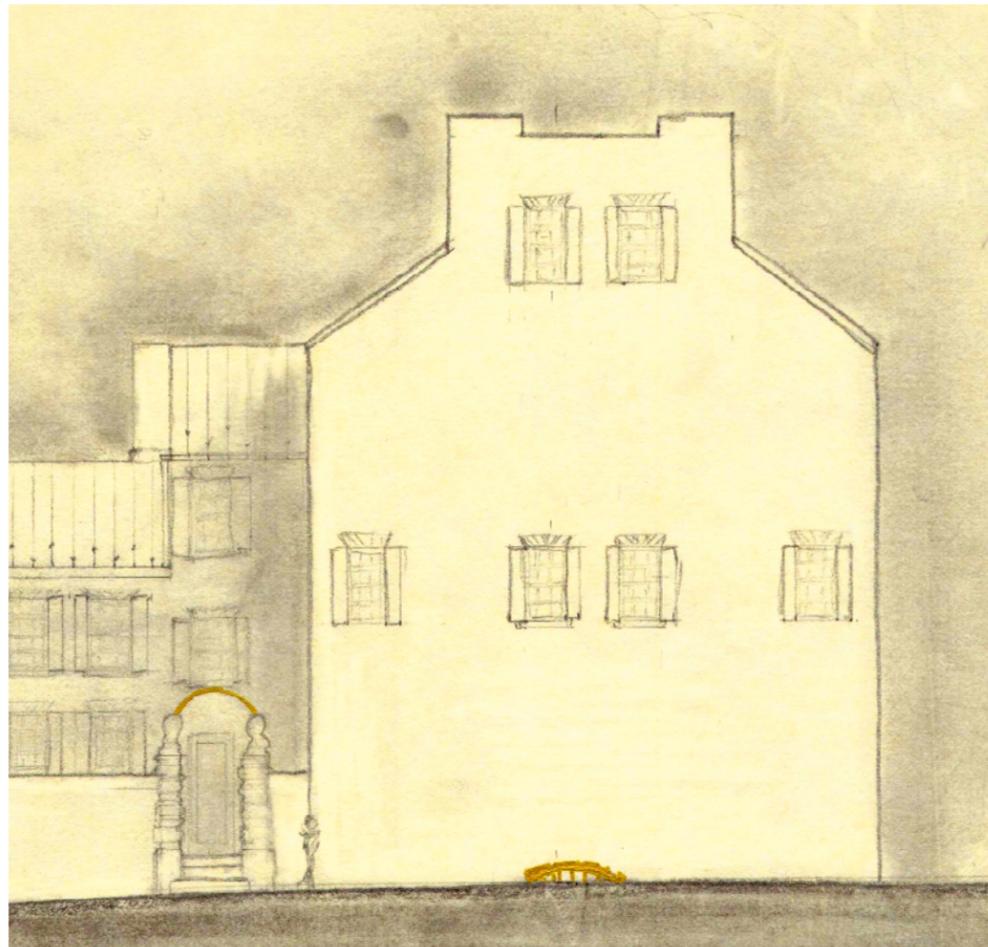
The opening by the kitchen has stayed open for almost a week, with the bricks stacked in the dark room. Mother and Dad are busy at the store as it is spraying season, and two employees are out sick.

Today is another discovery day for me. While waiting for my big brother to open the entrance door of our house, I realize why Mother and Dad laughed at the patio joke the other day. I can see more lines on the exterior wall of the house. Four more arches are delineated on the brick wall. It will make a wonderful patio, like seating in the Coliseum in Rome. I am thankful it's Memorial Day weekend. Dad won't work, and we'll be able to open up these arches.

Indeed the next day, we start working on the task. It is much more difficult though. We stand in the dark room that soon will become our patio, only lighted by a couple of propped up flashlights. On the other side of the wall lays the staircase going up to our house. Dad is afraid that falling bricks may damage it. The meticulousness and slowness of the work exasperate me. In addition, as much as the bricks fit perfectly in Dad's hands, they are too big for mine and I keep pinching my fingers while I stack them. Thankfully, with each additional brick removed from the wall, more sunrays are penetrating the room. We can discern the roof framework and each corner of this spacious room.

On the concrete floor in a corner, what I took for a shadow is becoming more visible. Yellow papers are folded and laying there. I stop the cadence of receiving the bricks handed down by Dad and go check it out. The paper is extremely thin, as thin as the tissue paper Mother makes us stuff in gift bags. It's also very yellow. I count four sheets of folded papers. Dad comments on my lack of persistence and sighs when he sees me walk to the dining table.

I carefully unfold one piece. It feels like it will disintegrate into dust at any moment. I like the noise it creates, like a whisper. I discover a drawing, a pencil drawing with some golden marks. It represents houses, buildings and a street. It feels familiar but I cannot



Site South Elevation -
Close-up on the golden
markings

explain why. The other three pieces are also pencil drawings with golden markings. All represent houses, trees, streets.

Dad walks in annoyed. They need me for the work cadence to be efficient. He grabs a glass of water in the kitchen and comes closer to the table. He inspects my findings. I can't fight my urge to ask questions.

"Where is it? Do you think it has to do with our house, like the letters? What are the golden markings? Is it real gold? Why is the paper so thin?"
 "I don't know. I don't know. It's not our building for sure. But... Wait a moment... I recognize this building. It's across the street. I don't know why there's an empty space there, and the building behind is not quite the same, but I am sure it's across the street. And look here, it's the neighbors' house. Some things on this drawing don't look like what we have now, but... I think these drawings show everything that's around us. Look, here is Swift Alley. And this is the garden side."

I can follow his explanations while he's pointing at the drawings and gesticulating at the walls of the dining room as if they didn't exist. After a brief silence, he tells me that he doesn't know what the golden marks are and that we need to finish the task at hand.

It takes us two full days to deconstruct the wall openings and clean the patio. On Memorial day, while Mother and Dad go pick up a patio furniture set they saw on Freecycle, we explore around the house with a copy of the yellow drawings in hand. We thought we knew everything so well, after spending our entire lives here. But we need new eyes to discover what the golden markings represent.

We find the bricked-up coal opening easily in the house by Dad's store. Dad had explained to us a while back why there are low window openings on the sidewalks throughout Alexandria. However, we can't find the arch above the entrance door on the same drawing. We ask the neighbors who live in the house. They tell us that when they bought the house from the Burke and Herbert Bank, they removed the ugly blue plastic porch cover and replaced it by something more traditional.

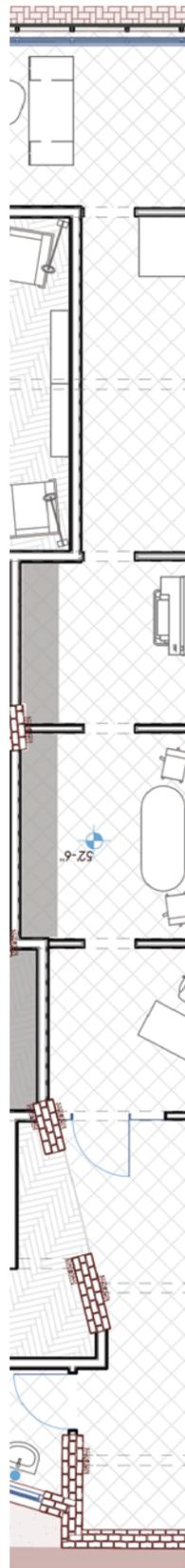


Site North Elevation- Close-up on the
window grilles

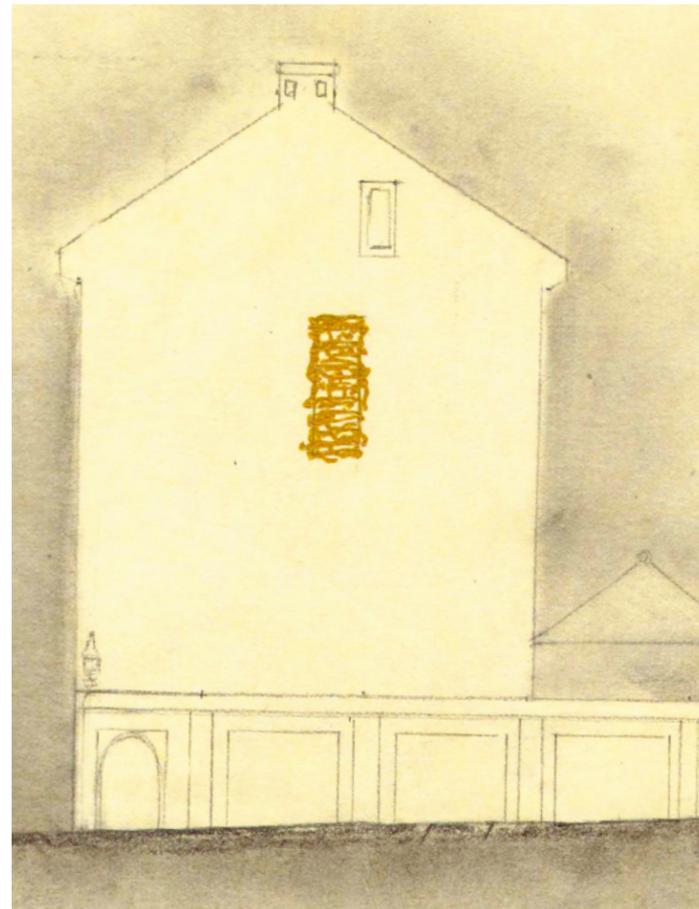
To explore the next drawing, we walk to Swift Alley, on the other side of our building. The drawing shows grilles on the windows. All but one are gone. However, we see the holes in the wall. There used to be grilles. I heard that the building used to be a bank a long time ago. These grilles on the drawings may date from that time. It's funny how when we turn around and look at the windows of the wall of the accessory store, they have the same prison like feel. The vertical mullions of the windows are so close together and repetitive. They look like grilles.

Building North Elevation - Close-up
on the glass curtain wall of the Wall
Accessory Store

We need to find one last golden mark on the last drawing. We climb the stairs going up to the neighbors living above us, although Mother told us many times not to play there because it's private. At the top of the landing, there's nothing to see. The drawing shows



Alignment of the doorways -
Close-up on the Residence #2
floor plan



Site East Elevation - Close-up on the bricked up opening

a big window but it must be inside the neighbors' house. We're about to leave when my little brother shamelessly opens the door and enters. I try to grab him when we realize that we are not in someone's house. It's just a lobby. We are facing a door with a bronze plaque. This is the architecture practice of the neighbor. I turn around to try and find the window but I only face a brick wall. When I turn back, my little brother has vanished but I hear a bell. My older brother steps in between two brick walls and he disappears as well. I follow him to discover my brothers talking to the neighbor. She waves us in as she tries to make sense of what my little brother is telling her. Finally, she looks up to the oldest of us and he explains as clearly as he can what has happened these past weeks. I hand her the copies of the drawings.

Her first reaction is one of relief. She can now explain the loud banging she'd heard last week. Then, she explains her surprise about our brand new patio.

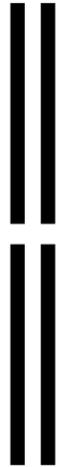
"I always thought you guys were using that space. I can see the roof from my kitchen and it never occurred to me that it was walled in. I knew that this building had been designed in an unconventional manner, but I never expected there would still be things to discover."

I jump in the conversation and let her know the reason of our visit: we are trying to find the window of the building adjacent to us. She looks at the drawing and gets up. We follow her back into the lobby as her eyes keep moving from the drawing to the wall and back. She draws on the wall with her finger and tells us it should be here. As she turns around I can see a spark in her eyes. She runs home and comes back with a key to open her practice. She doesn't let us in, but rather opens the door completely and we can see a series of doorways aligned with the entrance door. With her arms, she draws this big slice of space going through the doors and she makes it hit the wall behind us. We can see that everything aligns: the window in the wall as shown on the drawing with the entrance door of her office and the series of doorways.

She is excited. She is actually more excited than all of us! She accompanies us downstairs and we retrace our steps and rediscover the golden markings with her. Although we are proud to show her what we have discovered, she goes a step further and conjectures on how these markings relate to our building. The coal window is almost aligned with Dad's delivery door. The now disappeared blue porch cover could very well have been the size of the arches, the same arches we have opened up.

She asks to see the letters. Mother and the architect talk together for a long time, commiserating around the letters and maps that Mother had received. This leads to a dinner invitation.

Her family and ours end up having dinner together on our new patio, bounding around the excitement of living in this building.



"Boiton" map of Chambéry, France, laid on the Alexandria, VA site. Streets and alleys are poché.



Epilogue

Several weeks and dinners later, the architect shows us a plan of her apartment, right above us. She recreated it taking measurements and referring to the letters and maps. She was puzzled because some of the walls, the brick walls actually, aligned quite well to some of the streets and passageways shown on the "Boiton" map of Chambéry.

"It sounds ludicrous to design a building based on a city map! But it would explain why all the brick walls are crooked! It's as if the memory of Chambéry was used to design our building. Can you imagine? According to the map, we make fires in Rue de la Metropole; the useless room or what is now your patio is where Jean-Jacques Rousseau used to live; and the stairs that go up to our place are in Rue de Boigne, the main street in the city from what I could find."

I ask where my bedroom is on the map, but I don't really listen for the answer. I think about our discoveries. Had they been designed all along? Were they planned like the puzzle maker plans all the moves you'll make before solving it? I think about what the architect just said: "It's as if the memory of Chambéry was used to design our building." What memory will I keep of this memory? What memory will I keep of experiencing this house built on memory?

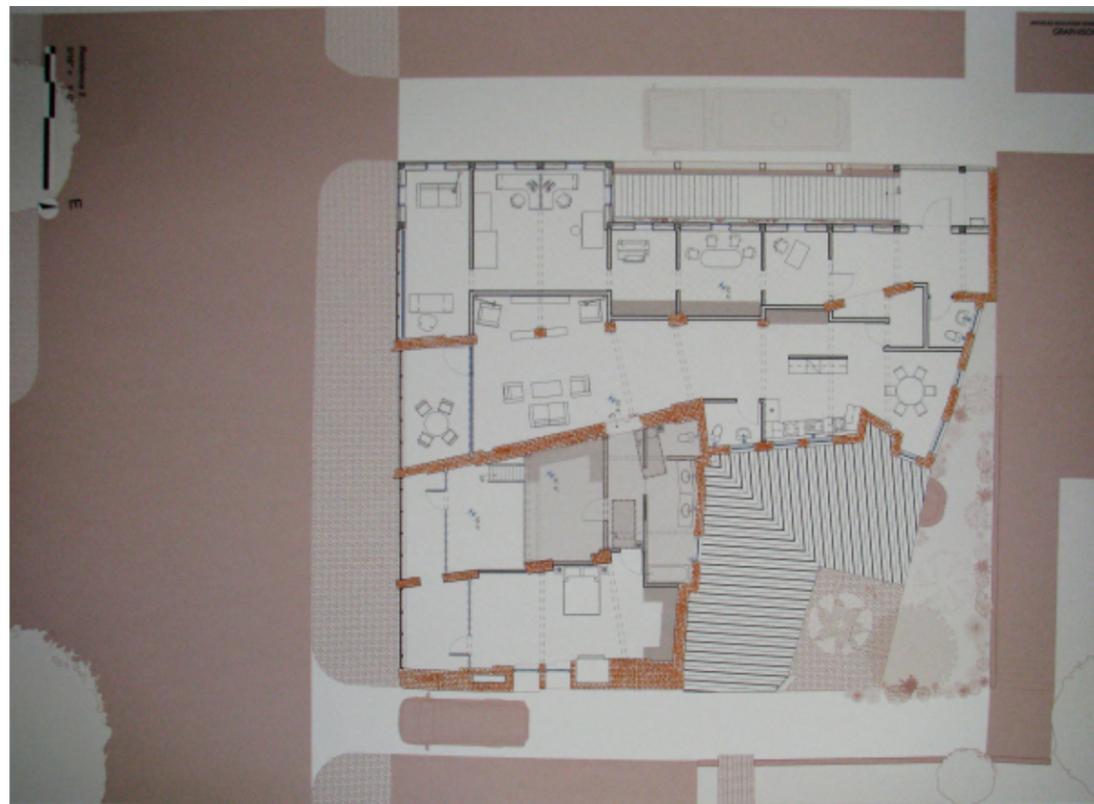
It sounds too crazy to be real. There must be some magic involved. Adults say magic doesn't exist. They may have renamed it "Gap"?...

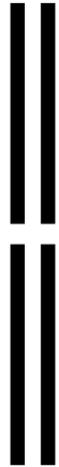
Mother read stories of Baba Yaga when we were kids. This witch, flying in a mortar, could be the spirit of the brick walls, inhabiting them...

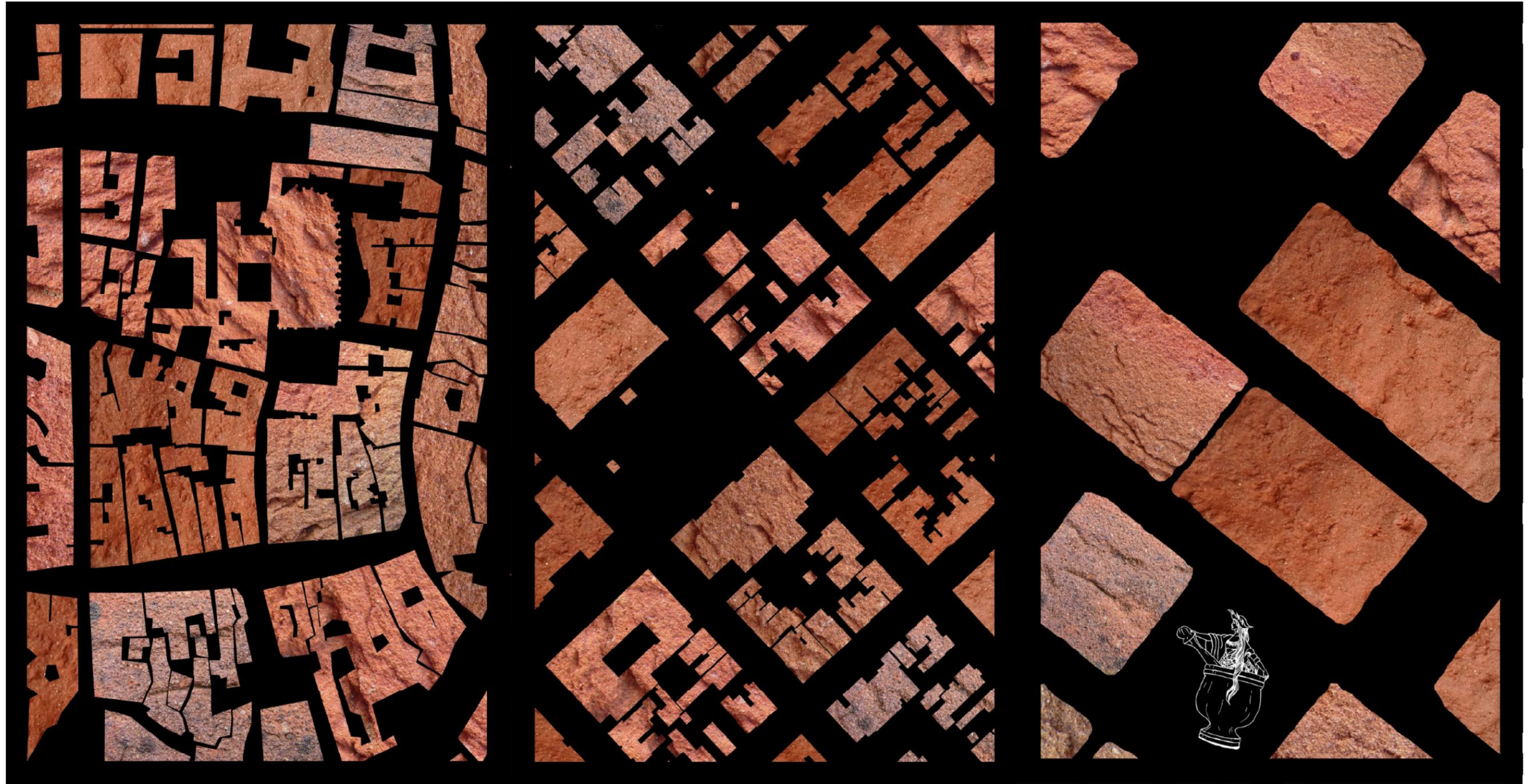
I imagine the miniature French people from the "Boiton" map, living in my walls, riding horse-drawn carriages between the bricks, carrying bread and cheese to my bedside table where they would play accordion.

I also think about the ants that lived in or behind the wall. I never found out where their nest was.

Residence #2 floor plan







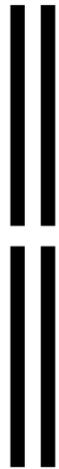
Chambéry, France and Alexandria, VA at the same scale and orientation, and a brick wall

In the Slavic folklore, Baba Yaga is a witch who flies in a mortar and may help or hinder those who seek her out. She could become the soul of the brick wall, inhabiting it, bounding the bricks together. She could also become the spirit of the city, bounding the private buildings through the public spaces. She could be the witch of the Poché.

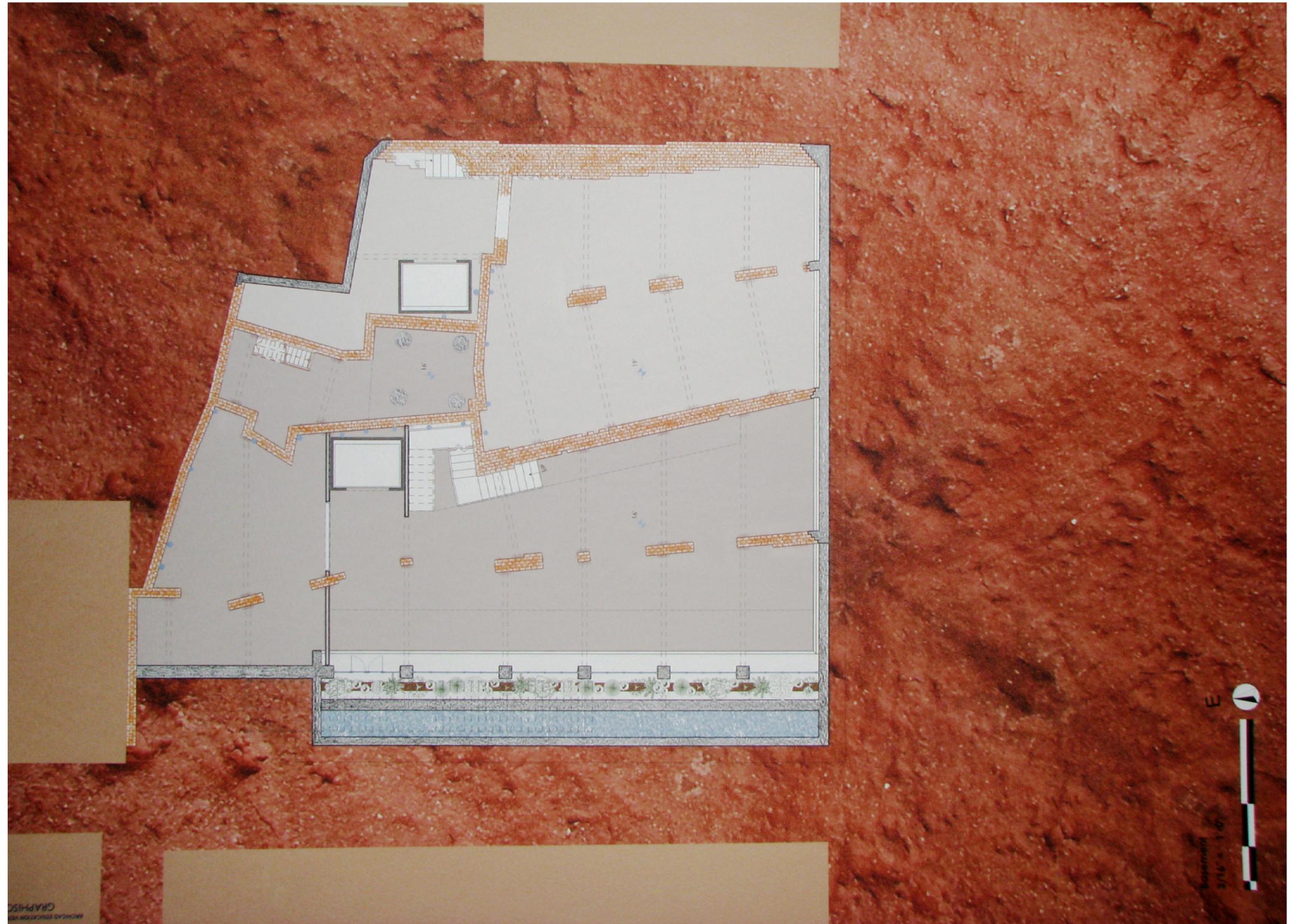


Drawings

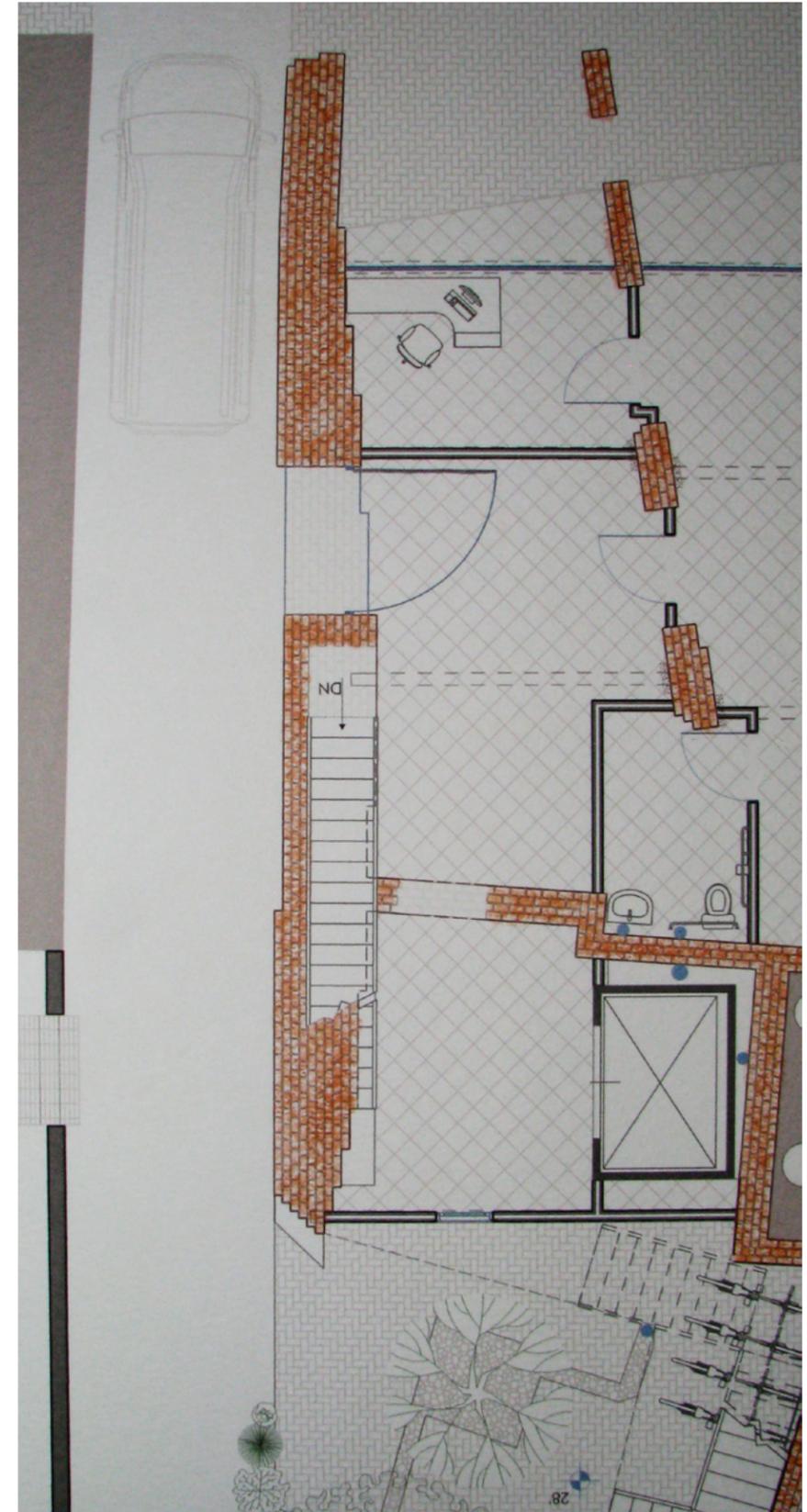




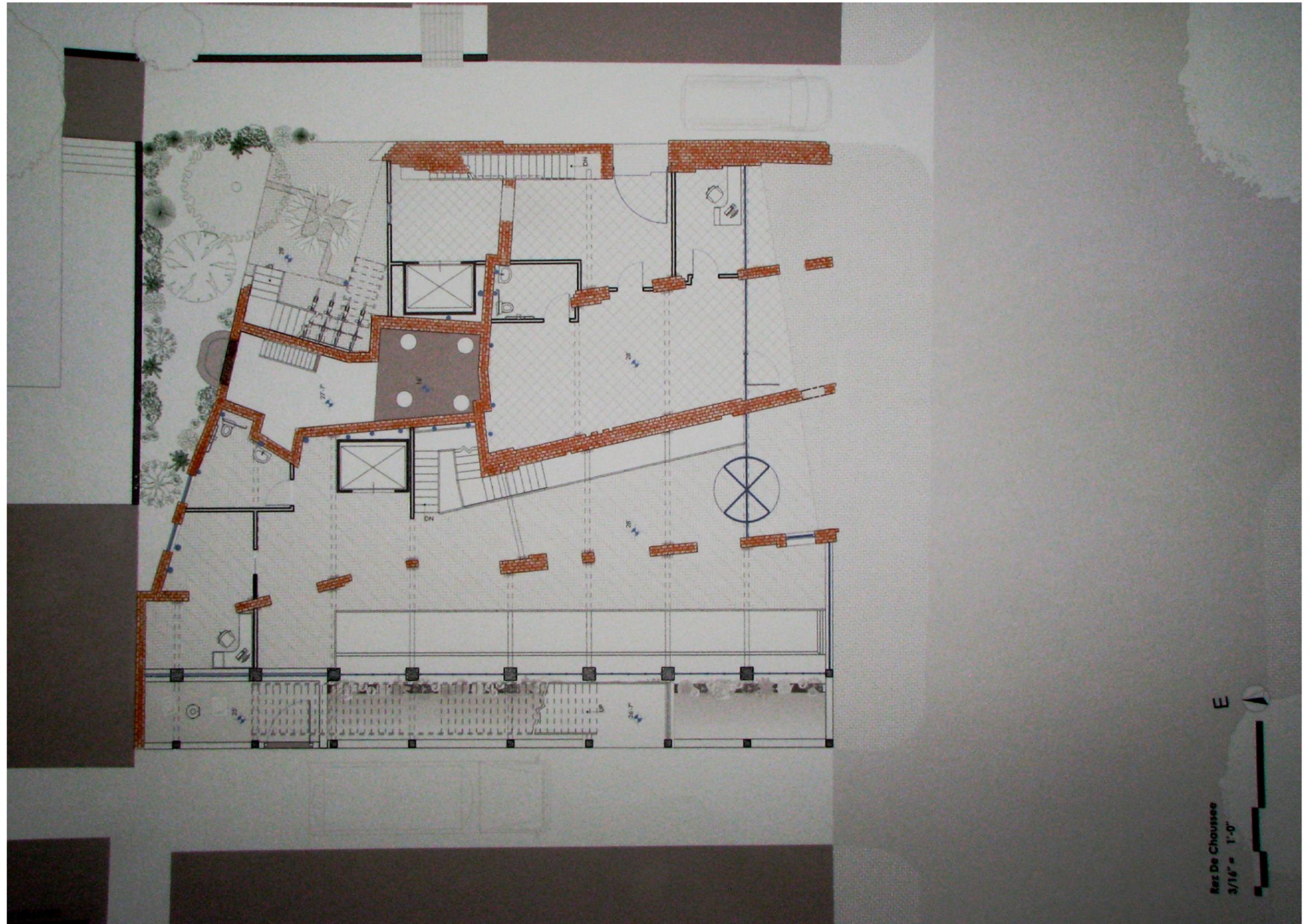
Floor Plan 1 - Basement



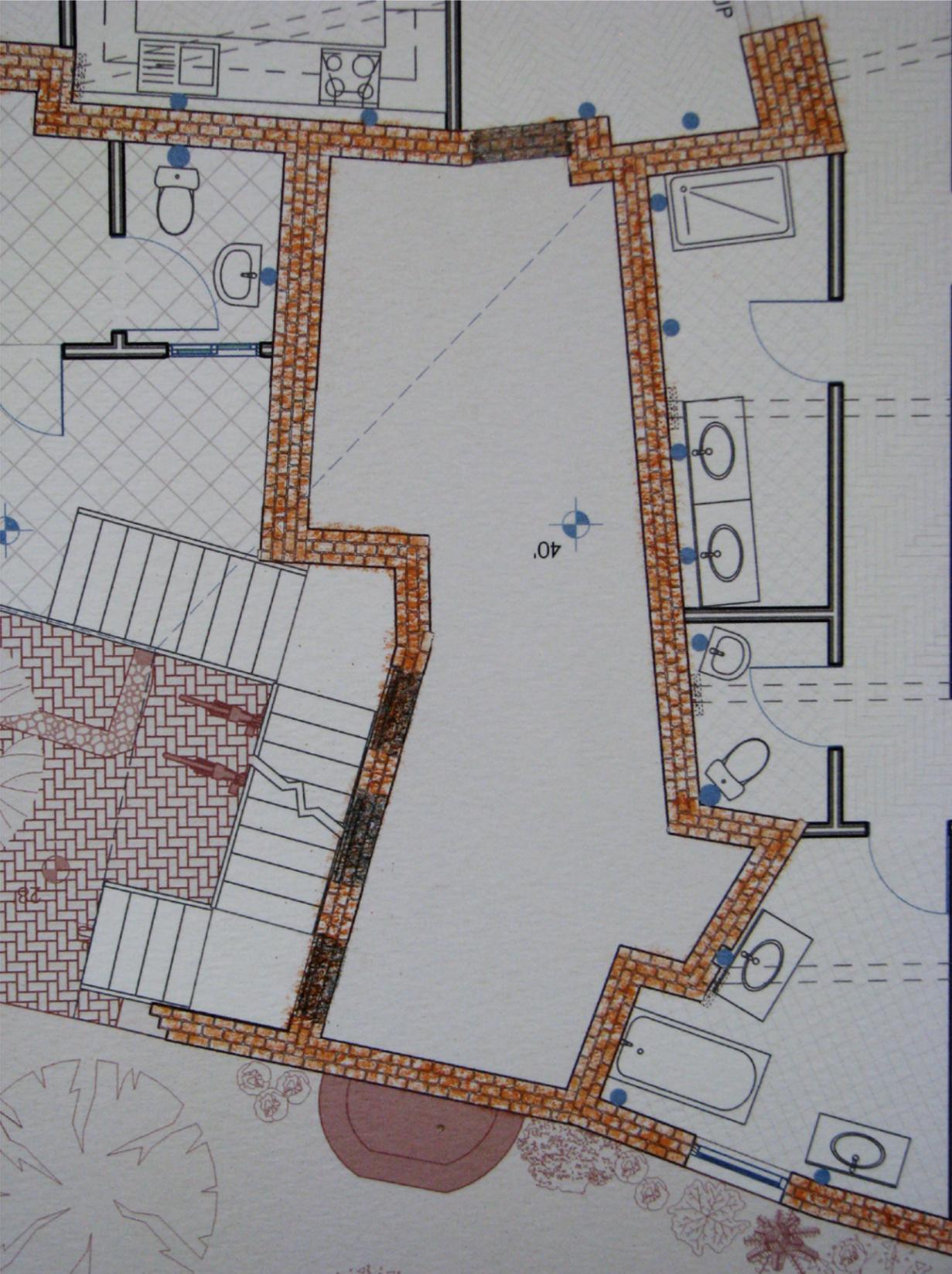
Floor Plan 2 - Rez-de-Chaussee
(Close-up on the Stair in the Wall)



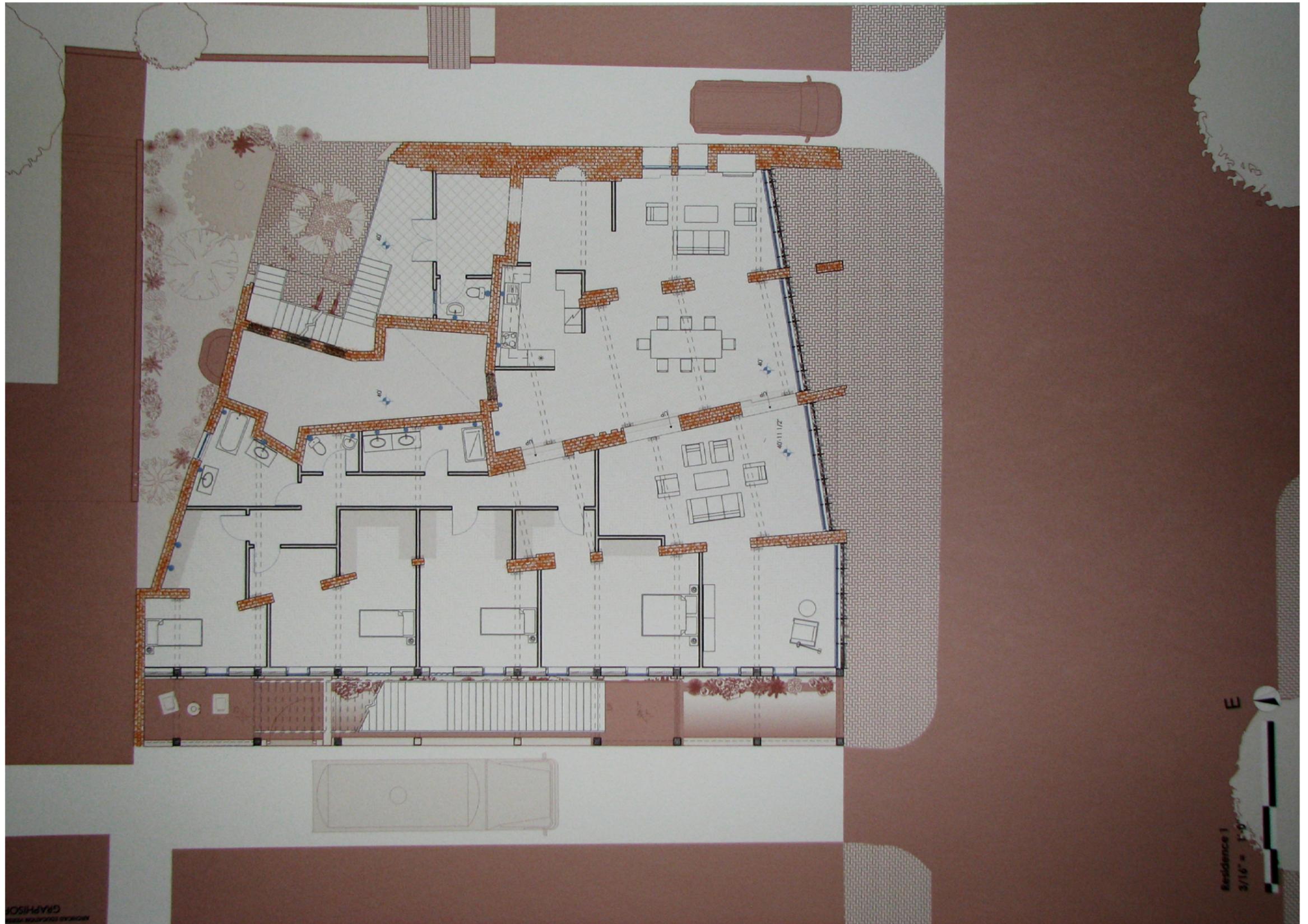
Floor Plan 2 - Rez-de-Chaussee



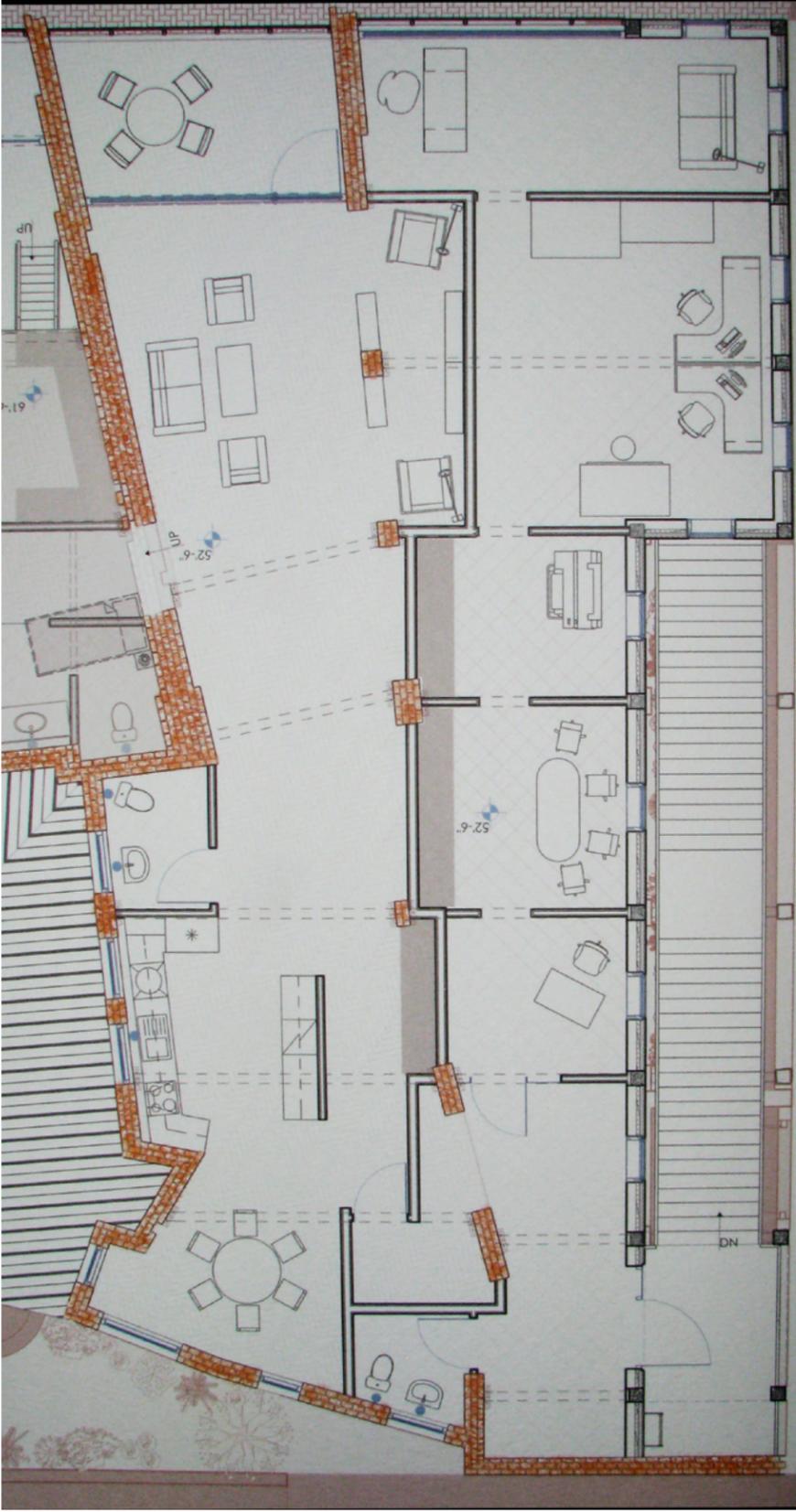
Floor Plan 3 - Residence 1 (Close-up on the Useless Room turned Patio)



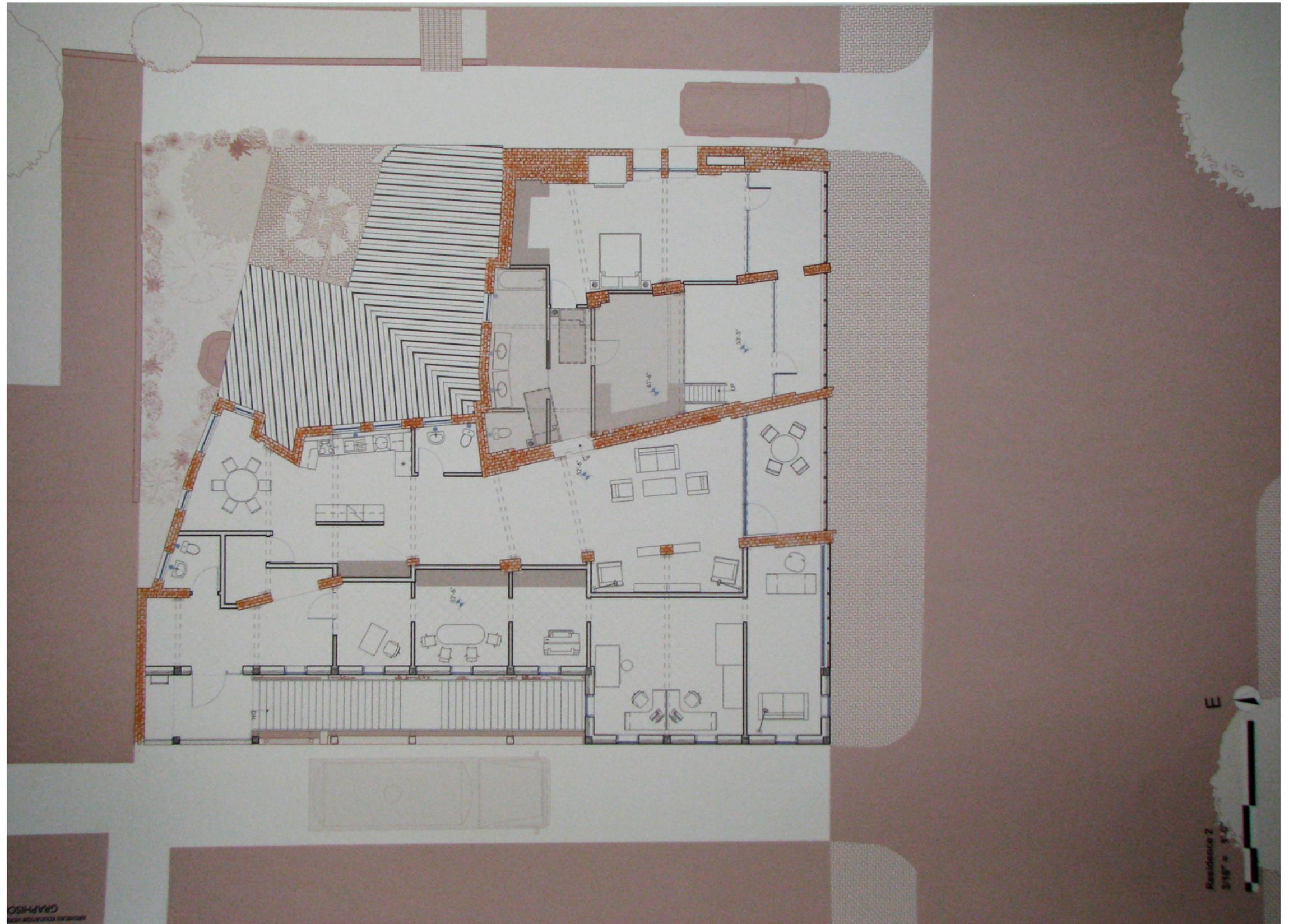
Floor Plan 3 - Residence 1

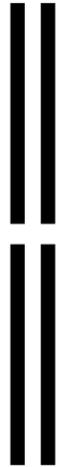


Floor Plan 4 - Residence 2 (Close-up on the Architect's office and the public side of her house)

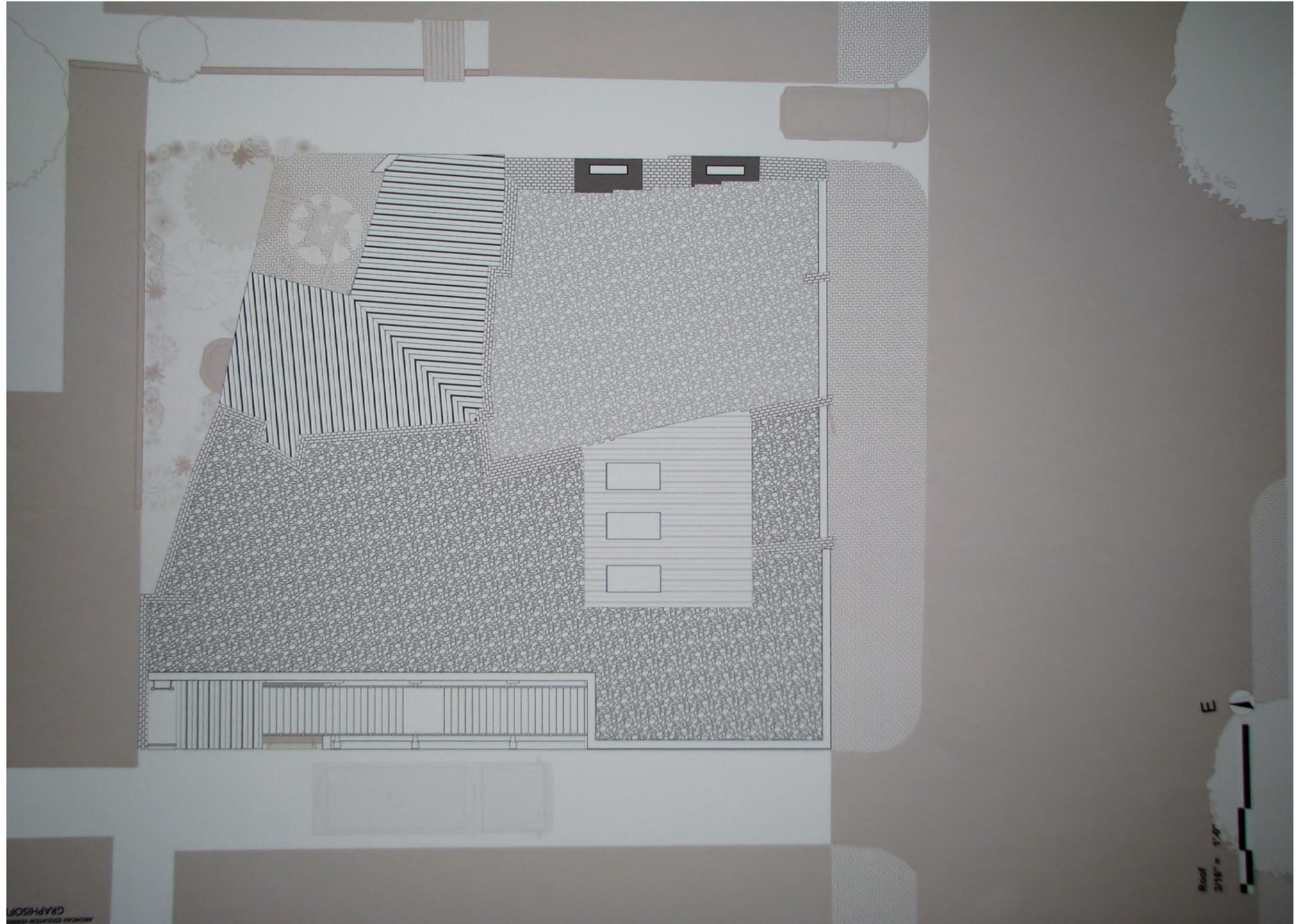


Floor Plan 4 - Residence 2



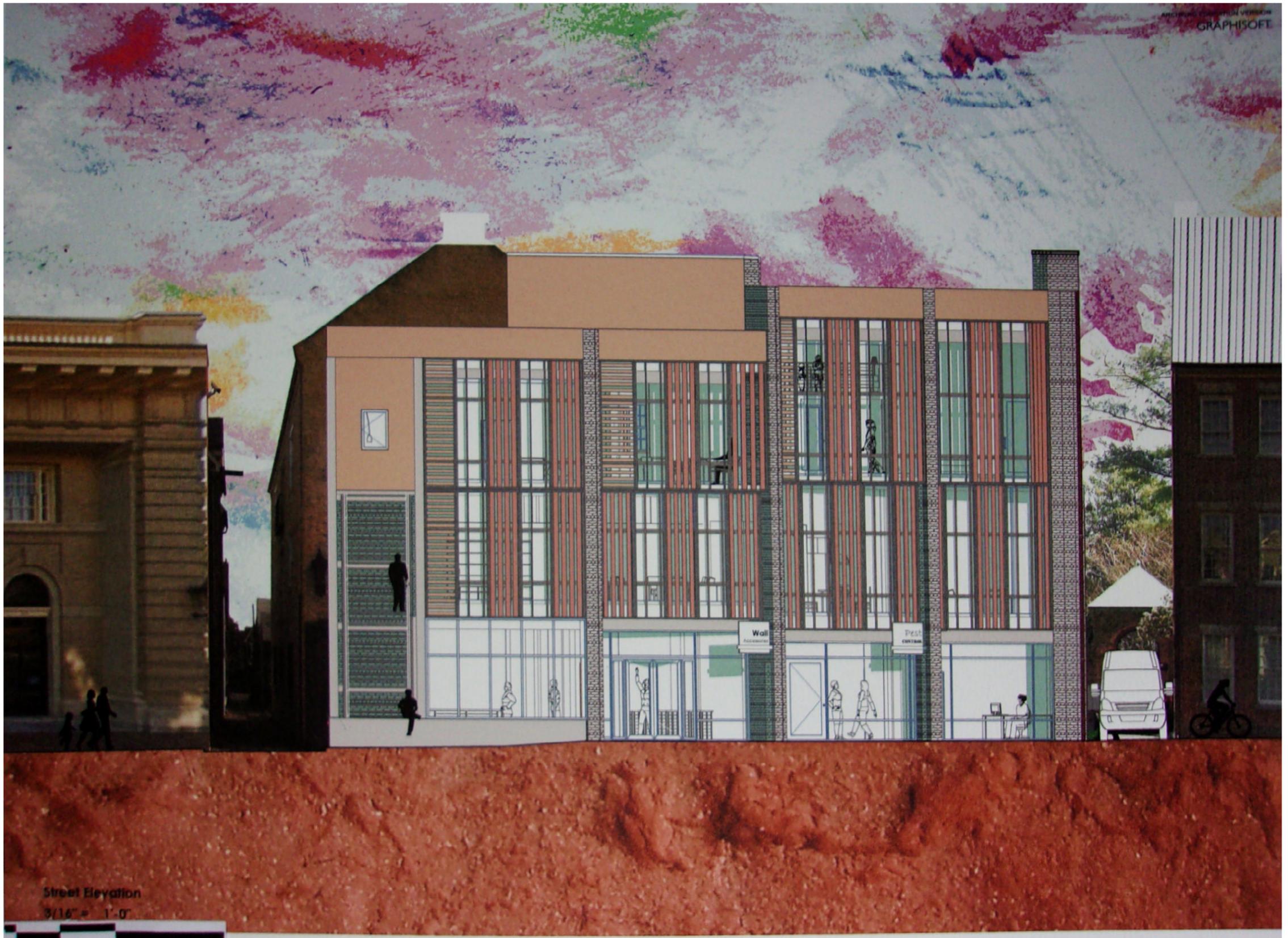


Floor Plan 5 - Roof



East Elevation - Close-up on the Pest
Control Store Front



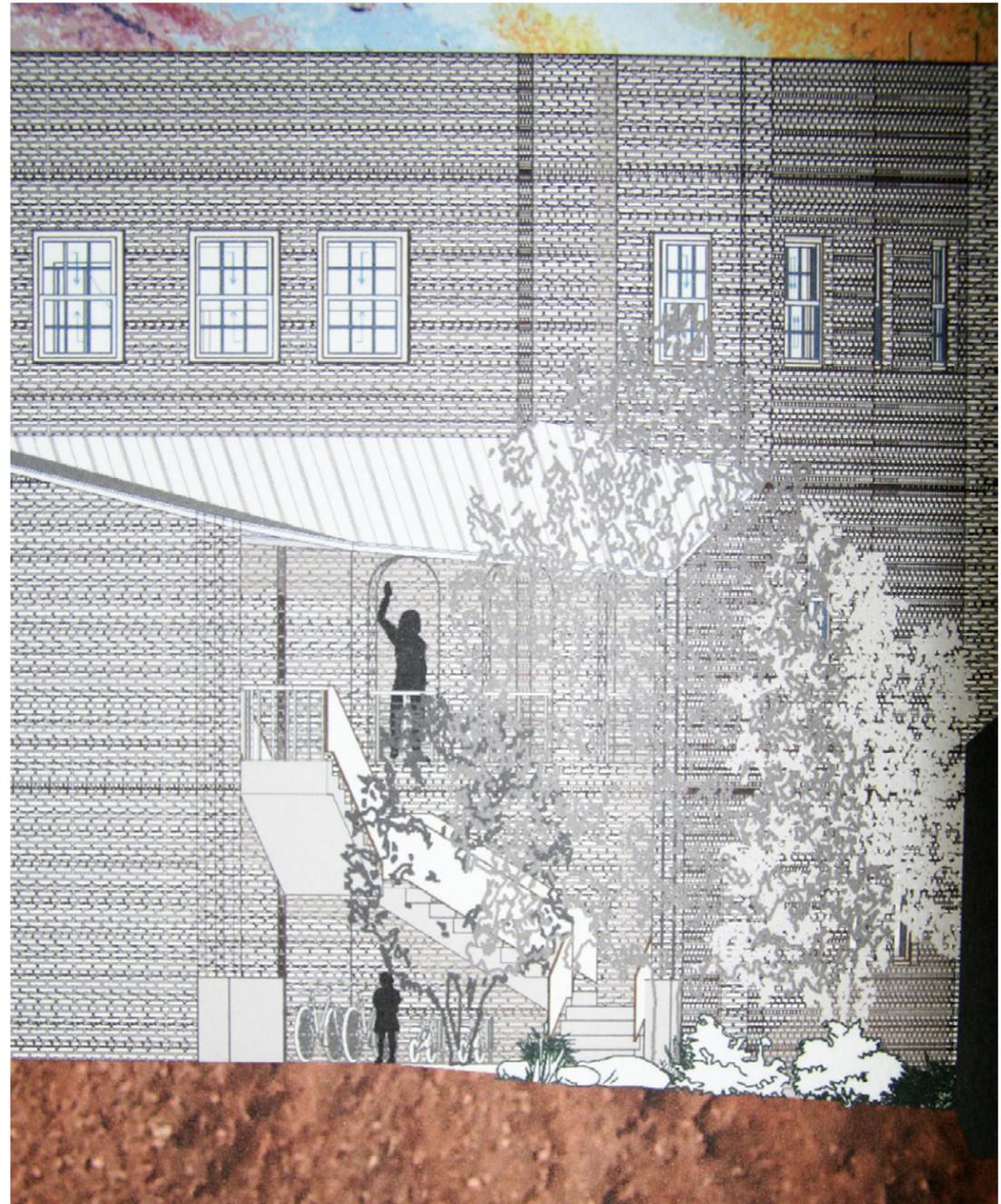


East Elevation



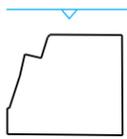
Street Elevation
3/16" = 1'-0"

South Elevation - Close-up on
Residence #1 entrance



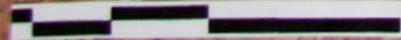


South Elevation



south ELEVATION

3/18" = 1/8"



North Elevation - Close-up on
Residence #2 entrance

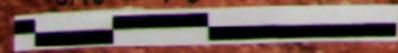


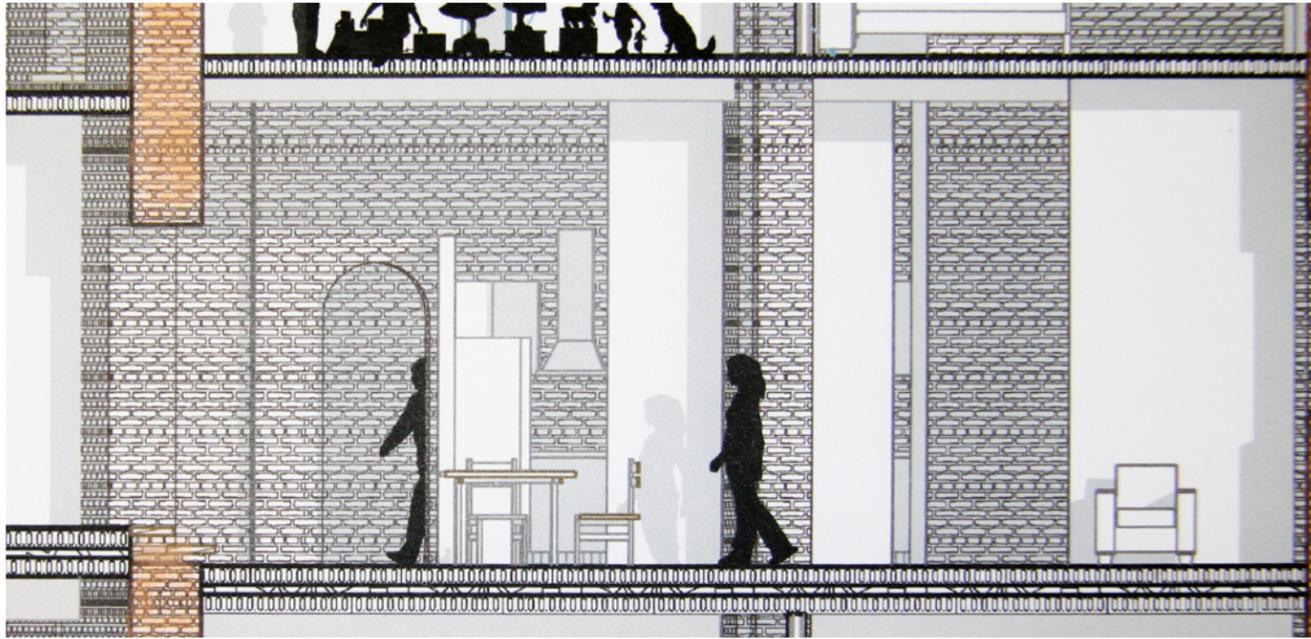


North Elevation



North Elevation
3/16" = 1'-0"





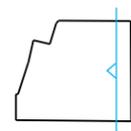
N-S Section Front - Close-up on the opening in the kitchen to the new patio



N-S Section Front - Close-up on the delivery door of the Pest Control Store



N-S Section Front



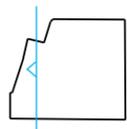
N-S Section Back - Close-up on the Useless Room (before the discovery)

N-S Section Back - Close-up on the Useless Room (after the discovery)

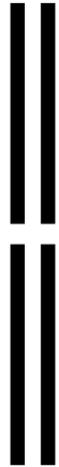


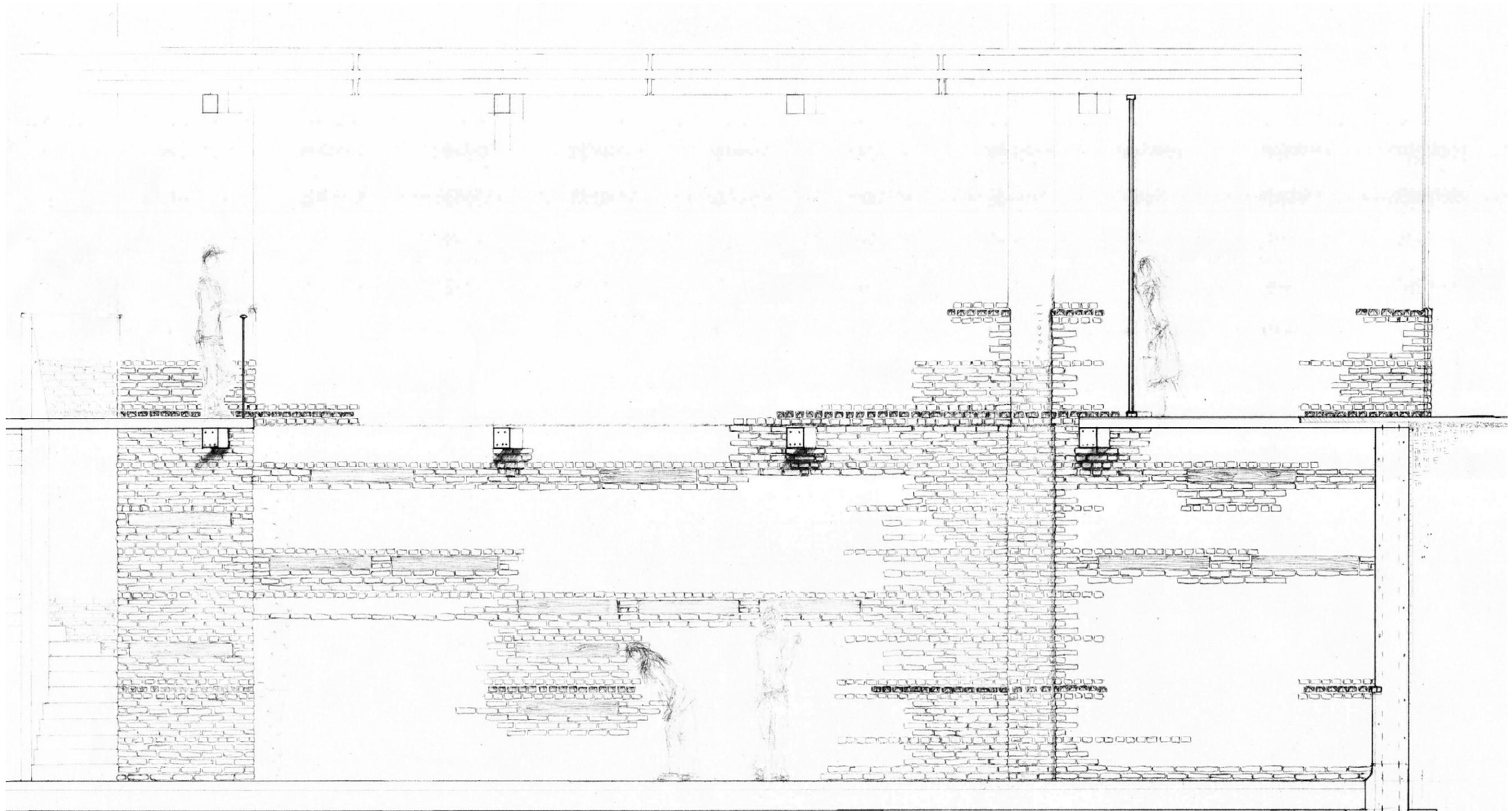


N-S Section Back

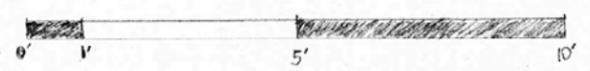


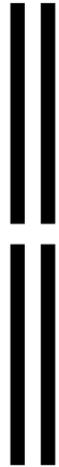
N-S section, in the back

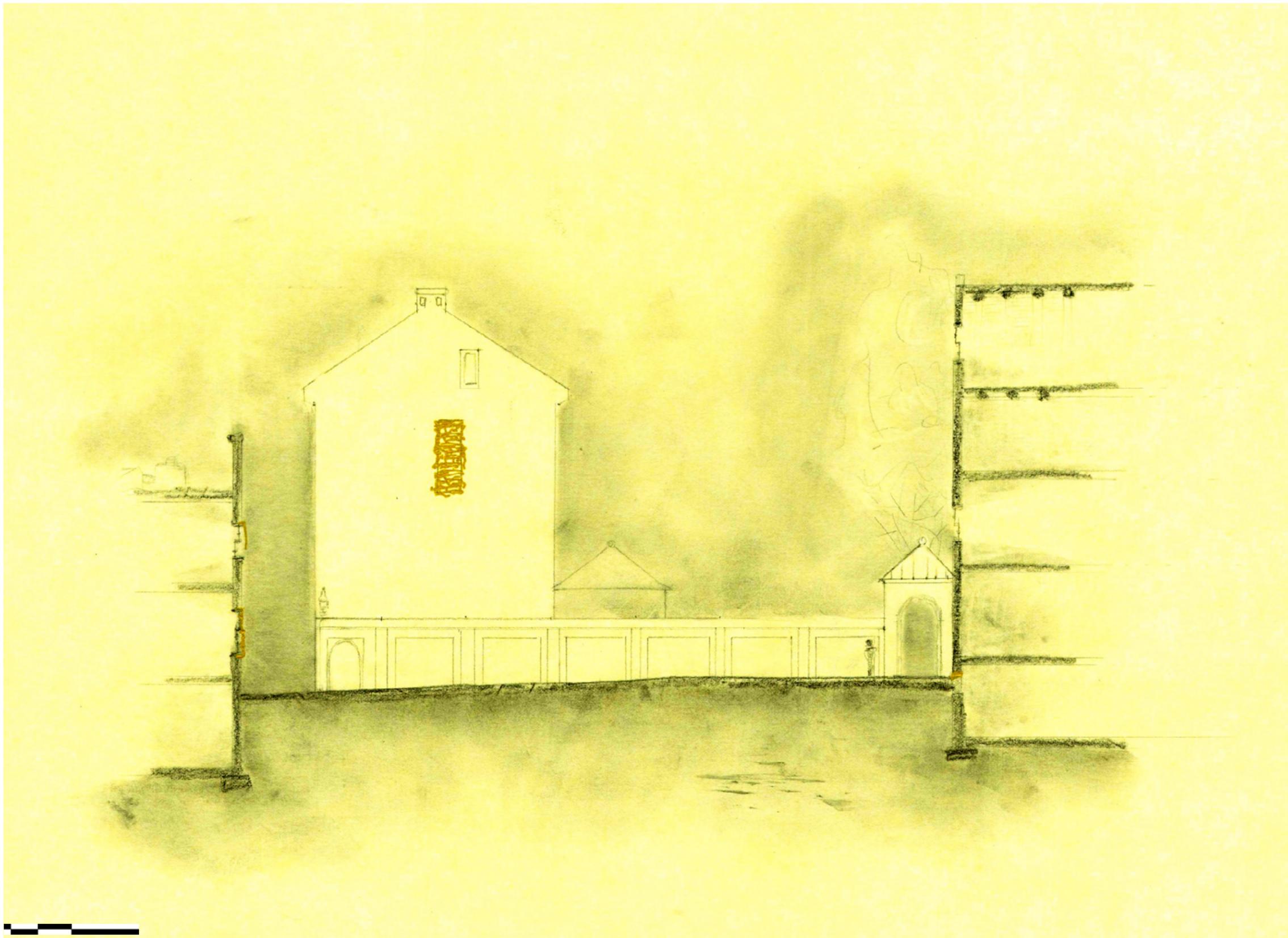




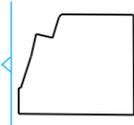
E-W Section- In front of the wall

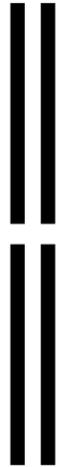


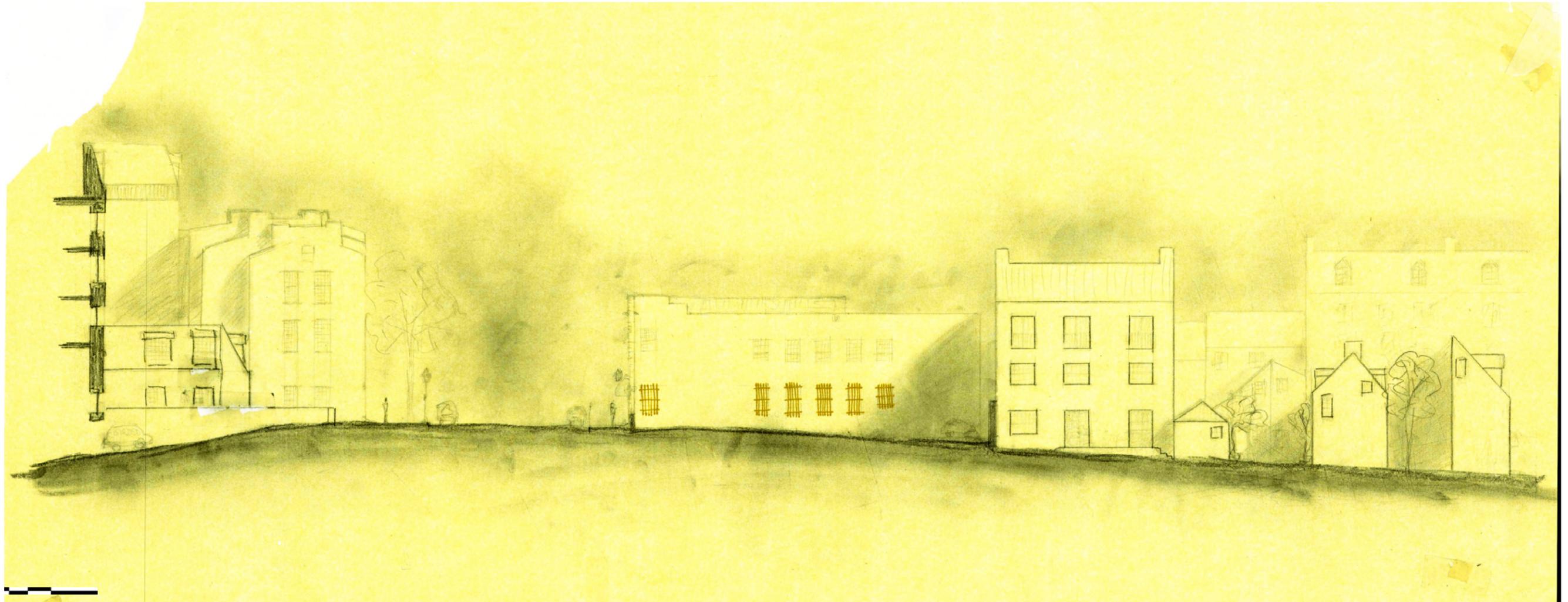




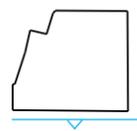
Site Elevation - Looking East

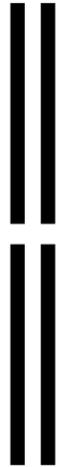






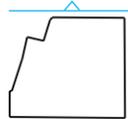
Site Elevation - Looking North

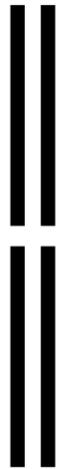




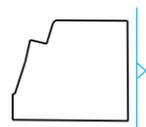


Site Elevation - Looking South

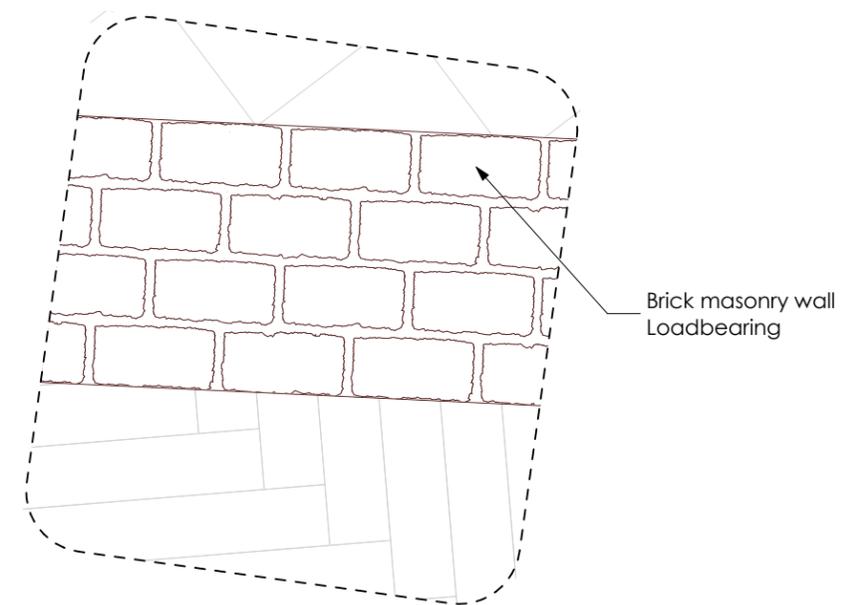




Site Elevation - Looking West

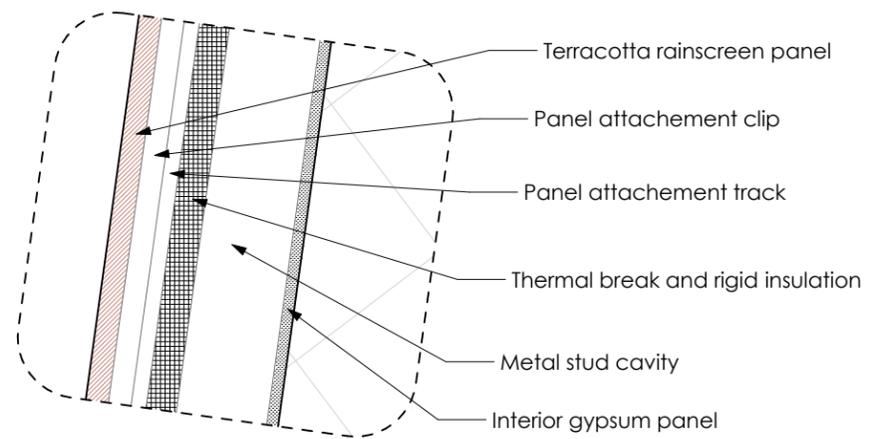


Solid brick wall

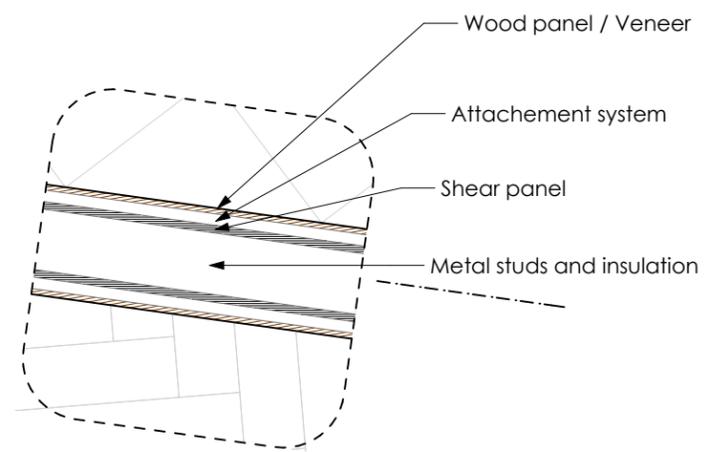


Details - WALL || TYPES
 Solid masonry walls || Modern layered walls

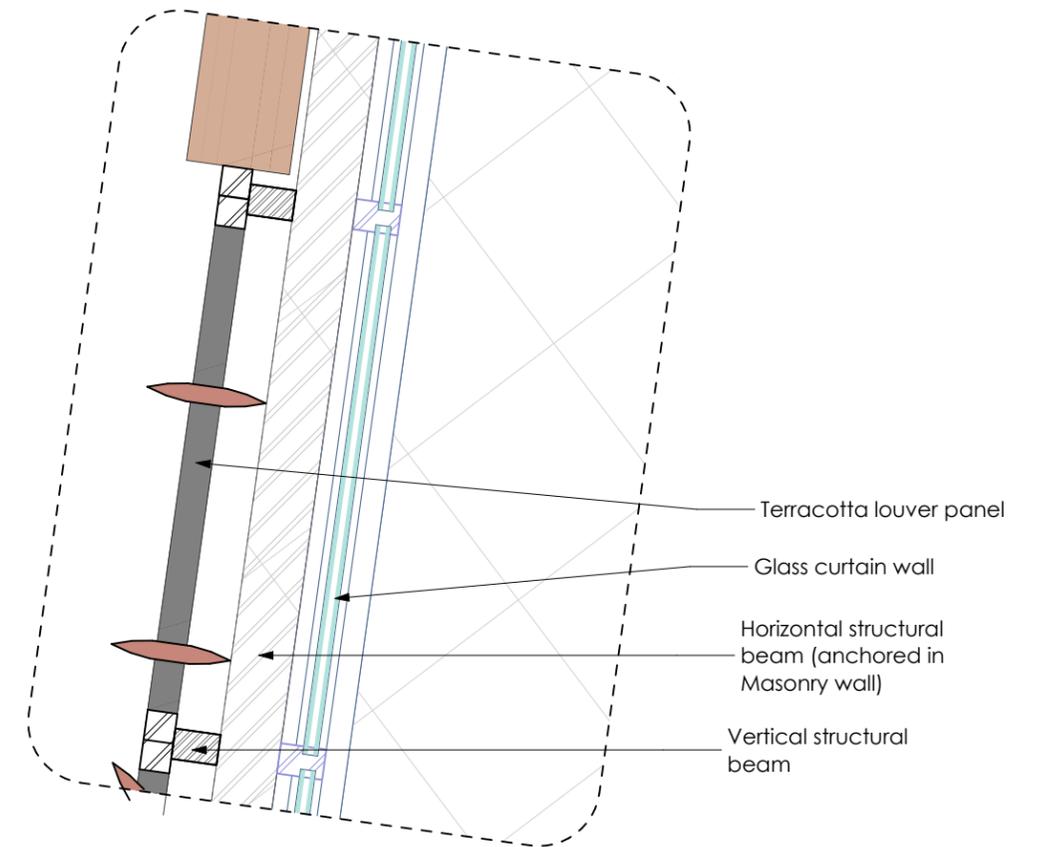
Terracotta rainscreen wall



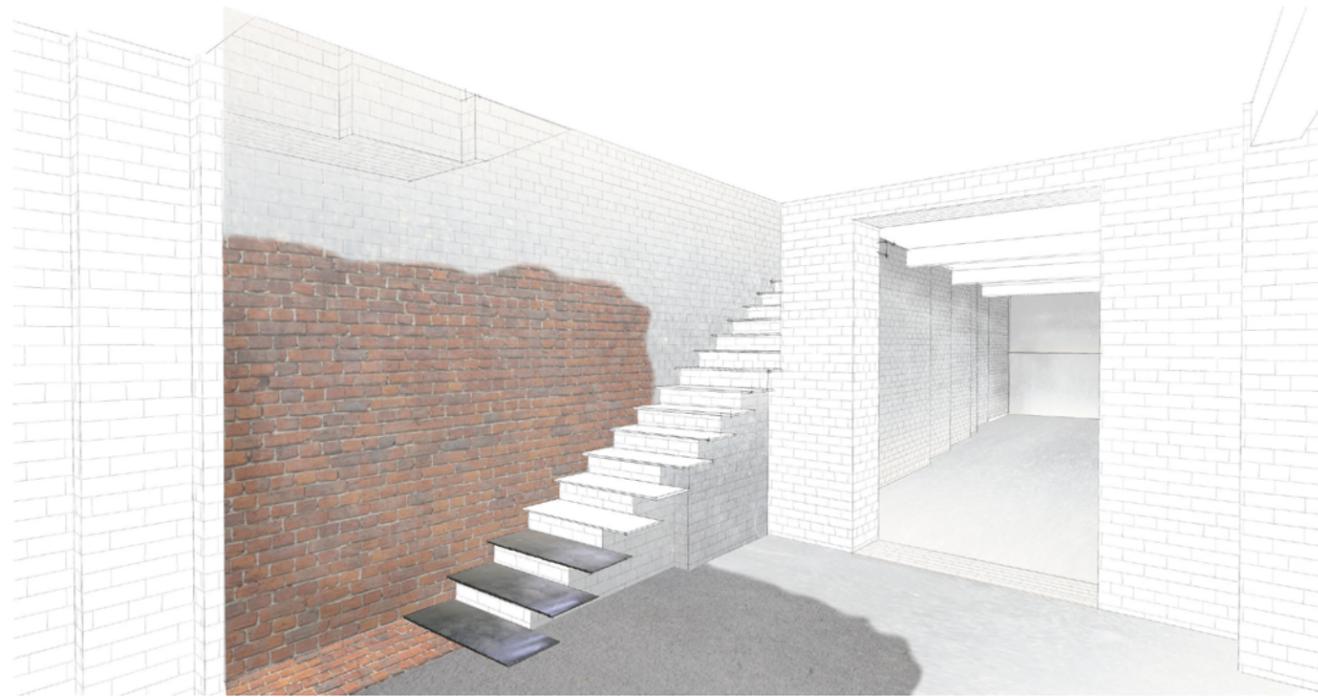
Interior wall



Terracotta louver wall



Details - WALL | | CONNECTIONS
Materials



Stairway in the Pest Control Store - View from the basement

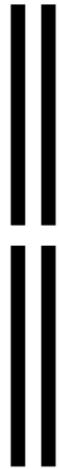


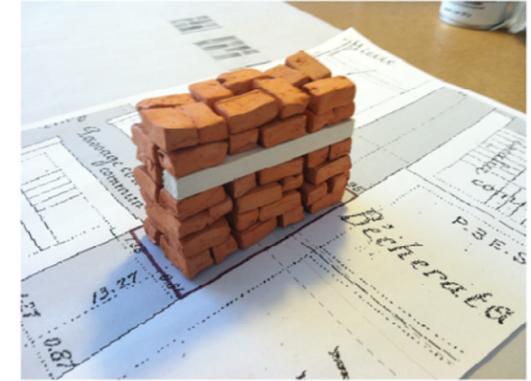
Wooden Beam Inserted into Brick Wall (Wall Accessory Store)

Details - WALL || CONNECTIONS
Solid masonry walls || Modern layered walls



Interior Wall to Brick Wall Connection





Fabricating miniature bricks

Bibliography

Darden, Douglas. *Condemned Building: An Architect's Pre-Text*. New York: Princeton Architectural Press, 1993. Print.

Dennis, Michael. *Court & Garden: From the French Hôtel to the City of Modern Architecture*. Cambridge, Mass: MIT Press, 1986. Print.

Merleau-Ponty, Maurice. *Phénoménologie De La Perception*. Paris: Gallimard, 1945. Print.
Merleau-Ponty, Maurice, and Claude Lefort. *Le Visible Et L'invisible: Suivi De Notes De Travail*. Paris: Gallimard, 1964. Print.

Perec, Georges. *Espèces D'espaces*. Paris] (32, rue du Fer-à-Moulin: Editions Galilée, 1974. Print.

Perec, Georges. *La Vie Mode D'emploi: Romans*. Paris: Hachette, 1978. Print.

Perec, Georges. *Cahier Des Charges De La Vie, Mode D'emploi*. Paris: CNRS Editions, 1993. Print.

<http://escarbille.free.fr/vme/>

<http://www.ina.fr/video/I09365760>

Zumthor, Peter. *Thinking Architecture*. Basel: Birkhäuser, 2010. Print.