My final project is dedicated to my Nana, who passed away while I was at Oxbow, and whose apartment building I grew up in.

One of the most exciting aspects to growing up in a tall apartment building in a large city was knowing that in each of the hundreds of apartments, intricate lives were being played out into which I would never enter. I have tried to capture this feeling of intricacy and busyness in the windows of the building. In each, I carved a scene reflecting the unique live behind the window. Thousands of these lives interact every day in a city, each experiencing joy, sadness, fear, and countless other emotions, and forming an unspoken community that is almost chaotic, but ultimately beautiful. However, in the middle of the project, I found a new meaning in the windows: I can never step back into the memories of my childhood spent in that building, but physical space *can* act as an anchor for memories, tying them to our present reality. My windows, I came to realize, reflect this idea, acting as slices of frozen time where the scene being played out will be anchored down to physical space forever, regardless of who is actually present or lives there. In some of the more abstract carvings on the second story, I hoped to capture the idea that emotions, fluid and intangible, can also be anchored to space.

With this in mind, I have begun to think about time in a less traditional way. The present moment and past memories are not separate, but overlap in unpredictable ways. As Gabriel Garcia Marquez says in *100 Years of Solitude*, which fueled this paper sculpture, “time was not passing… it was turning in a circle.”

Dayna W.

In this paper, I discuss my long-standing love of cities, and explore how physical space can shape us. I examine the nature of memory, particularly memories specific to childhood, and how physical space can act as an anchor for memories, while providing anecdotes of my own childhood memories as evidence. I also investigate atypical mapping, and how it is possible to make maps of ourselves by mapping out the physical spaces that are most important to us. Finally, I discuss possible explanations for the unique success and busyness that comes from cities, and provide maps that I have drawn that represent the spaces and memories most important to me.

I have always had a deep, inexplicable obsession with cities. It would be easy to chalk it up to growing up in New York City, where I was surrounded by constant reminders that I was living in the “greatest city in the world”; snow globes, t-shirts, and advertisements on the sides of buses all touted its merits day and night. However, my obsession preceded even literacy. As a child, I built tiny worlds wherever I went, and anything was fair game for inspiration. Legos and blocks were obvious choices, but even drops of rain running down the side of a car window could fuel a new story, a new world. When I was 11, I started building my ‘town’, a creation that would end up spanning three bookshelves and a wall in the bedroom my brother and I shared. Aptly named only ‘The Town’, it consisted of empty tissue boxes, toilet paper tubes, takeout containers, erasers, and pieces of cardboard arranged into houses, buildings, and stores. These structures were stacked on the aforementioned bookshelves and covered in toys and shreds of green paper that took the place of trees and bushes. The Town had an ice cream store, a playground, a toy store, a beach, and even a pulley-operated elevator.

The Town, to me, was the physical manifestation of everything I loved about cities; their intricacy, their busyness, their uniquely organized chaos. The true appeal of cities was knowing that, inside of every building that meets your eyes, there are hundreds of small apartments, and inside each apartment, lives are being led, lives with all the unique aspects that make them human. I love the idea that these lives are interacting and crossing each other and experiencing love and shedding tears and having mundane days where nothing happens besides staying alive, and that all these lives, for the most part, somehow continue to go on despite how many of them there are, like tiny gears in a clock that grind together and bump against one another and almost knock each other out of place, but keep time moving forward anyway. Five years later, The Town is long gone, but my love for cities remains, and manifests itself on the subway going over the Manhattan Bridge, a vantage point that allows me to look over the tips of Manhattan and Brooklyn and experience a familiar excitement and awe.

So, researching cities- their place in history, their social significance, what qualifies a ‘city’ in the first place- felt like a natural step. My research on cities, however, soon led me to larger questions about physical space as a whole, and how we occupy it. I became interested in the idea of what I for a long time had called a ‘sphere of existence’- all the physical spaces a person occupies on a daily or weekly basis. For example, my apartment, school, the home of the children I babysit, the library, and the park make up my own sphere of existence in New York. These physical spaces were ones that I had begun to think of as my own. But in a city where hundreds of people pass through a space on any given day, can physical space ever truly belong to us? Just how much do ‘our’ places truly mean to us, and how much do they comprise our identities? The question I would attempt to answer through my research, then, became: are we the sum of the places we’ve been?

In *The Poetics of Space* by Gaston Bachelard, Bachelard describes one’s home as their “corner of the world,” a description that feels apt to me. What’s more, it aligns with my own description of each person having a ‘sphere of existence.’ In a chapter entitled “the house. from cellar to garret. the significance of the hut”, Bachelard says that space is significant to us because of the physical nature of memory. Memories that are very tied to physical spaces can be among our strongest, because they have a real-life anchor of sorts. For example, a childhood recollection of playing with a friend on some anonymous road or sidewalk, one that is never returned to, probably won’t be as strongly or vividly remembered as a recollection that takes place somewhere important to us, like one’s childhood bedroom. According to Bachelard, “The poet well knows that the house holds childhood motionless in its arms” (8). Spaces we occupied as

children are so important to us even as adults because stepping into them is like stepping into a frozen slice of time. In the physical space involved in a memory, you revert back to the state you were in at the time of the memory. He also explains that “Memories are motionless, and the more securely they are fixed in space, the sounder they are” (9). Memories, fluid and mercurial to begin with, are hard to hold on to, but once pinned down by the constraints of physical space, they become easier to recall. In the same way a certain smell can trigger a memory, so can a house. Finally, Bachelard says that “In memory recaptured… it is hard to say through what syncretism the attic is at once small and large, warm and cool, always comforting.” (10) The ‘attic’ he speaks of represents any space that exists solely in our memories. Memories capture the essence, not the specifics, of a place. Because they exist as a suspended state of time, all the hours spent in a physical space must be recalled as one: ‘small and large, warm and cool.’ I went further, taking Bachelard’s ideas and deciding that a physical place that is truly important to us can never be remembered accurately, because we have so many strong emotions attached to it that we can’t be objective.

I know this rings true for the apartment I lived in as a child. Trying to re-enter this space requires a new perception of light. In the living room, my brother and I are sitting on the carpet, building tall towers with Legos on a Sunday morning. The light feels gentle, yellow, and the colors that stick out most are faded primaries, the reds and greens and blues of the thick blocks we stack higher and higher. My dad is cooking ‘rubber biscuits’, the most exciting food that could be offered, which were really just Pillsbury rolls that he let us twist into increasingly complex shapes before baking into the oven. I’m full of a kind of anticipation that feels pure, concerned with nothing but the rubber biscuits that will soon be consumed and the happiness that waiting for them brings. If, in this state of recollection, I were to enter the kitchen, a new type of light would have to be introduced. All at once, it’s sunset, and I’m looking out the narrow window at the church that’s being built across the street. The room is cast in oranges and reds. At the same time, it’s summer, and we’re in the midst of a blackout. Small fruit magnets are stuck to the fridge, which is small and white and has an indescribable ridged texture. Recalling the blackout brings me down to the building’s lobby, which is large and always filled with the specific cold that comes from air conditioning. It’s dark and cool down here, and I’m laying down on one of the couches, which is stiffer and larger than the one we have. It’s patterned with gold and green fronds, and the pillows have yellow tassels that I run through my fingers, always inevitably reminded of the tassels that run along the edges of my grandfather’s prayer shawl. Outside the lobby is a tiny garden, one of the most mysterious places that occupied my small childhood sphere of existence. In this garden, a path of red stone is lined on both sides by flowers and huge elephant-ear plants, which fascinated me by being almost as big as myself. In the garden, it is deeply hot, and at the same time, it is winter, and my brother and I have built a meager snowman at the end of the path. The elephant ears are covered in white now, and I can see the lobby and the couches through the window, my parents watching us from inside.

Bachelard says in my favorite quote, “In its countless alveoli, space contains compressed time. This is what space is for.” (8) Alvaeoli are tiny air-holding pockets at the very end of our lung’s respiratory trees, and they feel a fitting metaphor for the spaces I have described. These spaces, meaningless to anyone else, hold my compressed childhood.

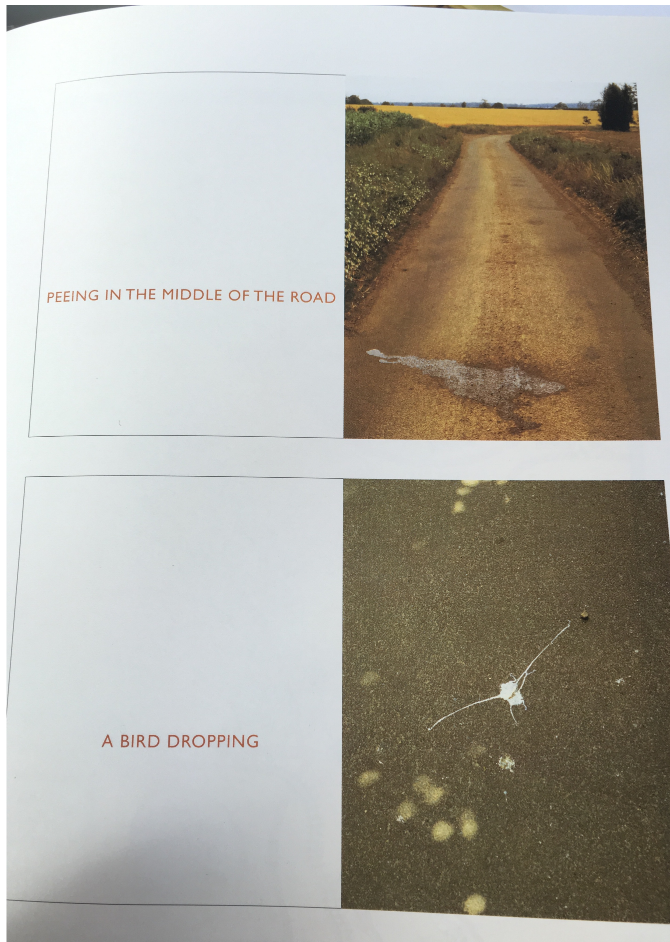
Clearly, physical space is something that is innately significant to humans, housing memories and providing an anchor for childhood recollections. My own childhood memories clinging to the “countless alveoli” of space are all tied to New York City, and it seems that Italo Calvino, the author of *Invisible Cities*, spoke true when he said that “as this wave from memories

flows in, the city soaks it up like a sponge and expands" (10). It does feel sometimes like the city is saturated in memories, each space that I was familiar with as a child- a park, a particular intersection, the Papaya King on 3rd avenue- all pulsing with colors, smells, and feelings specific to childhood. I wondered, am I really the sum of these places? Can I be defined by a collection of memories anchored in space?

To answer these questions, I began to research mapping. A map is defined by the New Oxford American Dictionary as "a diagrammatic representation of an area of land or sea showing physical features, cities, roads, etc." (2001), but the physical features being shown don't necessarily have to be the most obvious or practical ones. After studying the work of several cartographers, the only criteria I determined for a map is that the map has to focus in on a specific aspect of a landscape and organize the world through this aspect. Ira Glass of the podcast This American Life hosted an episode called "Mapping" that focused on different ways of mapping the world, and he says that "Maps have meaning because they filter out all the chaos in the world and focus obsessively on one item." This felt in line with the maps I observed, all of which zoom in on a single aspect of a physical landscape. For example, Denis Wood, a cartographer featured on This American Life, makes maps of his neighborhood based on "taking the premise of the map, which is that it's a way to describe the world, and then pointing it at things that we usually don't think of as being mappable" (Glass, "Mapping"). These seemingly un-mappable things have included traffic signs, overhead wires, graffiti, pumpkins on porches set out for Halloween, and houses that have been mentioned in neighborhood newsletters. In the previous two cases, each map revealed an interesting truth about the neighborhood. The area of neighborhood with the most pumpkins was also the area with homes that had been mentioned most often in neighborhood newsletters. These homes were the biggest and most noteworthy, and throughout the neighborhood's history had been occupied by wealthier people. Wood found it interesting that the wealthiest side of the neighborhood was also the side with the most Halloween pumpkins, and claims that "money is what's behind both the pumpkin map and that map." Through this experiment in mapping, Wood shows that maps can reveal truths that might not have been recognizable unless every aspect but one was filtered out. This is interesting in the context of my question regarding whether I am the sum of the places I've been- what truths or hidden correlations might we reveal about ourselves by mapping out the places most important to us?

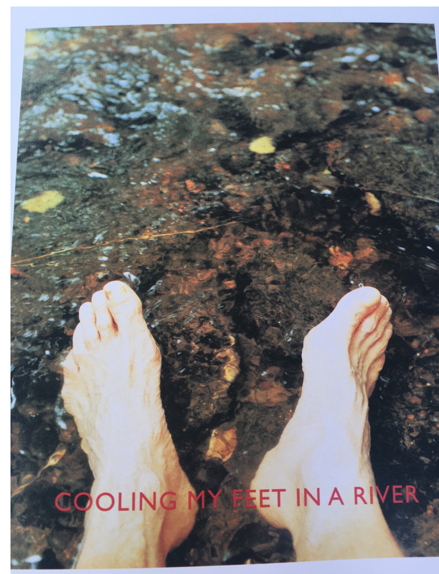
I discovered more atypical maps from all time periods in Katherine Harmon's 2004 book, You Are Here, many of which have to do with identity. As it turns out, the desire to map one's life through physical space is not such a unique one. One of my favorite passages is by Katie Davis, a writer who talks about mapping in a chapter called "Memory Map." She speaks about her habit of giving directions based off what used to be in places rather than what currently is, such as "There's a key maker right next door to where Gartenhaus Furs used to be" (130). She talks about acknowledging her habit, adding that "some days, what's missing is more vivid than what is" (130). This line stuck with me, and I find it to be one of the saddest ideas I discovered. How do we incorporate places that are no longer around into our personal maps?

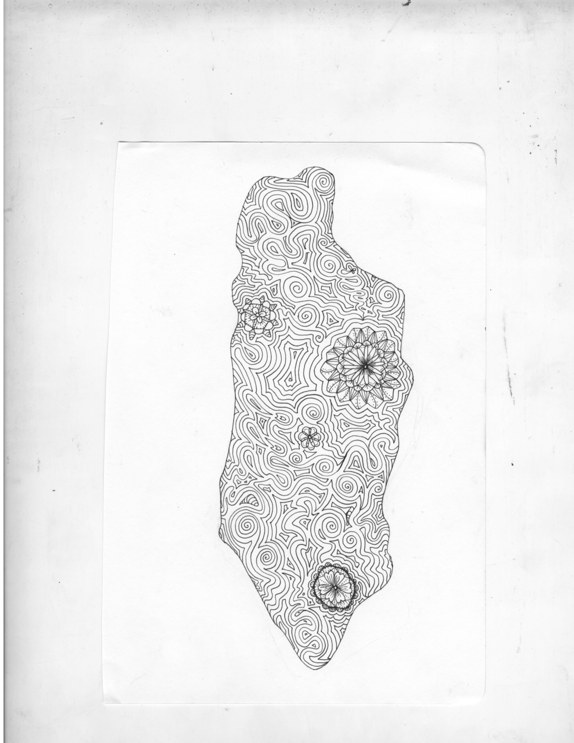
Another one of my favorite artist-cartographers is Richard Long, a photographer who walked across England in an attempt to "explore relationships between time, distance, geography, and measurement" (88). The pictures he took as he walked have titles like "A Bird Dropping", "Cooling My Feet In The River", and "Peeing In The Middle Of The Road", all representing encounters that seem everyday or meaningless.



I found it interesting that these were the parts of his journey he deemed most photographable. I saw a connection between his seemingly trivial subjects and the places I myself have chosen as important; both hold no meaning to anyone other than us, and in fact probably seem commonplace in comparison to the views that can be found on the English countryside or the streets of New York. The spaces and things we attach the most importance to are important only because of our emotional connection to them, emotional connections created by memories and experiences known only to ourselves.

While wondering why it is that we attach such strong significance to certain physical spaces, I recalled a paper I wrote in the past on a type of reasoning called 'magical thinking.' Magical thinking is something everyone does; it refers to thought processes that are irrational and based in intuition or superstition, and is in fact responsible for the common superstitions that many people follow today. Magical thinking is what makes us avoid walking under ladders or fear breaking mirrors, even though we know that no true harm can come from these things. It is believed that magical thinking most likely occurs as a result of the neurotransmitter dopamine. Dopamine is responsible with imbuing experiences and things with a sense of meaning, and floods the brain during an experience the brain decides must be marked down as important. This phenomenon has an evolutionary basis, and helps us survive. For example, many people are reluctant to touch dead bodies or even wear the clothing of the dead, as a result of a dopamine-caused significance placed on death that actually could keep us from contracting germs from dead bodies. Dopamine also ensures the survival of new babies; when a mother holds her child, dopamine is released in the brain, and is responsible for the sense of significance and affection that will be felt toward the child. Dopamine could quite possibly be behind the significance we attach to physical spaces, especially ones where important events have

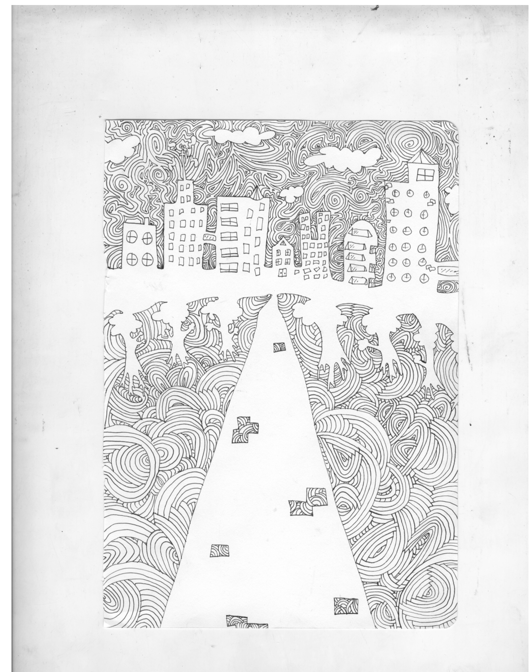




occurred. After all, affection for inanimate objects is just another form of magical thinking.

For a new perspective on cities, I researched social or scientific explanations behind my favorite aspects of them, like their sense of busyness or organized chaos. One of the most important aspects of a city is its fostering of human connection. It has been found on repeated occasions that physical proximity produces success. When cities double in size, every single type of economic activity increases by 15%. Physicist Geoffrey West says that this can be accounted for by the fact "that when people come together, they become much more productive." (West, 2011) West's equation is not the only one that proves this law of proximity. It was also found that as the number of recent college graduates in a city rises by 10%, average earnings increase by 7.7%. This is because having an abundance of inventive, creative people all together in the same place with lots of opportunities for connection spurs innovation. Finally, an observational experiment was done in 2010 that analyzed over 35,000 scientific papers to find out about "the role of physical proximity as a predictor of the impact of collaborations", or, whether there is a correlation between proximity of co-authors on a paper and the paper's quality. Papers were measured for quality, and then tested for how close together their co-authors worked. It was found that the papers of the highest quality had co-authors who were physically located very close together, proving that physical proximity has a dramatic effect on condition of work. So, a highly plausible reason for the success that comes out of cities is the close quarters in which minds are kept.

With new ideas about cities, space, emotions, and maps still swimming around in my head, I stepped away from my analysis and decided to take a look inward. The weather, throughout the course of my writing, has been incredibly hot, reaching 90 degrees on some days, and early this week I began to feel steeped in nostalgia. My strongest, happiest memories from the city take place in the summer, and this time of year is not only my favorite, but also the most dreamlike. Summer, to me, feels like time overlaps, like all the summers past are being laid over each other, and memories spring up at random, triggered by any variety of things: the smell of cooking black beans, a jammed window, the way sweat runs down my knee in rivulets, a sticky puddle of juice from a fallen popsicle. The weather, and the memories, instill in me a desire to record these memories and indescribable feelings, but every attempt at writing



feels wrong, as these concepts could not be tied down by something as limited as language. So, I decided to make my own maps, seen on the next page.

No matter how many times I return to New York in my life, I know that my pockets of compressed time will remain, memories bound to reality by physical space. Maybe I'll be walking through Central Park in 30 years and suddenly, like stumbling into an alternate dimension, I'll pass by a particular tree and be taken back to a cracking plastic sled, my brother, four years old again, in front of me, a sheet of snow on the ground, and screams and laughter echoing around me. This, after all, 'is what space is for.'

Bibliography

Calvino, Italo. *Invisible Cities*. New York: Harcourt Brace Jovanovich, 1974. Print.

Glass, Ira. "Mapping." *This American Life*. Chicago Public Media. 04 Sept. 1998. Web. Transcript.

Scott, Aaron. "Cities." *Radiolab*. N.d. *Radiolab*. Web. 14 Apr. 2016.

Harmon, Katharine A. *You Are Here: Personal Geographies and Other Maps of the Imagination*. New York: Princeton Architectural, 2004. Print.

Bachelard, Gaston, M. Jolas, and John R. Stilgoe. *The Poetics of Space*. Boston: Beacon, 1964. Print.

Abate, Frank R., and Elizabeth Jewell. *The New Oxford American Dictionary*. New York: Oxford UP, 2001. Print.

Lehrer, Jonah. "The Importance Of Physical Space." *Wired.com*. Conde Nast Digital, 10 Feb. 2011. Web. 18 Apr. 2016.

Brooks, David. "The Splendor of Cities." *The New York Times*. The New York Times, 07 Feb. 2011. Web. 18 Apr. 2016.

Lee, Kyungjoon, John S. Brownstein, Richard G. Mills, and Isaac S. Kohane. "Does Collocation Inform the Impact of Collaboration?" *PLoS ONE* 5.12 (2010): n. pag. Web.

Hutson, Matthew. "Magical Thinking." *Psychology Today*. Sussex Publishers, 1 Mar. 2008. Web. 20 Apr. 2016.

Woolston, Chris. "HealthDay." *Falling in Love With Your Baby*. N.p., 20 Jan. 2016. Web. 20 Apr. 2016.

Jacobs, Jane. *The Death and Life of Great American Cities*. New York City: Random House, 1961. Print.