Can Interior Design Erase Architecture? The Integration of a Pet Care Facility into The Fan

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can interior design erase architecture?

the integration of a pet care facility into the fan

m.f.a. thesis
erin brunner
thanks and acknowledgements

to my family: for supporting me throughout this endeavor and all the others and for always providing your unlimited love, support, and sacrifices.

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to my professors: for showing me how to think in new and drastically different ways, even when the process was incredibly painful - for both of us.

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Although my procession from then to now has been raw, frustrating, and fraught with self-doubt, I truly believe that I have grown more in this short amount of time than the sum of my years prior. When looking back at the challenge of rediscovery, I find that I embrace the process in its entirety. We cannot expect to progress if we are not willing to find and face the design opportunities within.

Two years ago, linear, practical, and rather obvious thought was my way of understanding and interpreting the environments around me. Since then, my process has been questioned and challenged to the point that it is irreversibly transformed. My journey has not always been smooth and effortless; quite the opposite, in fact. The pain and doubt that comes with growth are necessary for the process of change - one has to be willing to face those obstacles despite fear.

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In design, I believe in the erasure of self. By this, I do not mean one is lost, but that the act of designing irreparably alters the way one perceives.

One’s evolution as a designer will never cease. We are confronted with opportunities that require us to reevaluate ourselves constantly. Every design affords us this luxury.

Many urban pet care and boarding facilities tend to rest on the outskirts of the community, in quasi-industrial and commercial areas. Far from the homes of the people who would use their services, the locations of these facilities are inconvenient for most. Students and the employed have trouble making time in their hectic schedules to give their pets the attention and activity they need to be healthy, and often, pets are left alone, sedentary, for a substantial portion of the day. But what if there was a pet care facility that was within walking distance from homes that could provide pets what they were missing while teaching better care practices to pet owners?

Located in Richmond’s Historic Fan District, the urban pet care center is surrounded mainly by residential housing, with some commercial spaces located nearby. The pet care center requires both indoor and outdoor spaces for the health and enjoyment of the animals that will be boarded. The challenge then is to find an area with an adjacent lot, as much of the Fan District is comprised of abutting row houses with minimal lawn area. The building is situated near busy thoroughfares used by the employed and students alike for optimal convenience.

As part of the community of The Fan, the center will be open to anyone who wants to use the services offered, to people seeking knowledge on better care practices, and even to people who want to offer their affection and time to the pets. The center is meant to be an inviting place that is crisp and comfortable, much like the homes of the Fan District.
Site: VCU Dance Center
10 N. Morris St.
Richmond, VA

The VCU Dance Center was built in 1920 and originally served as Sacred Heart Catholic Elementary School, conveniently located in the heart of Richmond’s Fan District. It is no more than a few blocks from major thoroughfares for commuters in the west end, the Fan, and Museum District. Because of its proximity to VCU’s Monroe Campus and the multiple residences within the Fan, the area experiences a high volume of foot traffic throughout the day. The number of pedestrians passing by means the building has the opportunity to be noticed by many.

The Sanborn maps show the site in green and the surrounding lots in 1924 and 1950. The map to the left is an analysis of those surrounding lots today. The dance center is mostly surrounded by residential plots with a few commercial facilities mixed in.
the vcu dance center consists of a basement dance studio that is partially above grade, a first floor, a second floor, and storage space on the small third floor. for the purposes of this project, i am focusing on the first and second floors.

the first floor of 10 n. morris st. houses four dance studios, one classroom, a central meeting corridor, and faculty breakroom, closets, and restrooms. the second floor consists of two small dance studios, one large dance studio, dressing rooms, restrooms, and a mechanical closet. the total area of these spaces is approximately 16,730 square feet.

the interior walls are not load bearing, so essentially, the first floor can be redesigned to become an open floor plan. there is no hvac duct work in the space as it is currently conditioned by the original steam heated radiators and window air conditioning units.

in the cross section, it is shown that the building also has a centralized vertical “corridor” for stairways and circulation between floors. the cross section shows views into the dance studios along the east side of the building while the longitudinal section shows the dance studios along the south side. the middle area on the second floor is an open interior expanse from the north to the south facades.

the sections do a lot to depict the geometric and rectilinear language of the building. for the most part, the building is symmetrical along the central axis.
The overall look of 10 N. Morris St. is reminiscent of palladian style. It is rectilinear, symmetrical, and features classic design details: arched windows, porticos, tuscan columns, and tripartite division with string courses. The symmetry and classical language of the building are quite beautiful, but they give 10 N. Morris St. a feeling of rigidity.

10 N. Morris St. is a Palladian style building constructed of brick and cement. Support is provided around the perimeter by the expanses of brick between the windows. On the interior, support for the upper floors and ceiling come from concrete columns that are incorporated into the interior walls. In this diagram, these are the longer dashes in the center and the two larger squares.

A geometry analysis of the building shows that it is comprised of rectangles, some more oblong than others. The geometry of the building was derived from pulling lines horizontally across the concrete columns within the body of the building. Vertically, the columns were also determined this way. Lines were drawn from the same concrete columns on their edges, following the corridor of the existing building.

Breaking the geometry down further shows that the building is composed of 12 rectangles 22' x 24' in size. The left over areas are where the concrete columns reside (22' x 1 1/2' and 3' x 22' pieces), and the areas on the edges of the building, as shown, the width or height of every piece is 22' or 24'.

A parti diagram of the space depicts the green band as the central corridor that connects not only the entrance and exit, but also the right and left halves of the building. The central corridor is the main path of egress in the space and also serves as an area for students to congregate before or after classes.
a large to small space analysis shows that most of the first floor of the building is comprised of open layout dance studios. The gray areas are the closets, entry/exit corridors, and the faculty break room and休息室.

because the central corridor connects both sides of the building and the front to the back, this corridor incurs the most foot traffic. one must pass through the corridor to reach any other part of the first floor.

relating the size of the building to a well-known object, 10 n. morris st. is about the size of 60 volvo coupes.

each facade of the structure contains windows two and a half feet wide starting two and a half feet from the finish floor and extending to the ceiling. the southern and western facades of the building abut a parking lot, so sunlight is able to penetrate the building without obstruction. the north and east facades are located directly along n. morris st. and floyd ave, so sunlight is unobstructed on these facades as well.
as built model
The ultimate goal of this thesis is to answer the question, how can a building be erased? In order to reach a conclusion to the question, I must look to the work and processes of those before me. In such, I looked at a number of case studies addressing program, context, and process.

My programmatic case studies look at buildings and establishments that cater to animals. Little Dog Services in Richmond, VA is a small dog daycare and boarding facility housed in a former office building in a mixed-use neighborhood. Their establishment contains indoor kennels, indoor play areas, and outdoor play yards to accommodate groups of dogs under 30 pounds. The building is not optimal for the use and as a result, they had to rely on quick, inexpensive fixes that are neither ideal for humans nor animals. The second programmatic case study is Richmond Animal Care and Control and is the city's animal shelter. They house dogs, cats, rabbits, and birds primarily in a facility that houses office spaces for administrators, Animal Control officers, and volunteers, as well as classroom/conference space. The building is decently sized, but still not large enough for their needs. Since it is a city-owned facility, it is clad in rather drab, institutional colors and materials that are there for performance's sake, not aesthetics.

The context case studies include spaces that are in a similar location or that take a building from the same original use group and adapt it to another use. The first case study is a Petting Farm in Almere, the Netherlands. Located in a city park, residents of the nearby neighborhoods can come and walk through the space and the adjacent field and interact with the animals residing there. The structure itself is a wooden cube with four doors that open or close with sunlight. The animals have the choice to be inside or out. The second case study is McMenamins Kennedy School in Portland, OR. Originally an elementary school in a residential neighborhood, the school closed in 1975. The building was later converted into a hotel with multiple bars, a restaurant, and a movie theater.

The process case studies include designers whose work I admire or whose process is appealing to me. Again, I chose the Petting Farm in Almere, the Netherlands by 70f Architects for its thoughtful design inspired by practicality. Design decisions are a perfect harmony of beauty and functionality and show me that one can influence the other. The second process case study is a series of works by Japanese architect Kengo Kuma. Inspired by traditional Japanese houses, his ultimate goal is to erase architecture, making the built environment melt into its surroundings. However, he applies this quest to new construction, whereas my challenge is how to apply it to existing conditions. The third study is an examination of Pablo Picasso's method of painting. The way he uses voids and masses to change the perception of an object will help me discover what it can be to alter architecture.
Richmond Animal Care and Control Center

The Richmond Animal Care and Control Center is one of the city's major animal shelters, located along the busy thoroughfare of Chamberlayne Avenue, the shelter operates on the outskirts of the urban fabric of Richmond, Va. Most of the traffic in the area is vehicular with some foot traffic, however, most of the people who come to visit the RACC arrive by car.

The structure itself is 10,400 square feet and it is able to house between 200 to 250 animals. There is a strict series of rooms and procedures each animal must pass through before moving to the kennel runs. The program of the facility includes a holding room, puppy room, treatment room, socialization spaces, laundry room, volunteer room, offices, conference room, and outdoor play area.
the circulation through the racc seems complex, but upon closer inspection, it is not. Visitors to the center only have access to certain animal holding pens, namely the puppy, cat, and adult dog kennel runs. All of these spaces are centrally located; the animals themselves have access to the same places, but they also circulate through the intake, quarantine, and treatment rooms, which are also located toward the center of the building. Employees, however, have access to every space within the center; the offices are located around the perimeter of the building.

The RACC does not have a lot of windows. In fact, only the east and part of the north facades contain windows. There are a series of six skylights in the roof above the lobby and reception desk to let in extra light in that area. The south facade is composed entirely of brick and concrete blocks, so there is no opportunity to receive sunlight in any of the offices along that side of the building. The west facade is comprised entirely of dog holding pens, which have small fenestrations that allow the dog to choose to be indoors or out. Therefore, light is able to come in through the west facade.

Small openings within the kennel allow the dogs to choose whether or not to be outside, but outdoor space is still extremely limited. The outdoor play area is a portion of the surrounding parking lot sectioned off with chained link fencing. The area is rather small for the size the shelter and the material is unsafe for play.
little dog services, like Richmond animal care and control, is situated on the outskirts of the urban core of Richmond. Located on W. Marshall St., the facility is off Broad St., in an area that is home to offices, storage facilities, and other commercial buildings such as the Willow Lawn Mall. There is much vehicular traffic in the area, but few cars venture off the main thoroughfare. There is little to no foot traffic around little dogs so there is little chance anyone would come across the facility unless they were explicitly seeking it out.

The building that now houses little dog services was once an office building. In the 7 years it has been at this site, the building has been adapted to accommodate staff offices and break rooms, play group pens, solitary pens, a grooming room, an outdoor play area, a geriatric ward, and a cat room. little dog services currently boards or cares for around 65 dogs in approximately 1,760 square feet.
because the taking of pictures within the walls of little dog services was not authorized and plan information was not available, I instead created a rudimentary plan and bubble diagram showing adjacencies and the hierarchy of the spaces within the building. walking in the first space encountered is the reception area. It is from this point that all dogs are picked up or dropped off, and all other visitors must go to this area before they can go any further into the space. directly off the lobby is the manager’s office, the employee break room, and all of the indoor group play areas. in the play groups, dogs are separated by all the factors shown here, and also by the amount of dogs within the group. walking through the indoor play area leads to an exit door, through which is the outdoor play area. coming back through a different, entrance only door, you enter a corridor, off which the isolated kennels, grooming room, cat room, break room, reception, and an overnight bedroom are located.

much like the richmond animal care and control building, visitors only have standard access to the very center area of the facility - in this case, the reception area. again, like the racc, animals are circulated through most every part of the facility, except employee break and working areas, and employees have access to all spaces in the facility.

however, unlike the racc, most of the traffic at little dog services is concentrated on the periphery of the building. this may be due in part to the existing layout of the office space that was once there and racc was built to be an animal shelter.

little dog services has windows on three of its facades. the southwest facade has a row of windows that spans almost the entire face, from the interior, the windows nearest the southern tip of the building are partially covered to shield some of these animals from the heat and the direct sunlight, but light is still able to come into those spaces.

the structure of the space allows for the animal kennels to be along exterior walls, this means that sunlight and fresh air are able to get to these spaces, helping to make the space feel less institutional and allowing for air circulation. the circulation of fresh air is an extremely beneficial quality as both little dog services and racc smelled like dog.
Richmond animal care and control and little dog services both use inexpensive, institutional, and/or pre-existing materials within their facilities. While the materials are durable and resilient to the stresses they incur daily, they contribute a feeling of cold sterility to the space.

The space behind the building now serves as the outdoor play area and was once a parking lot. Currently, the floor of the play area is pea gravel atop asphalt. The material in this area is far from ideal because of its hardness, maintenance, and safety, as it creates a slip hazard for people and the small size makes it easily ingestible for dogs.

The steel cages that section off certain areas for play groups look imposing, unfriendly, and prison-like. Some of the cells contain steel columns that serve as a support frame for a plastic corrugated roof. They also pose a collision hazard for the small dogs as they play.
case study: context

mcmenamins kennedy school

Portland, OR
1997

McMenamins Kennedy School was once Kennedy Elementary School. Built in 1915 in Portland, Oregon, it operated as a school until 1975 when it was closed due to low enrollment and building deterioration. The school sat vacant until 1995 when restaurateurs Mike and Brian McMenamin submitted a proposal to convert the building into a hotel.

Now, as McMenamins Kennedy School, the space houses 35 guestrooms, 5 bars, 1 restaurant, a soaking pool, a gift shop, a brewery, and a 300 seat theater. It is still situated in the heart of a residential community, much like the VCU Dance Center at 10 N. Morris St., with a few businesses on the surrounding blocks.
The boiler room was one of the spaces most in need of repair. Water damage due to years of vacancy and lack of maintenance caused the ceiling to crumble and separate from the wooden joists. After the renovation, the wooden joists are exposed and are part of the charm of the space as a whole. The furnaces still remain in the space; they can be seen to the right of the frame in both pictures.

The cafeteria was in fairly good shape for being unused for so long, as shown, a few ceiling tiles have fallen, but most remain intact, the floors were taken down to the concrete slab, now, as the courtyard restaurant, the concrete slab has been covered in carpet and the original ceiling removed to make way for a soffited ceiling, these changes not only make the space feel less institutional, but also help with the diffusion of noise.

Once the space for school plays, concerts, and awards shows, the auditorium enjoys its second life with a similar purpose, as a movie theater, the school auditorium curtains remain, but the stage has been converted into a screen, the uncomfortable and institutional auditorium chairs have been removed and replaced with comfortable chairs and sofas.

Classrooms being the most abundant spaces in a school, all McMenamins Kennedy School they serve more than one purpose, most rooms were converted into guest rooms, shown below and to the left, some of the others were converted into bars or restaurants, such as the Cypress room, below and to the right, both spaces retain aspects of the original classrooms, such as the large windows (which are very similar to the windows of 10 N. Morris St.) and the chalkboards, now serving as guest message centers or to denote food and drink specials.
case study: context + process

petting farm

70f architects
almere, the netherlands

located in a city park, almere’s petting farm is surrounded by a grassy area and a small pond. the structure itself is 1356 sq. ft.; half is a one-story stable, the other half is two stories and houses offices, restrooms, and storage. four shutters serve as the fenestrations, opening manually, or automatically with the rising and setting of the sun. the animals choose when or if they go outdoors and the duration of the stay.

the plans and section show that most of the structure is composed of only mullions and wooden slats, yet from the exterior, the structure seems to be a solid cube. the space is open to its site, allowing it to connect to its environment.

“one could say that the box, a building extensively reduced in aesthetic violence, wakes up and goes to sleep every day.”

70f.com
in the largest image in this spread, the hinged doors are shown open, allowing the sheep to wander in and out as they please. in the pictures below, we can see that most of the upper floor allows for the circulation of air through slats in the walls.

most of the second floor is build of wooden slats with no infill, allowing air into the space; this helps the space feel more fresh. the fenestrations in the wall allow diffused natural light to get into the lower half of the structure.
Kengo Kuma is an award-winning Japanese architect. His designs have greatly transformed in appearance through the roughly 30 years he has been in practice, starting out in a somewhat clumsy way with the postmodern M2 building, but in recent years, he has looked more towards his past in which he grew up in the traditional Japanese vernacular style. He states, “My ultimate aim is to ‘erase’ architecture. Because I believe a building should become one with its surroundings.” As such, he creates buildings that blend with their surroundings, are responsive to and reflective of the site, and often times, use materials that are lightweight, delicate, and permeable to the exterior.

His firm, Kengo Kuma and Associates, recently won a design opportunity with the V&A at Dundee, an extension of the Victoria and Albert Museum in London. The design was described as “bold and ambitious, but buildable and practical.” Others have said it has the potential to become “one of Europe’s most exciting buildings.”

http://www.bbc.co.uk/news/uk-scotland-tayside-central-11683663

Kengo Kuma
Selected works of Kengo Kuma

- Great Bamboo House, 2002
- V&A at Dundee, 2010
one of the best known artists in the field of Japanese woodblock printing, Ando Hiroshige (1797 – 1858) created work that expressed the ambiguities of nature. His prints are “characterized by his visualization of changes in nature, capturing the shifting phenomena of light, wind, rain, and fog.” While designing this museum, Kuma applied Hiroshige’s concepts to the architecture of the building. The walls are wooden slats that appear transparent, translucent, or opaque in relation to where the observer stands. Moving through the space “emphasizes the magical ambience of blurred boundaries between inside and outside and between the real and the virtual.”

“Transparency as I see it is not merely visual continuity, it’s a condition in which the building and the environment dissolve into one.”

archnewsnow.com

“at times [materials] appear as objects, but with the change of light they disappear like clouds and dissolve like mist. To prevent an object from appearing, that is to erase architecture.”

bognar, 90

kuma’s works: museum of ando hiroshige

Batoh, Japan
2000
the most important aspects of architecture are not its plan, shape, or elevation, but the particles of which it is made up. If we succeed in designing an appropriate particle, the architecture and environment blend together, as a result, architecture melts away.

Bognar, 17

"I learned that we can bring nature back into architecture by breaking down natural materials into smaller particles... we can allow light, wind, and sound to penetrate freely... using particles as our medium, we can unite the environment with the people inside."

Bognar, 16 - 17

spaces with direct access to open air
spaces with indirect access to open air

natural light

kuma’s works: takayanagi community center

kuma’s works: takayanagi community center

Takayanagi, Japan

2000

building analysis
the building seems to float on the rice paddies skirting its base. the paddies, the beautiful farmhouses, and the woods and hills beyond—all appear as part of the light enveloping this little meeting hall.

"i analyze the activity of the users, their distance from the particles, and the speed of their activity. solving multiple equations such as these helps determines the ideal material and size of the particles."

-bognar, 17

at dusk, the light inside the building spills outside creating a dream-like scene.

the building seems to float on the rice paddies skirting its base. the paddies, the beautiful farmhouses, and the woods and hills beyond—all appear as part of the light enveloping this little meeting hall.

takayanagi is a trabeated structure. the thatched roof is held up with diagonal post-tensioned synthetic tendons. it was designed to be "a modern rendition of the vernacular house, clad in japanese paper."

natural light

spaces with direct access to open air

spaces with indirect access to open air
after visiting the pablo picasso exhibit at the virginia museum of fine arts, i was struck by the artist’s skill in abstraction. he took common objects and reduced and altered them in such a way that they were perceived as both the original object and some mutated form of it. to further examine his process of working, i watched the documentary “the mystery of picasso” by henri-georges clouzot. in it, picasso paints on the backside of a canvas while a camera on the other side captures the process. stills of the work are shown in various stages of the process from start to finish. as they progress, we see what picasso adds or subtracts and how those changes alter the work. on this page are still shots of a selection of works from the documentary.

in this series, read clockwise from the near right, the bull’s head is depicted realistically. as the work progresses, elements of the head change so that it begins to be perceived as a flattened, simplified version of the original object.

in the series beginning on the left page and continuing above, picasso eventually winds up depicting a bull in a landscape. as the series advances, he adds shadow and highlights to give the flat image depth. watching the way he works gave me great insight into the design process as a whole. coming into this program, i had (and still do, to an extent) the mentality that things that are done cannot be undone. i am not sure why i think this way. i suppose it is because once pen hits paper, it becomes indelible, but picasso would apply paint and scrape it away, or blend it, or alter it in some way that it changed the entire work. none of his decisions ever seemed final. this is an idea i will take with me and try to keep in mind during the making of any subsequent design.
what does it mean to erase architecture? to someone like kengo kuma, it seems to mean the dissolving of building into site. he and others like him have the luxury of designing a building with this tenet in mind. the architect has the ability to shape and mold the built environment to fit whatever criteria exist. what then does it mean to the interior designer to erase architecture? we are not always able to see the construction of a building from inception to fruition. in these days of sustainable, adaptable design, we are given existing structures, many of which are unable to be externally altered to suit our programs and designs.

for the building at 10 north morris street, my method of erasing the architecture was the incision of interior forms to create a space that is congruent with the language of the exterior. evolving the space from one that felt closed and dark to one that is large and takes advantage of the copious amounts of daylight. it is a space that conveys honesty, not only in that it better reflects the building as a whole, but also one that gives visitors a sense of what is to come, what is beyond the point at which they stand.

if the erasure of architecture to the architect is the blending of building to site and the permeability of the membrane of the building, perhaps the erasure of architecture to the interior designer is the altered perception of space within. there could be any number of route to realize this end. perhaps it could be the complete removal of all existing interior things, perhaps it is through superficial applications of materials, perhaps it can be achieved through focal points that draw one’s eyes from the existing forms within the space.
as I attempted to discover what it meant to erase something without eliminating it completely, I wondered if that could mean making a dense object more dense, taking a line and making it irregular, or taking an object and splaying it into multiple layers. To the right is an exercise we all did in which the square represents the building as is and the circle represents the new. Our task was how to incorporate the two into one figure, as the sequence progresses, it finally comes to a quatrefoil that is comprised totally of arcs, but still hints at a square form. In essence, it is an exploded square.

In trying to work beyond the rectilinear form of my building, I tried doing an exercise in watercolor to see what it could mean to break the barriers of a rectangular shape. To do this, I saturated the medium so that the pigments could flow and spread. The attribute I appreciate most about these two watercolors is that they acknowledge the rectangle while blurring those barriers.
conceptual models
as i began the thesis project, i was intrigued by the idea of community. initially, i wanted to create a design for the interior that would connect to the building’s exterior and entice people to come to the space, doing so would make people feel inclined to interact and play with the pets on site. in trying to model the idea of “community,” i worked with multiple items that were in some way bound together.

the model on the top is the first. the cardboard represents the site, the pegs the members of the community, and the twine is an examination of how to connect the pegs to one another. on the bottom is a model made of chipboard squares connected with ribbon. rather than merely touching the surface of the member, the ribbon penetrates through the core. the bond between the members on the second model is physically stronger than that of the first and is more than a superficial connection.

in studying these models, i realized i wanted to take the design farther than the connection to the surrounding community.

from community, the second concept i examined was adaptability. how can one thing be adapted to receive another? in order to accomplish this, i thought to use moveable parts. the vertical cardboard plates, connected by rubber bands and on a basswood track, can stretch to accommodate variously sized and shaped objects. in creating and playing with this model, i found that it could hold many of the various items at the same time. from this examination, i learned that adaptability was not quite the direction i wanted to take for the final design of the pet care facility of 10 n. morns st.

in my frustration in trying to discover what it means to erase architecture, i thought to use recognizable forms that had pieces removed, to see that if doing so altered the way in which the form is perceived. starting with a simple graphic design exercise, i drew squares over a series of the letter e. where the square intersected the letter, the form was cut apart, and i examined the remnants to see if my perception of the shape had changed. i did not find this exercise especially helpful other than that it led me to the next series of exercises.

conceptual: earliest models
Instead of using a flat form, I decided to use a three-dimensional shape. I wanted to choose a shape that spoke to the language of my building, therefore, I chose cubes. The first cube in the series has pieces cut away, but still attached to the cube itself, as if morphing from a cube to an abstracted form.

For the rest of the series, I chose to eliminate the pieces that were removed from the cube. This was done in order to keep the altered shape from reading as a whole cube. I was especially fond of the diagonal corner on the first cube, so I chose to discover what it would look like if all the cuts were of this language.

This cube kept to the diagonal language of the previous cube. Unlike its predecessor, the third cube examines the use of varying thicknesses of basswood. For all the cubes, I tried to imagine myself inhabiting the interior area of the form. This is how I made informed decisions about where to make incisions.

For the next step, I thought “what would it look like to have another form inside this one and would that change how the space is perceived?” To sate my curiosity, I started connecting the planes of the incised areas across the interior space of the form. In the cube below, I let the language of my building inform the linear nature of the incisions. From there, I connected the incision planes with museum board. I did find this addition helpful, but in the subsequent cube, I wanted to express a different language on the interior of the cube.
for the fifth cube, i continued to use the rectilinear language of my building to inform the incisions of the cube. however, rather than use this same language interiorly, i used flexible vellum to connect the incision planes. the result is a free flowing form that escapes the boundaries of the cube.

the final cube in the series looks to the rectilinear language of my building to determine the shape of the parts removed. the incised areas are of differing widths, but all span the length of the side of the cube. from the creation of this cube, i learned how to stay true to the concept of erasing the form while looking to my thesis building to dictate how that could be accomplished.
when confronted with the question, “how do you get those cubes into the space?” I realized that I did not yet know the answer. In another moment of frustration, I rather tactlessly placed the cubes into my as-built model, effectively getting the cubes into the space. What seemed to be a rather childish and obvious action turned out to be a breakthrough, the way the planes of the different cubes meet and create interior spaces is very dynamic. In this moment, I started to get ideas about what the later design could be.
by using 2 formulas based on national averages and census information, i calculated the number of dogs in the richmond metro area to between 266,000 and 287,000. a quarter of a million is far too great a number of dogs to address in this thesis, as such, i am focusing on the fan and museum districts as main clientele sources. this reduces the number of dogs to between 9,195 and 9,622. many of these pets are left home alone for a greater part of the day, due to the owners' work or educational obligations.

in order to determine how many people have interest in using the services of a pet care facility, i conducted an online survey using friends and family and their acquaintances. questions included number of dogs owned, their size/breed, distance the owner is willing to travel for pet services, distance of workplace from home, and services expected in a pet care facility. to the right are my calculations based on the survey responses.

looking at my programmatic case studies, i determined that i would need to include reception, check-in, break, play, food, laundry, medical, kennel, and offices spaces in my program, when i compared my studies of little dogs and the racc against kuma's works and the almere petting farm, i realized that the former have no/little access to fresh air and natural light, unlike the latter. i decided that for the design of this pet care facility, all spaces in the building needed to have direct access to both.

the upper left shows matrix detailing the spaces needed, those spaces’ adjacencies, attributes they should possess, and the importance of having those certain attributes. from there, i began making bubble diagram to determine the layout of the spaces in the building, whether the dominate population of the space would be human or animal, and critical adjacencies. based on those findings, several space plans were created. these depicted are the most similar to the final layout. the space plan on the top right is the first floor, the one below, the second.
materiality has been an important part of the design of the space from the beginning. the pet care facility needs to have durable and resilient materials, but unlike the rac and little dogs, i wanted to avoid using vinyl tile, concrete, and standard dropped acoustic ceilings.

i started to wonder if materiality could be used to demarcate animal spaces and human spaces. this is shown to the left. in examining this, i tried to determine which spaces were human majority, animal majority, or equal proportions of both. i began to realize that i did not want species of the user to dictate what materials went into the space - could the same materials be used in both animal and human spaces?

from there, i looked at the use of the space. i began with “interactive” and “isolated” as the defining characteristic of the space, thinking about what would happen in the space made me realize that “isolated” is not accurate and seemed harsh. “active” and “passive” are more accurate descriptors for the use of the space.

then i had to determine what material would represent an “active” space. is “active” warm? soft? pliable? fluid? i thought about it, i decided “active” is warm and wood is warmth to me, conversely, “passive” is cooler. i also wanted these passive spaces to have an element of transparency. the majority of the passive spaces are for animal use. using as transparent material, glass, gives clientele a sense of honesty and openness about the facility, in that it allows them to view the conditions in which their pet will stay for the day.

using glass as an indicator of passive spaces has other benefits. as a frosted clerestory window in some of the more private areas (restrooms, medical treatment rooms), it allows natural light into a space that would otherwise not have access to this attribute.

this rendering speaks to the two systems and how they coexist in the space. the wood establishes the borders of the active spaces while the glass elevator shaft penetrates the space and indicates a passive space.
10 n. morris st. is a type iii constructed building that's redesign as a kennel puts it in the business use group, given this information and the square footage, the building's load is approximately 160 occupants.

international building code, 2009

from the exterior, the building reads as three parts - the middle section and the two rectangular areas in the front and rear of the building, the original plan, depicted in green, shows the existing nature of the building. upon entering, the visitor comes into a central corridor that makes he or she feel as if in a tunnel. this area is devoid of the copious amounts of natural light that enter the rest of the building through nine foot windows. in order to receive more natural light, most of the second floor above the lobby was also incised and removed. the second floor plan is a rather open plan, with twelve expansive windows allowing light into the indoor play areas. keeping obstructions to a minimum and removing a portion of the floor plate allows much of the natural light to filter down to the first floor, thus eliminating the tunnel effect.

incising the central corridor walls to the centerline between windows allows sunlight to enter what was the previously narrow and dark central channel. in order to receive more natural light, most of the second floor above the lobby was also incised and removed, the second floor plan is a rather open plan, with twelve expansive windows allowing light into the indoor play areas. keeping obstructions to a minimum and removing a portion of the floor plate allows much of the natural light to filter down to the first floor, thus eliminating the tunnel effect.
at present: sections

The lobby now receives natural light through the incision in the second floor plate and the glass curtain walls of the kennel rooms. These transparent walls also allow clients to view the conditions under which their pets will stay for the day. This honesty and openness will give the pet owner a sense of relief when leaving their pet.

Materials:
- Concrete wall tile
- Expanko cork
- Rubber flooring
- Daltile noir linen tile
- Mini mikado pendant
- Walnut slats
When clients come to pick up their pets, they wait in reception for an employee to retrieve their pet. People are invited to sit and chat with their neighbors as they wait. A bookshelf along the wall stores small toys, treats, and other supplies for clients to purchase, making the facility even more convenient.

At present: Reception

At present: Employee break area

This section perspective shows both halves of the employee break area. The glass again demarcates this as a passive space, as it will be used as a space to eat, rest, read, or have a small conversation with a coworker. The curtain wall also serves to isolate each space as the left side is more for reflection and relaxation while the right side is more for conversation and food preparation. This division keeps the sounds of one half confined to that space so as not to be bothersome to the occupants of the other.
after determining wood to be the material for an active space, I then thought about acoustic issues. The wall and ceiling system shown in the detail model uses wooden panels and baffles atop acoustic panels. The noise reduction coefficient for the walls and ceiling are .85 and .9, respectively. The ability of the system to reduce noise is crucial as the active spaces will be full of playing dogs and people.

at present: classroom
in the rendering, the wall and ceiling system is shown as it relates to the space of the classroom as a whole, the ceiling system is the same size as the footprint of the training/stage area. This area opens out into one of the indoor play yards to accommodate larger classes.

a transparent resin with wood and grass infill divides the seating area from the training floor. This allows students to see what is going on, but divides them and their dogs from the dogs being trained within. This near wall is open to the seating area along the acoustic wall to allow for ease of entry and exit.

billund bench

remix resin
table cork

rubber flooring
nevo light
walnut slats

detail of model to date
the second floor contains two indoor play yards. one for the larger dogs and one for the smaller. acoustics, durability, and resiliency are of the utmost importance, the materials in this space address these needs, for the animals’ safety, the floor is comprised of cork rubber tiles, this durable material will be softer underfoot for dogs as they play, and will protect them from injury during play.

the wooden acoustic wall in the rear of the space bends and continues as a hanging acoustic ceiling over the play yards. helping reduce the amount of noise in the area, the ceiling also serves to make the space feel less expansive. the open space above the hanging ceiling has additional room for hvac and other duct work, as well as additional acoustic panels, if needed.

at present: indoor play yard

the main purpose of the pet care facility is to provide the dogs with human and animal interaction and activity, the pets would spend the majority of the day playing indoors or out, going for walks around the fan, or having individual play time with an employee, so much play time will inevitably tire the animals and they will need a quiet private place to rest.

the kennels provide this private, thoughtful space for the pets. the design of the kennel is based on observations i have made of my and other pets over the years and the den instinct of canids. i have noticed that dogs prefer to rest in spaces in which they feel enclosed and protected - such as in a covered crate, under tables or chairs, or against a larger piece of furniture. these are places where they do not have to waste energy being attentive to their surroundings.

thus, the kennels are almost entirely enclosed, except for three inch clearances between the roof and walls and the gate and its latching wall, the clearance allows fresh air to circulate through the kennel. the roof and gate are made of painted bankerwire with small perforations, this is easy to clean and also allows air into the kennel. the walls are made of foamed concrete blocks which reduces both the weight of the structure and the noise of the dogs. an interior shelf allows the dog to choose to lay beneath for added enclosure or to sit atop to have views out the clearance between the roof and walls.

at present: kennel space

the open space above the hanging ceiling has additional room for hvac and other duct work, as well as additional acoustic panels, if needed.
the model at present depicts the material changes and the additional spaces added to the original plan. to the right is the new plan for the first floor. below and to the left is a look into the lobby as it is now. the wooden dowels serve to lift the second floor to allow ease of viewing for both floors.

below to the right is a view of the treatment rooms and restrooms on the second floor. we see the wood and glass systems of the play yard and treatment rooms, respectively. those translucent clerestory windows allow light into the treatment rooms which would otherwise not receive it and allow some light out of the restrooms which receive plenty of light through their large windows.
at present: exterior

The lot as it currently exists is a parking lot. In order to have outdoor play space for the pets, a portion of the lot will be removed, and grass and trees planted. The area can be accessed through the front and rear entrances. Two small parking lots remain for employees and clients.