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Assignment 4: Interior Space – Toronto Reference Library Atrium

Interesting Characteristics

When viewed holistically, this space has an expansive breadth of complexity in every regard, whether it be the function of the space and micro-regions withing the space, lighting, textures, or materials. I chose this space because I've spent a great deal of time there over the years — writing my first book as a member of the Writers' Room, studying various topics of interest, listening to vinyl records at the fifth floor listening stations, using computing & print services (as well as 3d printing small objects), and as a place of respite during long shifts as a downtown bike courier. This library branch has been immeasurably useful to me, and I have only fond memories of my time there.

Use of Space

Function is the primary purpose of this space. It is certainly well-used since it is widely accessible and it is certainly designed for occupants to spend time in. Students, lecturers, the homeless & disabled, writers, tinkerers – everyone is permitted to use any of the myriad of services. The structure itself could certainly make more efficient use of space if it had floors spanning the entire width of the building, rather than an atrium, with tables and carrels placed more closely together, but I have yet to see it reach capacity, since there are many satellite library branches across the downtown core. The tradeoff is in its aesthetic. I'm sure in due time the building will be replaced with a more spartan, utilitarian one when capacity becomes an issue.

Spatial Proportion and Surface Characteristics

The atrium and reverse-tapered levels comprise most of the spatial proportion when viewed holistically. When one enters the building lobby, the sense of expansiveness permeates the occupant.

There is just so much vertical height. Even at the fourth floor, where the station point/observer is located within the image, one can observe so much of the space. As an occupant ascends, the space opens further as the floor space diminishes.

The surfaces vary in texture. For instance, the carpeting is woven and rough; the desks are laminated MDF and smooth; some stacks are smooth & glossy metal, some are smooth & matte; the seating is cushioned vinyl and laminated wood; the walls are smooth and diffuse. Overall, there is a great deal of variety.

While a space like this may seem intimidating due to its expansiveness, much like the many awe-inspiring European cathedrals from the 12th to 18th centuries, the feeling becomes warmer as one moves to a sub-region within the space. Once one finds a place to sit, the space immediately becomes more intimate, particularly if there is a ceiling above, or dividers on a study carrel. The colour palette is somewhat warm, with faded (decades-old) red carpet and varying tones of browns and blues. While the image does not convey warmth, it becomes surprisingly warm and inviting as an occupant within the space.

Lighting

During the day, the atrium generally fills with natural light, both from the windows near the roof beams, but also from windows along the front and back sides. This light tends to be increasingly diffuse as one moves toward the middle of the atrium and, as one moves toward the windows, it becomes more direct. Its colour tends to match the warmth of sunlight at the given time, blue-grey when overcast, orange when sunny, and so forth. As mentioned previously, there is much variety of the spaces available, so when beneath another level, the natural light will be more diffuse, and artificial light will be a combination of diffuse and direct. It seems that the space is designed to yield as much diffuse light, except when one is near windows. The carpets, the surface textures of walls, the baffles near each ceiling – all of the surfaces seem to aid in this goal, since it makes it easier to read, study, look at a computer screen, and so forth.

In the context of the drawing, the tonal range is compressed relative to real life and the source image. The paper is off white, so bright whites aren't easily represented except in contrast to a darker graphite. However, at the dark end of the range, deep blacks also are difficult to achieve with graphite, and charcoal is just too messy, spreading around, getting on my hands, and possibly ruining other regions. As a result of imperfect whites and blacks, the middle of the tonal range is also compressed, and so differentiating between light browns and medium reds can be difficult when working in grayscale, since the luminance is similar.

Approach to the Drawing

From the beginning, it was apparent that I would need spatial anchor points to base the rest of the drawing on. Separating each floor, placing columns, general cubic volumes of stacks, roof beams – all of the major volumes of the space needed to be outlined first. After this, smaller and more complex forms needed to be outlined: Individual stacks, curvatures of the railings and staircases, curved seating areas, ceiling baffles, etc., so that they are all properly positioned relative to larger anchor points. Once this was complete, I dealt with surfaces, light, shade, and shadows organically rather than methodologically. Wherever I felt I could confidently represent the lighting of a region, I began there with the lightest 4h and 8h graphite, varying pressure so that I could visually take notes when returning with softer/darker graphite. I found that, since my strokes are imperfect, I can smooth out imperfections by making dozens of strokes in a region with a harder lead, so that the darkest region is an average of many strokes, thereby reducing the appearance of errors. This was far more effective than directly using a softer lead to achieve a desired darkness, since I would have to constantly erase and make corrections like in my previous assignment, which also left a lot of ghosting behind and damaged the paper. Those problems were eliminated with this new technique. In general, I built my confidence with simpler gradient surfaces like the cylindrical columns, outsides of railings and staircases, the walls of the roof beams, and regions of the carpet that were darker at one end and increasingly bright as they approached sources of light. Following this, I focused on cast shadows, like those under the staircases, the columns on the left of the image, the second floor casting its shadow onto the first floor, etc. Most lighting, direct and diffuse, as well as shade & shadow, was complete at this point. The final steps were adding some humans and vegetation for scale, and the most difficult was approximating the texture of the carpet. When close, in person, it is clear to see each knot of the weave, but at a distance I had to experiment with a few techniques. I found the best way was to first use a blunted pencil to achieve nearly the tonal darkness I wanted, to then cross hatch over top with a very hard 8h lead that was very finely pointed first parallel to the perspective lines, then horizontally and, finally, to blend with a paper stub to reduce the harshness of cross-hatching. This achieved the tone I desired, as well as a surface texture that approximates a rough carpet. I would need more advanced instruction to improve texture further – I don't think I can do better with what I know from the textbook, since other techniques like stippling and scribbling didn't yield the desired result, and I was unable to find a prescribed pattern to emulate to convey rough carpet texture at a distance.

My intent was to express two primary things: the vastness of the space and the variety of elements. I'm always in awe of such expansive volumes of vertical spaces and the reference library is a prime example. But I also wanted to convey the many facets of a volumetrically complex space. The cascading levels lead to an asymmetrical rhythm, as the staircases maintain a similar shape, and as many cylindrical columns repeat. There is also a great deal of rhythm coming from the stacks themselves. However, this rhythm is not monotonous; it is broken up by complementary asymmetry in the curved seating on the right side of the second level, the offset of the cascade from each level to the next, and slightly angled roof beams. If the structure and elements were purely symmetrical and rectilinear, the space might feel far more monotonous and dystopian. I also enjoyed conveying the subtle shadows under the staircases and from the columns and stacks on the left of the image, as well as the column reflected off the deep black stack on the left of the image. This was something that I initially did for its technical purpose but realized afterward that it adds a great deal of visual realism. When I look at the lower left quadrant of the image, I realize it is the most visually realistic region, along with the roof beams/lighting, because of the variation in shade, shadow, and reflection. Although I didn't intend to express this at the outset, I will certainly be better able to select images in the future.

Final Thoughts

In retrospect, I would have chosen a different image with far less fine detail and larger scale. My intent to express variety in lighting was made extremely difficult by the small scale of objects, taking a great deal of time and patience. I could have saved a lot of time an effort, but I also had an emotional attachment to this location because of my experiences there, so perhaps this was a mistake worth making, since I was personally invested in it. Maybe in a few years, I'll redo this image with a wider breadth of tools and techniques at my disposal to see if I can achieve better visual realism, particularly in the ceiling baffles on floors three through five, and along the stacks. Also, unfortunately, scanning my drawing causes the image to appear slightly washed out. The entire tonal range appears lighter than when looking at it with the naked eye. However, in terms of technically achieving a 1 point perspective and conveying lighting techniques of the medium & large volumes & objects, I think I succeeded. Finally, I liked that this assignment built on the previous one, as working on lighting reinforces the previous work on textures, and I expect that the next assignments will build on the lessons learned from this. This process builds momentum and confidence with each successive iteration.

