Ceaseless Genesis

Hoor Ahmed
BFA, National College of Arts, Lahore, Pakistan, 2015

A thesis support paper submitted in partial fulfilment of the
requirement for the degree of
Master of Fine Arts

Emily Carr University of Art + Design
2023

TABLE OF CONTENTS

Acknowledgements

I would like to acknowledge that I am on the unceded territories of the Coast Salish peoples, including the Musqueam, Squamish and Tsleil-Waututh nations. Unceded means that this land was never surrendered, relinquished, or handed over in any way.

Today, most of BC remains unceded sovereign Native lands, over which neither the Canadian or BC governments have the legal or moral authority to govern. I hope that our words and actions today can help to foster a better understanding of how we can support Indigenous sovereignty as settlers and uninvited guests on this land, AND to work to create new relationships with the Original Peoples of this land, based in honour and respect.

I'd like to go on to acknowledge Emily Carr University of Art and Design for allowing me to be a part of the two-year MFA program hence concluded, because of which I can say I have had a language-level transformation in the processes of making animation work. Without the guidance of all my faculty members and without the support of the technical staff at Emily Carr, I wouldn't have been able to learn the technology to produce animation.

I'd like to specifically voice my gratitude for Alla Gadassik and Randy Lee Cutler for challenging me in developing a research methodology to responsibly produce work that I may not think is fully concluded, but that makes me feel much more knowledgeable. I am also extremely grateful to Chris Strickler, who has immensely supported me in technical support in the animation lab. I also want to thank the support of Martin Rose, Gil Goletski, and Alla's undergraduate students who would help me with technical issues in the last hours of the day.

Highly worthy of my gratitude is my family. My husband, mother, and mother-in-law, who have been the backbone in keeping the house functioning with three young kids. Lastly, but most importantly, is my first-born daughter, who is the main driving force behind all my inspirations and strength.

List of figures

“Illness might progressively vanish so might identity. Grief might be diminished, but so might tenderness. Traumas might be erased but so might history. Infirmities might disappear, but so might vulnerability. Chance would become mitigated, but so, inevitably, would choice.” (Mukherjee, 2016).

Introduction

My work broadly explores the relationship between the molecular body and the cosmos, specifically bodily diseases passed down through generations, and the trauma that comes with this inheritance. I create paintings and immersive moving images to express my ideas around mutated cell multiplication and the growth of disease. The experience of recurrent bodily pain and surrendering to a disease has been a strong influence in my material-based art and research practice. Suffering from a disease compels the act of living to become a ritual, as the body cleaves from the social and mundane tasks of life which define self-embodiment. As the mother of a child with a physical disability caused by an inherited skin condition, my daily life has become a ritual of tasks of nursing care, as I work to reduce the excruciating pain of wounds that are themselves in a continuous process of formation and healing. This experience informs my attention to ritual, care, and materiality in my artistic practice. The genetic idea of mutated disease-causing microscopic cells taking over human bodies and affecting their ability in all aspects of present and future life also influences my interest in our relationship to the broader environment and the cosmos. My work explores how the micro (the cells) and macro (the cosmos) are in conversation with each other through the concept of sacred geometry. The paintings and moving-image installations layer images of the cosmos, cells, and Islamic geometry to enact an interplay between the micro and macro.

My practice engages with the tradition of Indo Persian miniature painting. Indo Persian painting is a labour-intensive craft which involves carefully planned rituals of handmade paper making, pigment making, and brush construction. The artist embodies these careful rituals with the movement of their own body to construct the handmade tools of the craft. I see the rituals of the intensive processes of miniature painting as many layers which have a specific order.

There are even specificities on time and on how to hold the brush, how to give a wash, render line marking to achieve that perfection. I feel a connection between the rituals of painting and the rituals of care. The ritual of care is very time sensitive, laborious, and constant in trying to keep the body from perishing. These rituals and layers of diseased bodily care and craftmaking need to be consistent, cyclical, and ongoing to try to reach a desired perfection. Reflecting on the ideal of perfection that often comes up in discussion of genetics, physician and writer Siddhartha Mukherjee notes: “there is no such thing as perfection, only the relentless, thirsty matching of an organism to its environment. That is the engine that drives evolution” (2016). This makes me think of finding this desired perfection through care, as competing with infinity. My thesis work asks, how can I incorporate the rituals of Indo Persian miniature painting craft with the rituals of care in disease?

All of my processes are connected through an interest in dense networks of layers. Layers of the skin speak to layers of care, and rituals of care speak to layers of work, trauma, and emotion. Indo Persian miniature painting mirrors these layers through intense craftsmanship and layers of pigment application. My installations expand on the paintings by layering painted tracing paper with animated projections. The animations are themselves constructed through composited digital layers. I discuss these different components of my thesis work later in the text.

Pain and Disease

Finding a visual language for the transmission of genetic disease and its effects on cyclicality in bodily and cosmic rhythms is the broad ambition of the work. This includes seeking a visual language for pain, fear, healing, and trauma. In her book *The Body in Pain*, Elaine Scarry

writes that pain comes into our midst as at once that which cannot be denied and that which cannot be confirmed (1985). Body cells are shared and passed down in other bodies through generation, but why is suffering for only some?

Scarry further describes how, “[w]hatever pain achieves, it achieves in part through its unsharability, and it ensures this unsharability through its resistance to language.” (p.4) Yet when I think about genetic disease, I also relate to how pain is shared genetically through generations. Diseases can be passed down through mutation of DNA due to unknown environmental factors or by the merging of two recessive genes that have been passed down through generations. In cases of intergenerational genetic effects, “the children and grandchildren of famine-starved individuals tended to develop metabolic illnesses, as if their genomes carried some recollection of their grandparents’ metabolic travails” (Mukherjee, 2016). I see both shareable and unsharable components to pain. Pain can be passed on by sharing blood and not only be shared when physically felt by the body in pain. This also makes me think of suffering, the sharability of suffering that comes with disease in an offspring. The disease of the child changes the pace and the way of living for parents and siblings. The sufferings for the parents or siblings may be less because of the diseased family member and more because of the structures and pressures of an ableist society.

Scarry also writes, “it is the intense pain that destroys a person’s self and world, a destruction experienced spatially as either the contraction of the universe down to the immediate vicinity of the body or as the body swelling to fill the entire universe.” It makes me think about this sharabilty of pain and suffering, which for me is like growth, looping in the infinite form of genetics, cell mutations, moving on through blood, and encompassing the body's whole surroundings. At moments the entire universe gets lost in this diseased body with pain, and at

moments it's vice-versa. This reflects in my work visually by combining two human bodies, whether it is in painting or animation, submerged in a background of the cosmos. The sharing of two different bloodlines from two people silently creates new life and passes on pain and suffering. The role of the cosmos is discussed in detail later in the text.

Skin

Skin is the human body's largest organ that visible sits on the outside. Disabled skin that's prone to wounds from the slightest friction brings pain from every touch and every move, as it drapes over the whole body. Along with agonizing pain it also exposes the body in public as a wounded or burnt subject to stare upon. The body does not feel at ease in its visibility.

In the skin disease that I care for, the thin veil of skin is not successful in separating the outside from the insides. Every time wounds are formed and then healed, they leave a mark, and this process never stops from repeating itself. The skin can be read as a witness, spokesperson, or a performer of an experience of trauma by intergenerational disease. The marks that we collect on the body serve as evidence or consequences of our experiences of embodiment. While some have temporary effect, others can have permanent to the sense of self. These permanent markings from burning, surgeries, trauma or diseases walk all roads with the body in permanence.

The function of skin is threefold: it operates as an envelope of the self, a protective barrier against the outside, and means of communicating with others (Anzieu, 1980). Steve Connor writes about Anzieu's notion of 'skin ego,' which indicates how skin can take on psychic aspects that are directly related to the experience of the surface of the body (2001). For Anzieu skin not only "designates the psychic and corporeal boundaries of the self, but also provides the interface for 'establishing signifying relations' with the outside world by offering an

‘inscribing surface’ for marks left by others” (Anzieu,1989). Reading this quote by Anzieu in *Thinking through the Skin* makes me think of how diseased skin makes the body both receptive and vulnerable to medical care. In skin diseases, such as the one that I care for, traces of battles against the illness leave scars on the body as permanent reminders of malady. Without the missing collagen required to hold together the layers of the skin, the skin needs to work harder, it is overburdened beyond what it can stand. The body rushes to manufacture new cells that rise and mesh, rise and mesh. This continuous scarring and breaking down of the skin push the body’s cells to give up and mutate into carcinogen cells. With every passing day the body is less contained within itself and more spread into the caregiver and throughout the house.

It has always been hard for me to see blood or medical images from surgery since childhood. I was always sensitive to such content, but it surprises me how easily now I can put a sheared patch of skin back up onto bleeding naked muscle. It is the circumstances around us that shape and change us as human beings. For our brains to accept a change or compromise, there needs to be an underlying condition. Tina Takemoto points out how often “people say that severe illness of a loved one puts one’s life and one’s work in perspective” (2001). For me, the changing condition was my relationship to my daughter as a mother. No matter how visually stressing it can be at moments, my love for her changes my perspective of how I look at it. It also makes me think of how the disabled body needs to work so hard to change its perspective to thrive in the environment, even though the environment is more malleable. For every genetic disease there is a mismatch between the human body’s genome and its environment. In some situations, the favourable medical treatment to mitigate a disease might be to change the environment to make it “fit” to thrive. For example, building alternative architectural realms for dwarfism or imagining alternative educational landscapes for children with autism (Mukherjee, 2016). In yet other cases (like my case), the match may be impossible

to find: the severest forms of genetic illnesses, such as those caused by non-function of essential genes, are incompatible with all possible environments. However, in the role of a mother there is a constant search of finding a match, knowing that it lies somewhere in the infinite; the journey of finding it starts every day. In the role of an artist, my aim is to investigate the aesthetic repetitive pattern of disease, finding beauty and equilibrium in the experience of bodily pain and its care.

How might there be beauty within the ritual of pain? The journey of care is visually disturbing, as I deal with flesh, blood, open wounds, and disease every day. Yet, in its loving care, this journey is also sublime. This relationship between the terrible and the sublime exists in the tradition of classic miniature painting, which I pursue and deconstruct in my work. Classic miniature painting was used to exquisitely document the Mughal kings in glory, even during violent war scenes (Losty, 1985). The process of the painting craft strives to achieve perfection and beauty in its subject matter. I use the same aesthetic strategies to create visuals of agony that are themselves sublime.

Learning and Unlearning Indo-Persian Miniature Painting

In my practice, traditional Indo-Persian Miniature painting technique breaks free from its confinement to explore bodily disease, expanding into layered installation and breathing animation. The ritual of Indo Persian painting engages in conversation with rituals of bodily care and suffering.

Background

Miniature painting emerged from Persian miniature and developed in the courts of the Mughal empires of the 16th to 18th century. The subject matter of miniature paintings was mostly battle scenes, legendry narrations, landscape, palaces, animals, mythologies, portraits etc. The paintings made during the reign of Akbar, particularly, are examples of fine quality illustrations (Breck, 1930). Every single detail is so vividly drawn that every time the same painting is seen, new observations can be made.

Artists learned the craft through an atelier system; generally, these systems were operated through the family. Knowledge from the father was passed down to the sons, and they were expected to keep it a family secret. The painters learnt the art through copy making and practice. My professor Ustad (teacher) Bashir Ahmad in National College of Arts is one of the last remaining descendants of the artists in the Mughal family in Pakistan.

"The Spy Zanbur Bringing Mahiyya to the City of Tawariq", from Akbar's copy Fig 1

My artistic journey began in National College of Arts in Lahore, Pakistan. When I entered school, I saw myself as a painter on canvas but my interest in Miniature painting was sparked by my own lack of knowledge about this painting tradition. There were warnings given out by the professors before choosing Miniature painting as a major, because it was pursued as a tiring craft which needed a lot of patience. After one whole year of training to learn the tedious craft, students were encouraged to find the “modern miniaturist” within them. For me, the craft was tedious while I was making copy works of master pieces and had to keep the tip of my brush confined to the preselected images. Once I learnt the technique and started to work on my own ideas, the act of painting/ rendering became very mediative for me. My fingers learnt the rhythm of layering paint again and again very finely over the *wasli* handmade acid-free paper. The whole process of the craft required hand constructed tools like the ‘*Kalam’* brushes made from squirrel tail hair to achieve the finest line work, ‘*Safaida’* a white base for making gouache pigments, crushed stoned for natural pigments, and the handmade paper ‘*Wasli’.*

Copy work from *Badshanama,* of a court scene during my BFA program, 2012, Gouache and tea wash on wasli, 10 by 15 inches Fig 2

I remember summertime in Pakistan was when the squirrels had new hair growth on their tails after hibernation season had ended. Catching the fast stead rodent could take days or even months with the possibility of catching none. The hairs were very carefully cut off from the squirrel's tail using scissors, and then the animal was freed. Each hair was individually checked for strength using a needle to move the single hair in a drop of water. The highest quality of hair was when the curved hair in water bounced back to its original shape, these hairs were then separated from the weaker lot to be used in brush making. The weak hairs were discarded off. The hairs were then held together firmly, using a paper cutter an angled cut was made on the tip of the brush. The spine of a pigeon's feather was used as a ferrule for the brush and a wooden chopstick as a handle. Gum arabic, an organic glue, was used to secure all the pieces of the brush together. The brush is so organic that it feels like a body of its own,

the more I used it I scarred it. The brushes would bend according to the shape of my hand, so that after a while no other artist could use them as proficiently as I could.

The gouache was all organic, handmade from scratch. First raw chalk was soaked in water for four weeks to remove any impurities, then the chalk was combined with gum arabic. This chalk called *Safaida* was the base for all colors. Crushed stones and earthly found pigments were then combined with *safaida*, but because the *safaida* had a stark white presence of its own, achieving a dark tone could take up to three days. The colors would last many months depending on the size of the painting. These pigments were stored in seashells to increase archival value. A lot of craftsmanship and patience went in while creating the pigments. For me this exercise of pigment making sharpened my comprehension and recognition of undertones in different hues of the same color.

Pigments stored in seashells in my studio, 2021 Fig 3

Handmade kalam (brush) Fig 4

The *wasli* paper is a seven layered handmade surface that can absorb large amounts of water. Learning how to make this was also part of my coursework in my bachelor's program. Handmade glue containing copper sulfate for preservation is used to press down seven layers of paper. Upper-body strength is required to press the sheets together by rubbing the palms of the hand making sure no air bubbles are trapped within the layers of the paper. This was a very labour-intensive task; I went through the process of learning how to make the *wasli* but

later transitioned to buying ready-made ones sold on campus. I like to call this paper a stubborn one. The paper embodies the body of the maker. The pressure of the pressing palms, the direction the body moves while constructing the paper, gives the surface its final shape. Just like how the human body cannot replicate its gestures the same way every time, each paper takes on its own individual shape when dried. This admiration of the wonky edges of the paper came more to me during my MFA program, no matter how much I tried to straighten the paper it would curve back to its original form. All paintings have their own unique edges and it worked well with my painted, abstract diseased bodies on top.

Border making was also a process that I went through while learning the craft. This is when I was introduced to Islamic Mughal patterns. The geometry had the power of never-ending infinity. The technique of painting and the idea of Islamic geometric patterns was very similar in terms of repeating and unceasing. Painting these borders needed a lot of calculation and patience. Laura Marks in her book *Enfoldment and Infinity* seeks to establish a parallel between Islamic geometric art and systems-based computer art. Both fascinate human perception, because they invite the impossible task of contemplating infinity – a universe innumerable and beyond imagining (Marks,2010). While drawing Islamic patterns I would start from a point which unfolded to reveal a pattern with infinite possibilities, such patterns were used in Islamic architecture on the ceilings of the mosques to represent the cosmic universe. For me there is also a clear connection between the infinite patterns of the cosmos and the patterns of diseased body cells, which are in a constant loop, ceaseless.

Traditionally, border marking in miniature painting is composed of strict line work. Deconstruction of the craft helped me create loose organic images of cells and bodies. The fine skill I learnt from the craft helped me create that effect of being loose while still being confined. My cells are painted loosely but surrounded by a network of linework learnt from the

craft, creating images which are at moments breaking apart and at moments coming together. I connect this varying unpredictability of the line with that of life.

The Pakistani-American artist Shazia Sikander has played a role in inspiring me to break through the edges of confinement that Miniature painting technique often demands. Sikander is one of the best-known and influential artists engaging with miniature painting today. She is particularly known for subverting and transforming the classical tradition of IndoPersian miniature painting tradition to a form known today as neo-miniature. She also graduated with a BFA from National College of Arts Lahore, Pakistan in 1991, where her thesis painting *The Scroll* was awarded the prestigious Shakir Ali Award, the NCAs highest merit award, and the Haji Sharif Award for excellence in miniature painting. Sikander's thesis work *The Scroll* brought innovation to the craft. She changed the dimensions of the paper from a restricted book size to a 5ft long scroll. She also looked at Chinese scroll painting and the narrative structure of films alongside making trips to Mughal architecture around Lahore to understand the sacred geometry and how negative space creates rhythm and emotionality.

The Scroll, 1989-90, Shazia Sikander, water color and gouache on tea stained Wasli Fig 5

The artist migrated to America at a young age and the journey of migration brought a process of self-actualization alongside pressures to represent her culture. These feelings made Sikander feel very alienated. As she states in her interview with Radia Zakria, this led her to produce imagery "of fragmented and severed bodies, androgynous forms, armless and headless torsos, self-rooted floating half-human figures reminiscent of female and children's

bodies" (Zakria, 2019). Drawing became a very important medium in her practice. She started to expand her line beyond the limitations of a small defined *Wasli* and began to paint on floors and walls. She also developed performance to collaborate with others. She talks about this time in her interview as "the search to create work that demanded internalizing also meant dealing with the frustrations to unlearn" (Zakria, 2019). Sikander also started working in ink, a material with extreme fluidity. Additionally, she started to paint over or next to her own classical miniature painting. The combination of the two surfaces was visually and emotionally explosive. Sikander states, "unlike graffiti I was violating my own work in an attempt to unlearn and learn simultaneously" (Zakria, 2019).

While Sikander's migration to the USA was one of the major factors in her deconstruction of traditional craft, in my case disease necessitated my family's migration in search of finding support (and eventually a cure). While my deconstruction of traditional miniature painting technique began back in my home country, it ambitiously expanded in my MFA program as a means of portraying the body in disease more effectually. Inspired by Sikander, using pigments more loosely and letting the pigment flow without restricting it with fear that it would cause strokes, I achieved results that let me express the bodily cells and their fluidity more profoundly.

My Paintings

I always enjoyed my biology lessons in school, drawing body and cell diagrams being my favorite. *It keeps repeating* is a painting I did in the fall of 2021 alongside other paintings, through which I was working on letting go of traditional painting techniques by being more unformal with the materials. The painting was my version of a family tree of generations, a response to doctors who bombard you with questions like, did anyone in your family have this disease? Numerous

It keeps repeating, 2021, Gouache, ink, and tea wash on wasli, 15 by 11 inch fig 6

genetic testings' then become part of a never-ending journey trying to trace the faults in the family tree to find more answers that will never be enough to answer my questions around what the disease holds next. The technique for my painting *It keeps repeating* was to loosen the pigments on *Wasli* by using ink – an extremely fluid medium – through which I was able to disrupt the controlled use of the hand learned from miniature painting. The uncontrolled forms resembled body cells, blood, plasma. The cell-like forms which were painted large in comparison to the tree

created a surreal background for the floating tree, as if the cells were organisms or planets in space. During the formation of these paintings I saw a connection in the construction of Islamic pattern and human cells. Just like how the pattern keeps repeating in form, in a set manner the body cells keep growing in the way the DNA is coded. When the Islamic pattern slightly alters, it stops playing its function of perfect repetition, just like how a single cell mutates causing the functions of the body to perform abnormally. The line of the patterns painted in *It keeps repeating* at moments breaks apart, losing its rigidity and form of everlasting design. As I discuss later in this document, the green foliage seen in the painting is inspired by classical Mughal miniature landscapes.

My ideas connect with the work of artist Devika Sundar, who talks about the human body's connection with bodies of water. As Sundar writes about her series *Bodies at Sea*:

> Just as the deep sea holds and retains hidden remnants of all that it has repressed and swallowed, our bodies carry and muffle our stories, scars, baggage and memories within its submerged chambers, channels and streams. We are not static, marked or contained entities as seen through the sterile boundaries and frames of maps and scans, reports and manuscripts. I imagine the body as a sum of amorphous, blurred, watery, fragmented forms. Forms in rhythmic states of flux and transition; continuously rippling, rupturing, restoring and reviving ourselves. (2022)

Sundar talks about suffering from chronic pain, which is hidden within a normal looking body, and is only visible through the bodily scans done through medical imaging. By stitching together scanned bodily images and undersea life, Sundar's practice is an acknowledgment of the enigmas of the human body and bodies of water that remain ambiguous and impenetrable. For me, water is not used to talk about hidden disease, as in my case the disease encompasses the body internally and externally. Rather, the water plays on the notion of hidden trauma flowing through generational blood in the form of genes and cells. Water has played a symbolic value in my work in the form of rain, line work, or just blue hues used to represent transformation, as well

as diseased bodies that pool, seep, drain, drown, and then rise to find hope of being untethered. During my experimentation with gouache pigments and working with them loosely, I was also drawn towards the mixing of gouache and ink. I let the two different mediums bleed into each other creating textured images that resembled cells.

I really enjoy the loose tendrils of linework in Sundar's work (see fig 8), where the artist paints shapes inspired by human organs and sea bodies. I felt the same urge of making these loose mark makings when I was sketching cells. Intricate linework comes from the traditional painting miniature style but while deconstructing the technique and letting the brush embody my fingers freely, I was able to achieve these unsecured lines in organic movement. Figure 7 is a detail of my painting *The bloodline tree 2* where I layer together water painted with intricate linework and loosely painted Islamic patterns within a shape inspired by the female placenta.

Detail of *The bloodline tree 2,* 2022, gouache, tea wash and ink on wasli fig 7

Devika Sundar, 2022-2023, Drawing from *Adrift & at Sea* exhibition, watercolor on paper fig 8

My studio work became increasingly informed by Islamic patterns and biological processes, namely the cell packing geometry which divides and splits in predictable patterns. In my new set of drawings, I layered Islamic patterns with bodily forms that resulted in a formation that seemed to be moving and transforming. I then selected some drawings and very minimally painted them on Wasli without any background. The paintings demonstrated different movements like a rigid pattern changing into a cellular form or bursting into molecules or two figures coming together through pattern. This was me as a painter trying to understand animation through painting skills.

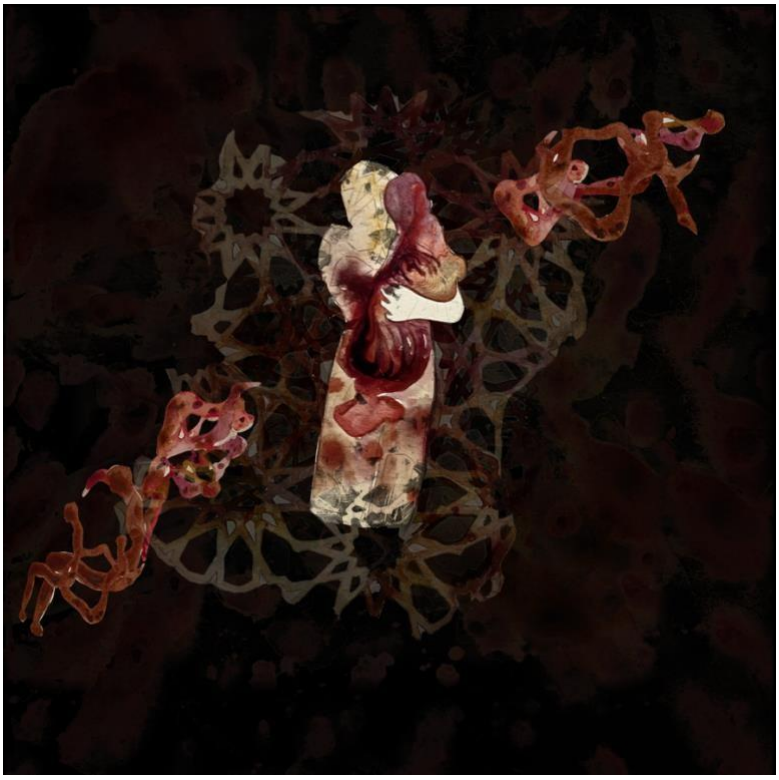
Animated drawing 1, Gouache on tea stained wasli, 2022, 7.5 by 4 inches fig 9

Animated drawing 2, Gouache, ink, and tea wash on wasli, 2022, 7.5 by 4 inches fig 10

These sets of drawings helped loosen my hand in playing with the undeviating line of Islamic pattern. It marked an important change in my painting practice, where I was talking about a vision of animation, but through creating movement in a deconstruction of traditional 2D craft of Indo-Persian painting. These paintings laid the foundation of animation for me, filled the gap, and I could now use these paintings as a storyboard or a visual representation to get my ideas across to an animation technician.

Animation

After my first semester, where I had already moved towards installation work, I was very motivated to learn animation and push my boundaries of painting further. I wanted my mark making and 2D paintings to move, to live and breathe. My first animation, *The mutated universe,* 2021, layered cut-outs of abstract forms, bodies and cells from my paintings using Adobe After Effects. Breaking, layering, and adding movement to my drawings gave them a new dimension in terms of scale and space. Floating cells around a body, like a virus, change into planets. Bodies break and reform into abstract forms while floating free from paper in an undefined space.



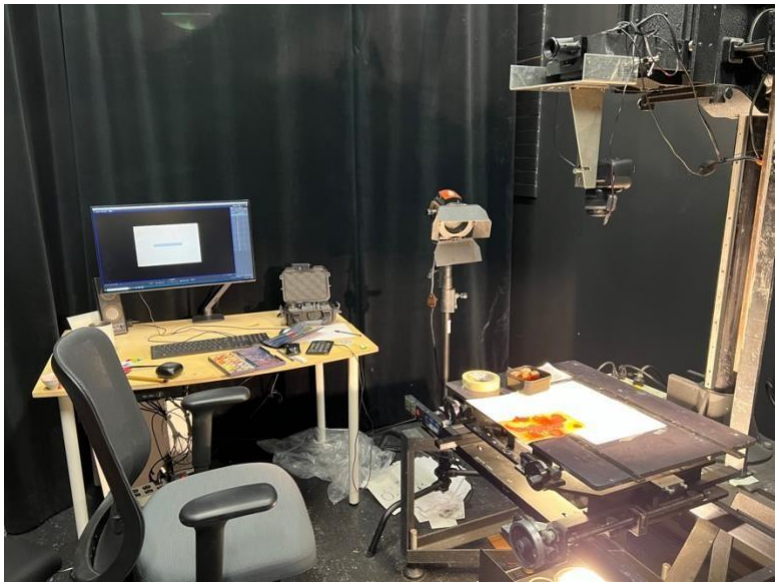
The mutated universe, still from 6min animation, 2022 fig 11

Animation and medical imaging have a long-interrelated history, and medicine has always relied on animation to show what happens inside the body. Interpretation of scientific imagery, such as magnetic resonance imaging (MRI), is restricted to the eye of the trained medical

practitioner in a clinical or scientific context. In communicating this information to others, MRI data are visualized and interpreted by 3-D computer artists using the tools of digital animation to navigate image complexity and widen interaction (McGhee, 2010). As film historian Scott Curtis notes, animation also helps demonstrate the internal dimensions of the human body in living motion: “What makes the body so imperceptible, so resistant to quantification? Not only are its internal functions hidden, but the body itself is dynamic. It moves” (Curtis, 2004). This quote makes me think about the similarities a body and film have in common, as they both move and change over time. I tried creating a similar effect of movement through producing time-based work of my hand drawn figures, abstract forms, and cells, to show the hidden physical and mental transformation of the body in disease. Just like medical professionals, I feel like as a painter my ideas started to rely on movement that could only be achieved through animation.

The overlaying of different media, such as painting and animation, in my project relates to the layering of basic shapes in sacred geometry, as well as how human cells are layered into complex designs and body tissue. Using the layers in Adobe After Effects I can layer all my drawings and paintings to bring them together in movement to tell a story. My paintings and drawings have always been constructed on an idea of storytelling and narration, where different forms are transforming, sometimes achieving abstraction but sometimes going to recognizable figures. This deep interest in me to see my paintings and drawings move comes from the idea of how disease cells grow and spread. I feel I am at the same time constructing a new medium while deconstructing an existing medium, just like how skin cells die and at the very same moment signal the brain to make new ones. We purge and regenerate a cell mass that is about as large as our bodyweight every year of our lives, involving millions of cells each second (Schrijver, Schrijver 2015). Animation similarly involves the production of new frames, purging and regenerating images from one instant to the next.

My path from painting to animation also echoes the work of Shazia Sikander, who I discussed earlier in the paper. Sikander's turn to animation in moving image works like *Parallax* (2013) was shaped by some of the limits of miniature painting and her desire to express her ideas around immigration and confinement. Thinking on this idea I also felt the need to explore animation more than just using Adobe After Effects to move my paintings. Learning more about the animation department through my supervisor Alla Gadassik, I came across "under-thecamera" animation technique. This technique involves live painting directly under the camera and documenting the image being formed. It gives a plasmatic effect to the animation and looping the animation at certain points was successful in creating forms that seem alive. Visually, it seemed like a hybrid of medical footage of body organs and traditional painting. Deconstructing the slow craftsmanship of miniature painting and adapting it for the under-the-camera technique in animation allowed me to work with the same pigments, but in a much faster way.



My work station in camera room, animation department, 2022 Fig 12

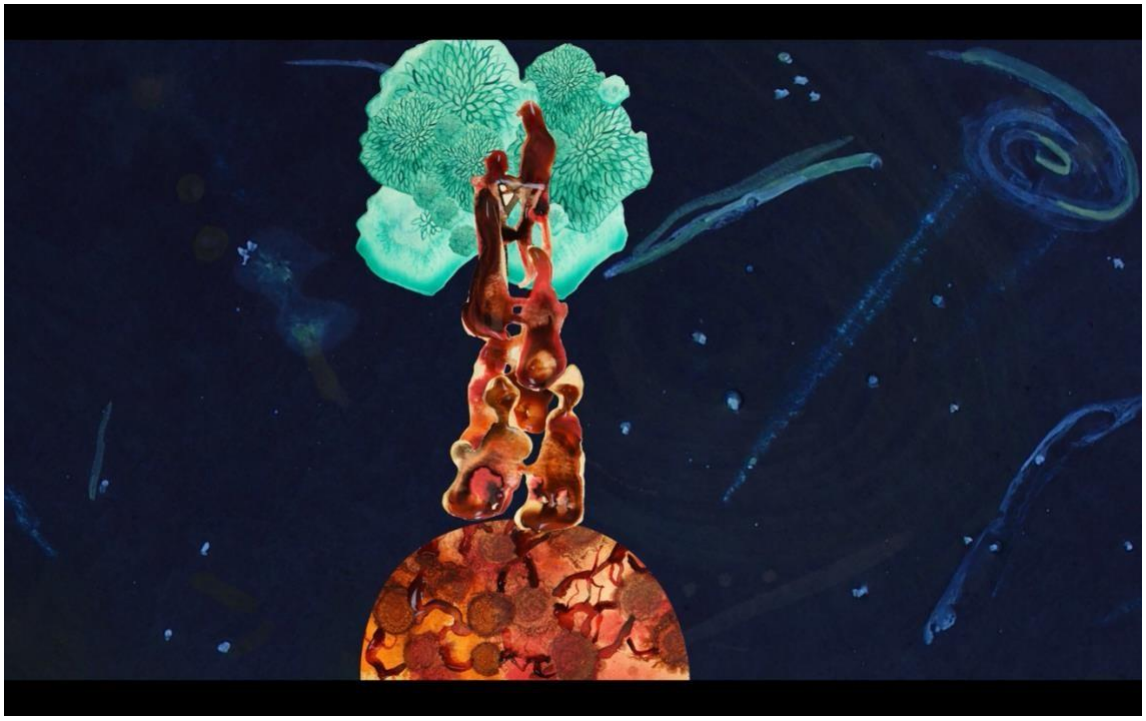
Christine Panushka's film *Blood of the Family Tree* (2021), which also tackles an autobiographical exploration of hereditary disease, inspired me to build an animation with a narrative structure that has sudden shifts, creating an intense moment to represent how parents can pass contaminated blood to their children. As one reviewer of the film describes it:

> Blood is a mother's first gift to her baby; it carries life, of course, and her love, and sometimes more besides, hereditary traits and markers for future illness, for example. The narrative, if you can call it that, is as fluid as blood itself, coursing through memory and history, forging familial bonds, and carrying intergenerational trauma.

Panushka's film explores a blood disease that was passed on to her through her family. By using simply hand-drawn images of red blood cells, figures, text, community symbols, and organs, the artist animates them to create drama and strong complex emotions. The animation is a densely layered piece with drawings done over the course of several years. These drawings were then carefully cut in Photoshop and animated in collaboration with a group of experimental animators. I really enjoy how the artist gives importance to one red blood cell by increasing its size from micro to macro and then encompassing the whole community within that one cell. The cell then starts to rotate with the community inside like a planet, making me think of how microscopic cells can relate our bodies to the entire universe. The cells also explode from the body as tiny particles that eventually take over the whole screen. Panushka's title and idea of the film makes me think about how our bodies are like trees and how our veins are like roots, all linked to this earth growing and passing on. Some of these strategies shapes the ways I approached creating compositions and animating under the camera.

Blood of the Family Tree, Christine Panushka, 2021, 1h 3m, Animation fig 13

The blood line tree, 2023, animation, still, 6 min fig 14



The blood line tree, 2023, animation, still 2, 6 min, fig 15

At this moment, I felt like my traditional medium was deconstructed enough that it began to transform into a completely new practice of art. *The blood line tree* (*2023*) is an animation that I did using the under- the-camera technique in the camera room facilities at Emily Carr university. It was a very practical hands-on experience, just like the miniature craft is. I was able to use my same handmade pigments on my handmade paper, but in a completely different setting with computer programming and cameras. Capturing the pigments and ink spreading and forming into bodies made the work very alive. The sound of the heartbeat added in subsequent editing, as well as the large size of the projection makes the piece immersive, as the figures forming are nearly life size. The animation starts off with a slow pace, which starts to build up halfway and intensifies in the end, accompanying an explosion of blue cells that at moments look like atoms or just abstract forms taking over, filling the screen. The cosmos rotating in the background and the figures in the front all become part of the sea of cells. This chaotic moment in the animation reflects the time when my daughter was born. To me it felt

like my universe had collapsed on me, drowning me in a looped time lapse that at instances felt stagnant. It makes me think about this quote from Mukherjee's book: "[t]he universe seeks equilibriums; it prefers to disperse energy, disrupt organization, and maximize chaos. Life is designed to combat these forces." (Mukherjee, 2016).

Installation

My paper installation titled *Girah Sazi* (Persian for the act of pattern making) was inspired by the disease of the skin and the accompanying pain. Long rolls of tracing paper, which were painted with cells and Islamic Mughal patterns, are hung, and layered with each other to create an interplay of opacities and transparencies. The layers give a sense of how skin dies, sheds, and relives repeatedly. How the human brain is coded to force the body to multiply cells so that it can live on this earth. The translucency of tracing papers allowed me to create the

translucent effect of skin – skin, when it hangs on its own against light, allows light to pass through. In a skin disease where the collagen between layers of the skin is not effective, the skin erodes at different layers revealing the muscular layers of the body in translucency. The layers of hanging rolls of tracing paper at different lengths depicted this same notion of skin, not being equal. For some of the sheets that reached the floor, I rolled the remaining empty sheet as a loop of an ever-going ritual of cell mutation, skin shedding, and regrowth.

The frustration of ceaseless care which helps a perishing body only for a sparse amount of time puts me in a position where I want my art practice to move or live like the disease. I created an animation which I projected on those rolls of hanging tracing sheets from behind using a short throw projector. I animated a single cell to move like it's orbiting in space. This one tiny cell has encompassed my whole universe. That one cell then starts to multiply into more cells forming a blood red tumour. Hand-drawn clouds then appear in the animation with a down pour of heavy rain, taking away the red tumour creating a sense of hope and in search of

a cure. This animation is looped to mirror the relentless ritual of cell formation and breakdown in genetic diseases and mutation.

This paper installation feels important to me, because it stands as a middle ground for my transition from paper-based practice to time-based work while using both mediums. The use of translucent tracing paper serves a purpose of layering in skin but also helps in the transitioning of hand drawn images to moving images. The drawings on the tracing paper start to glow and become vibrant and spirited when projected with animation in a blackout room, making the viewer feel immersed amongst these rolls of paper with floating visuals and marks that are larger than life size.

Girah Sazi, 2021-23, Tracing sheet with gouache and ink,

Retention off Calamity, 2023, Animation video projection, 4 min Fig 16

Girah Sazi, detail Fig 17

Role of Pattern

Geometric, Cosmic and Bodily Pattern

In this section I want to explore in more depth how Islamic landscape patterns found in traditional miniature painting and their relation to cosmic, bodily patterns became important to my work.

Our bodies are part of biological processes, namely the cell-packing geometry which divides and splits in predictable patterns. The functionality of many differentiated tissues depends on the reliable formation and repetition of new cells (Hilgenfeldt, Erisken, and W. Carthew, 2008). Such repeated forms are also used in arts informed by sacred geometry, including that of Islamic art. For example, Leonardo da Vinci used sacred geometry principles to illustrate the mathematical proportions of the human body, showing that human being clearly exhibits the

same geometry as circles of life (see figure 18). The “flower of life” (see figure 19) is an example of a six-petal rosette that starts from a single circle. With the repetition of that one circle, many more complex shapes are formed, representing the primary geometric generator of all man, nature, cosmological forms (Dabbour, 2012) and resembling the embryo’s formation out of the division of cells (Melchizedek, 2000). These mathematical patterns can be seen in micro and macro cases like cells, flowers, sand grains, living forms, essentially forming the whole universe. The human form is one of nature’s core creations that possess the most harmonious proportions (Dabbour, 2021). My work considers how this harmony of proportions is not gifted to all human beings. Disruption of this harmony amongst the micro can effect on macro levels, as it’s all connected through a lineage of patterns.

Drawing by Leonardo di Vinci c. 1490 Fig 18

Both disease cells and Islamic patterns carry a lineage with them through history and share the quality of being perpetual. To develop a visual language for this inquiry, I initiated a tactile dialogue between body cell patterns and geometric Islamic patterns. In my paintings I started to combine the geometry of cellular forms with Islamic Mughal illuminations to make organic patterns that appear to be ceaseless.

Flower of life fig 19

Before moving into animation, I wanted to achieve movement through painting. I did a series of small paintings which were a result of multiple drawings, where I integrated the human body and cells with Islamic patterns. Layering the organic curves of the body against the rigid lines of the pattern started to break the pattern loose to look more fragile, just like its melting, like burnt skin. My drawings achieved this new level of abstraction, where at moments they looked like distorted figures, and at moments a warped pattern.

Animated drawing 3, Gouache, ink, and tea wash on wasli, 2022, 7.5 by 4 inches fig 20

Leaning into figurative abstraction was another milestone I achieved before transitioning into animation. Breaking down the rigid lines of Islamic pattern alongside with the deconstruction of the confined painting technique allowed my mind to run free across space and materials, and my graphic work had already achieved some dynamism.

In her essay on calligraphic animation, Laura U. Marks talks about the inherent movement in Islamic calligraphy that is expanded in animation. She says, “animated texts, words, and letters take this quality of uncanny liveliness even further, for they behave like figures one moment, then collapse into the most self-effacing symbols the next. Calligraphic animation can record the very event of coming into being. They shift the locus of documentation from representation to performance” (Marks, 2011). I sense the same quality of being performative when I animate the Islamic patterns to leave their confined lines and change into organic forms. Marks draws upon the theories of Theodor Lipps (German philosopher), who wrote about concepts of bodily

empathy toward non-figurative forms. He suggested that people 'empathize' with abstract forms insofar as those forms undergo experiences that we too might undergo (Marks, 2011). I felt the same in my critiques during my MFA program, as my cohort would individually relate to the lines, trying to figure out what new forms are arising for them.

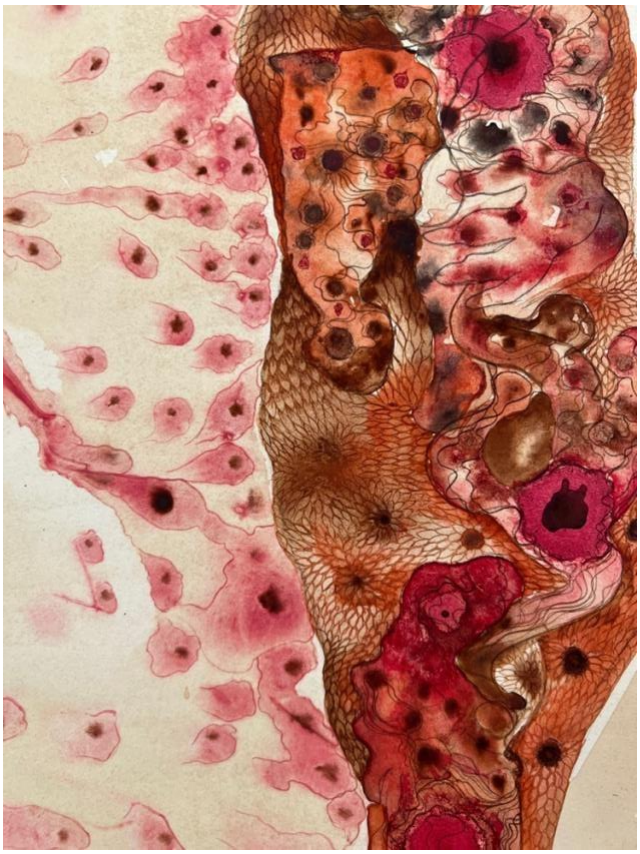
In addition to sacred geometric forms, my compositions took up trees, shrubs, and plants that are often painted in miniatures from the Mughal era to record the native landscape in book form. The foliage in original miniature paintings is painted with finesse and with symmetry, and it starts to look like a pattern. I have always been drawn towards this foliage, for me it resembles growth just likes how body cells multiply. My use of foliage has been especially inspired by two Pakistani miniature painting artists, Wardah Shabbir and Imran Qureshi. Wardah Shabbir talks about the use of Mughal miniature-inspired foliage in her work for an interview for Grosnevor gallery exhibit, "it forms relationships, points and lines, engages and disengages with the surface to formulate organic geometry". Shabbir's work is interested in exploring the aesthetics of organic geometry, constructing it and deconstructing it at the same time. Imran Qureshi connects foliage patterns with organic patterns of the body. He introduced ornate vine motifs that became symbolic of the vulnerability of the human body. As a description of his painting *This Leprous Brightness* notes:

> Following bombings in his home city of Lahore, he introduced blood-red paint into his palette, splattered or delicately drawn in works that contrast violence with beauty. Plant tendrils become splitting capillaries, human feet are patterned with tiny leaves, and oval canvases are covered in gold leaf. In pieces as small as six-by-eight inches or as large as room-size installations, he represents in abstracted terms the collective history of his country (artsy.net).

For the artist, "the flowers that emerge from the paint represent the hope that despite everything there is still hope for a better future for all those effected by bombing." Inspired from

Qureshi's use of foliage, I paint foliage in my paintings amongst cells and bodies to represent a similar notion of assurance and hope. Unlike the blood red foliage in Qureshi's painting, I like to use green or cyan to represent hope through color, against the reds and browns of the body and cells.

Drawings of foliage, sacred geometric patterns, and human cells all have one thing in common: repetition. The layering of these symbols became an important part of my visual representation of mutation and cyclical care.



The Blood line tree 2, detail, Gouache and ink on tea stained wasli, 2022 Fig 21

TERRITORY, Wardah Shabbir 2020,Gouache on paper, 11 3/8 by 10 1/8 in fig 22

This Leprous Brightness, Imran Qureshi, Opaque watercolour on wasli ,13×10 inch fig 23

Repeating patterns of cells play the role of the micro and macro in my work. When they are scaled up in animation, they become the planets, and when they are painted on paper, they look like tiny cells. In my animation work I use my cell drawings, scale them up, and move them in slow circular motions to create a sense of movement across time and space. This

relationship between the micro and the macro is echoed in the work of Jordan Belson, who was interested in using abstraction to render cosmic patterns. Belson's animation *Allures* is constructed of thousands of single points that are painstakingly choreographed to music. As they change in size, form, color and direction, the images rivet the eye. The animations can be described as painterly creations of organic and molecular forms. *Allure* starts with a single circle changing form into many points, forming and breaking patterns with the beat of the sound. The single circle transforms into moving patterns, and the way the movement is created evokes for me the process of embryo fertilization with thousands of sperms, before it changes into a pattern of cosmos and planets, ending again in a singular circle. The film suggests a connection between the micro and macro by bringing the visual motif of cells and planets together. Belson's work invites me to think about how I can create immersive animations that tend more towards abstraction. One idea to pursue after the completion of the MFA program is to create time-based work that takes on the notion of micro and macro through abstract imagery. I feel intrigued by the chaos of points, cells, atoms in films by Jordon Belson and Christine Panushka, as this visual havoc echoes the mental state of caring for a diseased body, with the clashing of bodily and cosmic worlds.

Jordan Belson, stills from *Allures,* 1961, 8 min, film fig 24

In Laura U. Marks dialogue with Piero Scaruffi on “soul-assemblage media,” she talks about how almost everything has a soul. She questions what the cosmos is made of and answers “that it’s made of us, living beings, anything that communicates, acts, or feels is alive and to do so it must have consistency, some provisional boundaries like skin. A living being is a temporary fold in the cosmos that brings together a point of view and such a being be a person, a molecule, a computer chip, or a planet”. It makes me ponder how the cosmos and planets all depend on the correct functioning of these microscopic cells and vice versa.

The physical markings that a wound leaves on the skin after healing, and the markings of a wound on the nonphysical realm of the mind, also come alive every day. At every moment they make me think of how the effect of the micro (body cells) is related directly to the macro (cosmos). Not just our bodies and other living organisms, but all processes on the Earth are intertwined with those in our Solar system, our Galaxy, and the greater universe (Schrijver, Schrijver 2015). Being born with a genetic condition from birth means learning to deal with pain from the moment an infant is born. Passing on unknown or invisible mutations across generations suddenly becomes real and unescapable. Learning to cope with this change is like falling into a new loop of distress that never ends. How can a small, microscopic cell with the wrong set of arrangement of atoms change the entire life system? An imbalance between cell death and cell creation leads to growth and development, but also to disease, aging, and death

(Schrijver, Schrijver 2015). How is hidden trauma passed down through generations repeatedly? As I reflected on these questions, my work became an explication of bodily anxiety, fear, trauma, and pain as expressed and cared for through everyday rituals.

The continuity of events and cycles surrounding incurable disease made me think of how our bodies are in connection to the cosmos through looping, healing, again shedding, always going back to the starting point without end. This connection first came alive in my paintings, where cells began to float freely on paper and came to resemble the university, planets, and stars around it. Learning animation broadened this relationship and allowed it to unfold across time and expanded scale.

Bibliography

Adamatzky A. & Martinez G. J. (2016). *Designing beauty: the art of cellular automata*. Springer. https://doi.org/10.1007/978-3-319-27270-2

Ahmed S. & Stacey J., editors (2001). *Thinking through the skin*. Routledge. Retrieved March 2, 2023, from http://site.ebrary.com/id/5001161.

Barnett R. Wellcome Collection & Distributed Art Publishers. (2014). *The sick rose or disease and the art of medical illustration*. D.A.P./Distributed Art Publishers.

Bonner J. (2017). *Islamic geometric patterns: their historical development and traditional methods of construction*. Springer. https://doi.org/10.1007/978-1-4419-0217-7

Breck, J. (1930). An Early Mughal Painting. *Metropolitan Museum Studies*, *2*(2), 133–134. https://doi.org/10.2307/1522741

Curtis, Rabinovitz L. & Geil A. (2004) . *Memory bytes: history technology and digital culture*. Duke University Press.

Dabbour L. M. (n.d.). Geometric proportions: the underlying structure of design process for islamic geometric patterns. *Frontiers of Architectural Research* 380–391. https://doi.org/10.1016/j.foar.2012.08.005

Hilgenfeldt S. Erisken S. & Carthew R. W. (2008). Physical modeling of cell geometric order in an epithelial tissue. *Proceedings of the National Academy of Sciences* 907–911. https://doi.org/10.1073/pnas.0711077105

Jay, (2021). Blood of the Family tree. (https://assholeswatchingmovies.com/2021/10/08/bloodof-the-family-tree/)

Lorde A. (19921980). *The cancer journals* (Second). Aunt Lute Books.

Losty, J. P. (1985). The “Bute Hafiz” and the Development of Border Decoration in the Manuscript Studio of the Mughals. *The Burlington Magazine*, *127*(993), 855–871. http://www.jstor.org/stable/882258

Marks L. U. (2011). Calligraphic animation: documenting the invisible. *Animation* 307–323. https://doi.org/10.1177/1746847711417930

Marks L. U. (2010). *Enfoldment and infinity: an Islamic genealogy of new media art*. MIT Press.

McGhee J. (2010). 3-D visualization and animation technologies in anatomical imaging. *Journal of anatomy*, *216*(2), 264–270. https://doi.org/10.1111/j.14697580.2009.01165.x

Melchizedek D. (1998). *The ancient secret of the flower of life*. Light Technology Pub.

Mukherjee S. (2016). *The gene: an intimate history* (First Scribner hardcover). Scribner.

Scarry E. (1985). *The body in pain: the making and unmaking of the world*. Oxford University Press.

Schrijver K. & Schrijver I. (2015). Living with the stars: how the human body is connected to the life cycles of the earth the planets and the stars (First). Oxford University Press. Retrieved March 2, 2023, from https://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=1201042.

Sundar, D. (2020-22). Bodies at Sea. https://www.devikasundar.com/bodies-at-sea

Qureshi I, Bio, https://www.artsy.net/artist/imran-qureshi.

Zakaria, R., & Sikander, S. (2019). Reclaiming Indo-Persian Miniature Painting. Reclaiming History: A Feminist Story. Shahzia Sikander in conversation with Rafia Zakaria. *Islamic art,* 121-154.