

# Displacement & Crafted Identities

Translating experiential knowledge into digital environment



Sadaf Asl Soleimani



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By

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# Abstract

With the urgency that calls for immediate actions regarding our current political and social climates, specifically concerning women's rights in the Middle East, this research takes a closer look into the fundamental values of systems. It aims to identify the occasions in which individuals are experiencing displacement. ***Displacement of home*** (about Afghan women refugees), ***Displacement of letters*** (about the visual aspect of verbal communication), and ***Displacement of self*** (about the Women, Life, Freedom movement in Iran) comprise the main chapters in which I investigate the role and translation of experiential knowledge in this paper.

This thesis investigates the methods by which experiential knowledge can be translated and transposed into the digital environment as a way of communication.

Throughout this paper, the reader will find a collection of 'stories' emerging from research-creation, secondary research, research-through-design, and participatory reflections. Works of design and craft are curated to investigate and translate experiential knowledge through various methods of communication within the digital realm.

## Keywords:

Displacement, Embodied Interaction, System Design, Craft, Experiential Knowledge, More-than-Human



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# Glossary of Terms

**Displacement:**

The aftermath of a systematic relation wherein individuals operating within a given system are consistently excluded from it.

**System:**

A set of elements or parts that is coherently organized and interconnected in a pattern or structure that produces a characteristic set of behaviors, often classified as its “function” or “purpose” (Meadows, 2008)

**Interaction Design:**

Interaction Design is the creation of a dialogue between a person and a product, service, or system (Kolko, 2011)

**Embodied Interaction:**

The interplay between the brain and the body and its influence on the sharing, creation and manipulation interactions with technology. (Lee-Cultura & Giannakos, 2021)

**Participatory Design:**

A collaborative design approach that involves end-users in the design process. Its aim is to create products and services that better meet the needs and expectations of users by applying their knowledge and experiences. (Interaction Design Foundation - IxDF, 2023)

# Introduction



*Figure showing Ghoba Rug, from Ghafghaz, Iran*

I am from Iran, I am a designer and I have encountered various forms of displacement in design and daily life. This has inspired me to reexamine my experiences and investigate the origins of my behaviors through the lens of interaction design. Growing up in a system that refuses to acknowledge women as independent individuals, finding my own voice and values has always been a challenge. Even as a designer, I was prohibited from depicting women or any symbols of femininity in my designs. Yet, finding ways to convey the presence of femininity in my work, became one of my areas of focus. By femininity, not only I am referring to cultural and social definitions for those who identify as female (physical and behavioral attributes), but also all that represents the fight against oppression and expressions of freedom. Under a governing Islamic Regime, this form of oppression is exercised by constantly removing and censoring any color, line or word that refers to femininity from the face of society in Iran (from billboards, movies and architecture to school books and enforcing Hijab rules).

This form of discrimination is not exclusive to women in patriarchal societies. The roots of systematic discrimination seem the same when looking at the history of racism against Indigenous communities in North America, prejudice against the LGBTQ2S+ community, or even individuals with disabilities and physical differences. The totalitarian mindset that shapes various systems in our society adapts its presentation, but not its core values. It shifts from how we influence our environment to how we address gender inequality or even how we neglect those who interact with the language system differently.

My research closely examines instances of displacement and analyzes the behavioural patterns of affected individuals. I believe that by understanding these patterns, we can *displace* the values and functions inherent in predefined systems. This, in turn, can pave the way for more precise and crafted interactions with both ourselves and the predefined systems. We can observe the displacement of emotions in the approach the women in Iran have chosen regarding their fight for their basic human rights. We see the adverse shift in the refugee (forcibly displaced) crisis because of the current war in Ukraine and Afghanistan, and also we may have encountered displacement of letters when interacting with language. In this investigation, displacement is referred to a state of being, not a specific act or function.

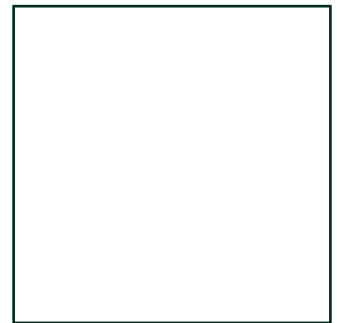
Using graphemes and phonemes, we have designed words that can (almost) define our state of being. (more or less). As Ingold writes in the foreword of *Non-Representational Methodologies: Re-Envisioning Research*: “Words are, indeed, our most precious possessions and should be treated as such, like a casket of sparkling jewels.”(Vannini, 2015). In other words, not only we have designed language systems as a means of communication, but we also consider them as part of ourselves. When we closely examine modes of cognitive processes, we find that individuals receive data differently from their spatial environment. Sometimes we rely more on our visual senses, while other times we depend on our auditory or kinetic senses as part of our literacy learning process. The response to these sensory inputs also varies, resulting in tailored modifications in how we communicate within the language system. But, because we regard words as “possessions”, we automatically seek to protect this possession regardless of who uses the system. Consequently, as long as we prioritize these systems over crafted modes of interaction, we continue to displace individuals from these systems.

Although *crafting* typically pertains to the work of the hand, in my practice, I view craft as a process encompassing both manual labour and the creation of a tailored piece. This approach involves engaging multiple senses simultaneously and often requires a significant amount of time to complete.

For me and many women in my community, digital platforms have been gateways to the unknown, places where we can explore and discover our true selves. Looking at the history of expression and representation, there are instances in which individuals communicate their stories through craftsmanship. Leveraging modern technology, we can integrate the act of craftsmanship into digital communication, recognizing that some narratives demand multi-sensory comprehension beyond words and images. How individuals with learning differences interact with language, how Iranian women have been fighting for their basic human rights, or how Afghan women have been surviving in refugee camps, are the stories that have been told but not truly understood. Understanding the experiences of displaced individuals requires acknowledging the experiential knowledge embedded in their narratives. For me, this project is not about advocating for displaced individuals or raising awareness about their situations; it's about creating opportunities to craft our interactions in the digital world by mirroring how displaced individuals have crafted their identities as a means of survival.

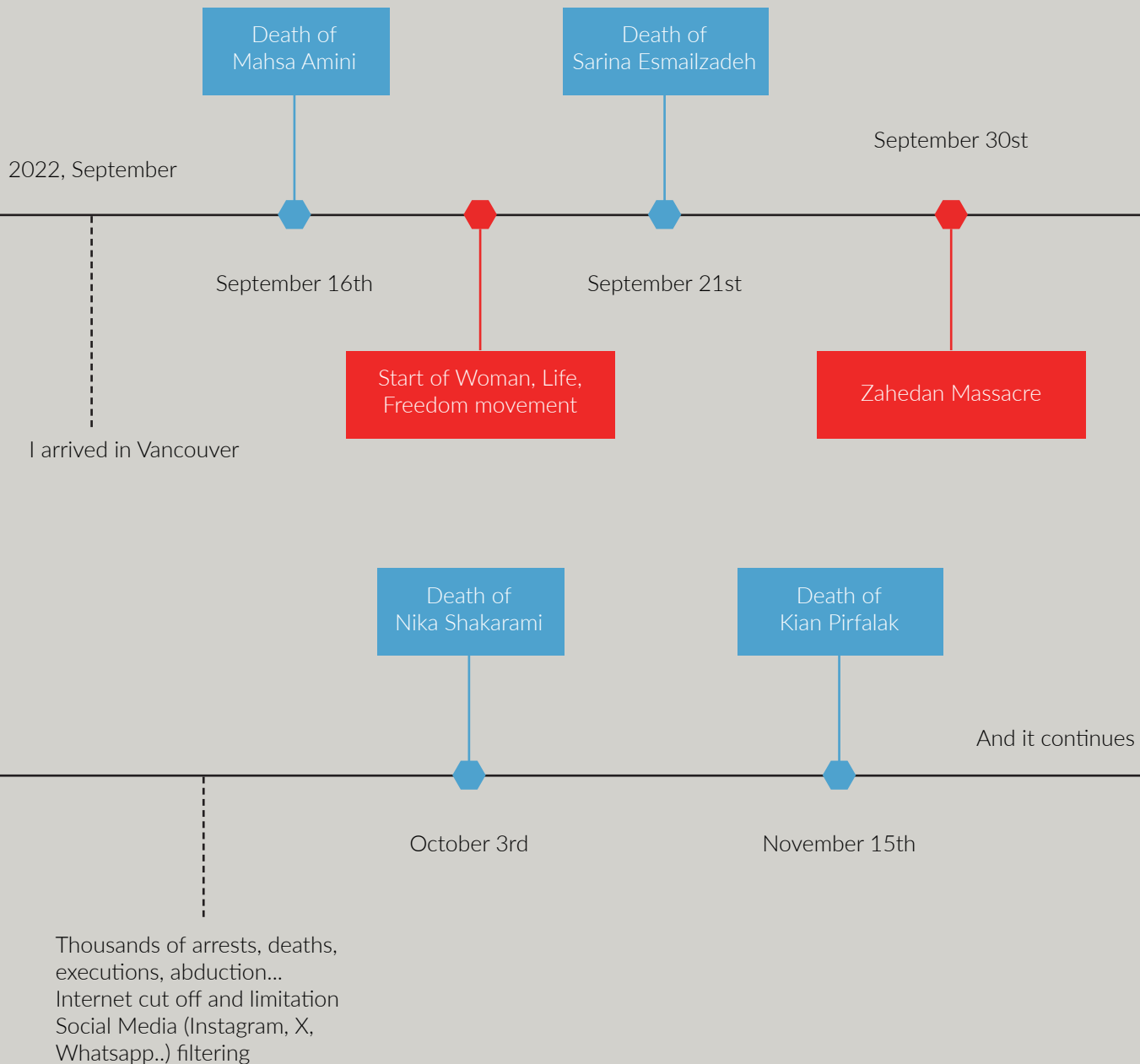
# Positionality

My research and current practice are rooted in a personal and acute space. It is a container that holds my designer “self” both in Tehran and Vancouver. For the first time in my 7 years of practice as a designer, I had the opportunity to take my time and address several matters that I felt unfinished when I left Tehran. Shortly after I arrived in Vancouver, Mahsa Amini was arrested by the Morality police and then killed after being brutally assaulted. On the day of her funeral, participants constantly repeated the words “Zhan, Zhian, Azadi” in Kurdish. Which was then translated to Woman, Life, Freedom in English. The hidden anger and sorrow were lit, and it resulted in months of protests. The protestors, with the slogan “Woman, life, freedom” had hoped to change the misogynistic rules embedded in the constitutions of the Islamic Regime once and for all. As always, the government’s answer to those protests was bullets and blood. To this day, several activities, musicians, actors, and civilians are in prison, waiting for their sentencing. Nika Shakarami (16 years old), Sarina Esmailzadeh (16 years old), Kian Pirfalak (10 years old), Armita Gervanad (16 years) ... among many victims of the Government’s brutality.



1500 Tasvir is an anonymous private news community in Iran (Instagram ID: @1500tasvir\_list) that has tried to gather the names of all those who have been arrested, killed or waiting for their sentencing since the beginning of the Woman, life, Freedom movement.

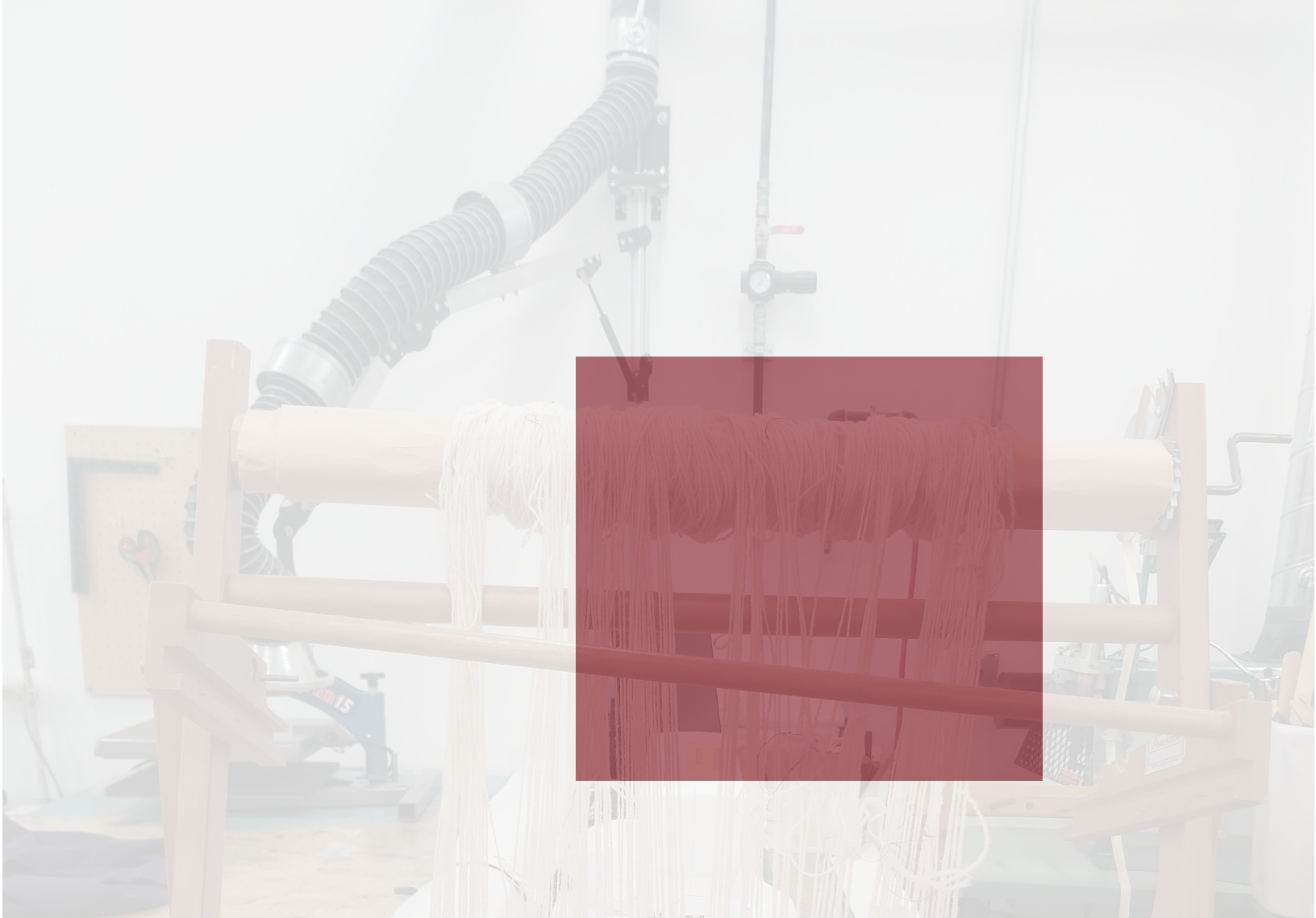
# Timeline



Overwhelming anxiety, anger and guilt were all new to me as a design researcher at Emily Carr University, and at the same time, these emotions felt old, never-ending and persistent. Therefore, without noticing, I started to reflect on my previous experiences through my practice and asked myself: why are these feelings familiar? Why does my body experience the same old reaction in this new environment? Is it because I was Mahsa? Is it because I know there are going to be more people like Mahsa? After months of self-reflection, I concluded that I had been experiencing yet another form of displacement.

Displacement is about acknowledging the moment when you leave part of you, your home, your words, your body and your mind behind. For Deleuze & Guattari (1980) it is called a Body Without Organs. Their description of the Body Without Organs is: "The BwO [body without organs] is what remains when you take everything away. What you take away is precisely the phantasy, and significances and subjectifications as a whole." (Deleuze & Guattari, 1980) In other words, being in an occasion that forces you to change/adjust your method of function, affects your whole being. This acceptance doesn't only affect one aspect of our life experience, it also redefines our identity, our positionality and the limits of our fantasies.





# Stories of Making

Part 1



I define displacement as the result of a systematic relation wherein individuals operating within a given system are consistently excluded from it. The basis for rejection lies in an individual's differing goals or methods of functioning that do not align with the system's values. Consequently, these individuals are labelled as "outsiders" or "displaced" by the system. Despite living in or engaging with the system in their daily experiences, continual barriers and obstacles are imposed to emphasize their exclusion.

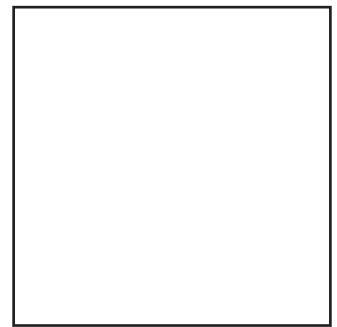
I started by collecting stories of displacement from Afghan women in refugee camps, children who struggle with displacement in the English language, and the continuous fight of women in Iran. During my research, I worked on various design projects as responses to those stories, reflecting on how they have been affecting displaced individuals, and how their responses can be translated into a digital environment.

# Click me Printing App

## (Language and Displacement)

Displacement in language can manifest in various forms. My first encounter with this concept was as a volunteer educator in Tehran back in 2015, where I had the opportunity to work with neurodivergent students with Dyslexia. Displacement is a common symptom of visual dyslexia, impacting an individual's ability to learn, spell, or form letters (Levinson Medical Center for Learning Disabilities). Globally, 20-15 percent of the population has Dyslexia (Dyslexia Canada). Although there hasn't been extensive research on Persian-speaking individuals, it has been reported that 20 percent of Iranian students have Dyslexia (Irna, 2017).

In collaboration with Elementary Curriculum Digitizers (ECD) I have been assigned to develop and produce literacy learning material for first grade students. In this research project, we are producing materials based on 5 different modes of learning. Visual, Auditor, and Kinesthetic learning, as well as Sequential and Nature learning. Our approach toward these modes of learning is to provide early literacy learners with all the information and material that they may require during their literacy learning process. Unlike other digital applications that are based on progressive disclosure, this application translates each mode into a digital representation for iPads, via storytelling, visual encoding and multitude of learning modes for each word.



Eileen White, the founder of Elementary Curriculum Digitizer Inc. has been a teacher for the past 30 years. Her goal is to provide equal and holistic learning opportunities for early literacy learners through a digital application called Click Me Learning .(<https://www.clickmelearning.ca/>).

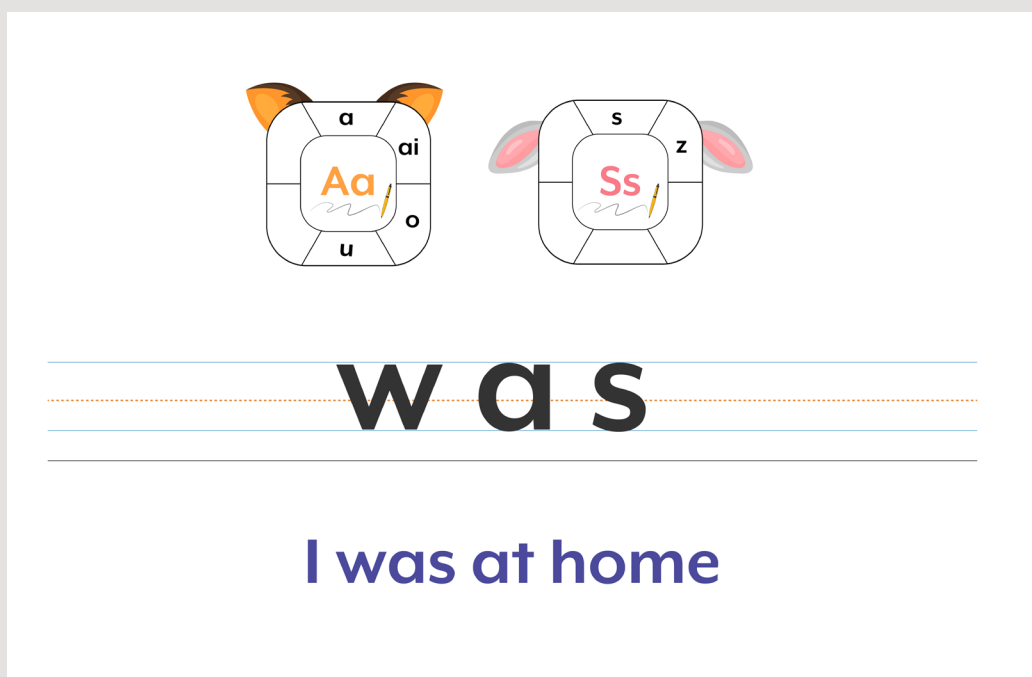


Figure 1. Sound Spinner design for the letters A and S. The animal's ears are the indication of possible phoneme pronunciation of a letter.

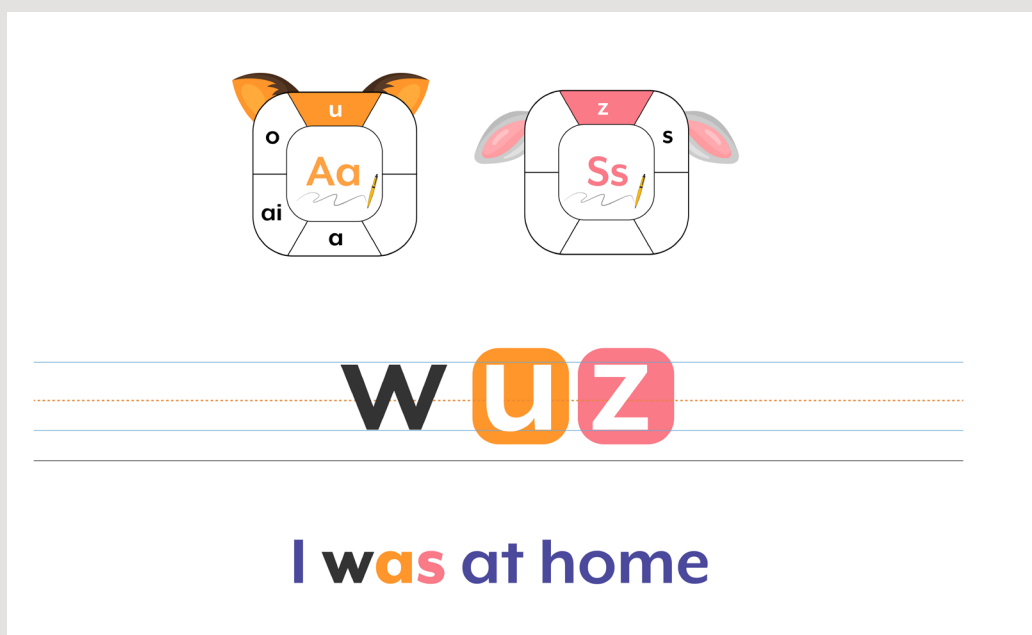


Figure 2. Each letter can have different phonemes. Sound Spinners demonstrate all the possible phonemes for a letter. Based on the word displayed on the screen, the Sound Spinners move until reach the correct pronunciation for the letter.

Throughout my collaboration with Eileen, I got familiar with various types of displacement that can happen in the English Language system and are normally understood through memorizing. One of those instances is when the sound of the letter doesn't match its pronunciation in a word.

For instance, the letter *A* has different phonemes when positioned in different words. If we are emphasizing something, most English-speaking individuals will pronounce it as *ai*. Or when speaking colloquially the letter *A* can be pronounced like *u*. In this project, we call this phenomenon “**mismatch**”. A “**mismatch**” word is a word that contains one or more letters that have a different phoneme or silent letters.



Figure 3. Examples of Sound Spinners. Each Sound Spinner has a set of animal ears for the auditory aspect of the letters. The line and the pen in the middle square represent the visual representation of the letter.

I designed a visual element called a “Sound Spinner” for the “mismatch” words (Figure 1, Figure 2). Each sound spinner contains all the possible pronunciations for each letter. To demonstrate the original grapheme of letters, I placed them in the centre of the triangles with a pen icon as an indication of the letter’s visual representation. On the outer triangle, we can see different visual representations of the possible sounds, assisted by an auditory pronunciation for that letter.

There are some words whose phonemes are stretched and then connected to the second letter when pronounced. For instance, the word “was” could be pronounced “waas”. For these words, we use a “bulldozer” to both move and attach letters together (Figure 4.).

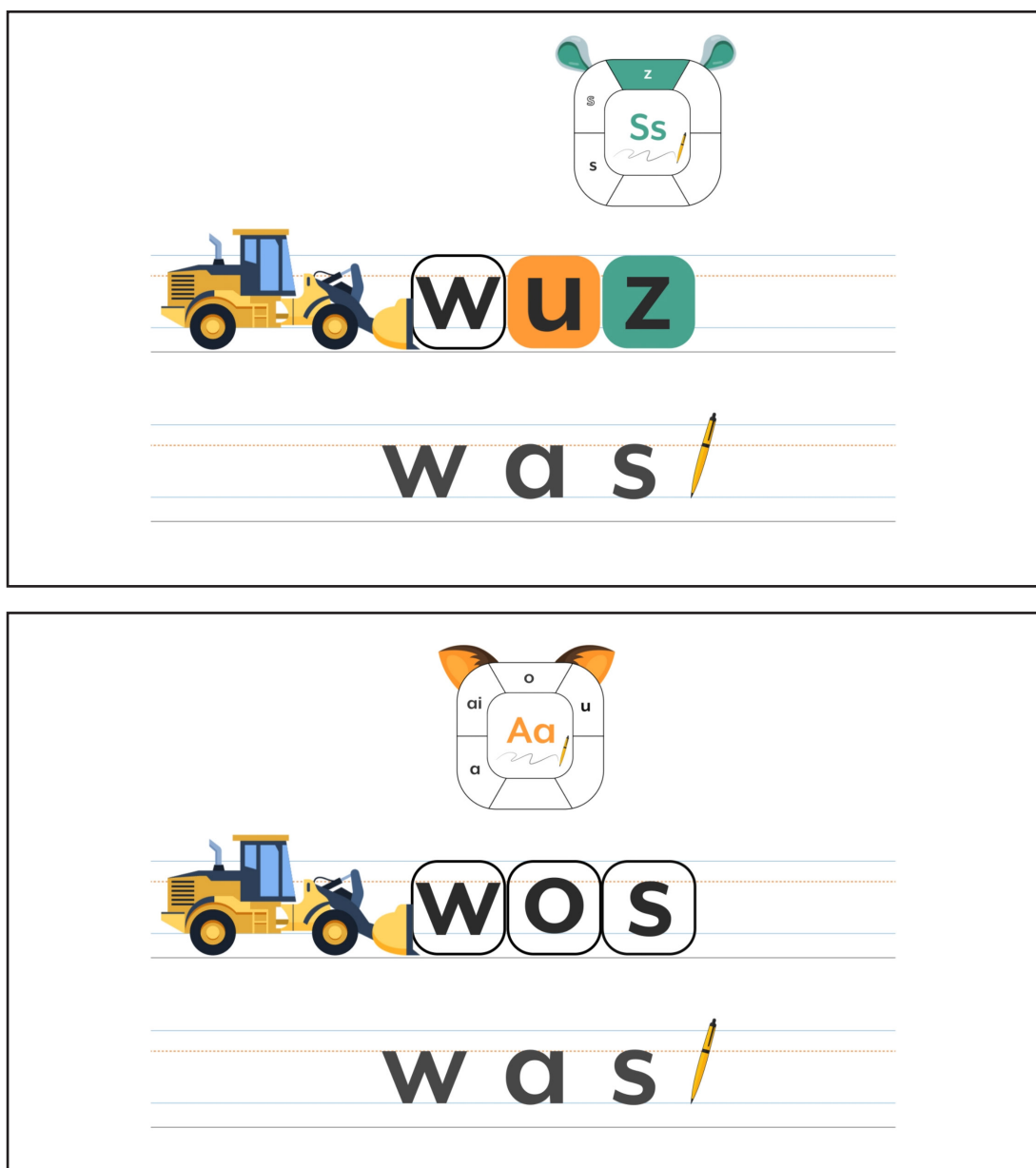


Figure 4. Storyboard for bulldozing words together.



Figure 5. Storyboard for Sneaky E. In the word «like», Sneaky E scares the letter I, the letter I jumps and its pronunciation changes to ie.

Another instance of displacement is when we have the letter “e” as the last letter in a word (Figure 5). Building on the personification approach towards the sound spinner (which has different animal ears as the indication for hearing) or the bulldozer (which is driven by the character Kin, short for the kinesthetic learner), I decided to add hands for the “Sneaky E”. “Sneaky E” in the words such as like, hide, bride ... scares the letter I and its pronunciation changes from I to ie.

These are some examples of the work I have been doing with Eileen to help early literacy learners. This approach is still being tested with students, but the basic idea is to combine different modes of sensory input into one experience. By not limiting students to a single category or mode of learning, they can find the answers they need within this application, exercise and deepen their understanding of their own strengths, and find the motivation to keep learning. As Deleuze & Guattari (1980) put it: "Nature doesn't work that way: in nature, roots are taproots with a more multiple, lateral, and circular system of ramification, rather than a dichotomous one." (Deleuze & Guattari, 1980)

## Reflection: How did my body engage with this project?



Looking for patterns when interacting with the subject



# Discourse and Displacement

(Displacement of Self)



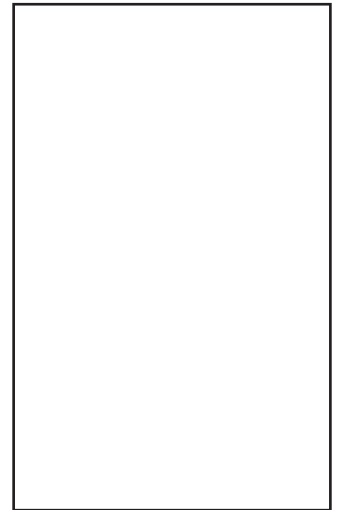
Figure 6. *Discourse and Displacement*, VR game in Unreal Engine.

As part of my master's research, I worked on several projects that focused on expressing my emotions as someone who has experienced systematic discrimination in a patriarchal society. *Discourse and Displacement* is a VR game project that focuses on narrating my journey, illustrating how I, along with many women in Iran, managed to transform systematic discrimination into a form of resistance. In systems, values serve as the linchpin for survival, and any alteration can precipitate a shift or diminishment of power for those benefiting from the existing order. The process of molding individuals into useful assets for the system begins early on. In countries like Iran, literacy and academic education are often undervalued compared to the emphasis on teaching girls to cover their hair and bodies. It's as if the Islamic Government's survival depends on ingraining the belief that girls are destined to serve men, with their aspirations limited to becoming better wives or daughters. The very essence of feeling the wind in their hair or on their bodies is denied to them. Consequently, overcoming these ingrained ideologies and resisting them as integral parts of my identity has been an ongoing challenge.



This project also explores this facet of my struggle as a woman. To further illuminate these complexities, I incorporated a paragraph from Vaclav Havel's 1978 work, "Power of the Powerless":

*"The post-totalitarian system touches people at every step, but it does so with its ideological gloves on. This is why life in the system is so thoroughly permeated with hypocrisy and lies: government by bureaucracy is called popular government; the working class is enslaved in the name of the working class; the complete degradation of the individual is presented as his or her ultimate liberation; depriving people of information is called making it available; the use of power to manipulate is called the public control of power, and the arbitrary abuse of power is called observing the legal code; the repression of culture is called its development; the expansion of imperial influence is presented as support for the oppressed; the lack of free expression becomes the highest form of freedom; farcical elections become the highest form of democracy; banning independent thought becomes the most scientific of world views; military occupation becomes fraternal assistance. Because the regime is captive to its own lies, it must falsify everything. It falsifies the past. It falsifies the present, and it falsifies the future. It pretends not to possess an omnipotent and unprincipled police apparatus. It pretends to respect human rights. It pretends to persecute no one. It pretends to fear nothing. It pretends to pretend nothing."* (Havel, 1978)



Václav Havel was a Czech statesman, author, poet, playwright and dissident. He was the first democratically elected president of either country after the fall of communism. (Wikipedia Contributors, 2021)

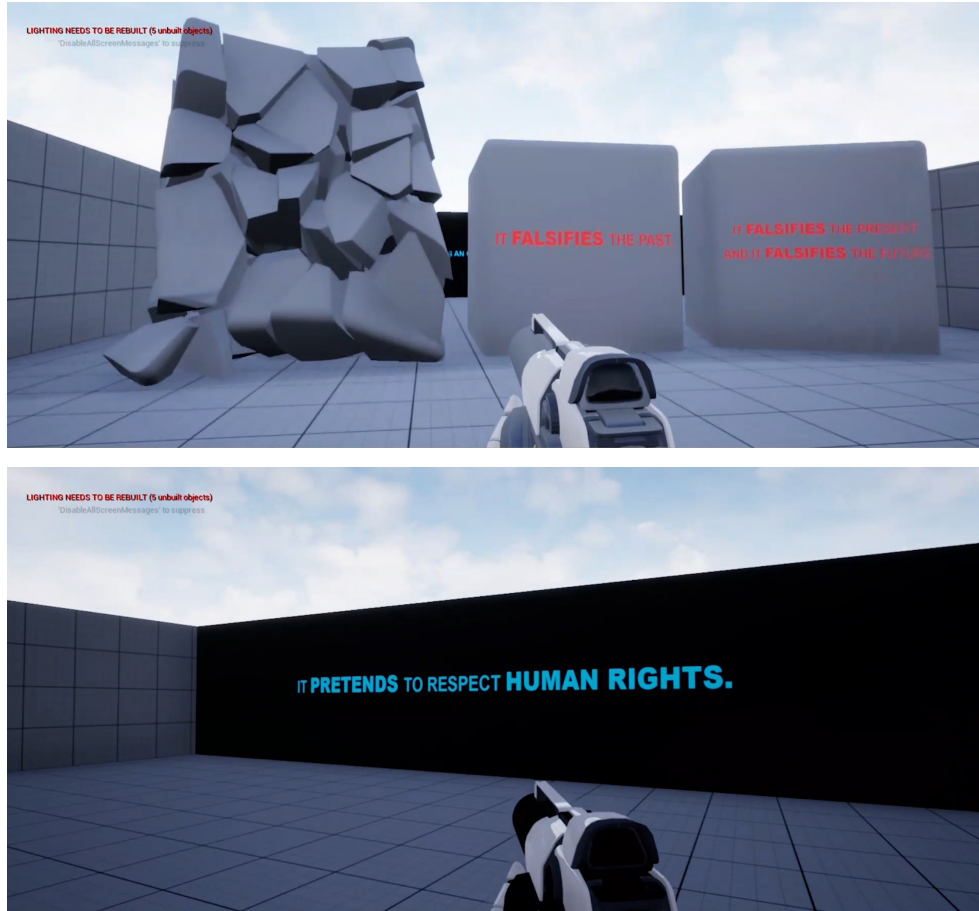


Figure 7. I designed 12 walls with different densities, thicknesses, and materials in Unreal Engine and put one or two sentences of this paragraph on each wall.

As the game unfolds, breaking down each wall becomes progressively easier for the player (Figures 6 & 7).

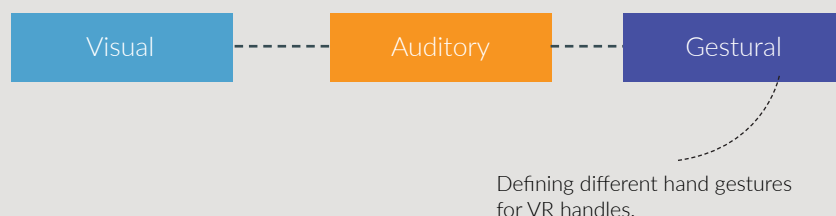
Unlike conventional game development, where players gain strength with each level, making subsequent levels more challenging, my project takes a different approach. I aimed to illustrate that women in my society need not grow physically stronger to redefine their identity and reclaim their subjectivity; they don't have to resort to alternative methods. By recognizing and dismantling the preconceptions instilled in our minds by the Islamic Republic from a young age, beginning with breaking down that initial wall, the subsequent journey becomes smoother. We embark on an exploration of our being with a redefined sense of self—not just as cogs in a machine but as individuals with opinions, bodies, and lived experiences that contribute to shaping society.

When discussing the displacement of self, I am referring to the intentional rejection of individuals by the system, because of differences in values. An example of this is the experience of women under the rule of the Islamic Regime. Laws and social norms are constructed and enforced in a way that consistently places women in a subordinate position compared to men in their society.

This systemic discrimination is observable in regulations surrounding hijab, limited work opportunities, and societal contributions. It goes deeper into restrictions on medical emergencies, divorce, custody rights, passport acquisition, and even the simple act of attending a football match in a stadium.

Despite enduring years of oppression and discrimination, women have not been deterred from actively shaping their identity within this society. While official rules may dictate otherwise, parents have instilled independence and critical thinking in their daughters, challenging societal norms. Consequently, these women are viewed as anomalies, deviating from societal expectations, or, as I would characterize it, displaced within their own society. I believe the result of these years of feeling displaced in a place we call *home* has resulted in the recent feminist movement in Iran. *Women, life, freedom* is a social movement that advocates for all women, and all that means to be a woman.

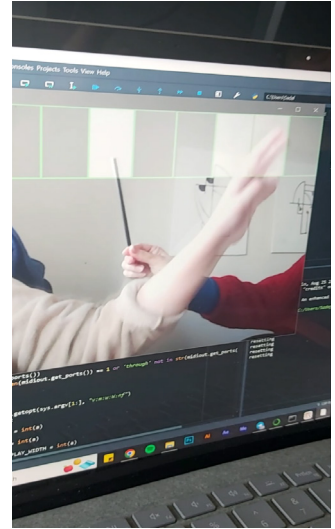
## Reflection: How did my body engage with this project?



# سفره - Sofreh

(Displacement of self + Displacement of letters)

Although the process of designing and engaging my colleague through the *Discourse and Displacement* project was really rewarding, I still felt that my story was unfinished. Through that project, I was able to showcase how I, and many women in my community, are in a constant battle against all the values and norms that were embedded in our minds by the Islamic Government. We had to carefully analyze and then destroy the definitions that the Islamic Government had decided for us as women in that system. Still, I was not able to communicate the process of reaching that point where I gained the insight and strength to demolish those values within me. *Sofreh* was an installation about the connections between what I *think* and its physical representation in the real world, and how this constant translation between what is abstract and what is tangible has contributed to my idea of self.



Programmed in Python,  
(source code:  
<https://github.com/arpruss/motionpiano/blob/main/simplemotionpiano.py>)

I defined a surface and encoded 9 musical notes in that specific space. Combining this surface with a camera motion sensor, users can play those musical notes when changing the placement of objects in that area.

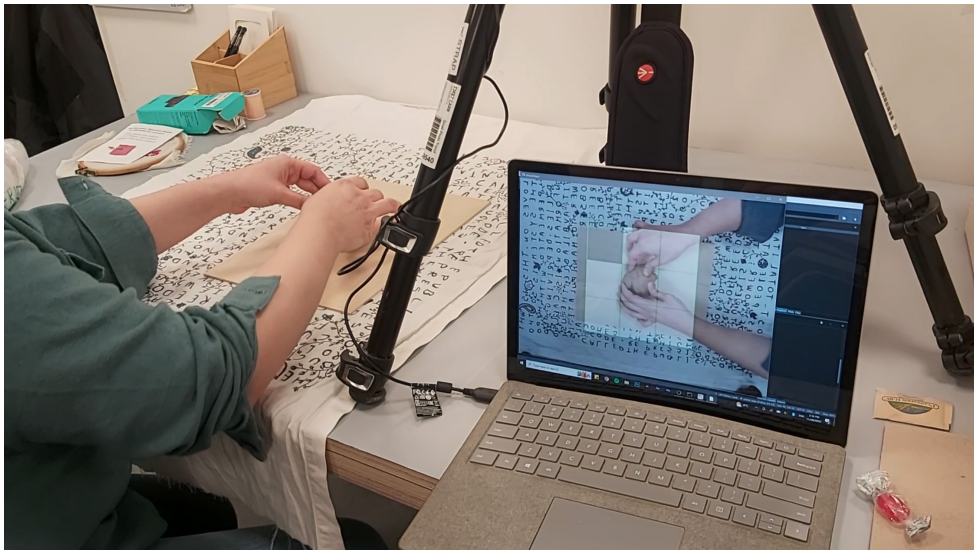


Figure 8. Interacting with the clay while making music using camera motion sensors.

I used clay as my medium for physical representation. Whenever someone is playing or creating with that clay, they are also making music (Figure 8). It depends on the preference of the user to focus on the object that they are creating or create music through that clay. No matter the approach, the outcome always would be a music piece as well as a tangible object. As if the final piece is a conversation between what the user is thinking and what they are communicating in the physical world.







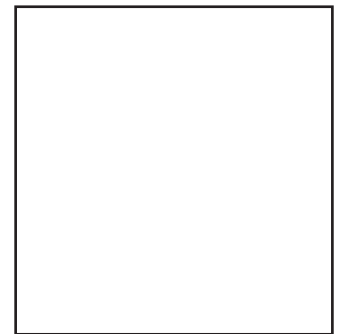
Figure 9. Sofreh

Every conversation needs a platform. For me, that platform is a *Sofreh*. (Figure 9) In general, Sofreh refers to a piece of cloth in Persian culture that is normally placed on top of carpet to serve food on and prevent the carpet from getting stained. For me, Sofreh is the platform of communication. People sit around Sofreh to share a meal and interact with each other. In this exploration I decided to hand paint a piece of cloth and write the previous paragraph from the book *Power of the Powerless* by Vaclav Havel (1978) on it.



Figure 10. The process of designing Sofreh

I start with the word *Nothing* and then write each word from the last letter to the first. Trying to maintain an even distance, I wrote this paragraph in a spiral composition. After finishing positioning the letters in a displaced manner, I started to paint Persian motifs in the art of Gharamkari in between spaces. Each sentence describes how a totalitarian system like the Islamic Regime operates and I wanted to add the elements of culture, history, and the work of hand to it. To a point that it cannot be read or understood by anyone else but me. I crafted an intentional displaced system for these letters that is only readable and functional for me, and it can be used as an actual Sofreh for others to have a conversation around it.



Gharamkari, is a method of traditional textile print in Iran.

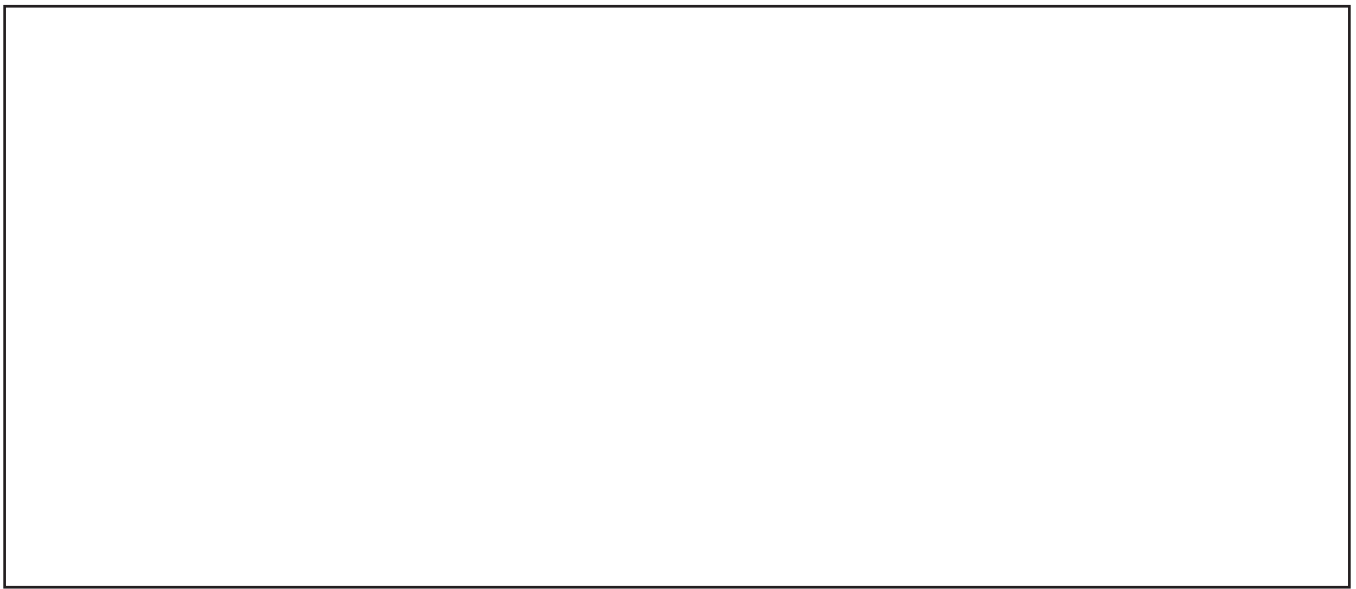
In this project, not only was I able to express another layer of my experience by adding another mode of sensory input to the interactive installation, but I also crafted a piece that stems from my background and for me to read. The tailored displacement vivid in the Sofreh works as a platform to engage more audience to experience what it is like to actively put shape to what is abstract and cannot be touched.

## Reflection: How did my body engage with this project?





# Displacement of Home



*Afghan woman weaving Kilim Rug in Isfahan, Iran. (DW, 2023)*

Displacement of home is the term that I use in my research when referring to forcibly displaced individuals. Forced displacement (also forced migration or forced relocation) is an involuntary or coerced movement of a person or people away from their home or home region (UNHC, 2014). According to the UN Refugee Centre, global forced displacement reached 110 million in mid-2023. At the end of 2022, of the 108.4 million forcibly displaced people, an estimated 43.3 million (40 percent) are children (UNHCR, 2023).

Last year as I presented in my interim thesis, this number was 103 million, and 36 million of them were children. The Islamic Republic of Iran and Türkiye each hosted 3.4 million refugees, the largest populations worldwide (UNHCR, 2023). For someone who has been living with forcibly displaced individuals in one city, this number is an indication of a lack of housing, food, or permission to open up a bank account for the imperceptible future. Afghan refugees in Iran are not allowed to have an ID card, have a job and the fear of getting deported prevents them from demanding their basic needs or even sharing their stories.



Qaiser Khan Afridi, a spokesperson for UNHCR Pakistan says: “UNHCR is committed to ensuring that women are able to make a safe and sustainable living that meets their basic needs and contributes to their dignity” (Qayyum, 2021). He says that the agency has provided certified vocational training to thousands of refugee women over the past four decades, adding that between 2016 and 2020, UNHCR Pakistan trained over 4,000 female refugees in carpet weaving, tailoring, kilim making, jewellery making, embroidery and other skills. “Through these projects, these women not only achieve self-reliance in Pakistan but they also improve their future economic prospects upon return to Afghanistan,” Afridi says (Qayyum, 2021). One can presume that craft-making and working with the hands have been the response to both the political situation and mental state of forcibly displaced individuals. In many societies, such as my own, engaging with a craft product is part of everyday life. Carpets and Kilim rugs are more valued when they have been walked on for a longer time. Accordingly, when shifting our focus from their situation to the result and the product of their lived experience, their suffering wouldn’t seem distant and exhibitory. As we are touching, observing and interacting with the result of their experiential knowledge, our understanding of their situation wouldn’t be contained and limited to a story. Like any Iranian household that has at least one hand-woven carpet, their stories will become part of our everyday life.

# Weaving in VR

## (Displacement of Home)

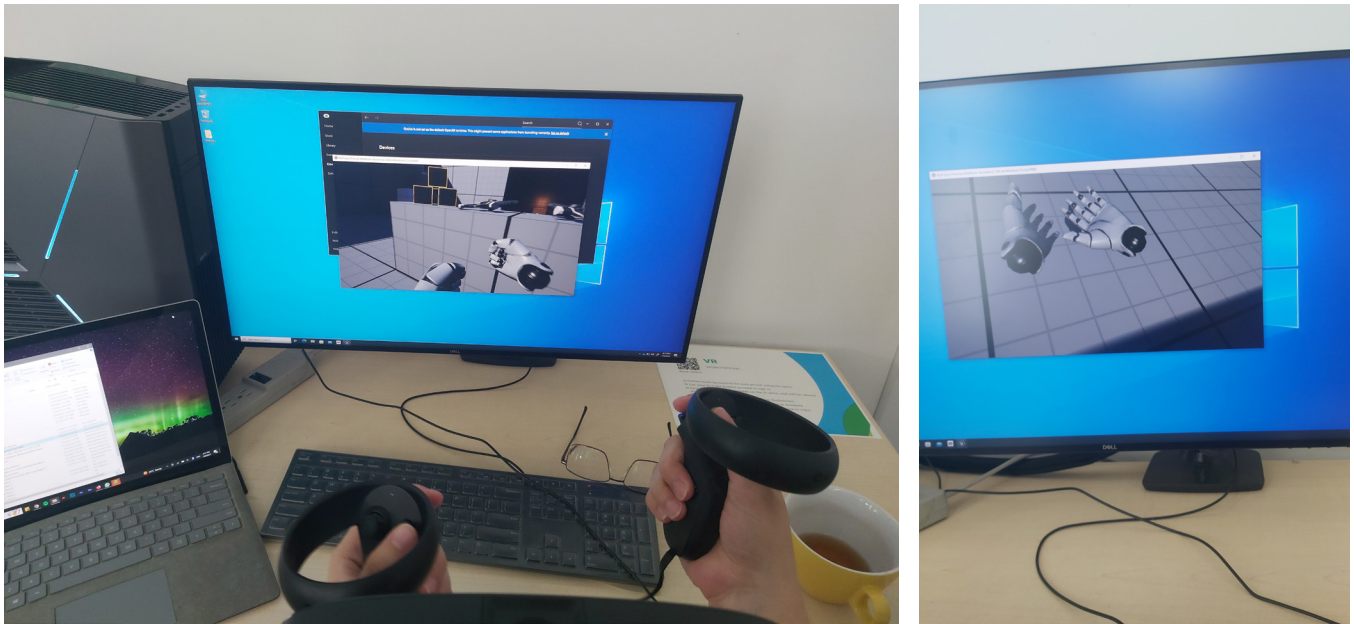
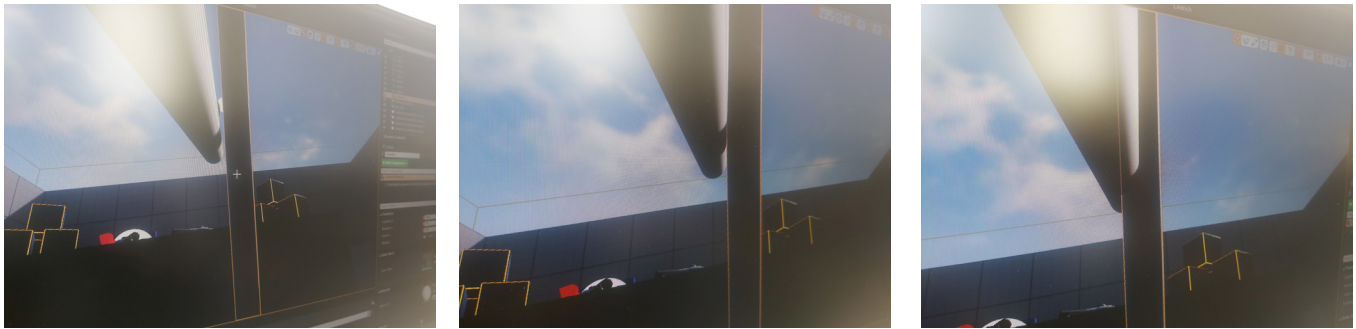


Figure 11. Testing hand gestures in VR

After reading about Afghan women and their weaving practice in refugee camps, I wanted to investigate whether I could recreate the experience of weaving a carpet in a digital environment. My notion was that by adding the act of making into our digital communication, we can experience another aspect of storytelling.

I decided to design an environment in Unreal Engine. I wanted to experience the limitations and opportunities that come with immersive environments. For this project, I used the handles for VR headsets as hands. I defined different gestures, such as grabbing, for the handles. I also created rope-like objects in that environment and tried to see whether I could make a knot using those hands.

I found this task quite challenging. First, defining the behavior of yarn or a rope is delicate and meticulous work. Each part of a yarn has the flexibility to change directions while the other parts can maintain their positions. Moreover, the concept of knotting depends not only on the material, which could be yarn or a rope but also on the space between the modified yarn. Defining nothingness (which is not nothing, it contains air and dust) in between a knot is something that can be experienced in real life but is difficult to represent in an environment that depends on variables and inputs. The characteristics of a yarn, and how my notion of nothingness would affect them, are beyond what I could envision (Figure 12). At this point, I hoped that instead of two hands, I could have two strings of yarn that could transfer the data from my hand into the VR environment.



*Figure 12. Trying to manage the space between two strings of yarn in Unreal Engine*

Although I was not able to achieve what I intended to make in a VR environment, it also highlighted the importance of intrinsic qualities of a material and material knowledge (Nimkulrat, 2009) when translating experiential knowledge into digital platforms.

**Reflection: How did my body engage with this project?**





A/23

# Systems

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A woman is considered an “outcast” in Iran if she doesn’t abide by the rules constructed by the Islamic Regime. A neurodivergent English-speaking student is only considered Dyslexic if they are not able to read or write within the structures of the English language system. An Afghan woman, regardless of her strength, has to learn carpet weaving as a means to earn a living, because she is forcibly displaced from her home country. Therefore, it is systems that make people displaced.

We can define a system as an interconnected set of elements that is coherently organized in a way that achieves something. Therefore it consists of three kinds of things: elements, interconnections, and a function or purpose (Meadows, 2008) .

The English language system consists of the alphabet, the interconnection between phonemes, phonemic orthography, grammar and ... as a means for communication. All these elements are constructed in a way to make that communication easier. Complex systems such as social and political systems consist of people and the relationship established based on culture, rules and regulations toward the stability and sustainability of those social and political systems. For instance, according to Islamic rules and regulations, Hijab is a concept in which a Muslim woman has to cover her body (except for her face and palms of her hands) to protect herself from harm (generally addressing any interaction with men). It is also considered a sin for a Muslim woman to show her hair, or any parts of her body (though covered) to any man that is not legally related to her. The Islamic Government in Iran has established rules and regulations to further enforce this concept on Iranian women regardless of their values or preferences.

In *Thinking in Systems: A Primer*, Donella H. Meadows thoroughly explains and investigates every aspect of systems; their capabilities, means of survival and what leads them to their destruction. As she stated in this book, “a system’s function or purpose is not necessarily spoken, written, or expressed explicitly, except through the operation of the system. The best way to deduce the system’s purpose is to watch for a while to see how the system behaves” (Meadows, 2008). When analyzing complex and fluid concepts such as displacement, it is necessary to remember that actions or the method of operation of a system can be in opposition to what they claim to be their purpose. The educational system has trained and facilitated teachers and educators to improve students’ literacy skills. Yet, when a student is dyslexic, the whole system, methods and purpose of the educational system would be obsolete. Another example could be found in what the Islamic Government in Iran claims in regard to the safety of citizens. The rules and regulations regarding hijab have roots in the Islamic notion that to prevent men from committing a sin or attacking women based on their primal urges; it is safer for women to hide their bodies in clothes and scarves. When women refuse to wear hijab and claim these rules don’t protect them from harm, the government places morality police to arrest, hit and kill those women. In the matter of forcibly displaced Afghan women, we can observe that the Taliban and the host countries (such as Iran, Turkey or Pakistan) have legal regulations to treat these individuals as outsiders. All of these behaviors are the result of systems needing to ensure their own perpetuation (Meadows, 2008).

We can define displaced individuals as elements, users, and individuals who can not or resist to function towards the fulfillment of a system's purpose.

Meadows explains "System purposes need not be human purposes and are not necessarily those intended by any single actor within the system. In fact, one of the most frustrating aspects of systems is that the purpose of subunits may add up to an overall behavior that no one wants — Systems can be nested within systems. Therefore, there can be purposes within purposes" (Meadows, 2008).

Simply put, even the elements, users or individuals working in that system also have a system to ensure their continued existence. When looking at how identities are shaped, I believe it is safe to consider identities as a system, working toward the survival of individuals. Looking at the *Women, Life, Freedom* movement in Iran, we can track the origin of the movement in the need to live as a woman. We can track the roots in how women in this society defined their identity, and that identity is in opposition to how the government wants women to behave. When the interconnection between women and the authoritarian system has altered, the whole being of that system is in danger. And as we can observe on many occasions, this alteration can lead to violence and brutal actions from the governments.

"To attribute the book to a subject is to overlook this working of matters, and the exteriority of their relations." (Deleuze & Guattari, 1980)

Like what is happening in Iran regarding women's rights rules and regulations, not all actions resulting from this altercation lead to violence. I believe it is important to state that a system is more than the sum of its parts. It may exhibit adaptive, dynamic, goal-seeking, self-preserving, and sometimes evolutionary behavior (Meadows, 2008). Looking at UK Government accessibility guidelines (UK Government, n.d.) or UX accessibility guidelines (Google, 2023) toward font design for neuro-divergent individuals, we can observe systems that have the capacity and means to shift their goals and focus on providing each element, user or person with the suitable tools and method of function. In design, we often regard systems design as the process of defining and developing systems to satisfy specified requirements of the user (Ulrich & Eppinger, 2000). Therefore, the longevity of designed systems relies on their capacity for inclusivity and acceptance. I believe when the elements or users of a system are dynamic, that system also becomes a live phenomenon. Being alive is being part of nature, and nature doesn't work that way. "[in] nature, roots are taproots with a more multiple, lateral, and circular system of ramification, rather than a dichotomous one." (Deleuze & Guattari, 1980) As we grow as humans, and expand our understanding of our existence, the designed systems such as government, social or language systems grow with us. The multitude of senses, modes and placements are actively shaping and redefining previous systems, despite their failed attempt to hold their initial values.

# Modes of Inquiry



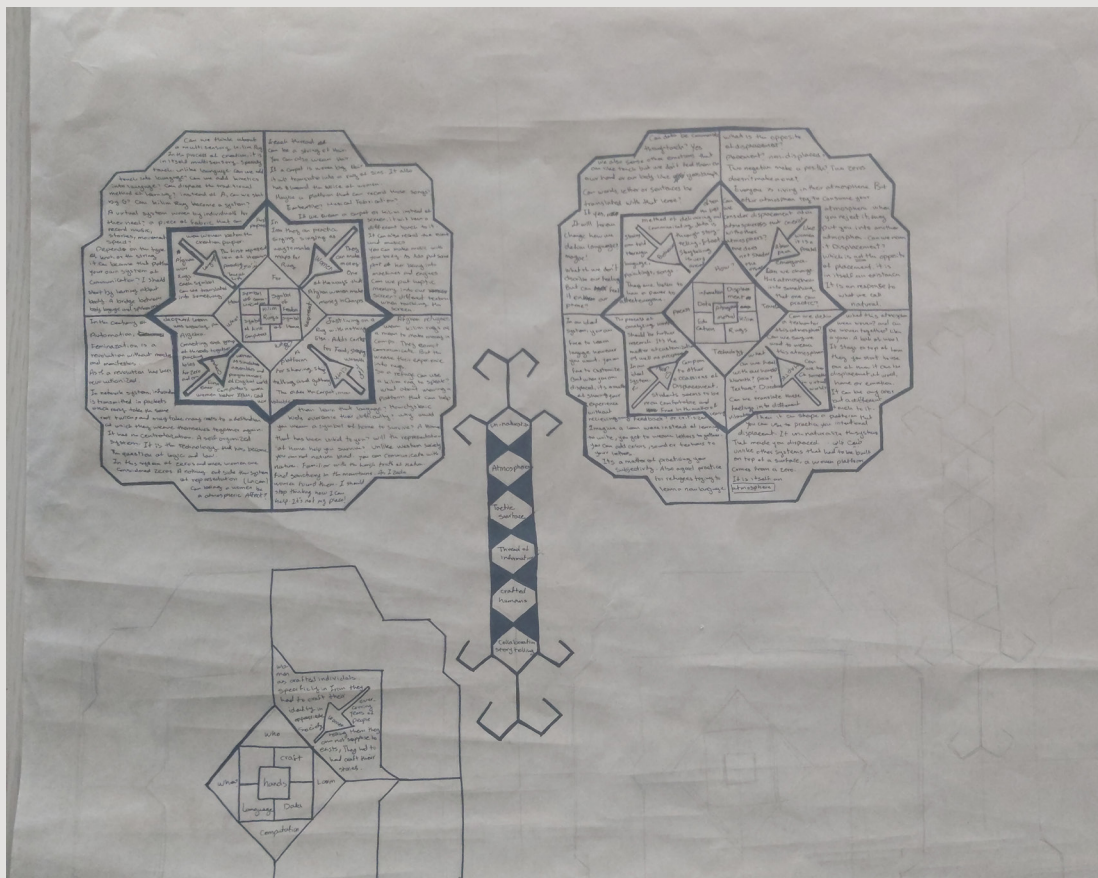


Figure 13. Annotating in a format of a kilim rug.

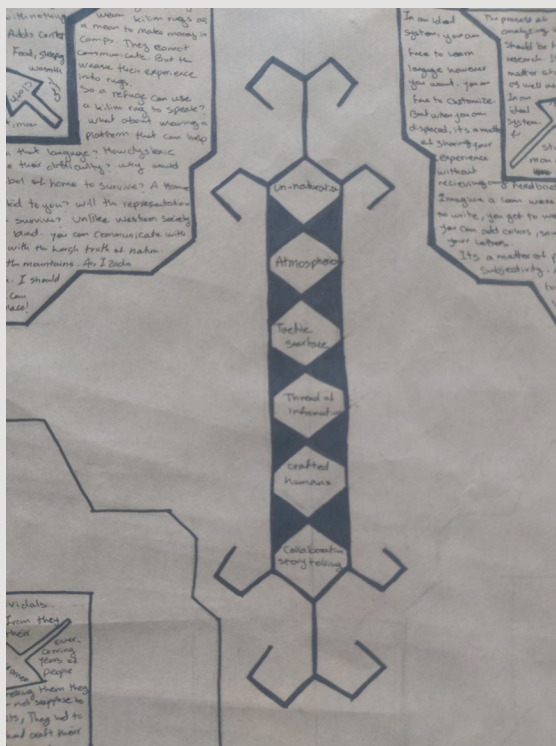


Figure 14. Extracting keywords from annotations

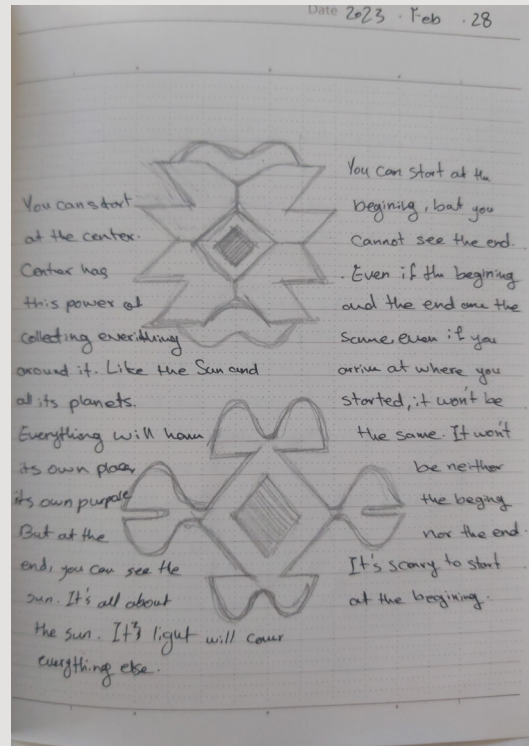


Figure 15. Writing in the format of Kilim Rugs' motif



As I continued my experimental practices for this research, I found it hard to write, compose and communicate what I was reading and writing about. As Donald Schön explains in his book *The Reflective Practitioner: How Professionals Think in Action*: “We are bound to an epistemology of practice which leaves us at a loss to explain, or even to describe, the competences to which we now give overriding importance” (Schön, 1994). This notion resonates with me in a way that my investigation is not only about reading and making but also about how I shape the reflection of those makings and readings. The writing aspects of those reflections don’t necessarily take shape in the format of language. Like a Kilim Rug, it is a repetitive pattern of flowers that contains different aspects of this research. I was able to weave different parts of my research together, and to read and write in a more sympathetic way. In the middle (Figure 14), there is a place for keywords that is the combination of patterns together. I had to draw and design patterns before sitting down and writing my annotations (Figure 13). As Schön (1994) explains: “Reflection-in-action, in these several modes, is central to the art through which practitioners sometimes cope with the troublesome “divergent” situations of practice. When the phenomenon at hand eludes the ordinary categories of knowledge-in-practice, presenting itself as unique or unstable, the practitioner may surface and criticize his initial understanding of the phenomenon, construct a new description of it, and test the new description by an on-the-spot experiment. Sometimes he arrives at a new theory of the phenomenon by articulating a feeling he has about it.” (Schön, 1994) In other words, my writing is more about the stories, history and shapes of a Kilim Rug, rather than words to explain what those stories are. For me, this form of writing enables more opportunities to explore how I can situate myself in my practice, as well as being an intuitive practice for writing.

Much like my efforts in writing, my design explorations also became intuitive and responsive to modes of displacement. In the book *Non-representational Methodology: Re-envisioning Research*, Lorimer defines non-representational methodology as: “an umbrella term for diverse work that seeks to better cope with our self-evidently more-than-human, more-than-textual, multisensual worlds.” (Vannini, 2015) This definition explains my approach towards understanding experiential knowledge and its representation in craft and digital communication. Lorimer then further explains: “Theoretically, non-representational theory stands as a synthesizing effort to amalgamate diverse but interrelated theoretical perspectives, such as actor-network theory, biological philosophy, neomaterialism, process philosophy, speculative realism, social ecology, performance theory, poststructuralist feminism, critical theory, postphenomenology, and pragmatism” (Vannini, 2015). In other words, non-representational methodology does not look at a phenomenon as it is represented, but investigates it in the combination of relations that this phenomenon has with other matters. In the context of my research, I have tried to create my series of design activities as a response to the reflections of the previous project. As Schön (1994) emphasizes: “In a good process of design, this conversation with the situation is reflective. In answer to the situation’s back-talk, the designer reflects-in-action on the construction of the problem, the strategies of action, or the model of the phenomena, which have been implicit in his moves.” (Schön, 1994)



# Stories of Making

Part 2

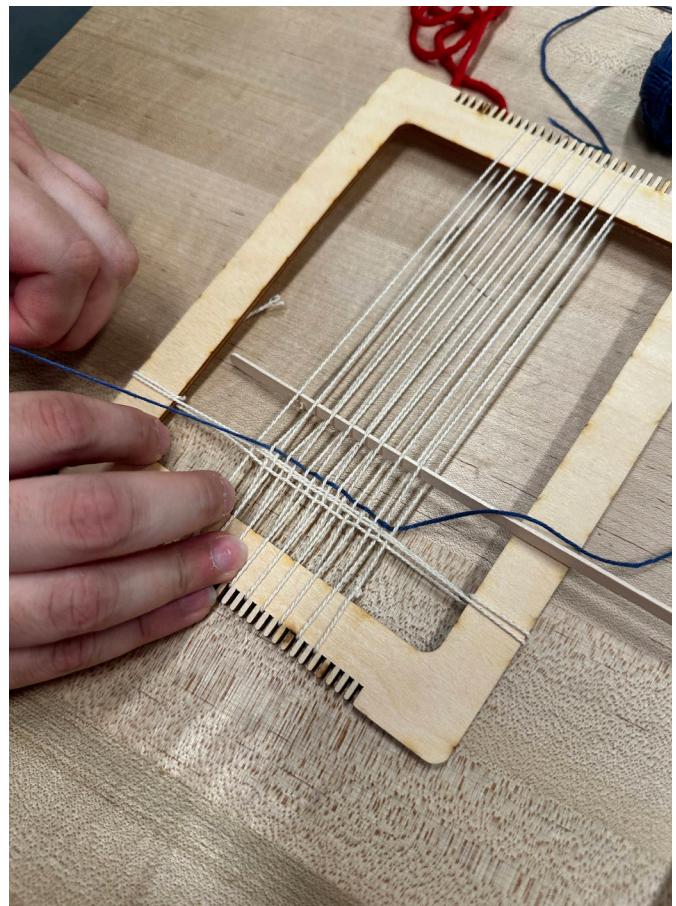


# Weaving Together

To further investigate the role of the hand in the crafting of systems, I designed a weaving participatory workshop as part of my Direct Studies course with Material Matters at Emily Carr University. For this activity, I asked H  l  ne Day Fraser, Keith Doyl (our instructors) and my fellow designer colleagues to tell their stories of making while weaving a piece of their choice. I provided them with two types of looms at random. One standard (Figure 16) and the other one a smaller and flat loom (Figure 17).



*Figure 16. I demonstrated how to weave on a bigger loom.*



*Figure 17. Example of a small and flat loom.*





Figure 18. Participants weaving while telling their stories of "making"

I provided them with various yarns (both in texture and color) and taught them how to weave using those looms. The goal of this workshop was to ask a group of designers to tell stories and reflect on their previous experiences about making when working with their hands.

As someone whose native language isn't English, my teaching methods were more demonstration than verbal communication of instructions. Shortly, participants got familiar with the logic of weaving and started to make tapestry. Makers with small and flat looms soon realized that they were not able to weave as demonstrated. They started to design other methods and build their own tools to be able to weave using small looms. Some participants decided to use another method of weaving, using side frames to give them more stability to weave and navigate through their warp strings (Figure 21). Some participants crafted a needle-like tool out of a coffee mixer spoon (Figure 19) and paper (Figure 20) to navigate the weft string between warp strings.

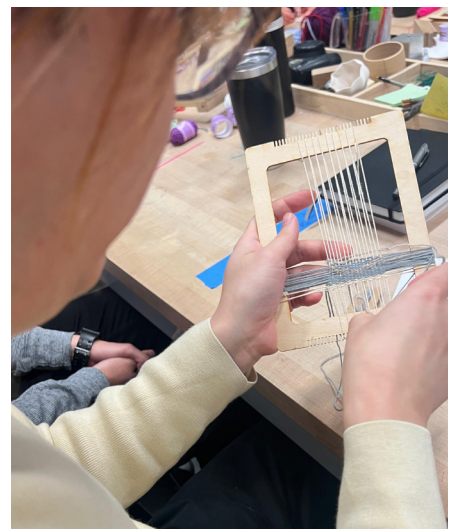
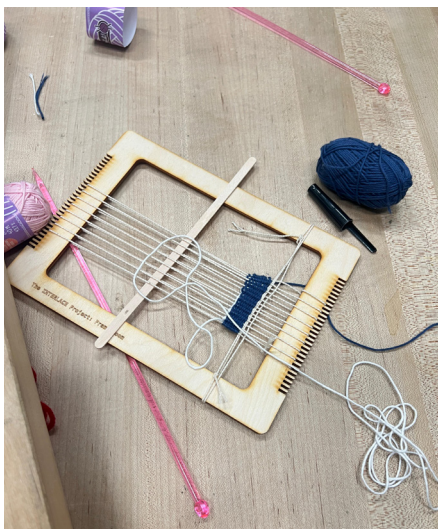


Figure 19. Using Coffee mixer spoon

Figure 20. Using paper cardboard

Figure 21. Using the side frames

The focus of this session was to hear the stories of how much participants involve the work of the hand in their identity-building process. One participant shared that although they define themselves as a “maker” they hate learning new things. They further explained that they cannot learn how to weave by watching or reading, they have to have someone guiding their hands so they can understand the material as well as the method of using their hands as part of their practice. Another person shared that crafting has some meditative aspects for them. They feel in control and they can stop thinking while working with their hands and that makes them want to work more on their artifact. They also stated that the act of weaving reminds them of cooking, which is an activity they practice daily. Some participants shared their previous experience of bamboo weaving and stated that although they had never woven something, their hands knew how to interact with the loom and navigate the yarns.

Aside from all the stories and reflections that I was able to collect during this workshop, I was also able to collect embodied data from each individual. Each loom contains data about the individuals’ pressure of the hand, the speed at which they work with their hands, what type of material they prefer or how they can navigate their own way while working within a system that is hard to function within. Each loom works as a folder that contains stories and methods of thinking as well as preferences and their materialistic representation.

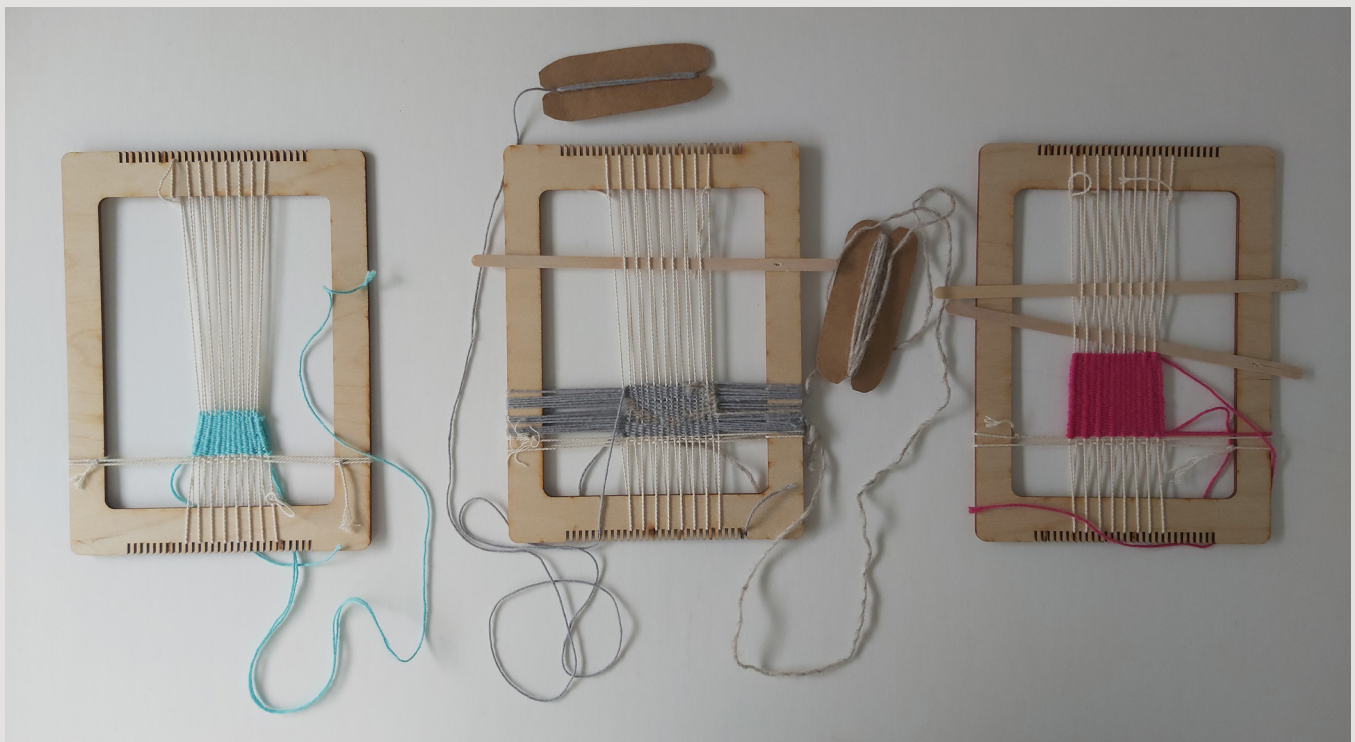
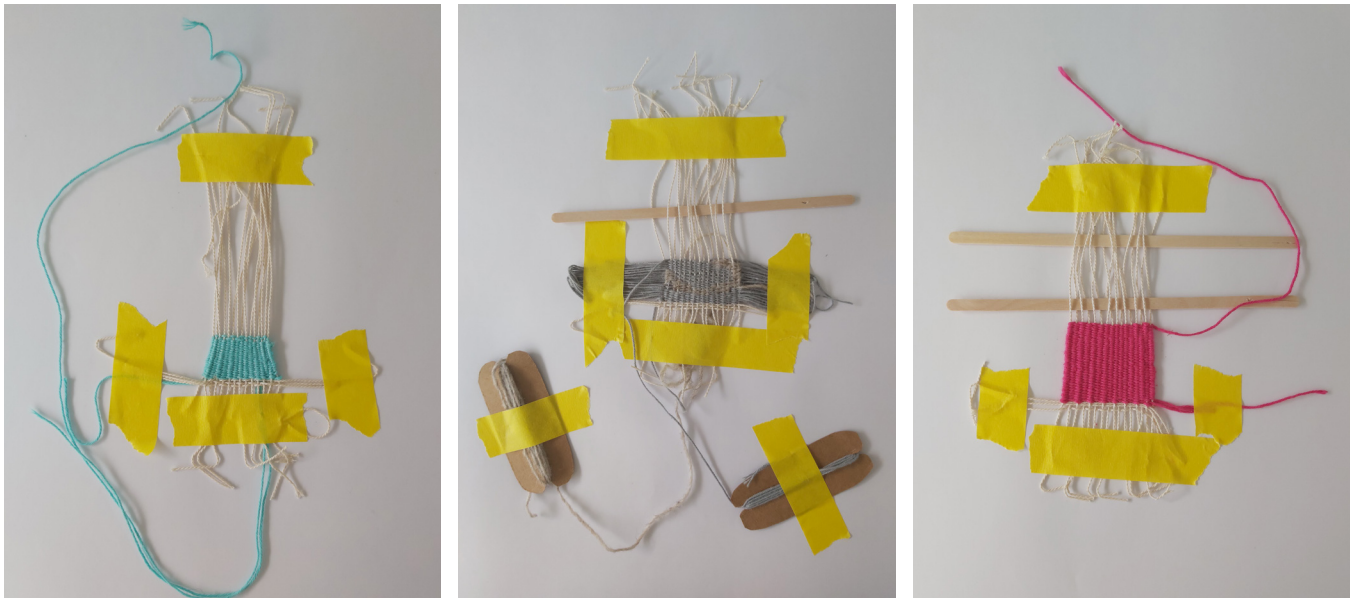


Figure 22. Woven pieces by makers





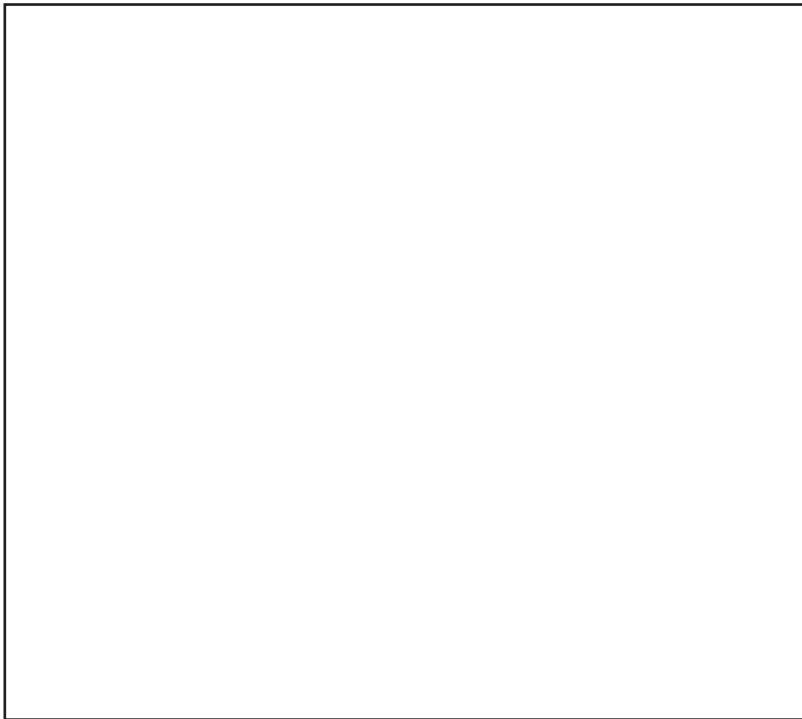
*Figure 23. Woven piece by makers - out of their looms*

When removing these handicrafts from their original system that was tailored for each individual, we might displace information that was essential as part of the whole system.

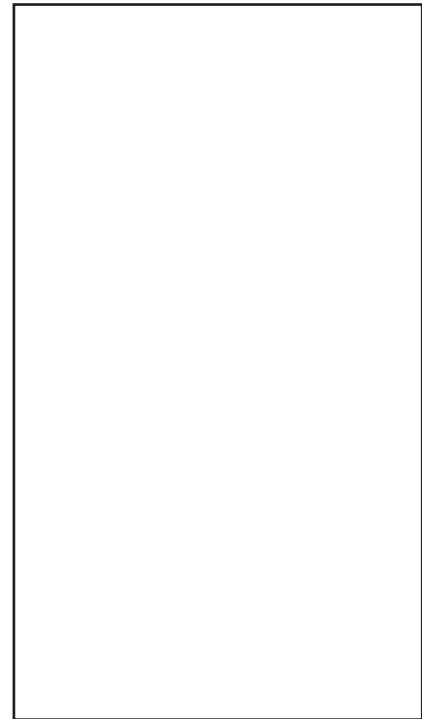
To further demonstrate why experiential knowledge should be communicated within its scope of action (in this case looms with tailored tools) I cut all the handicrafts and tried to show them without their crafted system. In this part, not only I was faced with the dilemma of not being able to maintain the original form of the yarns therefore I lost several types of data that were embedded in the previously crafted system, but I also had to alter the piece to show all its aspects on a piece of paper.

Although the displacement of data was not intentional and I wanted to preserve the pieces outside of those frames, it also made those handicrafts foreign and broken.

# Names I Should Remember, Stories I Shouldn't Forget



*Figure 24. My Saved posts on my personal Instagram account*



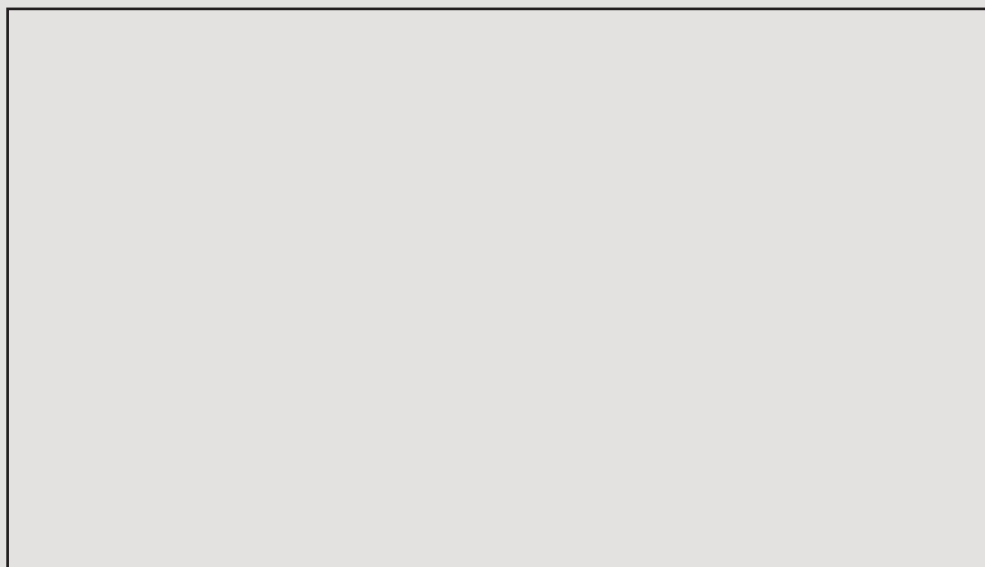
*Figure 25. Street art in Tehran.*

Over the past year, I have been collecting and documenting stories from the Woman, Life, Freedom movement in Iran. Social media (Instagram and X) has been my main point of collecting these stories.

I can see the method of fighting an oppressive system has shifted from protesting on the streets to living on the streets. By living I am not referring to the act of occupying a specific space, but by an act of defiance against the Islamic Government. When retaliating against an oppressive system, the rulers will try to destroy all matters that will give individuals hope or energy to continue. The oppressive system will do its best to change the goal of participants in that system from living to surviving. Living and defining how we should live as individuals becomes an act of fighting. In the early days of this movement, when everyone was in mourning and sorrow for all the lives that had been lost, it was frowned upon for Iranian communities to share their daily routines on Instagram.



Digital platform were only used as a platform to share crucial information regarding the movement or space to analyze the current situation. After months of analyzing how patriarchal government affects everyone (male, female and kids) we began to define the concept of life. Women sharing their uncovered heads, men wearing shorts and children dancing on the streets. Businesses met with penalties and closure just because they provided service to women without hijab, but again refused to ask women to wear hijab when entering their shops. All of these actions resulted in the displacement of norms in the initial values of the system. One year after Mahsa's death, as Sepideh Rashnou shared on her Instagram, the Woman, Life, Freedom movement is not just about Tehran and is growing toward less centralized places in Iran.



*Figure 25. Picture of Sepideh about her experience visiting her hometown after getting arrested because she refused to wear a hijab. 2024/1/11*

Sepideh Rashnu (29) is an Iranian writer, who is imprisoned for protesting against state-imposed hijab rules. In July 2022, she had an altercation and assaulted on a public bus with another woman over the hijab rules, and the video went viral on social media. She was released from Evin Prison on August 2022 ,30.

Note: on February 16th 2024, Sepideh was once again arrested on the charge of not wearing Hijab. She is sentenced to serve the next 4 years in prison.

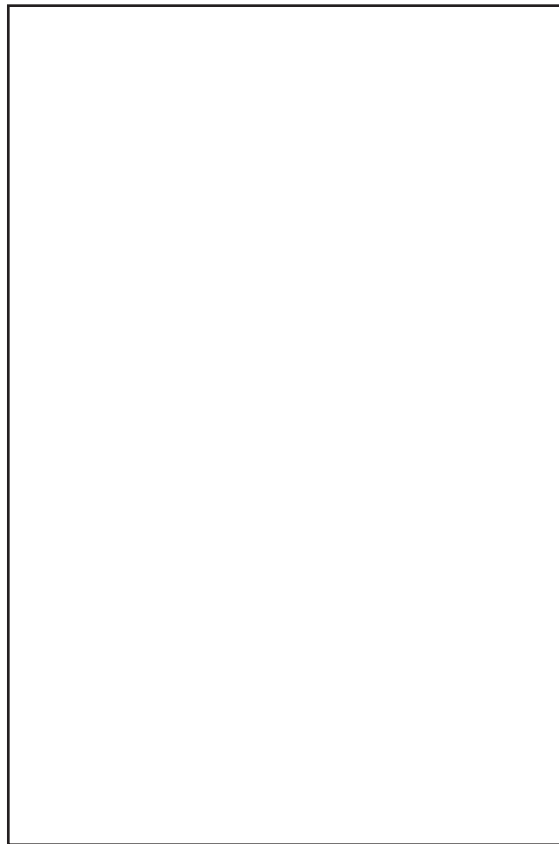


Crafted Identities

For me, what I refer to as Identity is the multitude of several identities within ourselves. Much like a Kilim rug that consists of repetitive patterns, each pattern shapes one aspect of our being. And again, like a Kilim rug, we have woven and organized those patterns on our loom.

Meadows describes self-recognized systems as resilient systems that can explore and bounce back if facing a disruption. She states that “the most marvelous characteristic of some complex systems is their ability to learn, diversify, complexify, evolve. —This capacity of a system to make its own structure more complex is called self-organization” (Meadows, 2008) .

Iranian women defining femininity under a totalitarian system is the sub-product of having a self-organized identity system. Afghan women weaving carpets as a method to gain livelihood and independence is the result of constructing a self-organized system. Even children with learning differences designing their own method of communicating with the English language system is the result of having a self-organized system.



*Figure 26. War Rug with Map of Afghanistan, 1998, knotted wool, Baghlan (Afghanistan); acquired in Peshawar (Pakistan). (Strasnick, 2014)*

It is important to note that not all women in Iran believe they have been objectified and considered the lesser being by the Islamic Government rules. Some have aided the authorities in further arresting civilians and establishing their dominance. Not all English-speaking individuals struggle with the current literacy learning methods that are mostly based on visual sensory and cognition. Self-organized identities are the result of dealing with overbearing systems that refuse to acknowledge those individuals as part of their whole. Or as previously stated, displaced individuals. As Meadows further explains “Fortunately, self-organization is such a basic property of living systems that even the most overbearing power structures can never fully kill it, although in the name of law and order, self-organization can be suppressed for long, barren, cruel, boring periods.” (Meadows, 2008)

Based on my research, making (specifically crafting) has significantly contributed to the creation of self-organized identity systems. For instance, when I read about the Afghan women’s condition in refugee camps and how they use carpet weaving as a method to gain livelihood (Qayyum, 2021), or how Afghan women within Afghanistan started learning how to weave due to Taliban rule, banning women from attending universities or schools (DW, 2022), the traces of work of the hand were evident for me. Therefore, as part of my practice, I started to learn how to extract natural colors and weave.



*Figure 27. Natural Dye Workshop by Caitlin Ffrench*



*Figure 28. Weaving as part of my daily routine*

When weaving became part of my daily practice throughout my research (Figure 28), I began to understand Qayyum's notion in her article about why Afghan women choose to weave in refugee camps in Pakistan. At one point she mentions "It is through this work that thousands of women have found an outlet to try and manage the PTSD they suffer as a result of prolonged war and violence in Afghanistan." (Qayyum, 2021).

"The handcrafted object reflects not only an informal economy of energy (as opposed to one of process efficiency) but also pleasure. Its production involves some play, some waste, and above all a kind of communion." (McCullough, 1998) In other words, throughout years of suffering and oppression that specifically targeted Afghan women, they have developed their own self-organized system of coping with their situation as well as using it as a method to function within that oppressive system. They sought sanctuary in the act of weaving, and those carpets became their platform of communication. Afghan War Rugs are one of the many examples of storytelling through weaving (Figure 26).

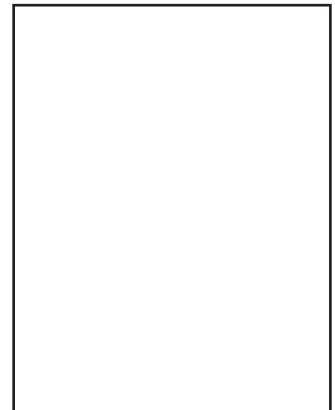
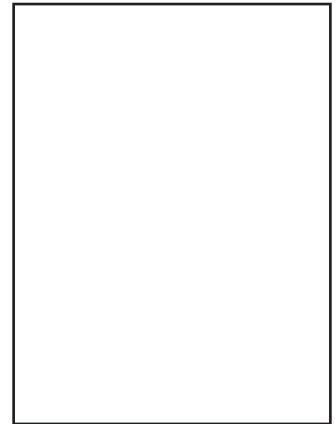
Another example of creating the method of function can be found in literacy learning. In one of the first major studies of children's beginning attempts at learning to spell, linguist Charles Read (1975) examined the writing of thirty preschoolers who were able to identify and name the letters of the alphabet and to relate the letter names to the sounds of words. The students had "invented" spellings for words by arranging letters (Lutz, 1986). They use their pre-existing knowledge about sounds and decode the existing text in their surroundings to develop their own process of literacy learning. Read (1975) also concludes that "learning to spell is not a matter of memorizing words, but a developmental process that culminates in a much greater understanding of English spelling than simple relationships between speech sounds and their graphic representations." (Read, 1975) The role of the hand in literacy learning may not be as evident as weaving, but building a tailored relationship with language needs an engagement that is not limited to the brain but the whole body. The work of the hand can be traced in the act of writing, typing, or interacting with objects as a way to remember to write.

Even politically imprisoned women in Iran spend their days crafting. *Dast Saze Evin* is one of those Instagram pages where the family of imprisoned women try to sell their handicrafts as a way of both making a living and sharing their stories from within the Evin prison. Some of the handicrafts have been produced in shops inside the prison, and some of them are made out of leftover wood, date seed or bread dough.

These self-organized identities are the result of a system that displaces its entities. In fact, through work of the hand and embodied engagement with their material surroundings, the individuals who have been considered displaced, actually found themselves and positionality. Their hands are primarily tools to create these self-organized identities. “The hand is not the mind’s docile slave. It searches and experiments for its master’s benefits; it has all sorts of adventures; it tries its chance.” (Arendt, 1958) To put it in another way, their investigations, creations and experiences through their hands, have resulted in the replacement of their identities.

I want to categorize their self-organized system as ***Crafted Identities***. Crafted identities are self-organized systems that are highly resilient against the main system that they have to function within. As Meadows explains “Resilience is the ability to bounce or spring back into normal shape, position, etc., after being pressed or stretched. Elasticity. The ability to recover strength, spirits, good humor, or any other aspect quickly.” (Meadows, 2008) Their craftsmanship is not limited to the artefacts and physical representation of their action, but the way that they have woven their identities could be considered crafting. The healing of the identity system can happen through craft. Therefore crafted identities are the systems of behaviors that have been repaired through craft-making. This craft-making doesn’t necessarily lead to a physical object, it can be referred to as the way individuals build a system of survival as a means to function within the previous system.

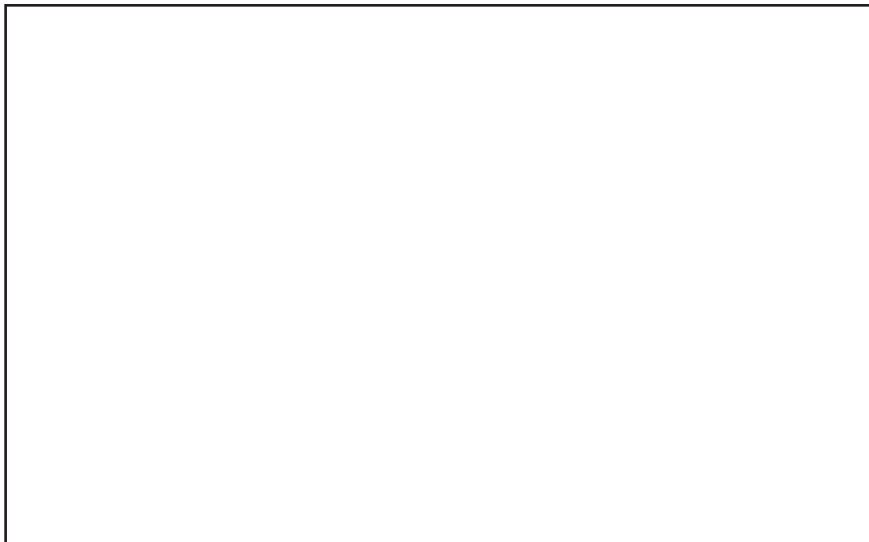
Crafted identities are systems that have high resilience as a means of survival. The constant shifts and feedback that come with being displaced out of those systems, call for methods of functions that have high resilience against perturbation.



As stated on the “dastsaazevin” Instagram page: “These handicrafts are not only a souvenir from prison, but also a reason to survive. Staying alive is the most important thing that an imprisoned person fights for. To be honest, you have to fight even more for hope and continue inside the walls of prison than outside it ” (Dastsaazevin Instagram, 2023)

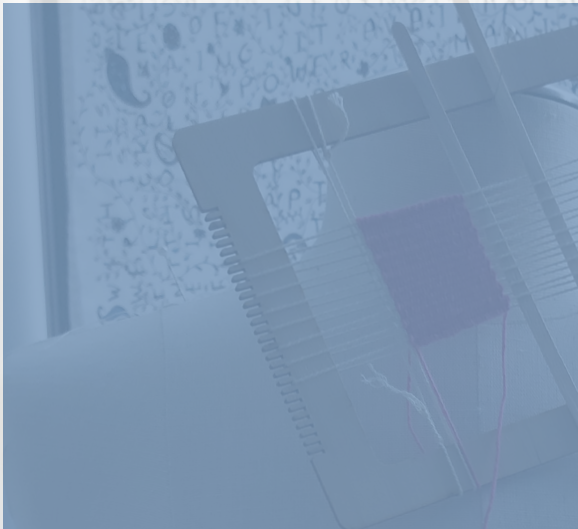
For instance, singing in Iran which is an illegal practice for women. However, Naghshkhani (Figure 29) is an integral part of carpet weaving in which women sing the patterns of carpet within a song format. They also teach their daughters how to sing those songs and practice singing. The result of this practice can be observed in the young generation of women in Iran who practice professional singing in public spaces and push the boundaries of a patriarchal system.

Individuals with crafted identities also displace the rules, methods and regulations of the overbearing system. They don't need to fight, their continued existence can greatly impact society and as a result, de-legitimize the oppressive system.



*Figure 29. In Naghshkhani, women carpet weavers gather as a group and normally one person sings the map of the carpets and others will weave the carpets based on that song. (Velashjerdi, 2021)*





Sadaf Asl Soleima

# Experiential Knowledge

At this point, I find it essential to have a distinct differentiation between “tacit knowing” and “experiential knowledge”. As Polanyi investigates in his book *The Tacit Dimension* (1966) the relation between the “knowing of what” and “knowing of how” that comes from the active shaping of experience in pursuit of knowledge is what creates our tacit knowledge (Polanyi, 1966). As Polanyi states: “I shall always speak of “knowing,” therefore, to cover both practical and theoretical knowledge. We can, accordingly, interpret the use of tools, of probes, and of pointers as further instances of the art of knowing, and may add to our list also the denotative use of language, as a kind of verbal pointing.” In another word, tacit knowing is a mode of “knowing” that helps us interact and function in our spatial environment based on the relationship that we have about the theory and functional aspect of our surroundings. Writing about experiential knowledge, on the other hand, is challenging. As Polanyi states, the roots of experiential knowledge lie in the notion that “we can know more than we can tell.” (Polanyi, 1966). In other words, it relies on another aspect of recognition and acknowledgement that occurs only when our bodies, especially our hands, are involved in constant interaction. In *Abstracting Craft: The Practiced Digital Hand*, McCullough explains that the reason experiential knowledge is hard to describe by language lies within the fact that its root is in action, not verbal representation. He explains “If manual ability has a way of defying explanation, that is because it is based not in language but in action.” (McCullough, 1998)

Nithikul Nimkulrat's definition of Craft Knowledge is noteworthy in the formation of my interpretation of experiential knowledge. In the article “Translational craft: Handmade and gestural knowledge in analogue–digital material practice” she describes craft knowledge as “the knowledge of touch and feel that it is gained through the senses from repeated experiences of working with a specific material over time.” (Nimkulrat, 2020). As she describes, craft knowledge is only obtained if the person is in constant contact with the material and analyzes that interaction using all of their senses. However, in the context of experiential knowledge, switching the constant interaction with materials with constant reflections on our experiences and designing new methods of being as humans in our spatial space using all our senses can result in the development of our understanding of experiential knowledge. As Donald Schön explains: “When we go about the spontaneous, intuitive performance of the actions of everyday life, we show ourselves to be knowledgeable in a special way. Often we cannot say what it is that we know. When we try to describe it we find ourselves at a loss, or we produce descriptions that are obviously inappropriate. Our knowing is ordinarily tacit, implicit in our patterns of action and in our feel for the stuff with which we are dealing. It seems right to say that our knowing is in our action.” (Schön, 1994). The pattern of action that Schön notes, is the result of our reflection based on our tacit knowledge. That is what shapes our experiential knowledge. Or as McCullough states, “ Much life of the hands is a form of knowledge: not linguistic or symbolic knowledge such as you might use to read this book or write a computer program– The knowledge is not only physical, but also experiential.” (McCullough, 1998).



A person is working on a large, white, industrial-style textile loom. The loom has a large, light blue cylindrical component. The person, wearing a dark shirt and a watch, is focused on the work. On the wall behind the loom, there are several papers, including a large grid of small circles and a diagram of a person's head and shoulders. The scene is set in a well-lit room with a window in the background.

Therefore, our experiential knowledge of our spatial environment contributes to the creation of our crafted identities.

The materiality of objects and how we interact with them contribute to our perception of reality, and that reality has affected us in the process of shaping our identity. I believe that is why crafted identities use their experiential knowledge as a method of communication. The embodied experience of being displaced is something that can be felt but not easily articulated. That is why the manifestation of experiential knowledge is often found in craft and art.



Final Story



# Kian

اصلا باور تون نمیشه، خیلی از اینکه مردم منو بشناسن  
بدم میاد. من بسرا خودم راحت داشتم زندگی  
می کردم، بازار می رفتم، کارامو می کردم. هر جایی  
دوست داشتم اصلا خودمو رها می کردم. آزاد بودم  
اصلا. الان نه. توی خونه ی خودمم احساس آرامش  
و راحتی ندارم. البته خونه ی خودم که نیست، خونه  
ی مردمی ولی به هر حال توی جمع خودمون هم  
هیچ احساس خوبی ندارم. کاش گمنام ترین آدم  
دنیا بودم. خیلی سخته دیده شدن  
اونم ... بخاطر از دست دادن ... کیان





This project serves as a multi-sensory, multi-story and even multi-reflectory piece in my research process. In this project, I tried to situate myself as an Afghan woman who is weaving to tell a story, a dyslexic student who has a hard time communicating through written language, and an Iranian girl who is constantly thinking of home.

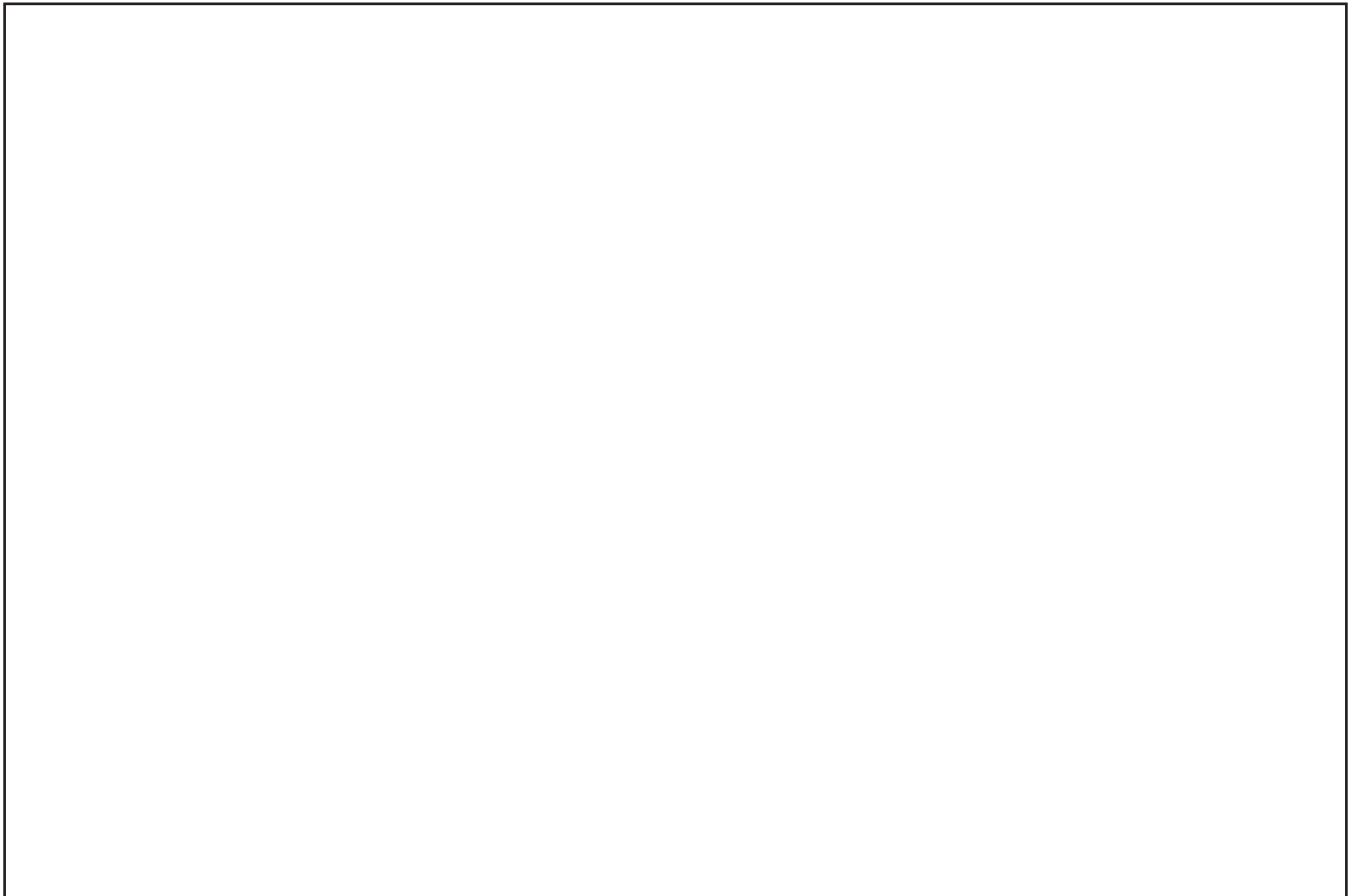
I wanted to investigate how to communicate these experiences through a piece in a way that the experiential data can be collected from a crafted object. Therefore I learned how to weave a cloth using TC2 Jacquard Loom. Jacquard Loom being the inspiration behind modern computers, served as a medium which constantly reminded me of the women's contributions in the digital area and how their contributions were overshadowed solely because of their identity. "Hardware . software, wetware, before their beginnings and beyond their ends. Women have been the simulators, assemblers, and programmers of the digital machines" (Plant, 1998). Textile fabrication was the software lining for all technology as well as the first canvas for writing (Plant, 1998). My experimental approach toward my practice combined with the importance of weaving and textile fabrication in the history of feminism, and the fact that TC2 Jacquard Loom is a loom that works with Photoshop and weaves each pixel made it evident for me to engage with this material (strings) and platform (TC2 Jacquard Loom) as the next step in my research.

For this piece, I decided to portray the story of Kian Pirfalak and Mahmonir Molaie on the top half, and an illustration from Shahname Tahmasbi on the second half.



Pirfalak's death sparked a nationwide outrage against the government and its use of extreme lethal force against protestors. He is considered the youngest known victim (either 9 or 10 years old) of suppressing the Mahsa Amini protests.

Kian was a 10 year old boy who was killed at the attack on Izeh market, in a shooting by the Islamic government security forces while he sat in his parents' vehicle on 15 November 2022. (for timeline, refer to the Positionality) His mother, Mahmonir Molaie, refusing to keep his body at the morgue, took Kian home and asked neighbours for ice to keep his body cold until the funeral day. This was due to the fear of security forces stealing the child's body, as that has happened in many cases.



*Figure 30. Mahmonir Interview with IranWire, 2023*

Mahmonir Molaie has been the pivotal advocate for what happened to Kian that day. In this piece, I took a paragraph from her interview with IranWire (Iranwire & Ghadarkhan, 2023) and wove it using Jacquard loom. In this section of the interview, Mahmonir states:



اصلا باورتون نمیشه، خیلی از اینکه مردم منو بشناسن بدم میاد. من برا خودم راحت داشتم زندگی می کردم، بازار می رفتم، کارامو می کردم. هرجایی دوست داشتم اصلا خودمو رها می کردم. آزاد بودم اصلا. الان نه. توی خونه ی خودمم احساس آرامش و راحتی ندارم. البته خونه ی خودم که نیست، خونه ی مردمه ولی به هر حال توی جمع خودمون هم هیچ احساس خوبی ندارم. کاش گمنام ترین آدم دنیا بودم. خیلی سخته دیده شدن. اونم ... به خاطر از دست دادن... کیان.

You may not believe it, but I hate for people to know me. I was living peacefully on my own, going to the Bazar, doing my work. I was peaceful wherever I was. I was free. Now I am not. I don't feel comfortable in my own home. Actually, it's not my home, it's someone else's but I don't feel good overall. I wish I was the most unknown person in this world. It's so hard to be seen. Especially because ... we lost... Kian

In this interview, Mahmonir also tells how Kian loved reading the stories of Shahname, and how she didn't get to tell him the story of Zahhak. In Iranian culture, Shahname or "The Book of Kings" serves as a pivotal poetry book that resurrected the Persian Language in 1010 CE written by Ferdousi.

The second half of this piece, is an illustration from Shahname Tahmasbi (Figure 31). The Shahnama of Shah Tahmasp (r. 76–1524), also known as the Shahnama-yi Shahi, is arguably the most luxuriously illustrated copy of Ferdousi's epic ever produced in the history of Persian painting. The artistic importance of this manuscript cannot be overestimated. It is considered one of the highest achievements in the arts of the book for its superb calligraphy, painting, and illumination. (Leoni, 2008) It is the high point of Persian miniature painting and contains 258 illustrated paintings.



Figure 31. Kava Tears Up Zahhak's Letter, folio 31v from the Shah Tahmasp Shahnama (between 1535-1522, Tabriz), attributed to Qadimi, Tehran Museum of Contemporary Art, Reproduced in *Shahnamayi Shah Tahmasp*, Tehran Museum of Contemporary Art, 303/34, 2021. Photographed by Mohsen Mohamadkhani for Tehran Museum of Contemporary Art.



This piece (Figure 31), which is said to be illustrated by Ghadimi under the supervision of Sultan Muhammad, is the portrait of the scene in which Kaveh tears the agreement sent by King Zahhak. In Shahnameh, Zahhak is the notorious king who has two snakes on his shoulder and in order to prevent those snakes from attacking him, he feeds the brains of the young men to these snakes. Kaveh, who has lost 17 of his sons to these snakes is going to retaliate against Zahhak, is the symbol of a parent who will sacrifice everything to avenge his children's death in Iranian folk culture. Zahhak, on the other hand, is the symbol of a king that kills his own people in order to prevent the snakes on his shoulder from eating his own brain.



Figure 32. Weaving on TC2



Figure 33. Weaving on TC2

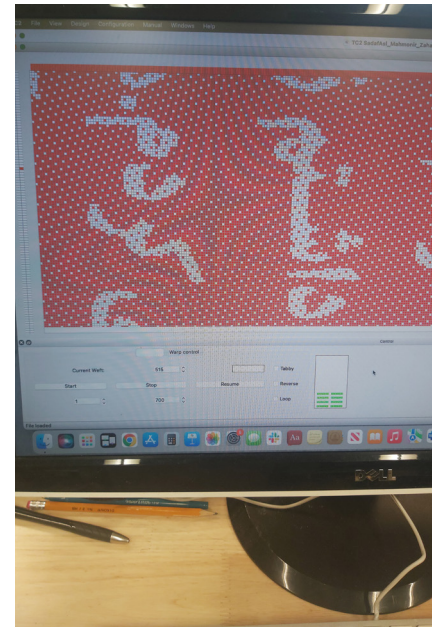


Figure 34. TC2 application connected to Jacquard Loom.

In this piece, I wanted to portray the generational trauma of losing a child that is fueling the flames of revenge within the parents. From past to present, folk tales to reality, there is a hidden mourning that has been embedded in the structure of my community that has not been fully represented or investigated. Therefore, I decided to weave both a visual illustration of this trauma as well as a verbal representation. So that whoever cannot read the pain in between Mahmonir's lines, can look at the scene and say "Ah, I get it".

"The "linguistic turn" that philosophy took in the past century is only the most recent manifestation of this horror materiae. Since this turn, the language in which human begins speak about reality is thought to determine what may count as reality. But this turns things into little more than projection screens for interpretations, reduces them to the words with which we describe them, and fails to give them their due, their proper weight."(Peter-Paul Verbeek, 2005).

Funny enough, while I was weaving this piece in the TARP LAB, two Iranian undergraduate students walked in to talk to Jen Heibert. They looked at my half finished piece and said "Kian?"

Pixels are deformed when in direct contact with the user. "The way of hand is personal, contextual, indescribable. Little can surpass the hands in showing that we know more than we can say." (McCullough, 1998). While weaving this piece, I was in constant awareness of my body movement as well as being lost and unfocused about my surroundings. The first section that I wove was the circles on the right side of the piece. They are the indication of my strength and pressure that has deformed the perfect initial circle on the bottom right. By weaving these circles, I was able to determine how much deformation my designed piece needed in Photoshop. Therefore I had to re-adjust my initial design by 30 percent to achieve perfect squares of pixel on my final piece (Figure 35).

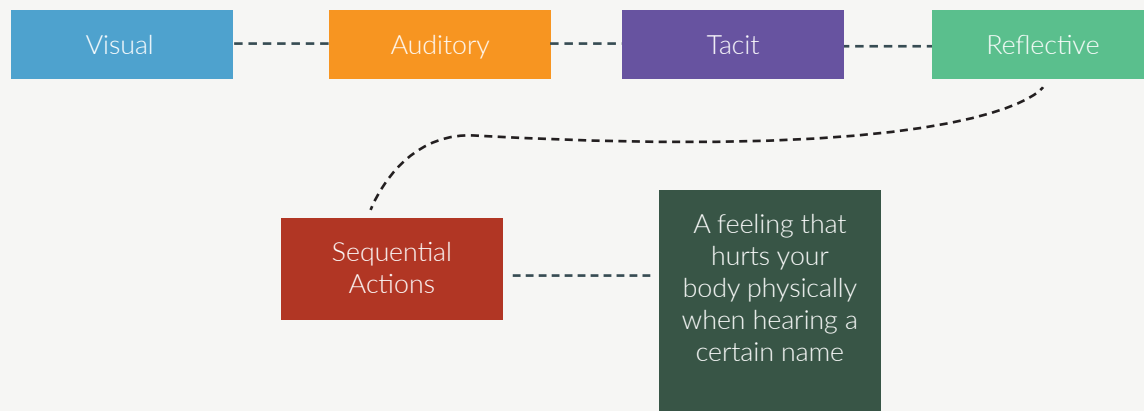


Figure 35. Designed files on Photoshop. Before and after deformation

Although I was aware that my body was constantly moving to weave 700 lines of pixelated data, I also noticed that the pain and pressure that I used to feel that morning was slowly disappearing. In those moments I understood why Afghan women seek sanctuary in the act of weaving. I could understand McCullough's notion on how "Hands are the best source of tacit personal knowledge because of all extensions of the body, they are the most subtle, the most sensitive, the most probing, the most differentiated, and the most closely connected to the mind." (McCullough, 1998).

My only regret is that I am not (yet) able to share my heartbeat, my body temperature, and my movement ... through this piece with Mahmonir. I wish there was a way for me to tell her that my body physically reacts whenever I think of Kian. I wish she could see my anger and feel the pressure I put on the loom when weaving the face of Zakhak. This piece may look like an upside Instagram post (with the caption on top and picture down below) but it is my way of showing Mahmonir that although I never met Kian, I am mourning his death every day.

## Reflection: How did *I* engage with this project?

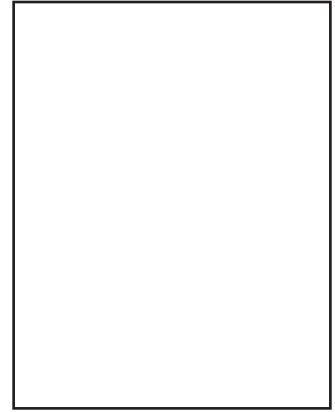




# Conclusion and Future Work

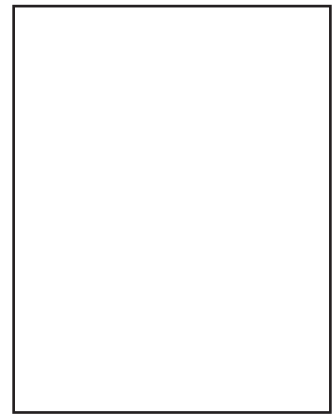


Displacement can happen in many modes. This research investigates three modes of displacement through the lens of social and political systems and how their attempt to uphold their values have been affecting the people functioning within those systems. The Woman, Life, Freedom movement is the result of years of oppression and emotional displacement for women in Iran. Displacement of letters occurs when individuals are unable to function within the rules and boundaries of language systems, and displacement of home results from unlivable and dangerous situations in individuals' home countries.



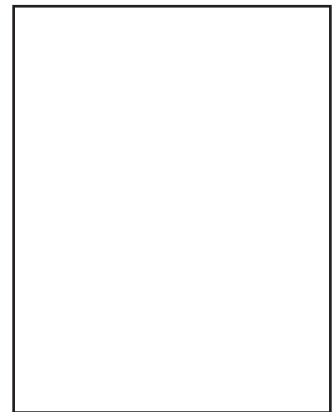
Kilim Rug

In some places, the systematic displacement can be observed in crafts and their value among communities. In the Middle East, the culture of weaving has been a gateway for autonomy and subjectivity for many women. Through weaving, women have been able to gain a living (even in refugee camps), practice singing (although punishable under Islamic rules), and tell their stories (who they are, what is happening to them, and how their carpet, Kilim rug, Gabeh came to be).



Gabeh Rug

Many women in Afghanistan and Iran have learned how to use their experiential knowledge as a method of coping and translate it into carpet weaving. The system of weaving a carpet or a cloth is a multi-sensory, multi-layered, and multi-material interaction (Devendorf et al., 2022). The result of this complex interaction has contributed to the creation of Crafted Identities. For a person who has crafted their own identity under the circumstances of displacement, communicating their stories and state of being cannot be contained in a single mode of communication. A complex resilient identity system calls for a complex and multi-layered, multi-sensory, and multi-material mode of interaction. To understand all the layers of a displaced person's story, it is important to experience and interact with all the sensory inputs communicated through that person.



Persian Carpet

The inherent characteristics of textiles (the ability to hold shape, smell, and remember pressure) (Devendorf et al., 2022) have contributed to the development of different aspects of the digital environment. From the Jacquard loom and the invention of the first computer (Plant, 1998) to recent applications for textile-based interactive surfaces (Wicaksono et al., 2020), it is evident that "textiles themselves are very literally the software's linings of all technology" (Plant, 1998). At some point during my experiential explorations, I understood that yarns, strings, and fabrics can hold and shape various modes of sensory inputs and translate them into a tangible and dynamic form of a story. While weaving Kian's piece, I observed the pressure I was putting into the loom that required me to distort my original design; a fact about my body that I was unaware of before that experience. I was also able to reflect and pinpoint other senses that, to this day, I haven't been able to come up with a word to describe. Only by analyzing that specific piece while documenting my movement, pressure, and heartbeat, I can describe how Kian's story has affected me (and many others in my community).

Understanding different carpets and how they are made provides information about the origin of the work, how many people worked on it, what is the story behind the patterns, and what was the natural and political climate around that piece that led to the color selection and usage of specific yarn by the weavers. Transferring this data into a digital environment while translating the experiential knowledge that comes with the act of crafting from the user could give us a more holistic empathic and discrete understanding of a displaced person's situation. In my exploration, I concluded that this understanding should come from both the material of the platform (in the scope of this research, yarns, strings, and textiles) and the embodied act of crafting (weaving).

The occasion that can cause a person to experience displacement is not exclusive to one community or part of the world. I believe that the sense of safety that comes with interacting through a glass screen has increased a sense of detachment and numbness when talking about issues in places like Iran or Afghanistan. Even when their issues are in the headlines, they are approached as if their pain is in a museum for others to look at. By providing the possibility of using other materials as a platform for digital communication and attempting to translate the experiential knowledge embedded in the act of crafting, I hope that someday these stories won't be considered distant, foreign, and for the others. It can open the doors for more sympathetic, embodied, and ethical digital interactions.



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