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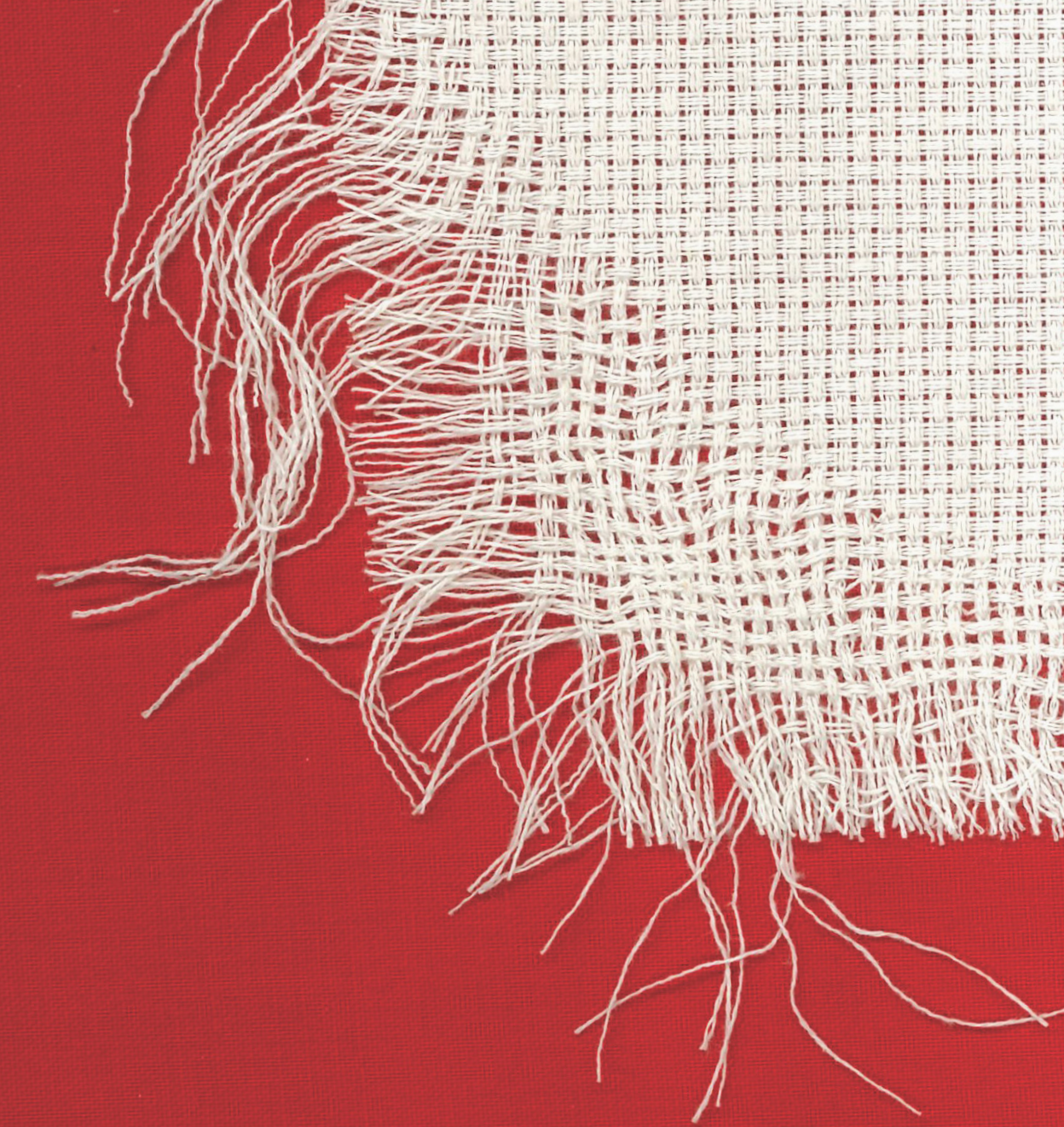
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Weaponization of Space:

Subverting the Architecture of Occupation

Majdulin Nasrallah

Weaponization of Space:

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Acknowledgements

This thesis has been made possible by the continuous support and guidance of my committee members, Rab McClure, Diane C Derr, Mohammad Suleiman and Debra Hanson. Their passion, dedication and immense knowledge significantly impacted my thesis. Many thanks to Thomas Modeen, Marco Bruno and Yasmeen Suleiman for their generous and invaluable insights. I also extend my sincere gratitude to the women who contributed to the embroidered work presented in this thesis.

My heartfelt appreciation goes to my mother, without whom the completion of this project would not have been possible. I am eternally grateful for her kindness and patience. I also owe my deepest gratitude to my father for his unparalleled support and encouragement.

To my friends, thank you for supporting me through this entire process. You have made this two year journey a memorable one. Special thanks to Rabeya, who helped facilitate my production with utmost sincerity.

And finally, to Palestinians, whose resilience has been my main source of inspiration throughout this journey.

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ABSTRACT

Israel's illegal occupation of Palestine and oppression of the Palestinian people has manifested itself in countless ways. The built environment, fueled by spatial theory, has been transformed into an instrument of war that serves a military agenda. In this context, the physical environment is not simply the arena of conflict, but a weapon wielded by occupying forces. This research investigates spatial control through seemingly mundane architecture and military practices, which are deployed deliberately to strangle Palestinian livelihood and prosperity. Derived from Deleuze and Guattari's delineation of smooth and striated space, with an emphasis on walls and barriers, this thesis subverts the spatial weaponization by envisioning design as both a retaliatory and reparative force. In doing so, it critiques and protests against the status quo.

Problem Statement and justification

The following quote is from the testimony of a Palestinian woman named Aisha:

Imagine it – you’re sitting in your living room that you know so well, this is the room where the family watches TV together after the evening meal ... And, suddenly, that wall disappears with a deafening roar, the room fills with dust and debris and through the wall pours one soldier after the other, screaming orders. You have no idea if they’re after you, if they’ve come to take over your home, or if your house just lies on their route to somewhere else. The children are screaming, panicking.... Is it possible to even begin to imagine the horror experienced by a five-year-old child as four, six, eight, twelve soldiers, their faces painted black, submachine guns pointed everywhere, antennas protruding from their backpacks, making them look like giant alien bugs, blast their way through that wall?¹

The West Bank and the Gaza strip have been under Israeli military rule since 1967. Today, over three million Palestinians live in the occupied Palestinian territories (OPT). Israel’s spatial control over Palestinians living in the OPT manifests itself in different ways. The Palestinian built environment, in the hands of Israeli occupying forces, is not simply the arena of the conflict, but its very weapon. It is a place where the human and political rights of Palestinians are violated not only by Israeli military attacks, but by a much slower, steadier and more implicit

process—a process in which an entire landscape is designed with the intention of making their lives intolerable. It is a place where existing architectural elements such as domestic walls are manipulated and new structures like the separation wall are embedded; both use the built environment as a means to sustain the occupation. While Israel justifies the new physical structures as security measures, they are grounded in unlawful implications that violate Palestinians’ human and political rights on a daily basis. These include severe restrictions on movement, exemplified by barriers in the form of continually-evolving walls, fences, checkpoints, road blocks and trenches that reconfigure space as they break up communities, isolating Palestinians from each other and from vital resources like their agricultural lands. At the same time, these barriers obstruct movement to workplaces, schools, hospitals and other basic facilities. Penetration of the domestic realm is another example of how walls have been reinterpreted by the Israeli military as flexible objects subject to constant reconfiguration, contingent on their military needs.

Design, a field that is usually used to make people’s lives better or easier, is in this case intentionally exploited as a form of violence against a people. This thesis investigates spatial control in Palestine, not through the traditional lens of politics, but in seemingly mundane spatial elements and manipulations that are deliberately meant to strangle Palestinian livelihood and social wellbeing. With emphasis on walls and barriers in the OPT, this thesis seeks to undermine Israeli practices and their physical manifestations in a way that becomes critical and reflective of the situation.

Delimitations

Though this thesis investigates the occupation through spatial elements and their underlying ideologies, its scope does not extend to a comprehensive acknowledgement of the extensive body of work on this topic done by intellectuals, academics, architects, human rights activists and humanitarian organizations over several decades. While this thesis analyzes the Israeli occupation from an architectural and spatial standpoint, it acknowledges the diverse ways in which the occupation is sustained, including discrimination and racism, human rights violations, routine imprisonments, the lack of democracy, and many others. This thesis does not intend to normalize the occupation’s illegal existence or humanize the illegal structures that sustain it, nor to depoliticize it by detaching it from its historical and political context. Rather, it aims to shed light and provoke critical thought on the implicit and explicit means that sustain it. Lastly, this thesis does not intend to propose a practical solution to the inhumane architecture of the occupation, since the only ethical solution is for the structures to be taken down. Its focus is instead the use of design as a medium that critiques and subverts the status quo, while stimulating discussion about the role of architecture in the continuing occupation of Palestine.

Background research identified systematic implementation of spatial ideology as part of warfare tactics used by the Israeli army to control Palestinians. It also shed light on the material and non-material implications of spatial violence on the daily lives of Palestinians living in the Occupied Palestinian Territories. Focusing on ever-evolving barriers, borders, and walls in the Palestinian context, this thesis investigates how the built environment, fueled by spatial theory and contemporary ideologies, has been transformed into an instrument of war that serves a military agenda.

The Intersection of Theory and Practice

In his book, *Hollow Land*, Eyal Weizman analyzes Israel's mechanisms of control and its transformation of the Occupied Palestinian Territories into a place where the built environment functions to serve military rather than civilian ends. He argues, "...the mundane elements of planning and architecture have become tactical tools and the means of dispossession."² His insights into the application and practice of postmodern theory expose the multiple spatial tools that continue to sustain the occupation's practices of control. He explores spatial violence enacted through elements such as frontiers, settlements, checkpoints and walls, while using insights from philosophy to deconstruct and analyze the elements. These include, but are not limited to, concepts such as *politics of verticality*, *civilian occupation*, *optical urbanism*, *suburban frontierism*, *inverse geometry*, *fractile geometry*, *walking through walls*, and *inversion of the inside*.³ Similarly, in *A Civilian Occupation: The Politics of Israeli Architecture*, Rafi Segal and Eyal Weizman highlight the role of architecture in the Israeli-Palestinian conflict and investigate the process and repercussions of Israeli planning and the philosophy underlying their actions. The book demonstrates ways in which securing national and geopolitical objectives has been achieved through the reorganization of space and the resulting redistribution of segments of its population.⁴

In his essay “Walking through Walls,” Weizman uses his interviews with Israeli military personnel and Palestinian activists to reflect upon the emerging relationship between armed conflicts and the built environment.⁵ In an interview, Shimon Naveh—a retired brigadier general in the Israeli army—explained:

We attempt to teach and train soldiers to think.... We read Christopher Alexander, can you imagine? John Forester, other architects. We are reading Gregory Bateson, we are reading Clifford Geertz. Not myself—our soldiers, our generals are reflecting upon these kinds of materials. We have established a school and we have developed a curriculum that trains operational architects.⁶

Throughout the essay, Weizman explains how the Israeli army’s actions are influenced by their readings of post-structuralist French philosophers such as Gilles Deleuze and Félix Guattari, whose writings and concepts have been appropriated to serve military purposes. In *A Thousand Plateaus: Capitalism and Schizophrenia*, Deleuze and Guattari discuss what they term “smooth” and “striated” space in relation to warfare.⁷ This theory has been used by the army to create a reality that affects Palestinians on a daily basis. In an interview, Weizman asked Naveh, “Why Deleuze and Guattari?” He replied:

In the IDF we now often use the term ‘to smooth out space’ when we want to refer to operation in a space as if it had no borders. We try to produce the operational space in such a manner that borders do not affect us. Palestinian areas could indeed be thought of as ‘striated,’ in the sense that they are enclosed by fences, walls, ditches, roadblocks and so on. [...] We want to confront

the ‘striated’ space of traditional, old-fashioned military practice [the way most military units presently operate] with smoothness that allows for movement through space that crosses any borders and barriers. Rather than contain and organize our forces according to existing borders, we want to move through them.⁸

Striated space is gridded, linear, metric; smooth space is open-ended, nonlinear and intensive. To visualize these terms, one can imagine the smooth space as the desert, and striated space as the city. Another example to illustrate these concepts is using felt and woven fabric: felt is smooth, consisting of randomly tangled fibers, blended into a fused whole; woven fabric is striated; that is, its threads systematically interlock and are visibly distinct.



01
The Smooth and the Striated

Material and Non-Material Implications

The implications of the separation wall are justified through security claims, although the wall was established to serve other, undeclared aims. While a portion of the barrier follows the Green Line that demarcates the boundary that has existed between Israel and the West Bank since before the 1967 war, in many areas it slices through Palestinian villages. According to B'Tselem, The Israeli Information Center for Human Rights in the Occupied Territories, about 85% of the barrier's curving route runs through the occupied territories and is not located along the Green Line.

In constructing the barrier, Israel broke up contiguous Palestinian urban and rural blocs, severed inter-community ties that had been forged and cemented over the course of many generations, and abruptly imposed an arbitrary reconfiguration of space based on settlement boundaries configured to suit the convenience of Israeli security forces.⁹

The apartheid wall is not the only element that fragments space while restricting and hindering the movement of Palestinians; checkpoints are one of the key tools Israel employs to enforce its regime of occupation. As stated by B'Tselem, by the end of January 2017, there were 98 fixed checkpoints in the West Bank.

The checkpoints allegedly protect Israel, however, they are not only stationed on the border of Israel and the West Bank, but most of them operate and are dispersed throughout the West Bank, isolating Palestinians from each other, separating communities, and making entry into towns and cities within the West Bank almost inaccessible.¹⁰

The source named above also investigates the effects of the checkpoints on economy and welfare, reporting that one of the main implications is the uncertainty Palestinian workers go through when crossing checkpoints. This includes their inability to reach workplaces on time, a drastic increase in time spent travelling to schools, hospitals and other basic facilities, and uncertainty about whether the goods they produced will reach markets on time.

According to Miftah—an independent Palestinian civil society institution committed to fostering the principles of democracy and effective dialogue—the checkpoints violate Palestinians' human rights in both implicit and explicit ways. "The economy is suffering, education is in a dangerous state of decline and families are divided, but these problems are superseded momentarily by the overwhelming complaints over the major injustices at the checkpoints, namely the violation of human rights."¹¹ Palestinians are subjected to inhumane practices during their journey throughout checkpoints; dehumanization, humiliation, intimidation and the general harassment of Palestinians are some of the main explicit human rights violations. An article published in *The Palestine-Israel Journal* states how the psychological impact of the checkpoints haunts people's minds: "Checkpoints lay a siege around you: sometimes you ignore it, sometimes you repress it, but it is always lurking there in the background. It has become part of the harsh reality that you resent, hate and struggle to change."¹² The construction of the separation wall within the West Bank has also violated multiple human rights of the Palestinians who live on either side of it, subsequently affecting their psychological and social welfare. Among other things, it primarily restricts their freedom of movement, consequently affecting their access to education and medical care, and restricting their right to lead a meaningful family life and achieve an adequate standard of living. As reported by B'Tselem, the Palestinians' collective right to self-determination is also violated, as the winding route of the barrier cuts into Palestinian space and breaks up the population living there.¹³



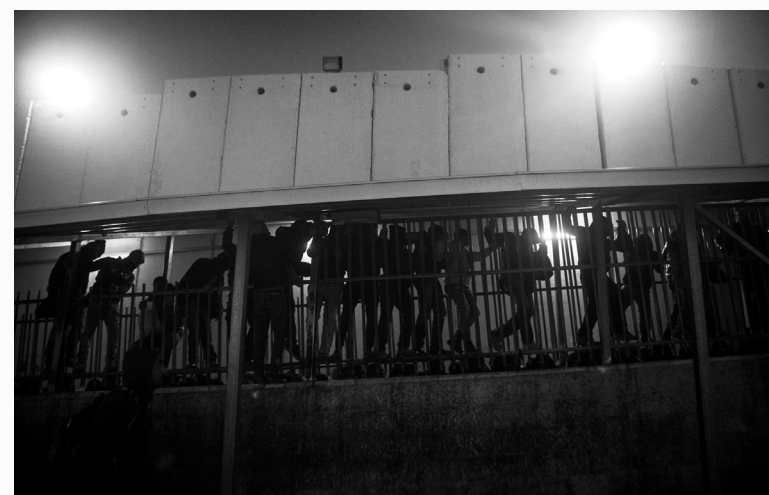
02
The separation barrier in the At-Tur neighborhood in Jerusalem



04
checkpoint in Bethlehem



03
The separation barrier in Shoafat, Jerusalem.



05

These barriers/walls exemplify Deleuze and Guattari's notions of smooth and striated space; the separation wall and the checkpoint are both examples of how the IDF striated a smooth space that once had no borders. Conversely, holes blasted in the walls of people's private homes—a maneuver previously referred to as inverse geometry—demonstrate how the IDF smoothed out striated spaces that were initially enclosed by walls. Weizman explains the operation:

His soldiers used none of the streets, roads, alleys and courtyards that make up the order of the city, and none of the external doors, internal stairwells and windows that make up the order of the building, but moved horizontally through party walls, and vertically through holes blasted through ceilings and floors. As such the three-dimensional movement through walls, ceilings and floors across the solid fabric of the city reinterprets, short-circuits and recomposes architectural and urban syntax. Movement becomes constitutive of space—it cuts across rather than submits to the authority of walls, borders and laws.¹⁴



06
Breaking through walls

PRECEDENT STUDIES

Open Border

Atelier ARI's "open border" installation in Canada responds to the climate of political tension spreading across the world. In contrast with the surrounding stark winter landscape, this neon installation is set across the Assiniboine river in Winnipeg, Canada. The installation is a curtain-like "border" almost four meters tall, stretched perpendicularly across an ice-skating trail. While the installation seems unapproachable and intimidating from a distance, it is actually a flexible and porous curtain that people can easily pass through and interact with. Made from red insulating PVC strips that break the cold wind, *Open Border* creates a warm and sociable place for people to explore.



07



08

The project came about at the same time the U.S. president, Donald Trump, confirmed his plans to construct a wall along the Mexican border.¹⁵ While this project sheds light on how spatial structures are often used to serve political aims, it is also a good example of how spatial structures can be redesigned to oppose those aims. In this case, an object that is often used to separate people and reinforce the notion of "other," has been manipulated and reinterpreted to reverse the wall's main function—division. By challenging the traditional perception of a "wall" or "border," Atelier ARI prompts us to question its existence in the first place, facilitating critical conversations about its implications and how it influences behavior.



09

Anti-homeless Architecture

Anti-homeless architecture—also known as hostile design, defensive design or unpleasant design—consists of subtle interventions in urban spaces designed to hinder people's use of urban infrastructure, particularly targeting the homeless. Public spaces are made intentionally uncomfortable to frustrate and deter people from sleeping and sitting for lengthy periods. These interventions include, but are not limited to, the use of spikes, studs, sloped and uneven surfaces, and strategically placed armrests. This type of design demonstrates how a spatial object can be manipulated such that it no longer functions the way it is intended to, and how by doing so, cities and urban environments are deliberately designed to control and shape human behavior. Regardless of the ethical concerns with this particular design approach, it is an interesting example of how a designer can interpret, protest and resist an unwanted behavior or action through design, and how manipulations of physical spaces inform human interaction with them.



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11

Archisuits

A set of “Archisuits,” designed by Sarah Ross, were developed in response to anti-homeless architecture. “Archisuits” consist of an edition of four leisure jogging suits made for specific architectural structures in Los Angeles. The suits include the negative space of the structures and allow a wearer to fit into, or onto, structures designed to deny them.”¹⁶ They are designed to work in and around the physical deterrents. For example, the “Archisuit” in Figure 7 has pads with gaps that allow the wearer to sleep on segmented benches. While the objects’ uncompromising permanence is hard to reverse, Ross fights back by filling the structure’s negative volume, making it accessible to the human form again. The hostile object was challenged in a way that neutralizes its hostility without any manipulation to the actual structure. This exemplifies a design solution that critiques and highlights the absurdity of the initial structure while simultaneously providing a “solution”—in this case a conceptual one.



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Tilted Arc

"Tilted Arc," designed by Richard Serra, was a public sculpture installed outside government buildings in Foley Federal Plaza, New York, from 1981 to 1989. "It was, in effect, a wall of steel—12 feet high and 120 feet long—that traced a subtle arc over its length and leaned slightly to one side."¹⁷ The public art installation quickly stirred controversy and became a target of criticism as office workers and critics immediately perceived it as an ugly, dominating and oppressive installation that obstructed the plaza and blocked paths and views. "Holding the site hostage" was a phrase that critics of the sculpture used when describing its effects. Soon after, two petitions that called for the removal of the installation gathered 1,300 signatures. Despite Serra pointing out that the sculpture was site-specific and that it would be destroyed if relocated, it was removed in 1989 and stored in a warehouse.

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14



Serra was interested in exploring the critical relationship between objects and their environment. He wanted people to have a very different relationship to public sculpture. "Instead of focusing on the optical experience of sculpture—looking at it from a distance—Serra wanted passers-by to experience the sculpture in a physical way. He said that the long, curving metal sheet would "encompass the people who walk on the plaza in its volume," altering their experience of the space as they moved to and from the surrounding government buildings."¹⁸ This controversy prompts us to question the ways in which a spatial structure often forces the environment to function as an extension of it, consequently informing human perception and behavior. Space, in this sense, is understood as a function of the sculpture, and movement becomes constitutive of the space.

Stuhlhockerbank

Designed by Fehling & Peiz & Kraud, these conversational structures, "...blend the intimate with the public, the historical with contemporary art and design, and the ordered with the random."¹⁹ Stuhlhockerbank is a series of wooden oak public seating areas that alter the conventional perception of furniture in public spaces. The lines between different seating types are blurred, creating structures that do not conform to the established and most recognized forms of public furniture, but rather propose an alternative structure that encourages social interaction through both form and function. While a stool, bench, or chair are conveyed in their most basic forms, the merging of the structures makes them feel familiar and yet surprising at the same time. It stimulates users and viewers to correlate the new form with the traditional one, and to inevitably question the design and intention of existing traditional public furniture. While a random section of the product seems to invite an intimate one-to-one conversation,

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another section seems to invite groups and crowds. The largest portion of the structure is designed to have a flat wooden surface that does not suggest ways to sit and behave, but rather leaves it to a user's individual experience and social needs. It is interesting how a public seat, intentionally designed to inform the user's behavior, can be manipulated to do the exact opposite. It can give people agency and control in their environment and meet their distinct needs, as opposed to imposing a fixed structure to which users must adapt.

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CONCEPTUAL FRAMEWORK

I have synthesized the following themes as fundamental components that guide and inform the design investigations and outcomes of this thesis.

The Action: Smooth and Striated Walls

Barriers, often in the form of state walls and fences, have been used to striate and fragment what once was a smooth and free space. In contrast, the domestic realm—a traditionally striated space enclosed by walls—has been opened, smoothed out and turned into a flexible and porous entity. In this respect, the urban wall is conceptualized in similar terms to the domestic wall—as flexible entities that are always contingent on military maneuvers.

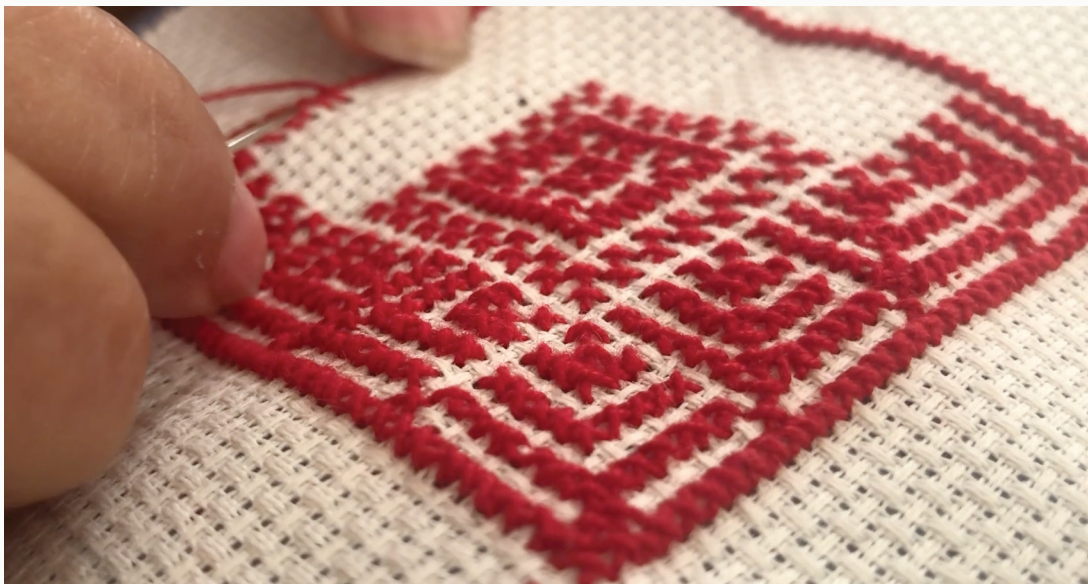
The Method: Subverting the Theory of Smooth and Striated

Jujutsu, a Japanese martial art, is based on the principle of manipulating an enemy's force and turning it against him/her, rather than confronting it directly. Though walls in the Occupied Palestinian Territories cannot be physically manipulated (neither dismantled nor reconstructed), they can be reinterpreted, subverted and challenged both physically and conceptually. The philosophy of Jujutsu will be employed as a retaliatory method through which space will be subverted; the wall's "force"—be it the striated separation wall or the smoothed domestic wall—will be turned against itself. That is, the walls will be subverted, and their intended purposes will be challenged and undermined.

PROJECT OUTCOMES

The Hole Hanging – Re-striating the Smoothed

The Hole Hanging is a uniquely Palestinian form of wall hanging. It mends the holes blasted by Israeli soldiers through Palestinian walls, in both a physical and metaphorical sense, by re-striating what has been smoothed. Relying on a distinctively Palestinian tradition, its creation is fueled by collective effort. For generations, Palestinian women have gathered to work collectively on embroidery projects, bonding over shared work, tea and conversation. After the expulsion of Palestinians from Palestine in 1948, *Tatreez*, or Palestinian embroidery, took on new significance. More than just a village craft of old Palestine, it became a primary medium of communication for Palestinian women. They used it to voice their opinions, share stories, and document their protest of occupation, war and violence. In this *Hole Hanging*, Aida fabric has been hand-embroidered by Palestinians from different villages and communities.



Using recognizably local techniques to stitch Palestinian motifs and symbols, individuals express their personal narratives and then connect the panels, creating a tapestry that unites their voices. *Tatreez* is intensive, private, steady, and slow. The measured, repetitive motion of puncturing the gridded fabric and pulling the threaded needle through it becomes meditative. While keeping the hands busy, it allows the mind to be free; a point is reached where one is so immersed in the stitch-work that the rest of the world fades into the background, and serenity and peace are found in that moment. It is through these meticulously crafted stitches that Palestinian embroidery becomes a quiet form of resistance.

Pockets incorporated into the Hole Hanging hold the ingredients of za'atar, and a mix of regional herbs used in Palestinian cuisine, including sage and mint. A breeze from outdoors disperses the scent into the interior space, where it engages the memory, provides a sense of familiarity and ease, and offsets memories of anxiety and terror caused by unexpected home invasions. Za'atar and sage are used in Palestine for their medicinal, healing and anti-microbial properties; their incorporation in the Hole Hanging becomes a metaphor, healing the wounds of military "infestation"—a term used by the IDF when referring to their maneuver of moving through domestic walls like worms that eat their way forward, unexpectedly emerging and then disappearing, blurring the line between inside and outside, private and public.



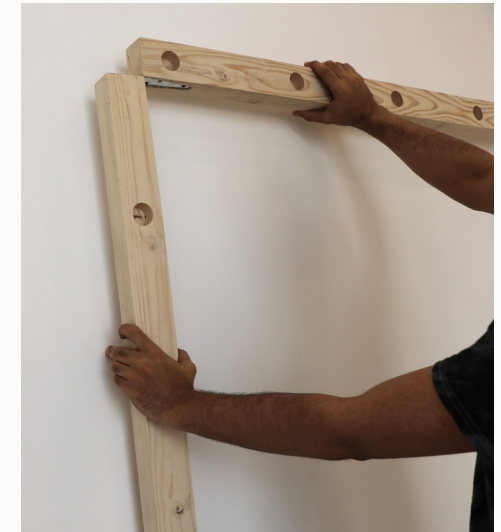
Fabric, framed in a modular system, provides adaptability and flexibility—a replacement for attributes forcefully taken from Palestinians. A reaction to the Israeli military's destructive manipulation of space, these adaptable modules join to repair holes of all sizes, which have been blown through walls in people's homes. They respond to Palestinians' needs and provide much-needed agency and control in a situation in which their authority has been forcibly taken. The occupied Palestinians now have the means to retaliate and deflect the occupying army's force, exploiting the very theory of smooth and striated space first used against them.



The Hole Hanging collage
Original photo by Kent Klich

The Trellis Ladder – Re-smoothing the Striated

A wooden trellis, doubling as a ladder, attaches to holes in the Separation Wall. Designed to support a vertical garden, the *Trellis Ladder* intentionally re-smooths what the Israeli military striated, piecing back together what has been fragmented. The original wall, used to separate people from their agricultural land and to divide families and neighbors, is transformed into the structural support for a new livelihood, the backbone for new agrarian production, and a discreet pathway to the other side. The wall, previously a tool of the oppressor, now offers a path to liberation. A practical, multi-purpose structure, the Trellis Ladder co-opts the Separation Wall's power, subverting the same theory responsible for its original existence.



In this project, the individually crafted wooden poles are transformed into a collective apparatus for resistance. Its modular design allows for easy assembly and disassembly on site, through collective effort, again reflecting and reinforcing the idea of communal power. Climbing vines are able to carry vegetables and fruit upward, in response to the annexation of Palestinian land and the confiscation and destruction of Palestinian farms.

Shimon Naveh, a retired Brigadier General, claims that he would accept any border as long as he could walk through it. In his words, "Space is only an interpretation."²⁰ By manipulating space for military purposes, the Israeli army continuously redefines its own spatial limitations while simultaneously constraining the movement of Palestinians. Thus, the Separation Wall is a living barrier. It is in a constant state of flux; it is rigid yet elastic, impermeable yet porous. The reliance of its flexibility on military maneuvers is its only fixed quality.

When the Separation Wall grows taller and longer, the Trellis Ladder answers in kind, growing more plants and providing a bigger ladder. Reflecting the philosophy of jujutsu; the Separation Wall's force is not answered by a new force, but rather, it is inverted and redefined. By providing the means to climb and cross to the other side, the Trellis Ladder smooths the striations designed to separate and fragment land and people. It reorganizes the public space according to civilian needs, becoming a structure that is subject to change depending on their movement. If the Separation Wall is constantly in flux, based on the military's changing "interpretation," to use General Naveh's term, then un-walling and smoothing the wall by adapting the Trellis Ladder in response, provides Palestinians with a complementary re-interpretation.





The Trellis Ladder collage
Photo featured in The Electronic Intifada

CONCLUSION

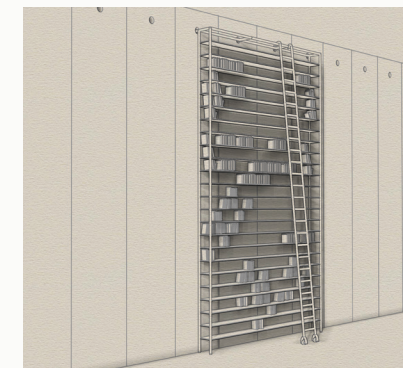
During the course of this research, I explored architecture through different eyes, investigating the ways in which Israel's violence against Palestinians extends beyond physical assault, incarceration, and rights deprivation. Considering the apartheid wall, checkpoints, the establishment of settlements, and the general segregation of space, I examined how Israel inflicted, and continues to inflict violence through architecture and spatial theory. The extensive research undertaken for this project led me to question whether elements of decolonization can be a counter-apparatus to subvert colonial structures and the military schemes behind them.

The outcomes of this thesis, a series of spatial interventions, envision design as a retaliatory force with the potential to deflect Israeli military tactics and their theoretical basis. These interventions consider the daily experiences of Palestinians from both a collective and individual perspective and call into question the relationship between the body and the occupied environment, raising social, political, and psychological questions. I focused on the investigation of facts, stories and spatial philosophy to consider how architectural elements—specifically walls—can be manipulated to serve new and imaginative purposes that oppose the existing ones. While utilizing the same theory that sustained the weaponized architecture, I inverted its intentions. This has been done through interventions that result from collective thinking and action, notions of modularity and adaptability, and the integration of metaphorical elements of contextual/cultural significance. The outcomes of this thesis function as a much-needed protest against the diverse spatial manifestations of colonization.

Future Directions

My interest in the dialogue between the human body and the environment, and between theory and practice, guided my thesis. I intend to continue working on the topic of spatial weaponization in relation to the human experience, and to further explore concepts of spatial decolonization through approaches of creative resistance. While this thesis tackles the manipulation of colonial structures that exist as a consequence of occupation, another direction of interest considers the speculation of a future liberated Palestine, where the colonizing power has evacuated, and we are left with the remnants of the structures of colonization; their old uses are gone, and their potential uses are not yet determined. Are we going to deconstruct the architecture? Or can the architecture yield new purpose?

I am interested in finding ways to envision its re-use and re-inhabitation, as opposed to its destruction. I find this a more powerful form of retaliation than simple demolition. Possibilities that I am considering include re-appropriating checkpoint steel bars into calisthenic training equipment, repurposing sections of the Separation Wall into shelving for a public library (see figure below), or using it to provide structural support for playground equipment. My preliminary investigations imagine similar approaches; however, they do so through manipulations that are largely fictional, critiquing via satire and irony. Hints of possibility in these investigations fueled my interest in taking them forward, and in exploring new directions. I am interested in hypothesizing a “what if” scenario that envisions practical versions, not in service of an unrealistically utopian scenario, but to shape a place where loopholes in the weaponized architecture are identified and exploited.



EXHIBITION







Majdulin Nasrallah

Weaponization of Space: Subverting the Architecture of Occupation

Israel's illegal occupation of Palestine and oppression of the Palestinian people has manifested itself in countless ways. The built environment, fueled by spatial theory, has been transformed into an instrument of war that serves a military agenda. In this context, the physical environment is not simply the arena of conflict, but a weapon wielded by occupying forces. This research investigates spatial control through seemingly mundane architectures and military practices that are deployed deliberately to strangle Palestinian life. Derived from Deleuze and Guattari's delineation of smooth and striated space, with an emphasis on walls and barriers, this thesis subverts the spatial weaponization by envisioning design as both a retaliatory and reparative force. In doing so, it critiques and protests against the status quo.

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LIST OF FIGURES

[All Images belong to the author, unless otherwise stated]

Fig. 1. Design Research Studio, *The Smooth and the Striated*. 2010. <http://design-research-studio1.blogspot.com/2010/11/smooth-striated.html>

Fig. 2. *The separation barrier in the At-Tur neighborhood in Jerusalem*, photo by Lior Mizrahi. <https://www.haaretz.com/israel-news/.premium.MAGAZINE-15-years-of-separation-palestinians-cut-off-from-jerusalem-by-a-wall-1.5888001>

Fig. 3. *The separation barrier in Shoafat, Jerusalem*, photo by Olivier Fitoussi. <https://www.haaretz.com/israel-news/.premium.MAGAZINE-15-years-of-separation-palestinians-cut-off-from-jerusalem-by-a-wall-1.5888001>

Fig. 4-5. *Checkpoint in Bethlehem*, photos by Anne Paq. <https://www.equaltimes.org/it-s-not-a-life-palestinian#.XLLdcuszMl>

Fig. 6. *Breaking through walls*. Film Stills, IDF, 2002. <https://chimurengachronic.co.za/walking-through-walls/>

Fig. 7-9. Atelier ARI, *Open border*, photos by Atelier ARI, 2017. <https://www.designboom.com/art/atelier-ari-open-border-warming-huts-competition-winnipeg-canada-02-01-2017/>

Fig. 10. *Factory Furniture, Camden Bench*, photo by the wub, 2015 (2011 (CC BY-SA 4.0)). https://en.wikipedia.org/wiki/Camden_bench#/media/File:Camden_bench.jpg

Fig. 11. Bolts installed on the front steps of a building in France. Photo by DC, 2011 (CC BY-SA 3.0). [https://en.wikipedia.org/wiki/Hostile_architecture#/media/File:Boulons_anti-sdf_sur_un_perron_\(Marseille,_France\).jpg](https://en.wikipedia.org/wiki/Hostile_architecture#/media/File:Boulons_anti-sdf_sur_un_perron_(Marseille,_France).jpg)

Fig. 12. Sarah Ross, *Archisuits*. 2005-2006. <http://www.insecurespaces.net/archisuits.html#>

Fig. 13. Richard Serra, *View of Federal Plaza showing the length of Tilted Arc*, photo by James Ackerman. <https://www.tate.org.uk/context-comment/articles/gallery-lost-art-richard-serra>

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Fig. 15-16. Fehling & Peiz & Kraud, *Stuhlhockerbank*, 2007. <https://www.architonic.com/en/product/fehling-peiz-kraud-stuhlhockerbank/1113342>



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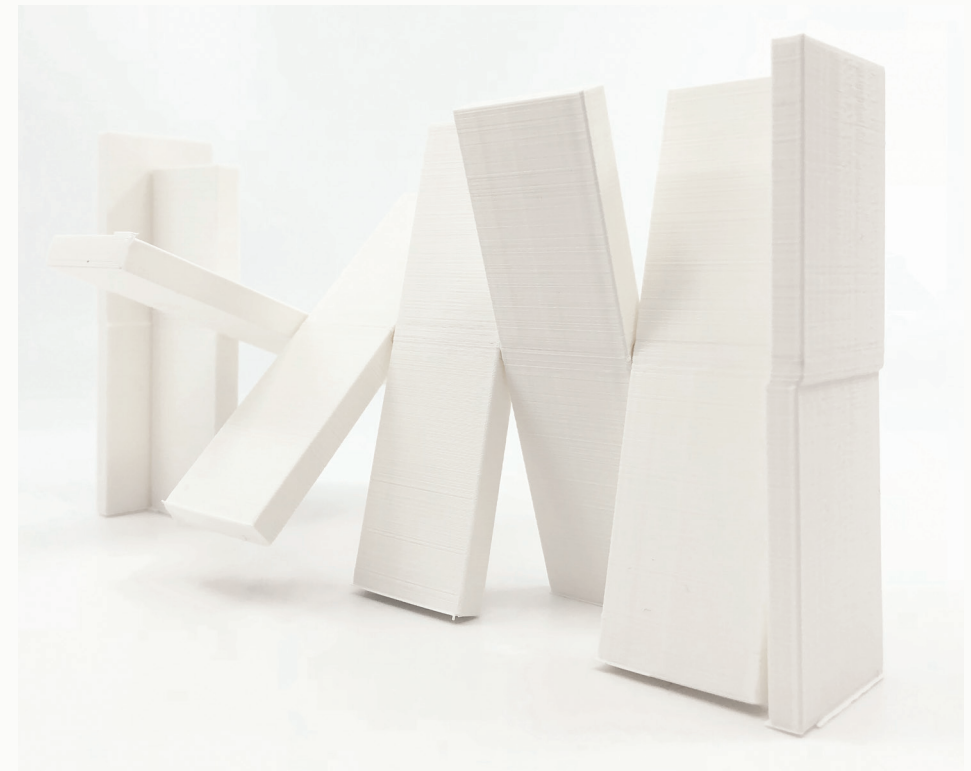
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Preliminary Explorations

Prior to arriving at the project outcomes described above, I conducted a series of preliminary explorations to investigate the walls and barriers of occupied Palestine from different perspectives. The investigations mainly address the weaponized architecture in relation to smooth and striated space, focusing on notions of connection and division as well as reoccurring themes from people's macro and micro experiences, such as dehumanization and humiliation, anxiety and intimidation, and anger and frustration. They either manipulate the existing structures or are extensions to them. Projects that manipulate existing structures envision fictional scenarios in which they can be critically subverted and reinterpreted. Proposals that are extensions to the existing take a less speculative approach and begin to imagine more practical, yet metaphorical and poetic propositions that attach to the existing structures. Both approaches informed the outcomes in the former section of this thesis in various ways. It is through these diverse investigations that I developed key themes and concepts that were threaded into the final design propositions.

The Seesaw Wall

This interactive seesaw wall exploration transforms the separation wall into a flexible, porous element that challenges the separation between Palestinian lands. Notions of leverage, balance, stability and connection become important in both a physical and metaphorical sense. The exploration is also a tongue-in-cheek reference to the critical theory that influenced the Israeli military's reinterpretation of space— "smooth" versus "striated" space. It triggered the following question: Can the same theory that was exploited to inspire the wall, be used to challenge it or possibly flip it against itself? In this sense, a structure that divides public space and fluctuates depending on military needs becomes a hyperbole for connection and its flexibility becomes contingent on civilian needs. Through this exploration, I realized the significance in letting people be a force that shapes their environment; thus, flexibility in design became a critical idea informing my direction throughout the journey of this thesis.





*Digital collage
Seesaw Wall*

Thermochromic Checkpoint

Checkpoints separate and fragment the land, creating choke points where they limit the means to move from one place to another. Although they are a form of barrier like the Separation Wall, checkpoints deliberately impose hardship on people. *Thermochromic Checkpoint* examines individual journeys and the collective experience of Palestinians. Thermochromic paint, brushed on the steel bars, changes color when people hold or touch the bars, responding to body heat. As the crowd grows larger and spends more time trapped in the gradually compressing checkpoint, their frustration grows. The greater the frustration, the more intense the colors become.



The idea visually captures and reflects the dehumanization and frustration experienced by people. The changing color becomes a form of collective protest, exposing the cruelty of a structure designed to inflict collective punishment. Therefore, the notion of a collective effort used as a way of defiance became key in guiding this thesis' outcomes; It resists the force by deflecting it rather than by confronting it with a new force.



Checkpoint
Photo by Anne Paq



Seat Bars

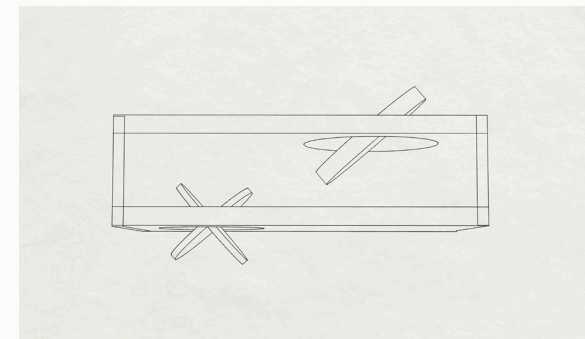
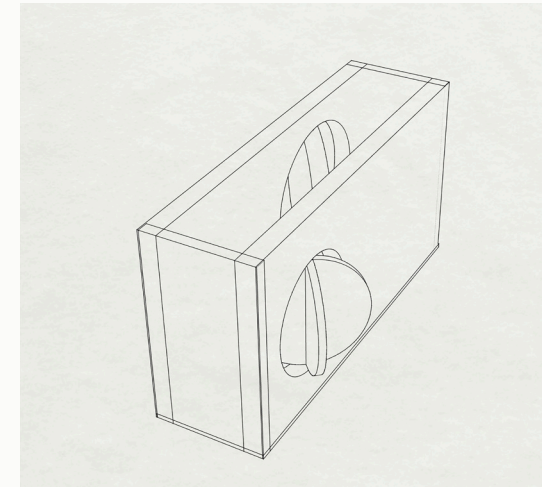
This exploration transforms checkpoint bars into seating. Wires, representing steel bars from the ubiquitous barriers, are gradually bent, ultimately forming a bench/seating area. The project provides a critical transformation, re-appropriating this mundane material, restructuring the bars to create seating. The project imagines steel bars—the material used to cage and restrain people—refashioned to provide comfort, a kind of satire deployed to comment on the inhumane intention and experience of Israeli checkpoints. Though fictional, this exploration manipulates a brutal structure in a way that turns it against itself. The idea of finding loopholes within the structures that allow for their deflection and subversion became critical for me when analyzing the Separation wall and the domestic walls, and eventually when disrupting them.



Disorienting Walls and Floors

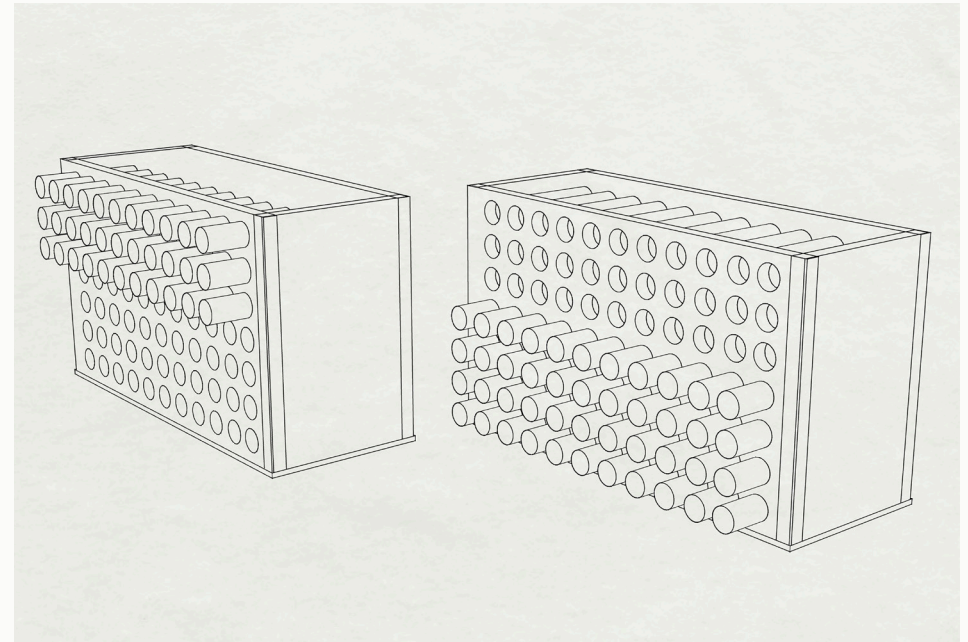
The following proposals explore themes of confusion and disorientation in regard to the domestic realm, particularly looking at holes blasted in walls, floors and ceilings by the military as they invade occupied homes. The proposals seek to confuse the invaders through manipulations that create confusion and disorientation, in response to the anxiety and uneasiness people experience when their homes are unexpectedly attacked. Drawing on signs from the military's spatial tactics, these projects endeavor to turn them inside out, projecting the invaders into an unstable world. To construct a sense of instability, they play with elements denoting hindrance, displacement and inversion.

Investigating ways of diluting or neutralizing the idea of wall, they create unexpected interactions, such as the unexpected rotation of wall elements (inspired by checkpoint turnstiles). Manipulating floors, they use subtle obstacles, such as changes in level or inclined slopes, to impede movement. Use of mirrored and clear glass further distorts the experience.



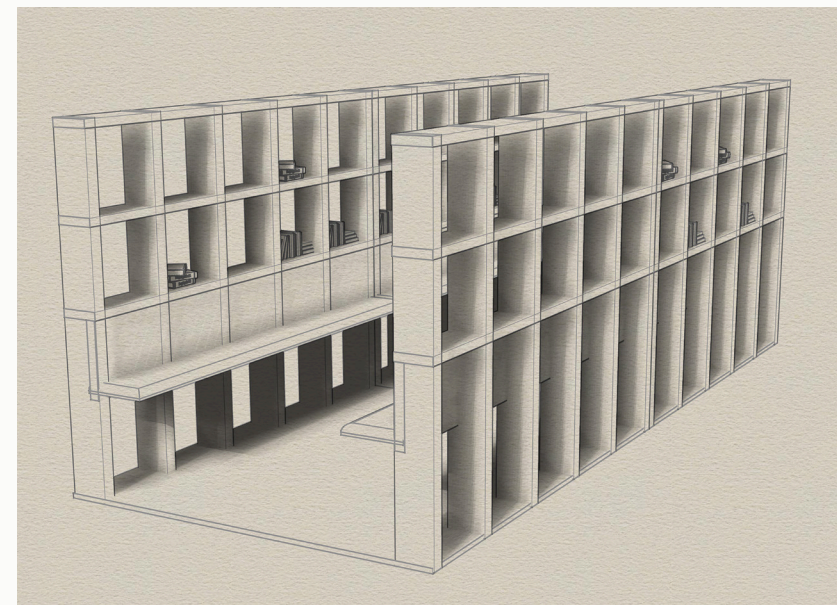
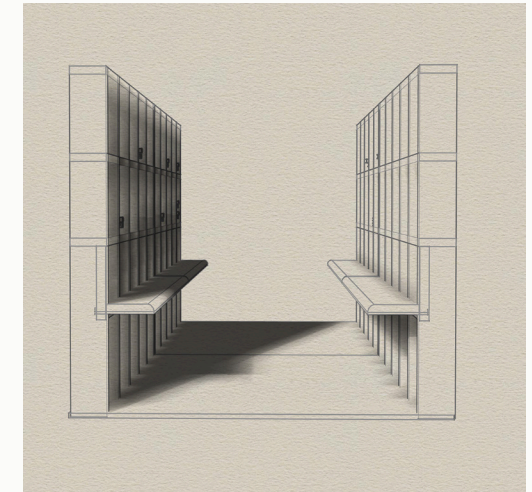


The proposal sketched below considers the spatial theory which the IDF has exploited and seeks to counteract it. A series of round openings and poles become the domestic "wall". When this wall is hit from one area by the military to blast a hole, the poles protrude from the opposite area, pushing the invader away and disrupting his action. Though it took a different direction from this investigation, the core idea of diluting or weakening the wall was crucial in both thesis outcomes. Subtly, the structures were inverted, however, with the emphasis placed on comforting the residents as opposed to confusing the invaders.



Library Checkpoint

Expanding the checkpoint's size, this project imagines its conversion into a library—in sharp contrast with its current brutal nature as a dehumanizing and humiliating structure for collective punishment. Gaps between bars become bookshelves, and bars become seats. To make the inhumanity of the existing checkpoint visible, and shine a critical light on it, it is turned into something distinctly humane and civilized, empowering Palestinians and creating a dignified, illuminating experience. A protest against the illegal existence of the checkpoint structure, this approach reflects on the absurdity of its existence and proposes an alternative by imagining what can, or should be, instead. Though this proposal does not physically smooth out what has been striated by the military, it conceptually dilutes the checkpoint's power/intention by finding a loophole in its design. The more checkpoints, the longer their passages are, and the more time people spent in them, the more books there are to read, and the more time there is to read them; this hypothetical proposition speaks to the issue of education, one of the main factors intentionally impeded by the occupation, in both its access, quality and development. It addresses it through the philosophy of Jujutsu, challenging the checkpoint by turning it against itself. The same principles were fed into the final thesis outcome – The Trellis Ladder. Loopholes in the Separation wall were found and utilized, inverting it and turning it against itself.

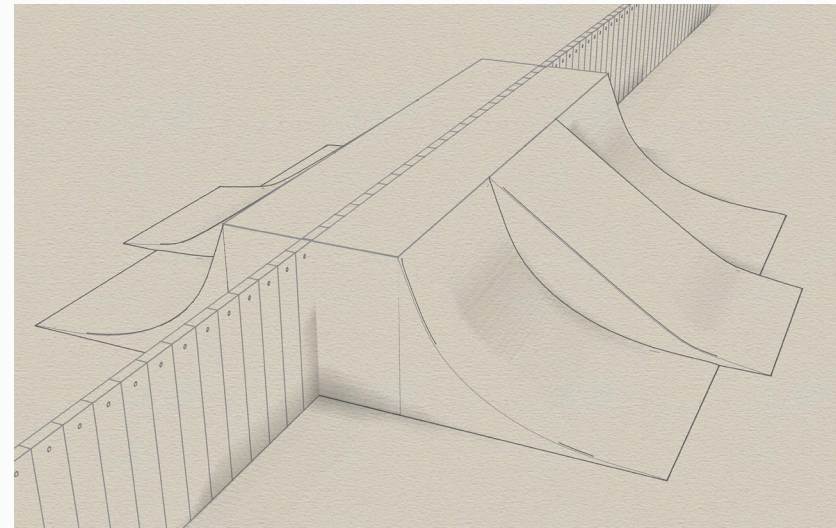




*Digital collage
Library Checkpoint*

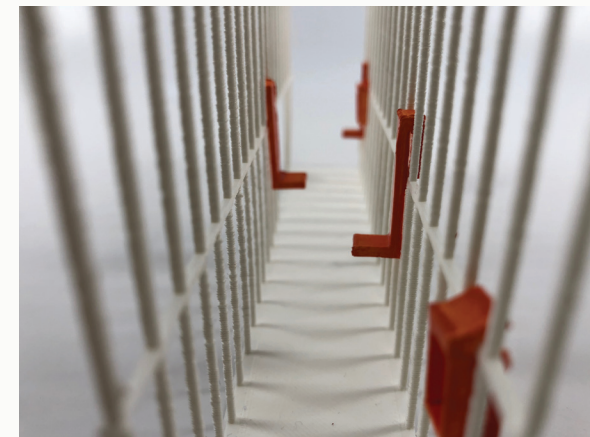
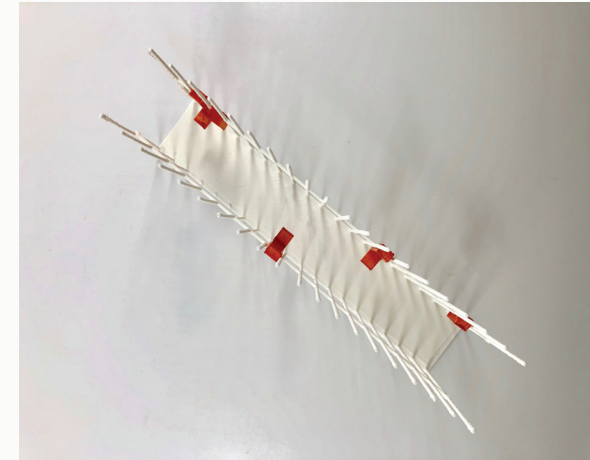
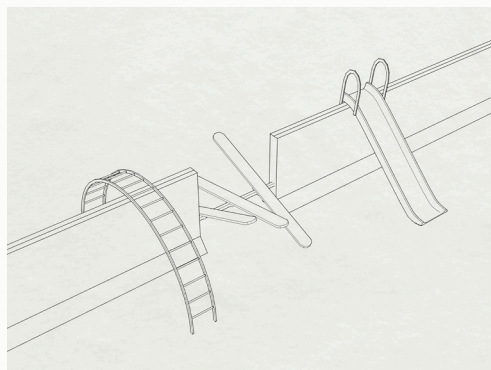
Skating Wall

One often-overlooked expression of the occupation is the stifling of public spaces, and therefore public life. This exploration is a commentary on Israeli suffocation of the social lives and therefore communal development of the Palestinian population. By adapting a skating ramp to the geometry of the separation wall, this project considers how freedom of the body serves as a microcosm for a wider sense of freedom, which is important in any socio-political landscape – particularly within the limits of occupied Palestine. It empowers Palestinians while opposing the restriction of movement that is embedded in the design and route of the wall, offering a sense of community and an outlet for creative expression. Skateboarding, in this respect, becomes more than just a recreational sport. In a place where freedom of movement is curtailed on every level, a person's feeling of freedom on a skateboard becomes invaluable. This same principle was threaded into the final outcome, in which a ladder/plant trellis, though fully practical, is also a signifier for a greater sense of freedom and autonomy.



Lego for Decolonization

Examining common objects that our bodies interact with, like seats, ladders, and playground equipment, I saw potential in a spatial decolonizing board game and became interested in how these elements can be utilized to dilute walls and barriers. Much like the Lego concept, players in this game are encouraged to change and adapt the rules through building. Though similar to Lego in how pieces can be assembled and connected in several ways to construct objects and then taken apart again, this game differs in that certain structures are fixed and cannot be moved by the occupied player, only modified through attachments. White 3D printed pieces represent structures of colonization and control, such as walls, checkpoints and barriers, while red pieces are the player's tools of decolonization. A series of white pieces can be positioned strategically by player A (the colonizer), and then hacked and redefined by player B (the colonized).



The game's main objective is to start a conversation, through play and interactivity, about the relationship between design and spatial control, theory and practice. In doing so, it makes the topic more accessible and stimulating to the audience, allowing them to think critically about these elements as they are physically manifested, and also in terms of the experiences they inflict upon people. While the fixed pieces reflect the current state of political affairs in the OPT, the game also offers players agency, control, and a space for creativity. Aspects of this exploration, like ideas of resistance through adaptability and control in the environment, became vital notions in the formation of my final outcomes.

