ARCHITECTURE FOR
QALQILYA

by JUAN JOFRE

Bachelor of Science in Architecture
University of Cincinnati, 2010

Submitted to the Department of Architecture
in partial fulfillment of the requirements for
the degree of
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Abstract

An impossible situation in an almost unimaginable reality. That is the truth about the city of Qalqilya: a place surrounded by a wall that has become the victim of a conflict without a solution.

This conflict, in which architecture was strategically and seamlessly used to create the political as well as the physical landscape, no longer allows the architect to enact change. But he must try.

And so the question becomes how? In a place in which the traditional tools of architecture are no longer relevant, how does one create a space in which to act? Should earnestness be the desired solution, or is cynicism the lone alternative? Is it possible, as Reinhold Martin put it, to be a “double agent”, to be driven by a sense of responsibility and earnest moralism while performing with an equally earnest cynicism? And if that is the case, is it beneficial to imagine a world, an alternative reality? Would that allow for the creation of new possibilities and could those be grafted onto our present reality?

Perhaps that is the main task of the architect. To imagine. Not from above, as he sees the plan, but from the ground that the farmer sows. Or from the streets that the school girl walks. Or even the zoo where the animals spend their lives. These are the places in which to act, to image possible alternatives.

What follows is a story, one of many, of Qalqilya.

Thesis Supervisor: Ana Miljacki
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Acknowledgements

This thesis, although authored as mine, is the accumulation of thoughts and perspectives that I have shared with others. It has been a collaborative process, and I am deeply indebted to everybody that participated in its creation. I did not choose an easy topic, and without the many voices that have helped to guide me it would have been a shortsighted endeavor. To everybody that asked questions, suggested solutions, and kept an eye on me; thank you.

To Ana for thinking about my thesis more than I did at some points, and for your advice, your dedication, and your enthusiasm; thank you. I asked for an advisor and received a collaborator, and I could not be more grateful.

To Nasser and Rafi for your direction, your insights, and your moral compass; thank you. Your understanding of the topic and refusal to compromise allowed me to find a place in which to act. I learned from both of you immensely, and it was a pleasure to listen to you during the reviews.

To Gato, Mama, Pedro, and Cata for pushing me to pursue my interests, but more importantly for reminding me that there are bigger things in life; thank you. I love that I can share with you my triumphs and my failures equally.

And finally to Claire, my partner and co-conspirator; thank you. I could not have done this without you, nor would I have wanted to.
ARCHITECTURE FOR
QALQILYA
Here lies a ghetto.

One of many.

It sits next to what used to be the border with Palestine, an arbitrary line that was ignored almost since its inception. Slowly, methodically, the territory was restricted.
One day, all that was left was within the confines of the wall, a small island inside the sea of Israel. This ghetto, it is called Qalqilya. This is the story of its creation.
First, there were trees.

Millions of them planted to erase and to rebuild, to prepare
the promised land for the return of its people.
Soon after, pledges were made: many were incompatible.
Those whose lands were being given away fought back.
And so there was war.
As in all wars, history was written by the winners.
But the losers could not forget.
More wars were fought and this time, the results were absolute. Now the winners controlled everything.
They built a wall to protect their gains.
But the wall was a mistake.
It could not prevent an attack, and once breached it was useless.
One of their generals had foreseen this.
Instead, he imagined another kind of defense, dispersed along the depth of the territory.\textsuperscript{15}
He got to work.
His name was Ariel.
Under his command, military and civilian outposts were strategically placed across the landscape. On page 130.

But they were not enough.
Larger constructions were imagined.
Ariel planned to inhabit the entire region.
Settlements were built to house the new frontiersmen.

They stood like sentinels over the landscape:
always watching. Pp. 163
Roads followed.

Each road divided in order to connect. {Pg.130}

Checkpoints provided access from one side of the road to the other.
As a result, territorial islands developed.
For the settlers, the roads made life in the interior convenient. For those under dominion, they made life unbearable.
Hassan saw it all from his household.
He saw as the first war took the lands his family farmed towards the sea. He was there when the second war took additional land, and later when the highway took even more.

He could do nothing.

But he remembered.
Soon after Sahad was born, violence erupted.
It was not quite a war, but worrying enough for the winners to take action. A new plan was provided that gave the illusion of shared control. "Pag 122"
In it, disparate areas with large native populations were allowed to self-govern, but the territory around them was placed outside their control.
The islands were formalized.
Qalqilya was one of them.
Around this time, a zoo opened.
It was the first and only zoo inside the islands. It was small, just a few animals: a couple of giraffes, a hippo, some lions, bears.
But it needed constant care.
Sami moved back to work there.
The violence could not be completely contained. As a last resort, the winners decided to build a wall.
A wall to separate them from their prisoners.
But more importantly, to separate their prisoners from each other and from their lands.
Qalqilya was the first to be completely surrounded.
Now Hassan saw nothing but the wall.  
He looked outside his windows and it stood there, a few meters away, blocking his view of everything else. What little remained of his farmland lay on the other side.
Sami saw a lot of his animals die.
The wall did not deter the winners from crossing it, and their intrusions brought death upon the zoo.
Unable to acquire new animals, he began to preserve the deceased. Soon he amassed a vast collection.
Suhad had grown within the confines of her city.
She knew its hidden spots, its markets, and its limited resources.
She knew that water, plentiful in the ground underneath her, was scarce.
The winners had taken that as well. "Ps 175"
Qalqilya is now fully formed as a ghetto.
Hassan, Sami, and Suhad are three of its many inhabitants.
Cut off from the world and the lands that they helped create, they turn inwards.
They imagine possible alternatives.
Hassan hopes to find an easier way to get back to his land.
In one swift move, the wall has extended the distance to his crops. Now, instead of crossing his lawn to get to them, the wall makes it a four mile journey.
Every day he wakes before sunrise and heads towards the only checkpoint, hoping to get through.
On many occasions it is closed.
On the days it is open, it can take hours to get across.
He imagines seeing through the wall, a hazy view of his crops in the distance.
Or perhaps pushing land over it, his fields gently sloped as they rise up the wall.
He wants to fool those in control into thinking that it is still solid, when in fact he can walk through.
Hassan is unable to carry all of the food he produces back across the wall, but he has an alternative.
From the greenhouse on the other side, a small hole lies hidden between the storage crates.
With a little water, the produce passes down the tunnel, under the security road, and below the wall to a small cart.
As the water drains back to the reserve tank, one of his sons pulls the cart towards the central hall. From there, the food is sorted, stored, and hoisted up, through an opening in the floor, into his living room.
Now, mounds of food make it back across the wall to his house, even before he returns.
Sami never intended to become a taxidermist, but now it seems the best way to maintain the zoo. He keeps a small lab where he brings life back to the deceased.
There are so many, he has nowhere to put them.
He needs a new place for his animals: the ones that are alive as well as the many that now stand still.
Sami wishes for a better future for the zoo.
He imagines natural settings.
Lush green jungles for the leopards.
savannahs for the lions.
and a place for Ruti, his favorite giraffe.
She, like many others, has died.
But he houses her with her live companions.
Each exhibit provides for both, side by side, one in front of the other.
Life and death together in a perfect setting.
Every morning, as Suhad rises and heads to school, she
notices the dew collecting on the leaves of trees around her.
She wishes she could catch it.
Water is always in high demand.
The city sits atop the largest aquifer in the region, yet there is limited access to it. The winners control it.
It doesn’t rain often in Qalqilya, but when it does it pours.
On such occasions, the wall prevents water from escaping and the city floods. It is another irony of the occupation, the city without water that floods in the rain.
Suhad knows she must capture the dew and rain.
She makes a pattern, sews, and then waterproofs simple fabric water collectors for her rooftop.
Others follow.
They are made piece by piece by the women of the city. She hopes they will show the world her city's plight: their lack of water.
Suhad images a protest visible from space: a system to catch rain that becomes a symbol of defiance.
Slowly, the rooftops of her city will form an aerial keffiyeh and the world will know.
A new day begins.
Hassan heads towards his fields. Sami must tend to his animals, and Suhaad looks up as it begins to rain.
APPENDIX 1

MAPS & DEMOGRAPHICS
1923
Mandate of Palestine

1936
Peel Commission Plan

1947
Jewish Settlements
1947
UN Resolution 181

1949
Armistice of 1949

2013
Present Palestinian Authority
200 million
Trees Planted by Israel

500+
Destroyed Palestinian Villages

120+
Unrecognized Palestinian Villages inside Israel
ZONE A
Full Palestinian Control
Oslo Accords

ZONE B
Shared Control
Oslo Accords

ZONE C
Full Israeli Control
Oslo Accords
Aquifer
80% of the West Bank Aquifer water supply is used by Israel

Separation Wall
700+ kilometers

Bypass Roads
Settlements
400,000+ settlers

Outposts
100+ Outposts

Checkpoints
Demographics

The demographics of the Israeli-Palestinian landscape have shifted drastically over the last hundred years. Beginning during the turn of the century, Jewish settlers arrived on the shores of Palestine to reestablish a large Jewish presence in the territory. The Jewish population grew rapidly throughout the first half of the century, such that by the formation of Israel in 1948, the Jewish population almost equaled the native Palestinian population. The growth of the Israeli population continued to outpace that of the Palestinians until the mid 1960’s. Since then, the Palestinian population has slowly outpaced Israeli population and currently exceeds it.

However, due to Israeli law, most of the Palestinian population is not counted in the official Israeli census. Under the law, the state is defined as both Jewish and a democracy. Therefore, in order for the state of Israel to remain viable, there must be a Jewish majority. As such, although Israel controls the entirety of the Palestinian landscape, it has refused to include the entirety of the native population. Approximately 45% of the Palestinian population is not officially counted.¹
APPENDIX 2
HISTORY & RESEARCH
The British Mandate of Palestine (1923 - 1948)
The mandate established administrative control of the territory by the British and stipulated that it include a “national home for the Jewish people”.

The Peel Commission “Two State Solution” (1936)
Following the Palestinian General Strike, the Peel commission proposed the first two state solution for the territory of Palestine.

Jewish Settlements (1947)
At the time of the drafting of the UN resolution 181, Jewish settlements constituted 7% of the Palestinian territory.

A Brief History of Conflict

On the eve of the 29th of September, 1923, the British Mandate of Palestine came into effect, thereby ratifying the creation and administration of the Palestinian territory under British control. A byproduct of European thought on Zionism, championed by Theodore Herzl, the mandate stipulated that Palestine was to include a national home for the Jewish people and expressed their right to an independent state. With that, the stage was set for the ensuing conflict between the incoming Jewish population and the existing Arab one.

The first proposal for a two state solution, proposed by the Peel Commission, occurred in 1936 as a result of uprisings and violence between Arabs and Jews. The commission called on the creation of a smaller independent Jewish state along the northern coast of the Palestinian territory, the creation of a larger Arab state along the souther coast, and the continued control of the territory surrounding Jerusalem by the British mandate. The proposal was rejected by Palestinian Arab leaders, who emphatically rejected the cessation of lands for a Jewish state. The plan was declared unimplementable and dropped by the British government.

Jewish settlements propagated along the northern coast of the territory of Palestine during the twenty five years that the Mandate of Palestine was in order. Most of these settlements occurred in the northern region of the territory of Palestine, and where the result of legal land purchases by Jewish settlers of Arab land. However, conflicts between the settlers and the largely Arab population occurred frequently. Repeated proposals for the creation of a Jewish state in the territory where met with disdain and rejected
by Arab leaders.

In 1947, as a result of plans by the British government to terminate the Mandate of Palestine, the United Nations drafted and ratified Resolution 181 that called for the partition of the territory of Palestine into two independent states, Israel and Palestine. The plan called for the division of Palestine into six territories, three to be given to the Arab state and the other three to a Jewish state with Jerusalem as an independent international zone controlled by the UN. The plan was accepted by the Jewish community but rejected by the Palestinian Arab community and the Arab League. Immediately following the ratification, civil war broke out in the territory.

On May 15, 1948, only hours after the end of the British Mandate of Palestine, the Arab states of Egypt, Syria, and Jordan with assistance of Palestinian Arab forces launched an attack against the newly formed state of Israel. The subsequent war ended with the Armistice of 1949, by which point the Israeli state had managed to defend itself and gain control of 60% of land allocated for a Palestinian state by the end of the Arab-Israeli War. Reasons are disputed, but by the end of the war, nearly 700,000 Palestinians had been exiled from their lands and became Palestinian refugees.

The subsequent Six Day war in 1967 and its aftermath let to the control of the remaining Palestinian land by Israel as occupied territories. These zones are the current frontier for the Israeli-Palestinian conflict and are marked by the use of architecture as a tool to lay claim to the fractured Palestinian territory. Starting in the early 70's Israel has consistently deployed the development of outposts, settlements, and military compounds within the occupied territories in an effort to lay claim to the land.

From Left to Right:

UN Resolution 181
(1947)
Two state solution gave 56% of the Palestinian territory for an independent Jewish State and 44% for the creation of an independent Arab state.

The Armistice of 1949
(1949)
The state of Israel gains 60% of land allocated for a Palestinian state by the end of the Arab-Israeli War. The remaining Palestinian land comes under control of the Egyptian and Jordanese governments.

Occupied Territories
(Present)
The fractured map of the Palestinian archipelago is the result of multiple events taken by government and non government agencies on both Israeli and Palestinian sides as they vie for control of the disputed land.
Architecture of Occupation

The history of the Israeli/Palestinian conflict is predominantly a dispute over territory; of the physical, social, political, economic, and structural control of a small strip of land. It has been fought on the battlefield, on the political front, and on the ground, predominantly through the construction of objects that serve as tools to reinforce one side's control over the other. In the dispute over territory, the political landscape has been spatialized and architecture and planning have become weapons of occupation.

The conflict has been a lopsided affair, and regardless of political positions the fact remains that the Israelis have increased their control of the territory to the detriment of the Palestinians. Furthermore, it is the Israeli's that have managed to successfully utilize architecture as a weapon, to turn it into a tool that destabilizes, disturbs, and prevents the development of the Palestinian territory. Architecture and planning have become one of the predominant techniques through which Israel reinforces its right to the land, and by which it expands its boundaries. Furthermore, building has become the central manifestation of Israel's colonization of Palestinian land.

What follows is an account of the architectural tools and techniques that Israel has used to manifest and legitimize its claim to the Palestinian frontier. These techniques provide a guide for the development of their counter. An architecture that reverses the relationships that the current structures reinforce and that legitimizes and protects the Palestinian claims to land.
Palestinian Archipelago

The Oslo Accords set up the basic framework for the development of an independent Palestinian state, but rather than providing the proposed Palestinian state with a sovereign territory, they set up a system by which Israelis and Palestinians shared control of the occupied territories. The West Bank and Gaza Strip were divided into three distinct zones, each with different governing entities. The zones functioned as concentric circles with the innermost zone that contained and directly surrounded Palestinian communities given over to direct control by the newly formed Palestinian Authority; the zones directly around that shared sovereignty between the PA and the Israeli state, and zones around the second perimeter remained under full Israeli control.

The result can be understood as the Palestinian archipelago, a territory composed of a set of distinctly separate and isolated islands within the sea of Israeli sovereignty. Furthermore, beginning in 2002 the development of the barrier wall has increased the physical boundaries between the Palestinian territory, making the prospects of a unified Palestinian state increasingly remote.
<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destroyed + Reforested</td>
<td>Most of the initial trees planted were olives; however, when these failed to survive settlers switched to a mix of harder deciduous trees, including pines and cedar.</td>
</tr>
<tr>
<td>Destroyed + Not in Use</td>
<td>The reforestation effort took on new urgency and national significance with the end of the war of 1948. Soon after the war, the Jewish National Fund began to systematically plant large pine forests over contested war sites and to erase evidence of the existence of Arab villages throughout the country. The trees both erased the history of these sites as well as deterred refugees from returning to reclaim their lands. Since 1948, the JNF has planted over 200 million pine trees in Israel.¹</td>
</tr>
<tr>
<td>Destroyed + Cultivated by Israelis</td>
<td>The systematic reforestation of the Palestinian landscape is one of several ways that the state of Israel has utilized to erase the history of native Arab villages throughout the country. As Sharif Kanaana, principal editor of the <em>Destroyed Palestinian Villages</em> series, recounts, the kind of destruction falls on a spectrum, from total eradication and reforestation to intact incorporation and conversion into an Israeli institution. Over 500 Palestinian villages have been destroyed since the founding of the Israeli state and more than 140 existing Palestinian villages within Israel are unrecognized by the state. The status of non-recognition prevents those villages from receiving state services including access to water, electricity, schools, and medical centers.</td>
</tr>
<tr>
<td>Destroyed + Replaced</td>
<td></td>
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<tr>
<td>Partially Standing but Engulfed by Settlement</td>
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<tr>
<td>Intact but Taken Over</td>
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<tr>
<td>Architecturally Preserved as Artist Colony</td>
<td></td>
</tr>
<tr>
<td>Intact + Converted to Israeli Institution</td>
<td></td>
</tr>
<tr>
<td>Destroyed + Turned into Public Park</td>
<td></td>
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</tbody>
</table>


Reforestation and the Destruction of Villages

As early as 1904, Jewish settlers began the process of reforestation of the holy land. Initially landscaping was done with the aim of recreating the biblical landscape and to provide jobs for the incoming settlers. Most of the initial trees planted were olives; however, when these failed to survive settlers switched to a mix of harder deciduous trees, including pines and cedar.

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The Outpost & the concept of Depth

Following the territorial gains of the Six Day War, the State of Israel embarked on the construction of the Bar Liev line along the Western coast of the Sinai Peninsula. The plan called for the development of a military line of fortifications that would provide defense against an attack by the Egyptian army on the other side of the Suez canal. Ariel Sharon, who at the time was Chief of Southern command, reject the plan as creating a static defense line. Instead, he proposed the development of a series of strongholds in depth along the entire peninsula. Rather than a line, which demarcates a distinct separation between two entities, Sharon's plan for strategic depth allows for a diffused relationship with the territory and an ambiguous position against the enemy.

Sharon's plans for defense in depth where largely ignored but later vindicated by the events of the Yom Kippur War in 1973. The war began when the Egyptian Army successfully breached the Bar Liev line and proceeded to make significant gains into the Sinai Peninsula. Although the Israeli military would recover and retaliate against the Egyptian Army in the weeks to follow, the war proved that a static line of defense was indefensible. Furthermore, it provided Ariel Sharon with proof that the defense in depth strategy was the only viable solution in Israel's engagement in the occupied territories.

It is no surprise then, that as Head of the Government's Settlement committee, Sharon deployed his strategies of depth in the development of military and civilian outposts in the occupied territories starting in the 70's. The outposts proposed by the Israeli consisted of easily deployable, moveable and inexpensive units, that could be dropped off, relocated, and illegally deployed within the Palestinian
landscape. Their objective was to move settlers quickly into the landscape and establish posts across the entire territory. The proposal provided a redundant and resilient network of outposts that functioned both to facilitate the takeover of Palestinian land and to fracture the Palestinian landscape. By connecting the outposts, the landscape is divided into a series of islands that can be easily accessed, separated, and controlled.

Furthermore, the outposts provide the first step in the process of colonization. They create a marker from which the future settlement can develop. As Eyal Weizman points out "The outposts had a potential for immediacy, mobility and flexibility; they were the perfect instruments of colonization."

As such, the location of outposts was dictated by the strategic logic of occupational dominance. Outposts were placed on significant hilltops, or between Palestinian settlements, in order to disrupt, and prevent the development of the Palestinian state.

The outposts, marked most prevalently by the mobile home, replaced the basic military unit and provided a new tool that operated along the same lines. They provided a non-violent method to acquire the land that could not be politically acquired through violent escalations.
The Oslo Accord established the formation of the Palestinian Authority and formulated the basic principles for the formation of an independent Palestinian state. Among other things, it made it increasingly difficult for Israelis to acquire permits for the development of new settlements in the West Bank. However, the accords allowed for the formation of additional Israeli security outposts in the occupied territories if the military deemed it necessary. As a result, settlers demanded the development of new security infrastructure on desired sites as a way to claim rights to those lands.

The cellphone antenna became one of the key strategies by which settlers bypassed existing laws and propagated new outposts across the Palestinian landscape. Because the antennae could be legally defended as security structures, they no longer violated land right laws. As such, they could be established at strategic, desirable points along the West Bank. Once under construction, the towers become vulnerable structures that demand on-site security. As a result, the deployment of housing units for the security guards is legitimized. Soon after, additional families move within the confines of the newly annexed territory and an outpost emerges. Infrastructure, in the form of the cellphone antenna, becomes a tool to circumvent existing law and a technique for further colonization.
Antenna Hill
Settlers complain of loss of reception along highway. As a result, antenna is built on hilltop desired by settlers. Antenna is considered security instrument by military, and so is exempt from land property rights.

“Military Outpost”
Military provides electric and water lines for antenna and hires a permanent security guard.

Outpost
Security guard brings his family to the outpost, soon after an additional set of families join him and outpost is formalized.

Settlement
Outpost grows and acquires land around it for future expansion.
Hilltops, the Horizontal Datum, and the Ottoman Land Law

In 1998, Ariel Sharon, then Foreign Minister, rushed settlers 'to move, run and grab as many hilltops as they can ... because everything we take now will stay ours. Everything we don’t grab will go to them.' Such a strategy, although illegal, has become the basis for the formation of new settlements in the occupied territories. However, before the Oslo accords made the development of new settlements difficult, the Israeli government and various private entities worked tirelessly to secure the development of a large number of settlements within the occupied territories.

The first settlement plan for the West Bank was developed in 1967 with the intention of preventing the development of the Palestinian state along its border with Jordan. The plan called for the development of settlements all along the border to create a line of Jewish occupation. However, in the wake of the Elon Moreh case, which stipulated that settlements could not be developed based on security reasons, a new legal strategy was developed for the acquisition of Palestinian lands.

Rather than appropriating land for the development of settlements for security reasons, the Israeli state used existing laws, and particularly the Ottoman Land Law of 1858, to declare large parts of the Palestinian territory public lands and in that way circumvent legal repercussions. The newly acquired public lands could then be leased by Israeli state for the development of new settlements.

The Ottoman Land Law of 1958 stipulated that any land continuously cultivated for ten years was considered privately owned, but any land left fallow for more than three years was returned to the sovereign
state. As such, Israeli cartographers quickly set out to map the Palestinian landscape in search of available public lands.

Due to natural alluvial processes across the West Bank, the hill tops are arid and largely uncultivated, whereas the valleys, rich in sediment, are where cultivation occurs. As a result, it is predominantly the hilltops that could be acquired as public land by the Israeli state and leased for the development of future settlements.

By the early 90's nearly 38% of the Palestinian territory had been seized by the Israeli state as public lands available for development. The majority of such land occurs the topographical summit of cultivation, such that if a section of the Palestinian territory were to be taken, it could be understood that the settlements occupy the land above a certain elevation, while the Palestinian territories lie below that plane.

Furthermore, this strategy of occupation emphasizes the tactic of depth across the field and provides the Israelis with a series of strategic vantage points from which to control the Palestinian state.
Pastoral Views and the Visual Dominance of the Hilltop

Aside from the strategic advantages of depth created by colonizing across the hilltops, the Israeli settlements received additional benefits from their topographical siting; namely the conferred visual dominance. Visual dominance occurs from both perspectives, from the Israeli point of view, the hilltop provides a vantage point from which to assess the landscape and the occupied territories, while from the Palestinian vantage point the new settlements are situated imposingly above their lands.

Accordingly, the Israeli settlements were designed to maximize views out towards the occupied territories while positioning private quarters and personal spaces towards the interior of the settlement. Seeing as most hilltops provide 360 degree views, the settlements are organized radially around the center to provide maximum sight lines across the landscape. To that extent, most settlements across the West Bank are understood as Mitzpe, or Lookouts.

The term Mitzpe succinctly describes the main role of the settlement, namely to provide visual control over the existing population. As Eyal Weizman points out “The task of civilian settlers—men, women and children—is to investigate and report Palestinian movements in the West Bank, to help turn the occupied territory into an optical matrix radiating out from a proliferation of lookout points/settlements scattered across the landscape.” The settlements are part of the state apparatus that seeks to control the Palestinian population through the implied surveillance of its imbedded population. Furthermore, according to rules of engagement established in 2003, soldiers may shoot to kill any Palestinian caught looking at settlements with binoculars or any other enhanced visual system.
Interestingly enough, the settlements have been sold as places from which to visually experience the pastoral beauty of the Palestinian countryside. Therefore, the visual dominance extends into the realm of the exhibition, where the Palestinian territory embodies the imagined pastoral biblical landscape that the Jewish settlers hope to re-capture.

In this way, the hilltop provides different layers of visual dominance. On the state level, it provides the visual control necessary for the constant surveillance of the occupied territories, for the settlers it provides the illusion of the biblical landscape, and for the Palestinians it reinforces their subordinate relationship with the state, namely their role as subjects of control and of display.
Bypass Roads

Alongside and perhaps more importantly than the development of settlements across the West Bank has been the construction of bypass roads to connect said settlements to each other and back to the Israeli main land. The bypass road achieves, and further reinforces what the settlement sets forth to create; namely, a disparate, discontinuous, and isolated Palestinian territory.

Bypass roads have been constructed across the entire West Bank territory, in many cases right through existing Palestinian communities. The roads provide Israelis with quick and easy access across the Israeli state while making transportation across the Palestinian territories almost impossible. Palestinians may only cross bypass roads at specific checkpoints, which serve as specific control points of manipulation by the Israeli State. Furthermore, the Israeli government uses the road network as a system to regulate and control the movement of goods and people across the Palestinian landscape.
In cases where the bypass road traverses above Palestinian territory, underpasses are constructed for Palestinians to navigate; however, these are subject to Israeli checkpoints and regulations.

In rare cases, such as the tunnel for highway 60 below Palestinian Jerusalem, the bypass roads move below Palestinian territory as they traverse the landscape.
The Wall

In 2002, Israel's Ministry of Defense unveiled plans for the construction of a separation barrier that was to traverse across the Palestinian territory and delineate a distinct border between the occupied territories and the State of Israel. The goal of the wall was to “include the most Israelis, even those in Israeli settlements, and the smallest possible number of Palestinians. Second, its path would follow territorial lines in order to achieve de facto annexation of any possible uninhabited lands.” (Ramos, 14. Mieselwitz, 167). To that extent, the current path of the wall annexes 16% of the West Bank to the State of Israel.

The annexation of territory has become one of the significant drivers in the organization of the wall, even as the Israeli Supreme Court ruled that only security and Palestinian human rights could be taken into account in the construction of the barrier. In fact, the association of Israeli landscape designers has stated that the construction of the wall has in many cases “been changed to preserve special and sensitive areas like cliffs and springs or eagle nests” and that it's hope is that “the route of the separation barrier will become a landscape route in the state of Israel, a touristic route, crossing various kinds of landscapes.” (Pg. 169. #19)

However, the wall itself cannot be understood as a static device, rather it must be understood as an adaptable, fluctuating structure, that allows for the annexation of territory to play out in real time, as the wall is erected simultaneously in various regions across the West Bank. It is this ability to fluctuate, to change as political and juridical opinions dictate, that has allowed the defense of the wall as a temporary
security measure and provided it the legal protection for its construction.

The wall creates deep divisions within the Palestinian territories, to the extent that “Along the built and proposed paths of the Wall, the fabric of Palestinian life has been completely decimated, while the economy of the zone around the Wall has already ground to a standstill. People have been separated from their farmland and water sources, from their families, friends and places of work, from recreation areas and universities.”

Finally, the construction of the wall has created special extra-territorial islands that lie within the annexed Israeli territory but do not belong to it. These Palestinian enclaves have been given a new status as 'temporary residents' a designation that prevents them from entering the rest of the Israeli territory, or the Palestinian territory on the other side of the wall. Altogether, nearly 250,000 Palestinians will be caught in this inter-border zone.

In order to fix the problems of connection that the wall imposes on the Palestinian territory, the Israeli state has resorted to the construction of tunnels and bridges as the tools to reconnect the fractured landscape. These tools, in many cases, yet to be implemented only further reinforce the spatial complexities produced as products of the wall.

The Checkpoint

As part of the network of control established by the Israeli government, checkpoints provide specific control points for the flow of goods, services, and people across the Palestinian territory. Checkpoints manifest themselves as two distinct architectural building types, ones that are overtly Israeli, as they occur at points of interface between Palestinian territories and Israeli settlements or infrastructure, and others that are covertly Israeli, as is the case with international terminals that interface with the outside world.

In the case of the 'international' terminal, the building itself can be understood as a direct manifestation of the systems of control articulated by the Oslo Accords. The building and its Palestinian officers function much as the Palestinian Authority do across the rest of the territory; namely as an extension of the Israeli control apparatus. The officers and the building are presented as part of the independent Palestinian Authority, when in fact all decision making is left to the Israelis security officers that hide behind one way mirrors. Surveillance is maintained by the Israeli government, but hidden from the public.

The checkpoints function as an economic spigot, one that the Israelis have consistently controlled to bring the Palestinian economy to a standstill. Furthermore, the checkpoints are designed to exhaust, demoralize, and humiliate the Palestinian people so as to make political resistance beyond their capacity to undertake. (Weizman 146, 81)
Three Dimensional Land Rights

One of the most crucial battles in the Israeli-Palestinian conflict has been fought below ground, in an attempt to gain access and control of the water rights for the region. The West Bank is home to the largest aquifer in the region, and as such it serves as a strategic resource that both parties have sought to control. Therefore, it is not surprising that the Israeli government has used the occupation to gain access and extract the water supply from the West Bank for the use of the entire Israeli population. Although the aquifer is the sole water resource for the residents of the West Bank, Israel uses 83% of the annual available water for its own settlements and cities. Israeli laws have been put in place to limit the depth of Palestinian water pumps in order to limit their access to the main aquifer. Regardless of who controls the territory above, Israel has retained control of all of the water rights for the region.

The air space above the territories presents another location where Palestinian sovereignty has been superceded by the Israeli security concerns. It also provides, in its most current state, the Israeli state with the ability to control and engage the Palestinian population without the need for a physical presence on the ground. The control of the air space provides another tool with which Israel three dimensionalizes the Palestinian terrain in order to maintain control. The land itself may belong to the Palestinian state, but the air space above it, and the water underneath it, are both part of Israeli sovereignty.
Architecture of Resistance

If the last several pages attest to the use of architecture as a tool for the occupation and annexation of territory, the following pages provide the inverse; architectural tools for the resistance of the occupation. Each of these tools present themselves as techniques by which to counter the effects created by the architecture of occupation. They are means by which the Palestinian territory is defended, but also techniques that legitimize and protect the Palestinian claims to the land.

Furthermore, each of these techniques demonstrate the use of architecture as a defense mechanism, as a tool that stabilizes, connects, and allows for the development of the Palestinian territory. While the intent of the techniques is not to expand the boundaries of the Palestinian state, they prevent the continued expansion of the Israeli state into the occupied territories. In doing so, the new architecture provides tools to discourage the development of Israeli settlements and make the existing settlements undesirable.

Architecture and planning are one of the main tools through which Israel expands its boundaries, but they must also become one of the main tools through which Palestine reinforces its sovereignty. If the mobile home has replaced the tank as the primary military unit, then the follie must respond in its defense of the territory. If surveillance is the critical operation of the settlement, then the visual barrier must become a tool to prevent surveillance. For every architectural tool of occupation, a new spatial device must be constructed to diffuse it.

Image: Palestinian activists arrive to the “Bab al-Shams” (Gate of the Sun) protest village in the occupied West Bank. The camp was later forcibly evacuated by Israeli forces. Found Online. Ronen, Yotam. ActiveStills, 2013.
Follies & the advantage of Permanence

To counter the advances of the outpost, another architectural element is deployed along the territory as a way to lay claim to the land. The follie and the ruin become the tools of defence, their permanence a weapon against the speed and temporality of the outpost. Where, the outpost provides the Israeli government with a quick and effective method by which to establish posts across the Palestinian territory, the follie counters by demonstrating the rightful claim to land by the Palestinians.

The outposts provide a redundant and resilient network that facilitates the takeover of Palestinian land while continuing to fracture the landscape. Outposts create focal points from which Israeli settlements can expand and places that when connected with each other, divide the Palestinian territory into a series of islands.

If the outposts are placed sporadically throughout the entire depth of the Palestinian territory, then the follies react by being placed systematically throughout the territory. The rigidity of the grid brings order to the territory and provides stability. The placement of follies along a grid provides a datum throughout the landscape that legitimates its entirety as part of the Palestinian landscape. All locations are given equal deference, and all sites are claimed as equally important parts of the Palestinian landscape.

Furthermore, the follie, by referencing the history of the territory, provides further evidence of the right to the land. It historicizes the landscape and allows for the Palestinian state to belong to the longer and larger narrative of the history of the territory.
Mountains

The hilltop provided Israeli settlements with visual dominance over the Palestinian territory. It provided a vantage point from which Israelis could look down at the Palestinian landscape, but also forced Palestinians to look up towards the Israeli settlements. The hilltop provides the Israeli state with the visual control necessary for the constant surveillance of the occupied territories, it provides settlers with pastoral biblical views, and reinforces the subordinate relationship of Palestinians to the state.

The mountain seeks to undo all of the advantages that the hilltop provides by recalibrating visual dominance across the territory. The mountain creates a new landscape for the Palestinians while blocking the views of the territory by the Israeli settlement. The Mountain shows its backside to the Israeli settlement, and destroys the pastoral view that the settlers seek to capture. Instead, they are faced with a wall, a visually sterile space that prevents surveillance and isolates the Israeli settlement.

On the other side, the Mountain recreates the hilltop but without the dominant Israeli settlement on top. Pastoral views now belong to the Palestinians, who look up at the landscape and see their territory meet the sky. The new Palestinian territory is inwardly focused, protected from Israeli surveillance, and visually separate. Palestinians do not look across the Mountain to survey the Israeli settlement, but rather respond with indifference, the mountain provides a new tool to ignore the settlement and a visual system by which to forget it exists.
Carving into the Hill

The Israeli use of the Ottoman Land Law of 1958 constituted one of the largest takeovers of Palestinian territory by the Israeli state. It provided the Israeli government with the legal tools to claim vast portions of the landscape for the state and reappropriate it for Israeli causes. Furthermore, it created a horizontal datum across the landscape, that delineated between Palestinian and Israeli space.

This new horizontal datum provides visual and spatial dominance to the Israelis, and provides a new means by which they can survey and control the Palestinian territory. If the hilltop can no longer be re-claimed by the Palestinian state, then its underbelly becomes the site of future Palestinian development. Rather than trying to break the horizontal datum, by carving into the hilltop the Palestinians reclaim territory without the need for aggression against Israeli space.

The extension of Palestinian territory across the horizontal plane provides a new method to reappropriate land, and one that uses the hilltop for protection. By carving into the hill, the Palestinians negate the Israeli advantages of occupying the hilltop while using its very presence as a security measure. Much like the settlement in Mesa Verde, the new Palestinian territory is protected by the hilltop, sheltered underneath an otherwise hostile territory. Furthermore, by carving the hilltop, the Palestinians reinforce the precarious position of Israeli settlements above.
Tunnels

The separation wall being constructed by the Israeli government in the West Bank creates deep divisions within the Palestinian territories and decimates the urban fabric of many Palestinian settlements. The wall separates the occupied territories from the state of Israel, but in many cases, it also separates large portions of the occupied territories from the Palestinian state. Altogether, nearly 250,000 Palestinians will be caught in the inter-border zones created by the wall, spaces that don't have access to either of the adjacent territories. As a result, tunnels will become the primary link between the inter-border zones and the rest of the occupied territories.

The town of Rafah, in the Gaza strip, provides an example of the use of tunnels as a technique to connect isolated territories to a larger territory. The town of Rafah lies on the border between the Gaza strip and Egypt, half on either side. After the Israeli state closed the border, tunnels became the only method by which the Gaza strip remained connected to the outside world. The tunnels provide a lifeline for the isolated territory, a passage that provides economic, political, and cultural ties.

The tunnel subverts and dematerializes the wall, and it provides clandestine passages for the transfer of goods and services. If Israeli military strategy is to walk through walls, then the Palestinian response is to avoid the wall altogether, to walk around it in three dimensional space. The tunnel provides a technique with which to make the border porous again and circumvent the logic of the line.
Casinos

If the purpose of the checkpoint is to exert Israeli control on the Palestinian population then the purpose of the Casino is to invert that position of control in favor of the Palestinians. The checkpoint provides a tool through which Israel maintains surveillance of the population both overtly and covertly. It provides a system to control the flow of economic goods and fracture cultural ties.

The casino provides a program through which the Palestinians can reclaim control and exert surveillance on the Israeli public. Much like with the Indian territories, the casino takes advantage of the isolated and politically distinct nature of the occupied territory. It's existence, banned on the Israeli territory but viable in the Palestinian landscape draws Israeli constituents to its spaces of pleasure. Israeli citizens enter the casino as guests of the Palestinian state and subject themselves to surveillance in order to access its otherwise forbidden spaces.

Much like the checkpoint, the casino acts as a spigot, but in this case of Israeli desires. The casino contains the same security measures as the checkpoint and provides varying levels of frustration to its constituents in order to demonstrate the extent of Palestinian control.
APPENDIX 3

THESIS PRESENTATION
Bibliography


Gilber, Sam. “*This Palestinian Taxidermist’s Stuffed Animal Zoo is Heartbreaking*”. Article in VICE. VICE Magazine Media Inc. 2013.


Khader, Sami. *Qalqilya Zoo 2005: Dr. Sami*. YouTube Video. Published on April, 28, 2012. Found online at https://www.youtube.com/watch?v=szslvh9hiPI


Ramallah, 2008.


Images

Page/Image

13.01 Artistes Contre le Mur. *Aerial Qalqilya*. Image found online at http://www.artistes-contre-le-mur.org/qalqilya_cartes.htm


33.01 Han, Micha. *Southern Command General Ariel Sharon*. Getty Images.

34.01 *Ariel Sharon Minister of Agriculture*. Reuters. Alon Moreh, 1981.
Page/Image


42.01 Understanding United Methodis Divestment. *Settler only road and settlements divide the West Bank*. Found online at http://www.unitedmethodistdivestment.com/IsraelPractApartheid.html

43.01 Morris, James. *When the Time Comes (Photographs + Essay)*. Self Published. 2011-2012. Found online at http://jamesmorris.info/portfolio/time


46.01 Smanu, Ghada. *60 year old Te’mah, a farmer in Gaza, says there are parts of his land he cannot reach, despite Israeli announcements about easing the buffer zone after the November 2012 ceasefire*. Gaza's Ark. 2013. Found online at http://www.gazaark.org/2013/08/


48.02 Akleh, Elies. *Israeli Genocide of Palestinian Olive Trees*. Found online at http://www.countercurrents.org/akleh251113.htm

50.01 Flieshman, Tamar. *An Infant is transferred into an ambulance at Qalaniya checkpoint*. Machsom Watch. 2011


55.01 Rimawi, Issam. *Palestinian President Mahmoud Abbas heads a cabinet meeting in the West Bank*. Reuters. 2013.


Tepper, Daniel. *Dr. Sami Khader, director, resident veterinarian, and self taught taxidermist at Qalqilya's Zoo*. VICE. 2013.


Mershani, Aisha. *Qalqilya is encircled by the 26ft high concrete wall*. Found online at http://amershani.com/#/separation-wall/qalqilya/qalqilya_wall-4

*Qalqilya Farmland*. Fanack. Found online at http://fanack.com/ar/countries/opt/basic-facts/the-wallal-jidar/


Tepper, Daniel. *Dr. Sami Khader, director, resident veterinarian, and self-taught taxidermist at Qalqilya’s Zoo*. VICE. 2013.

Tepper, Daniel. *Dr. Sami Khader, director, resident veterinarian, and self-taught taxidermist at Qalqilya’s Zoo*. VICE. 2013.

Green, Alex. *The Last Zoo in the West Bank*. 2013. Found online at http://www.greenphotographs.co.uk/zoo


Trenerry, Kate. *On the road, Walking Walls*. Kate in Color. Found online at http://kateincolor.wordpress.com/tag/qalqilya/


Rimawi, Issam. *While Israeli settlers in the West Bank enjoy abundant access to water, these young Palestinians have to carry bottles of water on a donkey*. APA Images. 2013.

*A Palestinian boy pushes his bicycle through the rubble in an area targeted by Israeli air strike*. Associated Foreign Press. Found online at http://www.telegraph.co.uk/news/worldnews/middleeast/israel/9681645/Israelis-and-Palestinians-in-first-Twitter-war.html

Castelnuovo, Rina. *Animals at the zoo in the West Bank have been stuffed by a veterinarian, at left, and exhibited because the zoo is unable to bring in new animals*. New York Times. 2003.


Faust, Timothy. *Qalqilya Bear - This bear is still alive and, for now, untaxidermied*. Palestine Speaks. 2011.
Active Stills. *Residents of Qarawat Bani Zeid fill up water at the join action.* Found online at http://www.awalls.org/7_8_09_a_water_convoy_against_thirst_and_weekly_demonstrations


Palestinian Grassroots Anti-Apartheid Wall Campaign. *Qalqilya Wall Flooding.* Flickr. 2009.

Palestinian Grassroots Anti-Apartheid Wall Campaign. *Qalqilya Wall Flooding.* Flickr. 2009.
