

BODY & LIFE COVER Local Knowledge as the Generator

for Autonomous Existence

Layan Salameh

Layan Salameh

BODY & LIFE COVER

Final Project Pro-Active Architecture Studio Instructors | Architect Gaby Schwartz, Architect Ziv Leibu **Research Seminar** Instructors | Dr. Ronnen Ben arieh Architecture and Town Planning Program Faculty of Architecture and Town Planning, Technion 2021



ECHNION Faculty of Technology Architecture and Town Planning

Content

Introduction	8

Theoretical framework:

Power Knowledge	12
Archeology And history	14
Surveillance	18
Settlements	20
Local Knowledge	26
Everyday Practices as resistance	26
Memory as Collective Imagination	32
De-colonization of knowledge	33

Strategy -Natural Resource ownership& Economic sovereignty

1.Hydro-Soc	ial Territor	y concept	36
2.Resistant	Economy	concept	37

Jerusalem in modernization Colonization Process

Water system\ Power knowledge

1. Privatization In late Ottoman period	41
2.Hydro-political split In British period	44

3. Israeli water management in Palestine and Jerusalem:

1.1	Water law	46
1.2	Agriculture and rural development	46
1.3	Development towns	46
1.4	National Water Carrier	46
1.5	Israeli Purification technics	47
1.6	Israeli Water Management in Jerusalem	48

Industry and Production\ Power knowledge

 Jerusalem as commercial center: late ottoman period 50
British Mandate Romanticizing of local handicrafts 51
Post 1967: Marginalization of Palestinian Markets and production in Jerusalem 52

Jerusalemite Local Knowledge

1. Water Management	56
2. Local Production	57

Intervention	58
1. Water Management and Manufacturing	59
2. 6 Places of Intervention Analyzed and Scheme	Planning
1.1 Ecce Homo	61
1.2 Area of Cotton Market	64
1.3 Area of Muristan Market	68
1.4 St archangels Convent	68

1.5 St Chorarambus Convent	68
1.6 The Industrial School of the old City	72
3. Detailed Planning: the Area of Muristan Market	
3.1 Surrounding Area of planning	74
3.2 Planning tools and Service- Served	rooted
local knowledge Relations	76
3.3 Materials and technologies	90
Conclusion	94
Bibliography	
Credits	

To My Mother & My Grandmother,

To the Strong Resisting Nations demanding Justice,

This book is part of a journey of Self and Reality explorations...

Till now, I find that Reality can actually be what WE decide it to be...

Introduction

Power and knowledge are inseparably related, knowledge production is an exercise of power and power is always a function of knowledge. In a settler colonial situation, the dominating power produces knowledge that oppresses the natives' past and present, disregarding local knowledge and transforming natives' lives. In Jerusalem, as a case study, Israel's planning apparatus, which is a function of the state's power, determines the demographic and territorial fate of the conflict over the city through knowledge production practices and control mechanisms. In the old city of Jerusalem, three prominent power-knowledge mechanisms operate, on top of the master plans: The work of Archeology generating national and historical knowledge erasing locals' past; settlement expansion; and mechanisms of Surveillance of movement. Israel uses these three practices to restrict locals' movement, development, and housing construction, forcing their displacement.

The Palestinian residents, officially considered as "permanent residents" and not citizens, who are threatened by residency revocations thus transforming each room to an address, argue that beyond political reasons, they stay in their homes as a consequence of economic considerations and needs. As a consequence, these residents are being forced to deal with the power-knowledge mechanisms in the old city of Jerusalem. Therefore, the issue that this project deals with is the situation in which local residents in the old city of Jerusalem stand, in the tension between power-knowledge mechanisms that the state of Israel operates by spatial practices, and the residents' needs in staying in the city and earning a living. The research question is: How can local knowledge be used in planning in order to counter the hegemonic practices of the state? And how can it produce an independent life-framework and existence for the local Palestinian residents in the old city of Jerusalem?

In order to counter the power-knowledge entanglement; this project adopts three approaches to local knowledge: first as generated by memory, second by everyday practices, and third is the decolonization of knowledge. These approaches are used as a framework which can give insights to the opportunities in which a reality rooted in locals' identity/ies can be suggested and lived in the old city of Jerusalem. The aim of the project is to propose a strategy for intervention which is rooted in local knowledge, in order to counter the hegemonic knowledge and to achieve inhabitants' daily needs, and also as an attempt to preserve self-sufficient local Palestinians' presence in the city. The project proposes a discontinuous urban infrastructure to re-create the autonomy over water, as the resource of life, and to re-produce textile industry, securing natives' future economic independence and quenched thirst. This approach is based on the theoretical concepts: 'Hydro-social territory' that indicates reclaiming public spaces through collective hydro projects, and 'resistant economy' indicating counterhegemonic strategy rejecting the colonial subjugation of Palestinian land and resources. The proposed technologies of collecting rainwater in the previously used public and private cisterns, treating gravwater, and cotton agriculture; pave the way for independent collective manufacturing.

Since the 19th century, the industrial past and the water resource management have been privatized and made people more subordinated to the power structure of the state. Thus, based on the Local Knowledge conceptualization; the project proposes an urban textile industry in six previously considered public cisterns, in some of which textile manufacturing traces still exist. The newly added residential units' inner water system feeds its surplus to the adjoining industrial station. This strategy aims at re-producing the collective imagination through the manufacturing process as a generator for independent economy and liberated life and future.



Theoretical Framework

Power Knowledge

Knowledge and power imply one another directly. Power produces knowledge and knowledge production makes power operations possible. Michel Foucault argues that in the modern state the operations of knowledge production are governance technologies used by existing power structures in order to determine the options of reality's representations. ¹

In the colonial context where political and cultural oppression exists, modes of knowing and producing knowledge of a subordinate ethnic group are repressed.² As a form of domination, Colonialism intends to firstly empty the natives' brain of all content and secondly to turn to the past of the oppressed people and to destroy, disfigure and distort it.³ Thus, as ways of knowing the world elide with the hegemonic system, it becomes difficult to think outside its existing frames and limits.⁴

4 Hawari, Plonski, and Weizman, "Seeing Israel through Palestine," 159.

¹ Shehadeh, Lama. "ISRAELI MANAGEMENT OF WATER RESOURCES: A STORY OF NATION BUILDING, NATURE TRANSFORMATION, AND ALIENATION OF PALESTINIANS FROM THEIR ENVIRONMENT." (2019).

² Mignolo, Walter D., and Arturo Escobar, eds. Globalization and the decolonial option (Routledge, 2013), 34.

³ Fanon, Frantz. The wretched of the earth. Grove/Atlantic, Inc., 2007.

In the planning context, such state mechanisms determine which local knowledge is relevant or not in the state's planning system. Thus, space is part of the construction of power-knowledge relations, so that different planning policies create or make possible a particular set of practices and knowledge that are specific in a space.¹ As a result, this distorts local knowledge and changes native people's lives.

In the case of Israel, the practices of knowledge-production through planning are key anchors in maintaining hegemony in the settler colonial state's context, distorting local Palestinians' knowledge. Accordingly, in the old city of Jerusalem, these mechanisms are used to impose drastic restrictions on development and housing construction of Palestinians. This section represents three prominent state mechanisms of knowledge production and control that the state of Israel uses to violate Palestinians' space-production rights in the old city of Jerusalem, and later the project intends to propose a local knowledge rooted life-framework.

¹ Flyvbjerg, Bent, Tim Richardson, In Philip Allmendinger, and Mark Tewdwr-Jones. "Planning and Foucault." Planning futures: New directions for planning theory (2002): 17.

Power knowledge \ Archeology and History

The first practice is Archeology; alongside the rise of European Nationalism and Nation States Building in the early 19th century, the discipline of Archeology appeared in European universities. Archeological practice since then has generated a historical knowledge regarding a specific national ethnic past and was driven by epistemology that assumed nations. Thus, historical knowledge has been used as a scientific methodology to establish critically a "true" collective memory.⁵ While history binds itself strictly to temporal continuities and to progressions, archeological preservation chooses specific time of history to create its own reality referring to a specific time for creating the "collective national imagination".

In Jerusalem, practiced by the Antiques Authority, the work of Archeology is based on biblical texts referring to specific elective historical events and specific historiography. Firstly, by excavating the land and transforming it, it presents the landscape with particular history aiming at legitimizing existing political orders, and fashioning colonial national imagination. In addition, every building is in need of renovation, thus a renovation license can only be issued after archaeological excavations are carried out by Israel's Antiquities Authority imposing financial expenses on residents since the fact that old city is an antique site according to the Antiques law.

⁵ Nora, Pierre. "Between memory and history: Les lieux de mémoire." representations 26 (1989): 7-24.

The water system supply has always been a clearly identified subset of the monumental historiography of Jerusalem and a prominent part of the material culture preserved in the archeological excavations.⁶ This began in 1840-1880 when European travelers, philanthropists and archeologists sought to recreate the "golden age" of biblical Jerusalem through the traces left by the city's former sources and means of transporting water.

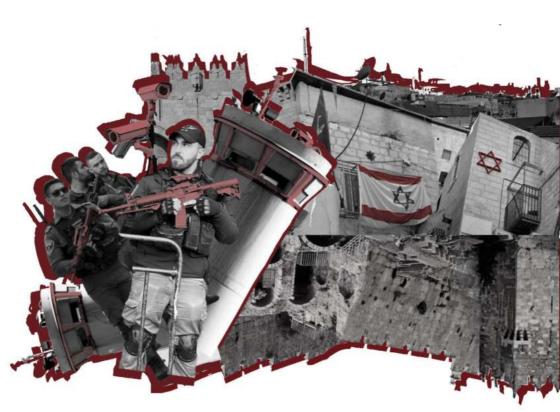
The underground water system in "Kerdron Valley" and "Hagihon fountain", both mentioned in the old-testament and refer to the first settlement in Jerusalem outside the current city walls 2000-1500BC, are connected by tunnels to the ancient sewage system in the current old city.⁷ These together make the touristic subterranean urban axes underway within Palestinian homes carried out and funded by settler enterprises to create the Israeli national imagination. In addition, IAA preserves the Roman aqueducts that transported freshwater from the springs located south of Jerusalem. The lower aqueduct was the main water supply system of Jerusalem during the early Roman period until the mandated period (1918–1948).

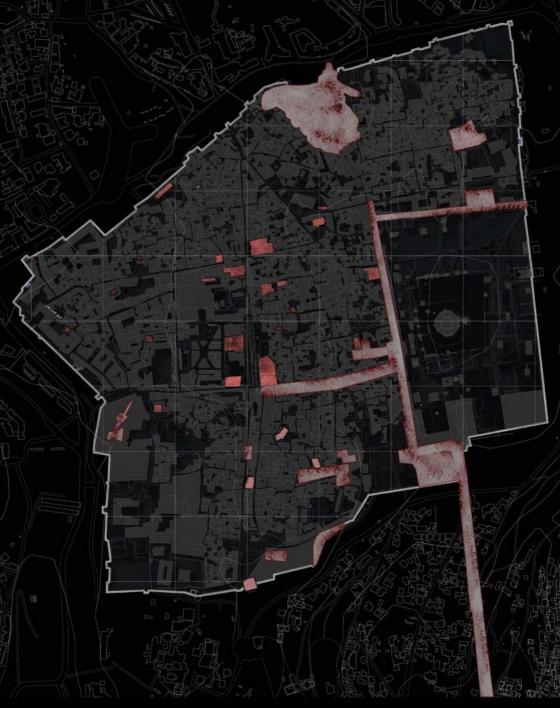
⁶ Vincent Lemire, "Water in Jerusalem at the End of the Ottoman Period (1850-1920). Technical and Political Networks," Bulletin du Centre de recherche français à Jérusalem 7 (2000): 138-149.

⁷ Barghouth, Jamal M., and Rashed MY Al-Saed. "Sustainability of ancient water supply facilities in Jerusalem." Sustainability 1, no. 4 (2009): 1106-1119.

It supplied water from Al Arrub rural Spring, passing beneath Bet Lahm, under the Annexation Wall today and the Ottoman walls of the old city to the cisterns in Al Haram Al sharif and the pools that were almost empty in the 19th century.

Thus, Archeology that gained power in the Israeli society generated historical knowledge erasing local Palestinians' history and restricting residential expansion.The modern disciplines Archeology imposes a certain reality on the everyday-life of the old city of Jerusalem's





Underground Tunnels

Public-opened Excavations

Houses Excavations

Power knowledge \ Surveillance

The second practice is the Surveillance of movement. Drawing upon Foucault's theorization of the panopticon, Surveillance is a power mechanism that produces knowledge and perception from which certain practices are derived as possible in the space. The linkage to the physical space can be explained by the panopticon prison. Arranged in a circular pattern with an inspection tower at the center and cells around the perimeter, the control was to be maintained by the constant sense that prisoners were watched by unseen eyes, a design that made possible a particular set of practices and knowledges for prisoners. In this way, social norms are embedded in daily life, and the individual is 'constructed' to think and act in particular ways.⁹

Through this concept it can be suggested that in light of the military presence, the advanced technologies of cameras in the streets and cameras accompanied with private guards inside the housing complexes where settlers exist, the residents' thinking is constructed as if they were always supervised thus perceiving knowledge as if the possibility to expand is always limited. The project's approach to this mechanism is not planning unsupervised reality, but rather suggesting alternative scene of daily-life where every-day practices are detached from the constructed thinking of being supervised and being limited in movement.

⁹ Flyvbjerg, Richardson, Allmendinger, and Tewdwr-Jones, "Planning and Foucault", 16-17.



Street Cameras, Police, Private Guards in Settler houses

Power knowledge \ Settlements

The third practice is the settler expansion in the city. International law doesn't recognize the sovereignty of Israel over annexed East Jerusalem. Since the occupation of East Jerusalem in 1967, Israeli settlement policy in Jerusalem has been directed towards the goal of consolidation of Israeli control over East Jerusalem in order to prevent any future redivision of the city. In the old city there have been four phases of Israeli Settlement. The first involved the demolition of the entire "Magharib quarter" in 1967. The second took place in 1968 in which the Israeli government expanded the Jewish quarter through expropriating properties in the "Armenian quarter". The third phase beginning in the early 1980's, when militant Israeli settler groups established an Israeli presence in the "Muslim quarter" and near the Haram al-Sharif. The fourth phase distinguished by the beginning of overt support given to the settlers by members of the Israeli government when Ariel Sharon occupied a property in the Muslim guarter.¹⁰

Today, the controlled properties are being confiscated by multiple means. First, land confiscation for public use law that has confiscated 35% of East Jerusalem land where 15 settlements were built upon. Secondly, building and organizing laws that has made 52% of East Jerusalem green areas reserved for the construction of further set-

¹⁰ Micheal Dumper, "Israeli settlement in the Old City of Jerusalem," Journal of Palestine Studies 21, no. 4 (1992): 32-37.

tlements. Thirdly, demolitions for reasons that the Israeli government approves, mainly for "unauthorized construction" leaving behind lands as prey for settlement. Fourth reason is the Absentee Property law, that approves the registration of refugees' and displaced Palestinians at the custodian property institution that itself has the discretion to transfer it to the "development authority" for settlements buildings. Fifth reason is the Third-Generation Law that cancels the third-generation post 1948 Palestinian tenant protection, these properties were transferred to the public custodian property who in turned transferred them to the settler institutions.¹¹

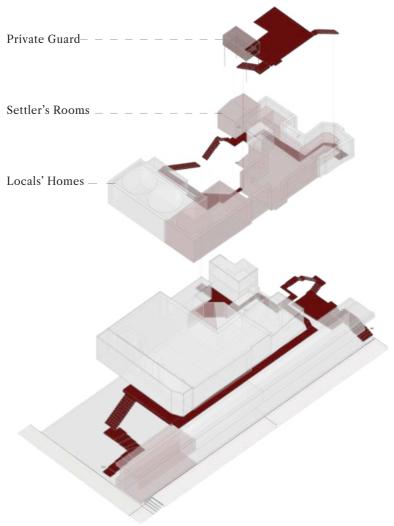
It can be recognized that expropriated properties where settlers exist are in high levels, in buildings that have two building entrances.¹² Thus, the separated entrances, for local Palestinians on the one hand and for settlers on the other, the surveillance system of cameras upon the building and the private guard presence on the roof makes possible the control of the only semi-public space in the locals' homes; the roof. Meaning that further synagogues might be built on the roofs of Palestinians residents, a prominent phenomenon that aims to confiscate Palestinians' roofs in the old city of Jerusalem.

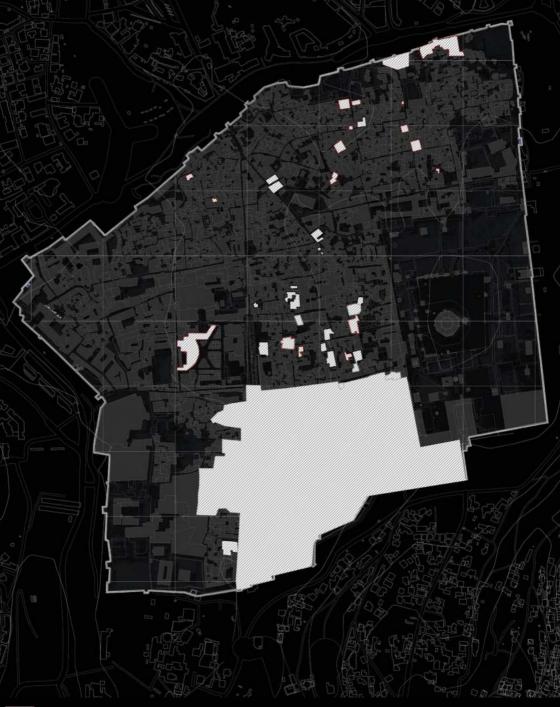
The settlements are used by the state of Israel to

التفكجي, خليل, كتاب الأستيطان في القدس. جمعية الدراسات العربية, 23:2019. 11

التفكجي, خليل, كتاب الأستيطان في القدس. جمعية الدراسات العربية, 175:2019. 12

expel locals in order to achieve its demographic purposes and to fulfill its national imagination in the old city of Jerusalem. The project considers them as a further mechanism to control the land and lives of local Palestinians, thus, the intervention seeks to make use of old city spaces and roofs to create a social power that serves as a property protection tool.







1

Third Generation

Confiscated for public use

Selling

Jewish Quarter



Enemy's Guardian Security Issue Absentee Property

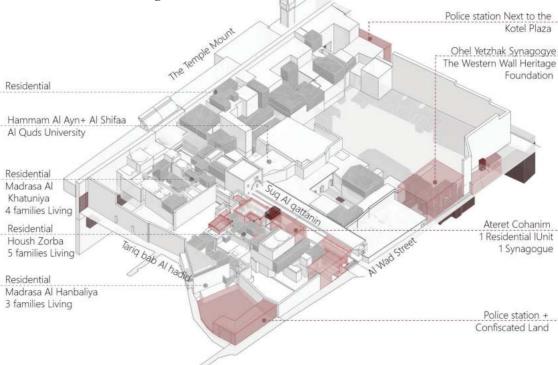
Power Knowledge \ Former 3 Mechanisms\ Analyzed in a Context

By analyzing the area of Suq Al Qattanin, on the one side it includes a police station and residential complexes, that one of them includes rooms for Ateret Cohanim.13 And on the other side, exists two Mamluk bathhouses owned by Al Quds University (Hammam Al Shifaa, and Hammam Al Ayn) adjoining Ohel Yetzhak synagogue that sits on underground excavations of Hammam al Daraj and another Khan connected to the western wall tunnels. It can be realized that these three practices work together on the ground and under the ground so that Israel can determine the geopolitical ends over the conflict over the city thus expelling local Palestinians out of the old city of Jerusalem. The historical fabric defined as Antiques site that is not given for change according to the hegemonic knowledge constitutes the lines in which the everyday life happens. The antiques authority digs inside the locals' homes when realizing a spatial practice by Palestinians, in addition for digging under their homes. The surveillance system in the streets prevents spatial changes, thus making the streets as the lines that aren't given for deviation in vertical or horizontal construction. And the suburban archeological excavations are usually accompanied with settler properties control by Ateret Cohanim, the Settler organization, above the ground, where surveillance mechanisms are intensified. Meaning that, in order to achieve

¹³ Settler Association, was established in 1978, and is headed by Mati Dan, a settler with extensive connections in all government offices, including the Prime Minister's Office. The association controls twentyone buildings in Islamic and Christian neighborhoods

its agenda of demographic control in the present, and narrating its history for legitimizing its presence, Israel uses the power mechanisms and the hegemonic knowledge production systems described before in the urban scene thus producing knowledge of restricted growth and movement and Palestinian history narration.

The knowledge produced by the hegemonic power of the state, affects the everyday-life of Palestinians in the old city of Jerusalem creating a reality that threatens their presence and results in the confiscation of their right to stay on their land in their homes. The analyzed mechanisms above constitutes a base of the starting point for suggesting a different reality later rooted in the local knowledge.



Local knowledge

The approach of the project is to propose a local knowledge rooted strategy for intervention not only for countering the hegemonic knowledge to achieve inhabitants' daily necessities, but also as an attempt to preserve self-sufficient local Palestinians' presence in the city later. Thus, analyzing the local knowledge from the other hand can give insight to the opportunities in which a reality rooted in natives' identity can be suggested and lived in the old city of Jerusalem. This section presents three approaches to local knowledge: one that can be identified in the context and is generated by everyday practices, the other that is generated through sharing of elders' memory and local literature, and finally one that this research considers as a theoretical concept -de-colonization of knowledge- that translates the first two approaches into the planning process.

Local knowledge \ Everyday Practices as resistance

The first approach considers the Local Knowledge as it resists the hegemonic knowledge production that is expressed in a strategy towards expelling and erasing the local's present and past. Local knowledge here is context-bound, community-specific, and non-systematic because it is generated ground-up through social practice in everyday life.¹⁴ It is not constituted by the beliefs of the past but it's a process of negotiating dominant discourses

¹⁴ Suresh Canagarajah, Reclaiming the local in language policy and practice (Routledge, 2005), 4.

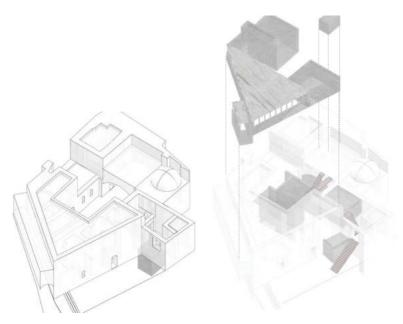
on the one hand and engaging in an ongoing construction of relevant knowledge by the social practice in the specific time.¹⁵

Therefore, local knowledge is a body of knowledge generated in relation to the hegemonic knowledge in everyday life practices for meeting residents' needs. It can be claimed that it is still part of the power-knowledge mechanism of the state since it reacts to it. Following De Certeau, everyday life practices of local knowledge are of a tactical nature. A tactic "is an art of the weak", it doesn't have the options of planning a general strategy, operating in isolated actions taking advantage of "opportunities" and depending on them by the absence of a proper locus. The more power grows, the less tactic can allow itself to mobilize part of its means in the service of acting in the space.¹⁶

¹⁵ Canagarajah, Reclaiming the local, 13.

¹⁶ Michel De Certeau, The practice of everyday life:" making do": uses and tactics, ed. Gabrielle M. Spiegel (Psychology Press, 2005), 219-221.

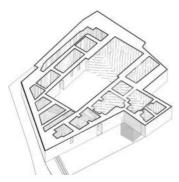
The practices of local knowledge in this approach are considered everyday forms of resistance, most forms of everyday resistance aim at thwarting appropriation by the state. ¹ These forms are marginal activities since they are unrecognized, unsystematic, and individual. They imply in their intention or logic an accommodation with the structure of domination.²

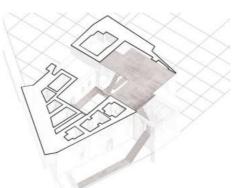


Al Hanbaliya School, Residential Complex

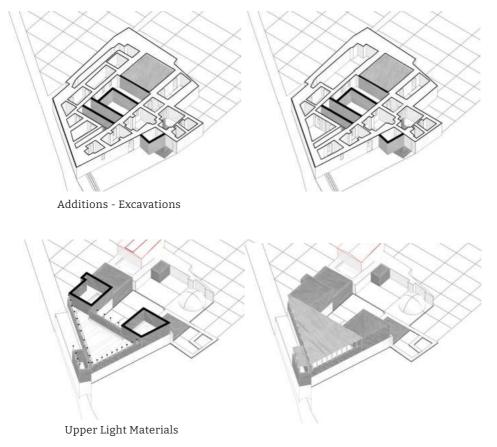
¹ James Scott, "Everyday forms of resistance," The Copenhagen journal of Asian studies 4 (1989): 4.

² Scott, "Everyday forms of resistance," 19.





School - Residential Units, Multiple Families

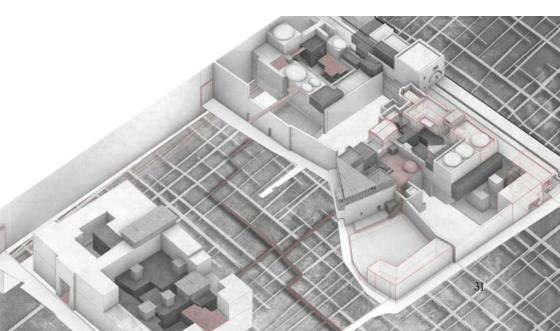


Local knowledge \ Everyday Practices as resistance \ Analyzed in a Context

Local knowledge of this approach practices' expression exists in the residential complexes in the old city of Jerusalem. Historical buildings such as Madrasas (religious schools), Ribats, Khans and other institutions, from the Ottoman, Mamluk, Ayyubid, Crusader, Fatimid, Abbasid, and Umayyad periods turned into residential complexes since the late Ottoman period and nowadays are inhabited by 3-5 families. Practicing their local knowledge in everyday practices, residents expand their homes toward the middle yard by cement bricks, excavate inner walls for inner expansions, and build from light materials the upper floors adjoining the streets taking into account the surveillance mechanisms that might cause the demolition of these additions. As a result, they create an inner new movement outline to reach their added homes.

Demonstrated in the area of Suq al Qattanin, in Al madrasa Al Hanbaliya, Al Khatuniya, and Housh Zorba; this tactic appears in different residential complexes in the city. Through using less supervised roads for material transportation and the cisterns for material storage, inhabitants fulfill their needs bypassing the surveillance mechanisms in the city. Thus, all practices of the residents meeting their needs in building houses and expansion are actually practices that are limited inside the hegemonic lines, implying an accommodation with the hegemonic knowledge. The main principles the planning process will be embracing from the current approach are that by means of local knowledge one can counter\ resist hegemonic knowledge, in the form of isolated actions or a discontinuous space, and in the old city of Jerusalem residential complexes are the place where an intervention should be made as a layout to be embraced for further residential expansion in the city.

In addition, as an attempt to rely on local knowledge that not only considers the limitations of today's reality but also creates a different one. Thereinafter, I consider the main principles of this approach in the later architectural propose as mentioned before and search for local knowledge essence of it before having been contaminated of current the colonization in the "Memory approach".



Local knowledge \ Memory as Collective Imagination

Memory takes root in spaces, images, and objects and isn't bound to a specific time, in contrast to history. History binds itself strictly to temporal continuities, to progressions and to relations between things. History, which is used as a state mechanism to produce hegemonic knowledge regarding its past as mentioned above; is perpetually suspicious of "spontaneous" memory, and its true mission is to suppress and destroy it. It should also be noted that "Modern memory" is archival in nature, relying on materiality to mark the state's age attempting at conservation of the present and preservation of the past as the state does by the archeology work.¹⁷

The memory this project refers to is the natives' collective memory which is not exact science like the modern one. As Rossi writes, memory can be used as means for creating architectonic structure that is rich with potential to help read the city within the collective imagination.¹⁸ This project will use memory and local literature (that itself mostly relies on memory) as a starting point for considering the local knowledge less contaminated than the approach before in planning.

Memory is a toolkit to achieve details about dai-

¹⁷ Nora, Pierre. "Between memory and history: Les lieux de mémoire." representations 26 (1989): 7-24.

¹⁸ Jo, S., 2003. Aldo Rossi: architecture and memory. Journal of Asian Architecture and Building Engineering, 2(1), pp.231-237.

ly-life of work and domains of interest before the current military occupation. The project sees these details that will be explained later as a potential to propose architectural intervention rooted in local knowledge to create the collective Palestinian imagination in Jerusalem.

Local knowledge \ De-colonization of knowledge

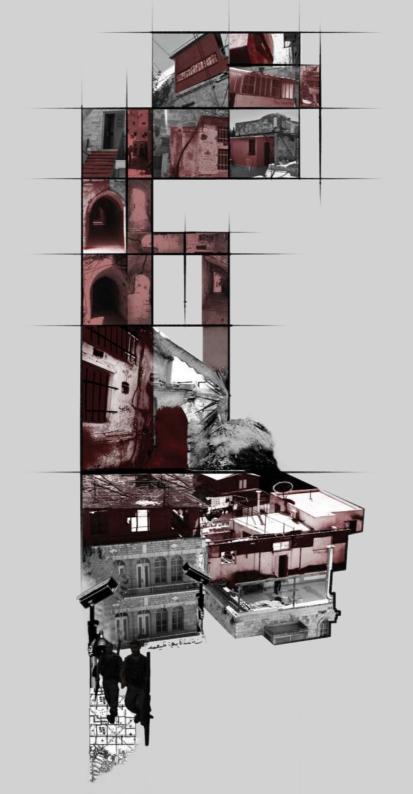
Decoloniality, as a concept, means first to delink (to detach) from that overall structure of knowledge to reconstitute ways of thinking and of life. Considering the assumption of Walter Mignolo; there is no modernity without coloniality, and coloniality is constitutive of modernity-delinking means to detach from the hegemonic ideas that have been ruled through the modern\colonial world since the fifteenth century.¹⁹ The de-colonization process is about de-normalizing and rejecting the production of settler colonial knowledge; and at the same time constructing alternative knowledge that is instilled through local knowledge and can support and sustain a decolonized future.²⁰

Building upon the de-colonization theory, the project identifies the intervention strategy by translating the first two approaches in the planning process. Proposing natural resource management and sovereignty over local economy as an attempt to detach from the hegemonic knowledge and its system producing this knowledge. Stemming from the first local knowledge approach, I propose an intervention in the form of a discontinuous

¹⁹ Mingolo and Escobar, Globalization and the decolonial option, 313.

²⁰ Hawari, Plonski, and Weizman, "Seeing Israel through Palestine," 162.

infrastructure and stemming from the second local knowledge approach the project examines the water resource management based on memory and the industrial past of Jerusalem based on local literature. And stemming from the de-colonization of knowledge approach, the "alternative body of knowledge" suggests taking the industrial aspect of the city, and the water management a step forward adapting them to nowadays reality for planning towards the projects' vision.



Strategy - Natural Resource Ownership & Economic Sovereignty

The project proposes a discontinuous urban infrastructure for countering the hegemonic knowledge explained before in order to achieve inhabitants' daily necessities, to create the collective imagination, and to pave the way for a self- sufficient native's existence in Jerusalem. In order to do so, first the project aims to recreate the autonomy over water, since it is a resource of life that nowadays is owned by the hegemonic state, forcing local people to be dependent on the body of power that produce knowledge to expel them. This first approach will be explained later by the concept "Hydro-social Territories". Second, the project aims to use the water collected by the first approach not only for thirst quenching, but also as a production generator resource that can guarantee Economic Independence in the future. I will explain this approach by the concept "Resistant Economy". Third, in order to create the collective imagination by the production force and the local manufacturing, the project proposes further public functions around the industrial core.

Strategy \ Hydro-Social Territory

The concept views water flows and management as physical, social, political and symbolic matters. On the one side, dominant hydro-social configurations used by the governing state entwines and integrate technological, industrial, and scientific knowledge networks that supports local– global commodity transfers, local resource extraction, and development responding to non-local economic interests. To do so, they commonly curtail and subtract local sovereignty in order to make these local spaces exploitable and controllable.

On the other side the concept indicates that through 'hydraulic projects', the social and collective work can construct and produce territoriality through socio-ecological interactions.²¹ I use territoriality by its local approach, by reclaiming the public space through collective work around the water. In the project as I will explain later, will propose technologies for collecting water shared and constructed by the people.

In addition, considering the state's hydraulic projects supporting its own economy is dependent upon exploiting the local resources for developing through non-local economic interests, one can understand the importance of local resources maintenance and protection through manufacturing as a functional use.

Strategy \ Resistant Economy

The resistant economy is a counterhegemonic strategy that challenges the status quo, which is framed by Israel's colonial subjugation of Palestinian land and resources and the neoliberal approach to economic development.²²

The First Palestinian Intifada marks one of the most

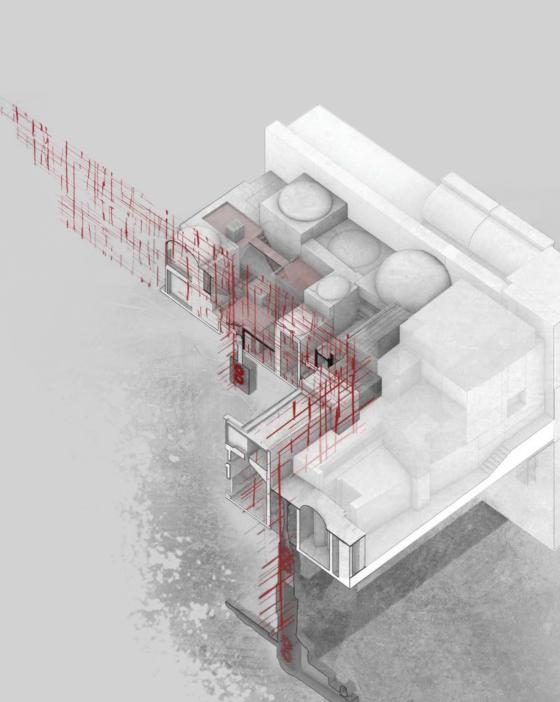
²¹ Hommes, Lena, Rutgerd Boelens, and Harro Maat. "Contested hydrosocial territories and disputed water governance, 9-20.

²² Dana, Tariq. "A Resistance Economy: What is it and can it provide an alternative?." Rosa Luxemburg Stiftung PAL Papers Series (2014).

enlightening phases of organized economic resistance in the history of the Palestinian anti-colonial struggle. The emergence of a variety of committees and networks of women's movements helped facilitate the "routinization" of daily practices of economic resistance. In order to advance their political goals, they embraced tactics such as: general strikes, boycott of Israeli products and other forms of civil disobedience, such as withholding tax payments and resigning from jobs in Israel and its settlements in large numbers. The communities innovated local economic models to ensure economic survival and self-sufficiency.

The Palestinian market, in the west bank, Gaza and east Jerusalem, imports 55% of its consumption from the occupation marking it the second market after USA benefiting Israel. Therefore, detaching from the Israeli markets will give the opportunity to Palestinians industries to produce larger quantities to meet the markets' needs. In return it will thus demand more labor, provide job opportunities for Palestinian youth as well as it will put challenges in front of existing Palestinian factories to improve the quality of their products.

Proposing Urban Industry in the project; taking advantage of previously public spaces and the collected water through the first approach mentioned before, will be the starting point to the resistance economy strategy to pave the way for economic independence. In addition, the industrial process can produce the collective imagination through the manufacturing action and the public community functions that will be support it. As the previous theoretical framework suggests, the local knowledge in certain approaches is affected by the hegemonic knowledge. Thus, later I will discuss the water resource management in Jerusalem in the modernization\colonization process that produced the current situation of water management. In addition, I will discuss the trade and the and industrial past of the city that itself is affected by the hegemonic powers. From the other side, I will present the industrial past and the water management, stemming from the local knowledge theory in order to formulate the action strategy in a more specific approach.



Jerusalem in Modernization Colonization Process

On the one hand, as the theory upon the project refers to for intervention, the decolonization of knowledge - that translates the former two approaches of local knowledge into the intervention strategy - suggests to detach from the hegemonic ideas that have been ruled through the modern\colonial world since the fifteenth century, hence here I analyze the water system and the industrial past of Jerusalem since that time. On the other hand, this period can enrich the intervention towards finding its traces on the local knowledge.

Jerusalem in Colonization process \ Water system \ Privatization in Late ottoman Period

Until the late Ottoman period, private cisterns in the 'hosh's' or public cisterns that were situated and owned by the religious institutions in East Jerusalem, covered most of the needs of domestic hygiene and drinking water and everyday use. In the 16th century (1536), Suleiman²³ built further public baths 'Hammams' - that have religious importance in Islam- and 6 public fountains on the streets leading to al Haram al-Sharif in order to proclaim sover-eignty over the Holy City. Today, being on the streets' junctions, in front of the abandoned Sabils, police barriers are located. In the 19th century (1898), after the empire made structural reforms known as 'tanzimat'(1850-1920) - that in

²³ Suleiman the Magnificent was the tenth and longest-reigning Sultan of the Ottoman Empire from 1520 until his death in 1566.

Jerusalem took place against the backdrop arrival of western powers and religious institutions claiming territoriality on the physical, political, symbolic levels- the modernization of the water system was applied by installing iron pipe between Bethlehem and Jerusalem. Meaning that, the modernization process enhanced the dependency upon external resources making the residents more subordinated to the government, especially since this inter-urban infrastructure could be only be possible by the presence of power knowledge and administration. Third, this was to be linked to the religious institutions and not the local homes, thus benefitting the pilgrims more than the inhabitants.

Following the 19th century modernization process, at the turn of the century there was a sharp Zionist immigration that increased the need for water in which transformed Zionist banks and enterprises into key players in what was rapidly becoming a real market. An example is the water market in the Mugrhabi gate that generated a form of capitalist overbidding in Jerusalem. Another example is the municipality's call responding of the director at the Jewish Colonial Trust Bank that was interested to finance a proposal for water system renewal in 1910. All of this began to reduce customs, such as the sharing and circulation of water in the city, which served as a starting point for privatization of the water resource in Jerusalem. At the end of the ottoman period, the privatized water remained a political issue, the public fountains are still a symbolic symbol and a material base for authority, and the underground water networks are still networks of power.²⁴

²⁴ Lemire, Vincent. "Water in Jerusalem at the End of the Ottoman Period (1850-1920). Technical and Political Networks." Bulletin du Centre de recherche français à Jérusalem 7 (2000): 136-150.



Jerusalem in Colonization process \ Water system \ Hydro political split in British Mandate Period

As mentioned before, the Zionist movements started planning water projects in Palestine decades before the official establishment of the State of Israel in 1948. The capacity of water resources was one of the main considerations and concerns to fulfilling the desired Zionist immigration.²⁵

In the British mandate period, the main sources of drinking water were private and public cisterns in East Jerusalem. The government installed an iron pipe and pumping stations in the lower aqueduct in 1925 in order to divert all of Artas waters southern to Bethlehem to the west of Jerusalem where most Jewish immigrants were situated. In 1936, the government linked the Romema reservoir in "western Jerusalem" to Ras Al Ayn spring by 4 pumping stations, and linked the city to Wadi Qelt near Jericho.²⁶ The Hydro-political split of "West and Modern Jerusalem" and "East Jerusalem" can be seen in the plans of water infrastructure done by the British mandate for further urban development in the western part.

²⁵ Shehadeh, Lama. "ISRAELI MANAGEMENT OF WATER RESOURCES: A STORY OF NATION BUILDING, NATURE TRANSFORMATION, AND ALIENATION OF PALESTINIANS FROM THEIR ENVIRONMENT." (2019).

²⁶ Lemire, Vincent. "The awakening of Palestinian hydropolitical consciousness: the Artas-jerusalem water conflict of 1925." Jerusalem quarterly 48 (2011).



Israeli water management in Palestine

Among the many aspects of spatial planning, water resource management systems are one of the important tools used for the establishment of the Israeli state in 1948 among many aspects of spatial planning.

First, the water law in 1959 confirmed that all the water resources are publicly owned, thus removing all private or collective property rights over water resources. Second, Rural Development and Agriculture, for different factors: 1. Agriculture was aligned with the Zionist ideology of rebuilding a Jewish identity that is tied to working the soil 2. It was seen as the primary means to providing employment for the large immigration wave seeking food security 3. Agriculture as means for establishing control over the land.

Third, the Development towns that were built during the 1950s and 1960s and were placed in rural hinterlands; these development towns failed to accomplish their goal of being industrial focal points for economical support for the newly established country because of the fact that their planners were interested in geopolitical approaches for controlling more land and not economic interests.

Fourth, the national water carrier that was needed to reach all the new settlements of the dispersed pattern, and was the product of a centralized water management towards the nationalization of water resources. In the last stage, Israel started using water purification technics in order to deal with the drought that was the result of the national project and the dispersed planning pattern. This is seen as an attempt to solve the earlier damage of the overexploitation of Sea of Galilee and the aquifers. First by wastewater treatment: today, around 75% of Israel's wastewater is treated and reused again, mostly for irrigation. Second, by desalination as a strategy seen by the Zionist project to produce a secure self-sufficient economy. Seawater desalination plants and Brackish water desalination plants provided 80% of the total industrial and household consumption of water in 2015.

The Israeli management of water resources, transformed the nature's order and detached Palestinians from their natural environment and disregarded the Palestinians' knowledge that changed their lives.



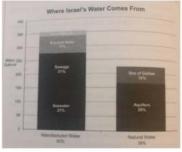


Figure 37: Where Israel's water comes from? - Water Authority data 2015 Source: Seigel, 2015 p252

Israeli Water Management in Jerusalem

In 1949 when Jerusalem was split by the armistice agreement line, the city suffered severe water shortage since it was cut off from all the interurban water supply resources: Ras al Ayn spring from the west, and Arrub Springs from the south. In 1951, Ayn Fara pumping station was repaired and improved to supply water to Jerusalem. In addition, the municipality contracted a private company supplying water from municipality of Ramallah to Jerusalem through two days a week opened streets taps. The influx of refugees and the water shortages forced residents to be dependent on local cisterns for water supply again in the Jordanian period.

In the years after the military occupation in 1967, the government connected eastern Jerusalem to western Jerusalem and later to the national water carrier. This remarks the fact of nationalizing even the water of Jerusalem and forcing the inhabitants to lose their shared domestic cisterns and private ones – shared taps that were used as a source of income in the Jordanian period.

To conclude, the water of Jerusalem in the modernization\colonization process has been privatized and commercialized causing the loss of inhabitants' autonomy over their resources. This caused the loss of local dimensions of water; public, cultural, social dimensions and also the circulation dimension of water in the city.



Mandate Pipe

Jerusalem in the Colonization Process \ Industry and Production \ Jerusalem as a Commercial Center in the late Ottoman Period.

Until the 19th century, Jerusalem had modest needs and potential, consuming the adjacent cities' products, and anything produced there was intended for local consumption. It had no trading or cultural links with the outside world, the city served as the market town for its immediate surrounding and region. The city had agricultural produce which was primarily olive trees and cotton, exported soap, and had silk production and cotton yarn at the "Cotton market" since the 15th century.

After the middle 19th century, when structural reforms occurred, new suburbs began to spring up around the city to accommodate the burgeoning population leaving behind less affluent residents inhabiting the old city,²⁷ and was European and Jewish immigrants' influx, Jerusalem's religious importance began to be prominent transforming the city into the 'industry' of tourism. The city was still consuming products of the adjacent cities, it had few factories and establishments producing; soap, sesame and olive oil, souvenirs, flour, straw products, and had dyeing establishment at "Dabagheh Market".

²⁷ Michael Burgoyne, Mamluk Jerusalem. An architectural study. 1987, 10-15.

In the beginning of the 20th century, embroidery was made by women at homes, while a first-class tailors' market was placed in the "Dabagheh Market" where tanners used to work and the textile manufacturing didn't exist at that time.

Industry and production \ British Mandate Romanticizing of Local Handicrafts

The pro-Jerusalem society²⁸ that was interested in preserving the old city's buildings and the way of life and traditions of Jerusalem of its imagination, without much regard for the place as a lived city, encouraged conductive handicrafts and industries to the society's vision of the ancient Jerusalem; the traditional arts of weaving, establishing 65 weaving workshops at Suq al-Qattanin and suq Sabra.²⁹ At the same time, after a long time of local cloth handweaving cotton and silk garments in Jerusalem, from the beginning of the British Mandate, there was an increase in imported textiles as well as the mechanized looms by the Jewish immigrants, and the local weaving industry declined as a result. As a consequence, the falling demand for locally woven tiles took its toll. Therefore, many of the weavers ceased production and instead opened shops selling im-

²⁸ Pro-Jerusalem Society was the initial arm of government's town planning and development policy in Palestine. It focused primarily on the Old City and was interested in its Restoration and Preservation in order to "beautify" the space for its visitors to enjoy.

²⁹ Barakat, Rana. "Urban Planning, Colonialism, and the Pro-Jerusalem Society." Jerusalem Quarterly 65 (2016): 25-27.

ported cloth.³⁰ As an example is "Suq al-Khawajat" which is a market transformed in 1936 from selling locally produced handmade copper products to European textiles market.

Therefore, the re-establishment of the local crafts in the British mandate period is considered as the application of a completely European aesthetic vision of how they believed the place should "look" and function, putting local consumption and daily needs aside. At the time of occupying Palestine and western Jerusalem in 1948, many refugees arrived eastern Jerusalem and second-hand local products were beginning to be sold especially in the clothing sector, 2nd hand tailors' market was established in "Suq Al Bashura" where the Israeli "Shuk Hakardo" exists today, in the two main axes intersections of the old city.

Industry and Production \ post 1967: Marginalization of Palestinian Markets and production in Jerusalem

Since the Israeli Military Occupation in 1967, many factors have led to increase the unemployment rate in East Jerusalem and led to increase in the poverty level where 81.8% of East Jerusalem residents were living under the poverty line as of 2014.³¹ In a research conducted interviewing the merchants of the old city of Jerusalem, they mentioned many factors contributing to the closed markets, professions, and handicrafts as a result of the occupation's restrictions.

³⁰ Jones, Sue. "Threads of Identity: Preserving Palestinian Costume and Heritage, Widad Kamel Kawar." (2013): 211-213.

³¹ The Jerusalem Arab Chamber of Commerce and Industry strategic plan 2018-2022.

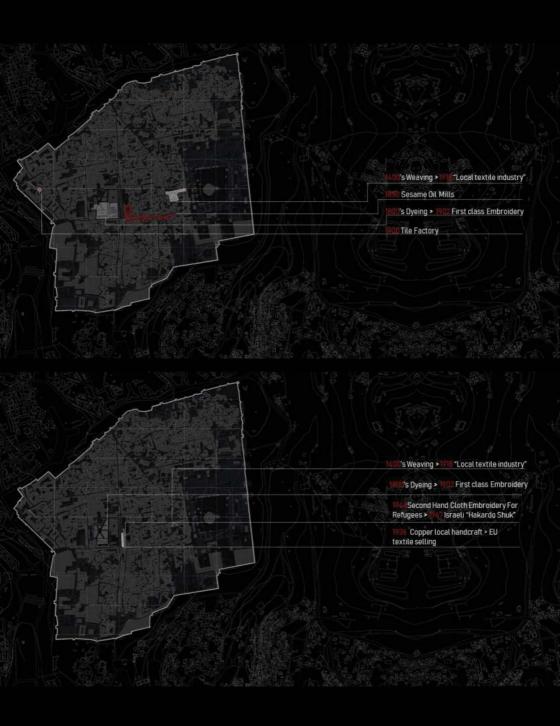
Such factors are; withdrawing residence permits; discrimination in services; high imposed taxes on merchants; high operational costs; licensing refusal for merchants not holding Jerusalem's Permanent Residency status; the so-called environmental factors; export and import of raw material. As a consequence, this caused changing the consumer's tastes patterns as s/he became more susceptible to desiring and asking for the ready-made products. In addition, traditions have changed and the younger generations gave up on goods production in previously productive families.

Example of these lost crafts and products are; hand weaving, olive wood products, egg embroidery, pottery, fluffing the wool in the Cotton Market (that is now used as sweets market), seashells objects, and upholstery. Two local crafts; Straw Products -that was made in "Suq al Husar" eastern to "Suq Al Lahamin" until 1970's- and Embroidery, are still done practiced and made today at homes, stemming from the desire to save taxes costs. In addition to closed markets and local crafts lost, by confiscating 66% of East Jerusalem's land, the space for agriculture especially in the nearby villages has been reduced. Thus, the restrictions of accessing the lands and confiscating it, made agriculture a sector that doesn't weigh that much in Jerusalem's economy. ³²

To sum it up, it appears that encouraging the production and industrial sectors were not of the govern-

³² Jabareen, Yosef. "The right to space production and the right to necessity: Insurgent versus legal rights of Palestinians in Jerusalem." Planning Theory 16, no. 1 (2017): 6-31.

ments' interests in (East) Jerusalem since the beginning of the modernization process. The power knowledge sees the city as a place to be visually preserved, tourists' income dependent, consuming outside world's products rather than a place to live, learn, work and produce. The research showed the process of economical dependency of Jerusalem on the outside world by the government coordination, thus creating the economic subordination to the state's power.



Jerusalemite Local Knowledge Water Management

By conducting the words of old city of Jerusalem's residents from interviews describing their water management based on their memory, multiple dimensions aroused reflecting the pre-1967 daily-life that the project attempts to re-create and adapt to nowadays.

First, collective work and sharing; while the main water resource was the Hosh's Cistern, multiple families shared it and helped each other cleaning the cistern. In addition, circulation; the religious public cisterns placed in churches, mosques and convents together with the two times a week opened by the government taps and the Sabils in the city's streets were the loci at which multiple movement lines of inhabitants were accumulated and intersected for social meetings before and after arrival. Moreover, the dimension of social occasions and religion; the public baths, hammams, were meeting places and social centers where important stages in the life were celebrated. It was particularly important for women where they could meet at public spaces outside the family circle. Most of the public baths today aren't in use in Jerusalem.³³

As a consequence, beside the government's taps in the streets, the (Palestinian) residents; families and communities- had an independent management of the resource and these dimensions mentioned before stemming from water

³³ Auld, Sylvia, Robert Hillenbrand, and Yusuf Natsheh, eds. Ottoman Jerusalem: the living city, 1517-1917. Altajir World of Islam Trust, 2000.

use and management where daily life characteristics that supported this autonomy in management. The project uses these dimensions by adapting them to nowadays needs, in the later section I will explain their implementation in the planning strategy.

Jerusalemite Local Knowledge Local Production

Local crafts mentioned before as lost; hand weaving, olive wood products, egg embroidery, pottery, fluffing the woolin the Cotton Market that now is used as sweets Market, seashells objects, and upholstery, in addition to the crafts that still exist today and are practiced at homes; embroidery and straw products were learned and practiced collectively. Meaning that the mutual work enabled the collective benefitting experience by training and exchanging skills aiming at qualifying larger number of workers so that the profession would be the source of income of multiple Palestinians living in the city.

Looking at the production past together with the values concerned with it, the project proposes to re-create the textile manufacturing as a consequence of being the craft that has appeared multiple times in the different centuries. Plus, it still has its physical traces of the buildings and spaces that was used for its manufacturing; Suq al Qattanin (Cotton market) and Suq al Dabagheh (Tanners and Dyers Market), so that the names are still holding their original names in order to preserve the collective memory. In addition, from textile production stems multiple working opportunities in its different manufacturing phases; cultivation and harvesting, yarn and fabric manufacturing, fabric and yearn dyeing, garments' manufacturing, embroidery, and selling the products. One of the stages of these - the embroidery – still exists today as a living trace, while the project seeks to give opportunity to make the skill public again not confined by the private homes' walls in order to enhance the exchanged skills and collective production.

Intervention's Strategy

The intervention is based on two practices of the two local knowledge approaches presented before, Memory and local literature as the body of knowledge that the intervention is based on, and the de-colonization of knowledge, which is the detachment of power-knowledge thinking in order to pave the way for planning a liberated reality. In addition, the intervention seeks to meet the residents' basic needs of building houses to stay in the city; a practice expressed in the local knowledge that is produced by everyday practices in the form of isolated actions in a discontinuous space.

The two practices of the local knowledge mentioned before, that the project embraces for intervention are Hydro-Social territory; a practice that indicates re-appropriation and re-claiming of public spaces through hydro-social projects. And Resistant Economy; a practice that indicates an attempt to detach from the colonial economic system in order to build an independent local economy.

Therefore, the project proposes a strategy for managing the resource of life, the Water, independently and using it as a productive element to create an independent economy alongside the newly added housing units. The project proposes a discontinuous infrastructure rooted in local values of production and water resource management before the current occupation to re-create a reality rooted in Palestinian's identity.

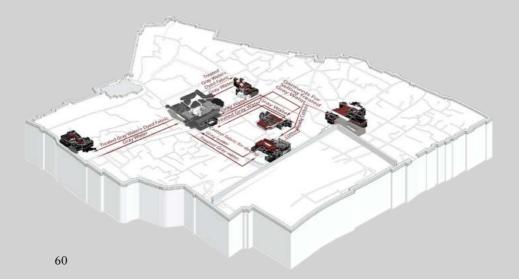
Intervention Water Management and Manufacturing

1. In order to fulfill the projects' vision and goals, the discontinuous urban infrastructure at the first stage makes use of six previously considered public cisterns, which the residents mentioned they have their waters in pre-1967 in public spaces in order to re-create the water's public dimension in them to be collectively shared and managed after being privatized by the modernization\colonization process. The project proposes reusing the public cisterns and make use of the archeological excavation -if existedto locally collect water without being pipe-linked, each for a certain use that will be explained. The two technologies of collecting waters are rain water and graywater reuse.

1.1 Rain water: The adjoining residential complexes are densified by a design that enables water drainage to feed the surplus amount of water to the near public cisterns after feeding its residential units.

1.2 The gray water purification for reuse is done in a community graywater treatment plant located in the central place situated in the intersection of the four main axes of the city where residents will bring their graywater by tanks and fill it back with purified water. The archeological ex**3**rd Phase - Dyeing & Washing -Textile Waste Water Treatment Plant Water Treatment Plant 2 nd Phase -Fabric& Yarn Manufacturing -Winding, Warping, Sizing, and Weaving 1st Phase -Cotton Cultivation, Defoliation, Harvesting, Separating

4.2th Phase -Residential Units -Garments Manufacturing -Embroidery 4.1th Phase -Residential Units -Garments Manufacturing -Embroidery 5th Phase - Orphanage Units - Commerce



cavations in this plant show its connection to the immediate surrounding in which I aim to recreate through the local piping system there.

2. The textile manufacturing process that creates the collective work and enhances the public dimensions of the previously mentioned focal points, that some are actually textile manufacture traces, is distributed in them according to the six stages of textile production. The manufacturing process works according to a systemic order, in which each station follows the previous one's work.

3. Public functions that the manufacturing process enables, themselves are functions of support to the production process, for collectively learning the professions and sharing the skills of production.

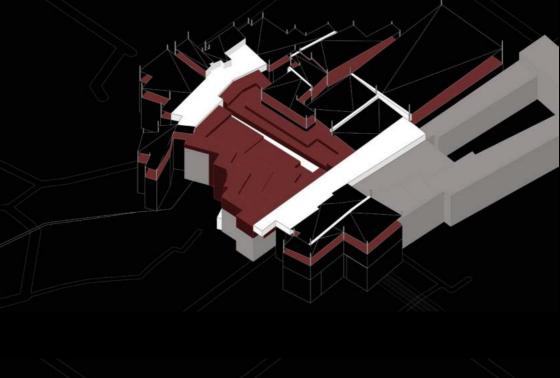
6 Places Analyzed and Intervention:

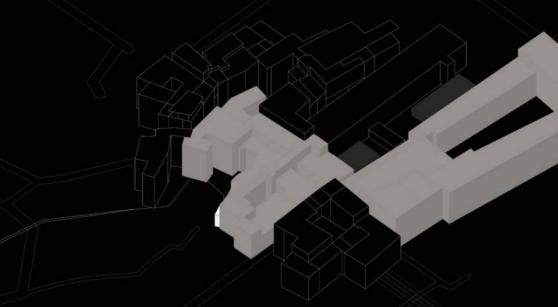
Analyzing the Six intervention Places will follow this order: 1. What is it today, Urban context, what was it back then, its cisterns and archeological excavations 2. The stage of the production process (functions) it presents 3. The inner water system proposed 3. The residential complex adjoining it.

- 1. Ecce homo:
 - 1.1 The first station of production is Ecce Homo convent and hospice in Jerusalem for The Sisters of Notre Dame, placed on via dolorosa street next to "Omariya School". A Struthion pool is situated today Underneath the building is situated, where it's used as a private touristic place for the convent. This pool is divided by a

concrete wall, the other side of it exists the Western Walls tunnels, this wall actually is the barrier keeping Israel from excavating a single vast subterranean system traversing the Old City from the south to the north.

- 1.2 In this stage will be asking for some volunteering work to be performed through the pilgrims and locals: this work includes the cultivation of cotton on the vast roof of the convent, spaces for harvesting, separating the cotton from bolls and dirt removing.
- 1.3 In addition to the graywater purification at the community graywater treatment plant, the surplus of rainwater collected on private tanks feeding the existing and the newly added residential complexes adjoining the station, will feed the public agriculture and cistern of the current station.
- 1.4 The residential units added to the adjoining residential complexes of the station are built in light construction and columns in a technology that enables further vertical expansion, above the existing old building. The drainage roof is a membrane locally produced above the residential units. This provides the ability to make use of the residential roof and the middle courtyard (if it existed), as a utilitarian garden. This technology of building is proposed to be in all of the residential complexes for further expansion.



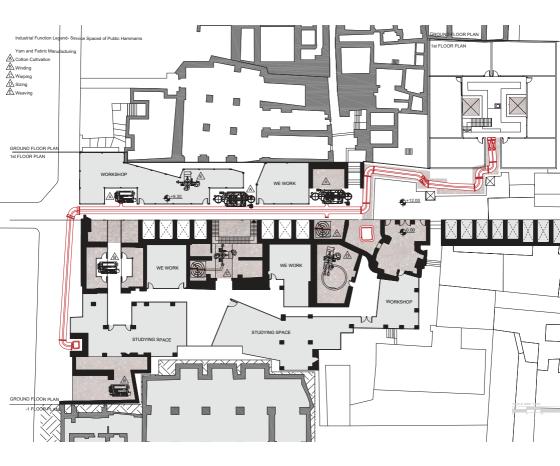


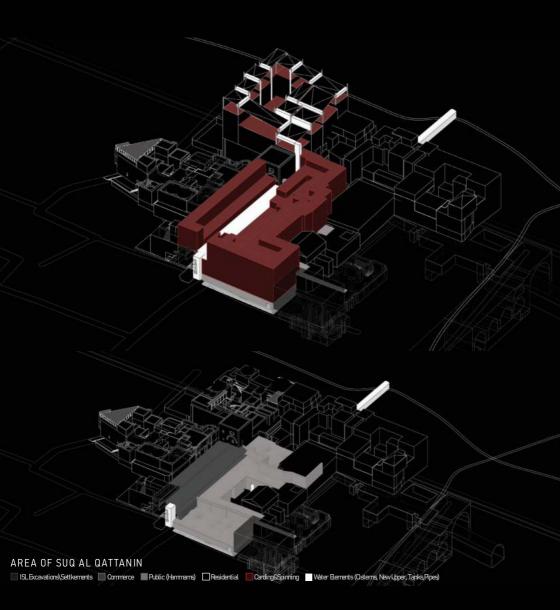
ECCE HOMO HOSPICE

🗌 ISL Excavations\Settlements 🔲 Commerce 📕 Public (Hemmanns) 🔲 Residential 🔲 Carding&Spinning 🔤 Weter Bements (Österns, New Upper, Tanks, Pipes) 🥛 Cotton Agriculture 📒

- 2. Area of Cotton Market:
 - 2.1 The second stage of production is Cotton Market, where handwoven textile was once produced and where today it's used for selling sweets, two public baths and a khan in-between -which are unused today are owned by "Al Quds University". The complex is situated on one of the roads leading to al Aqsa Mosque and underneath the Hammam Al shifaa, there is a large water cistern that is 25.5m long and which is inaccessible for Palestinians today and was once fed by a branch of the lower aqueduct. Southern of Hammam al Ayn is now where the Ohel Yetzhak synagogue is situated, and underneath it there are two mamluk structures that are connected to the Western Wall tunnels.
 - 2.2 By reusing the two public baths and the roof of the market; the second stage of production will be the yearn weaving and fabric manufacturing; winding, warping, sizing, and weaving. These will be the service spaces after being reused spaces of the hammam (the changing rooms and the backup service for warming spaces), adjoining them are proposed the served workshops for collective learning. On the market's roof between the proposed functions, is cotton agriculture. The produced un-dyed (yet) yarns and fabric will partly go to the next station for dyeing and the other part can be sold at the cotton market.

2.3 The water route and the residential typology resembles the previous station, here the surplus of residential water also goes to the sabil situated on al Wad Street

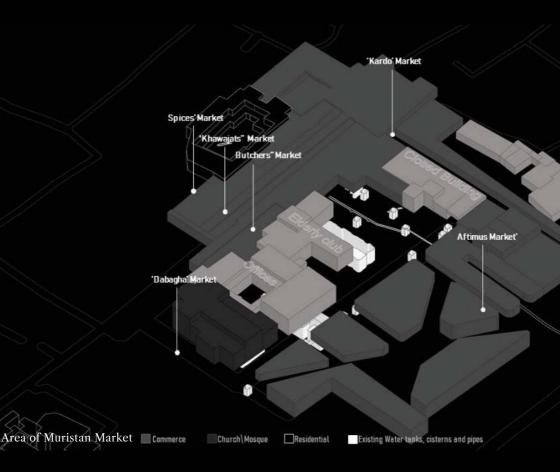




- 3. Area of Muristan Market is the third station the intervention will take place at, where the unused building that once was a vegetable market, a previously school building today is mainly unused, part of offices building belong to Saint John and the underground of the church of savior. The building was in use since the crusader period where it served as a hospital and later as a cloth dying area. Thus, it contains large underground cisterns, therefore the IAA (Israeli Antiques Authority) has done many archeological excavations there preventing the owners from opening the underground spaces to public. The planning will be explained in detail later, in general, this station consists of the urban water treatment plant, textile dying and a textile water treatment plant, in addition to public spaces and residential units added to the adjoining residential complexes.
- 4+5. St archangels and St Chorarambus convents:

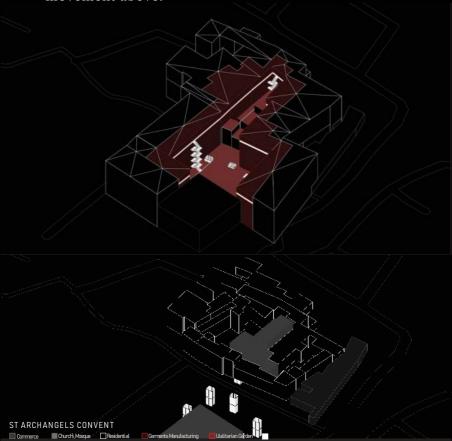
4+5.1 The fourth and fifth stations are placed in two convents: St Archangels Convent which is situated in the southern part of the Old City near the Armenian Museum that was used as a shelter for refugees post 1948 and has multiple large underground cisterns, and St Chorarambus Convent which is situated near the Church of Holy Sepulchre that also contains large cisterns and archeological excavations.

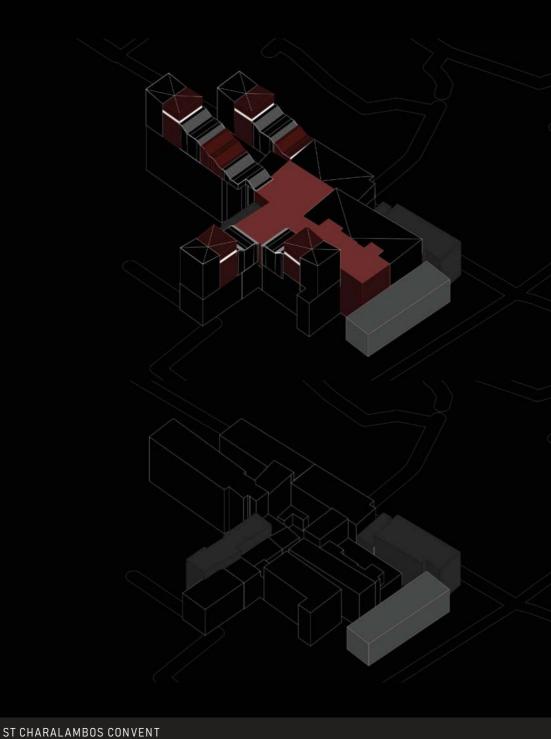
4+5. 2 at these two stages will be the garments manufacturing and embroidery after the fabric and the yarns



had been dyed. The aim of this intervention is to restore the public dimensions of the residential complexes themselves. In order to do that, the workshops of manufacturing are placed in between the newly added residential units above the existing ones, leading to the middle utilitarian garden.

4+5.3 In order to enhance the idea of the physical connection between the residential units and the more public manufacturing workshops, the water is also conveyed from the tanks feeding the residential units, to the middle utilitarian garden by a water tank that follows the stairs that could also be used for human movement above.



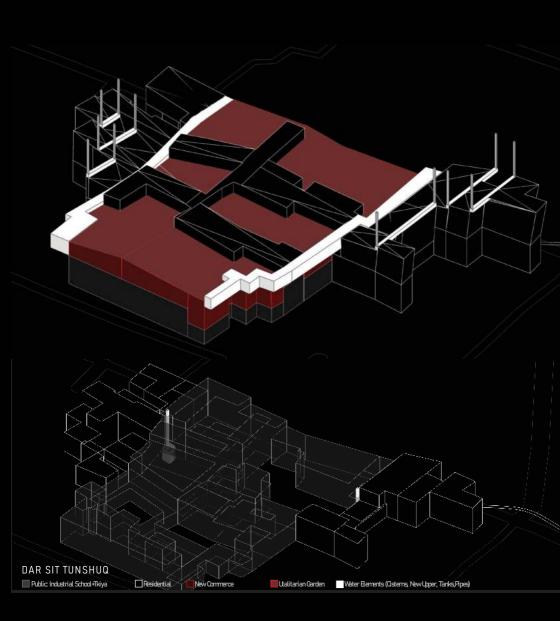


6. The Industrial School - previously known as Muslim orphans' school

6.1 It's located at at-Tkiya road, the private industrial school that still produces bamboo products, wooden products and more, but still without selling these products, was previously considered as a public residence.

6.2 The intervention seeks to re-create the public dimension by placing further residential units above and market place adjoining the residential units above; for selling the schools' local products the garments locally produced.

6.3 The water route and residential typology resembles the previously explained stages.



Detailed Planning: the Area of Muristan Market

1. Surrounding area of the planned area:

The site is bounded by four markets; To its east lay three crusader markets: the butchers, the coppersmiths (that was transformed into Khawajat Market for selling European textile in 1920's) the middle market is Apothecaries market. To its north and west, Aphtimos market that was founded in the end of the 19th century where the first class tailors and cloths merchants were located instead of Dabaghin+Sabaghin (tanners and dyeing) market, who were moved out beyond the walls near the Silwan Spring in 1860 because of the foul smell of the tannery. Behind the Suq al-Dabbagha (Aftimos market), exists the vegetable and fruit bazaar were farmers and villagers in colorful embroidered dresses came to sell their vegetables. To its south, exists the Israeli Cardo market which was a second hand fabric weaving market for refugees from 1948 to 1967.

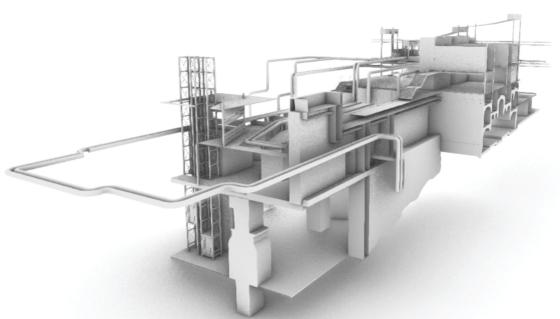


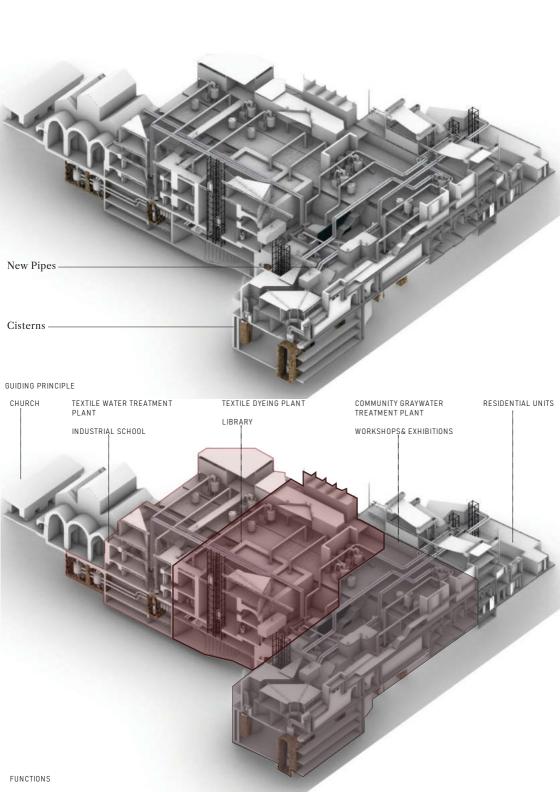
2. Planning tools and Service- Served rooted local knowledge Relations:

The planning strategy is based on of service served relations rooted in local knowledge, the service industrial spaces serve the public through three planning tools. The first tool is the spaces' organization; The cisterns and the archeological excavations are used for industrial water tanks insertions, around which the industrial spaces is organized. In addition, by taking advantage of the existing cisterns and archeological excavations, the project proposes a circular water system creating each of the three functions of this station.

For each stage in each function there is a cistern to be used as the water tank of the machines, where, first, the urban community graywater treatment plant will use the 5 stages of purification, which will be through the following steps: 1. Placing graywater by the community in cisterns adjoining the market or by pipes from the adjoining residential complexes. 2. Biofilter at the eastern markets' roof, and using further cisterns: 3. UV Ray 4. Reverse osmosis 5. Cisterns that are turned into fountains. The surplus either goes to the residential complexes adjoining the station or to the second function of this station. The second function of this station is textile dyeing that consumes water in each stage of its production process, and they are; bleaching, neutralizing, dyeing, rinsing, washing, rinsing, and softening, where they result in the end with the dyed product ready to garment manufacturing. This function receives water from the residential complexes rain water, the surplus of the first function, and the textile treatment plant

after sending the dirt water to it. Thus, making a circular water route at this station. The third function is the textile waste-water reuse: this function demands 10 cisterns at which the water reuse could be made. At this function the project makes use of the cisterns in the church and the Saint John offices building. Furthermore, the laboratories and the offices are organized around each industrial function for collective maintenance of the industrial spaces.





Industrial Function Legend- Following Existing Cisterns

Gray-Water Treatment Plant

A1 Placing Gray-Water by the Community

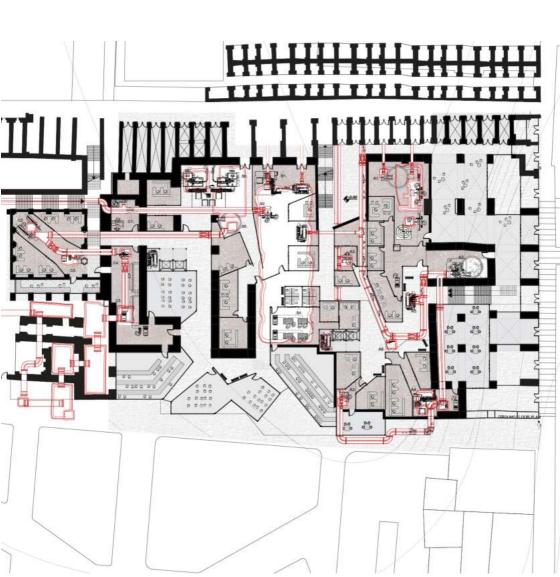
- A2 Bio-Filter On Market's Roof
- A3 UV Ray
- A4 Reverse Osmosis
- A5 Fountains of Clean Water

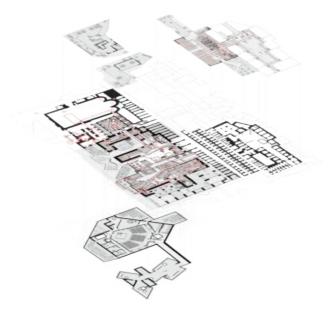
Textile Dyeing

- B1 Bleaching
- BZ Neutralizing
- B3 Dyeing
- BA Rinsing
- B5 Washing
- /B6. Softening

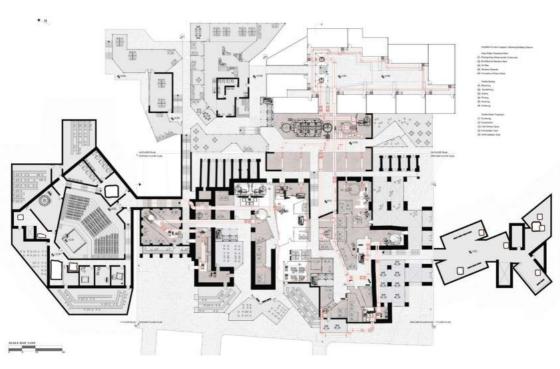
Textile Water Treatment

- Ch Screening
- C2 Equalization
- C3 Fast Stirring Tanks
- C4 Flocculation Tank
- C5 Sedimentation Tank





The second planning tool in which the industry serves the public is the additional public functions, which between them and the production spaces exists a relation rooted in local knowledge; Functional relation, which enables sharing, learning, and training of the production process. Around the community gray water treatment plant, are organized water treatment workshops in the ground floor and first floor, its underground is the cisterns' and the local material culture's documentation and exhibition spaces. Around the textile dyeing station, in the ground floor is organized an industrial school and classrooms for textile dyeing learning on the first floor. Around the gray water recycling station is situated the library on the first floor, and an underground auditorium. Plus, the adjoining markets will sell some of the dyed textiles while the other part will be transferred to the next station for clothing production.

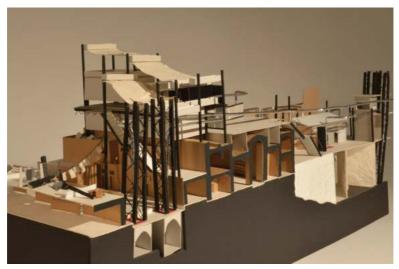




Section A-A



In addition, Physical relation that allows gatherings in the spaces in between. It also allows circulation on the circular central movement axis that connects between the industrial spaces and the public functions, creating internal meeting opportunities together with industrial experiences on it. Furthermore, the visual relation between the public and the multiple functions on the circulation axis and from the studying and training spaces allows sharing the manufacturing experiences and skills for collective learning of the industrial process of the three industrial stations.













Section B-B



3. Materials and technology:

The materials used for construction of the residential units, the industrial and public spaces are from those used today for construction by the community; light construction and prominent boards in the context such as Corrugated tin plates or panels composed of wood-based fibers or kraft paper. The light construction allows further expansion of the residential units and the industrial and public spaces by the community.

The technology used for rainwater purification is by a drainage roof made of a locally produced membrane above the residential units that drains the water into the water tanks which purify the water by a locally produced textile piece placed above it. The surplus of the water for residential use feeds the utilitarian garden above the residential units and the middle courtyard of the residential complex. The surplus of these waters feed the adjoining industrial station. This technology of building and water collecting is proposed to be in all of the residential complexes for further expansion and water management.







Conclusion

The project examined the practices of the dominating power in a settler colonial situation that produces knowledge that oppresses the natives' past and present, while disregards local knowledge and transforms natives' lives. In the Old City of Jerusalem as a case study, for political reasons, economic considerations, and needs: Palestinian residents, threatened by residency revocations, stay in their homes thus being forced to deal with the power-knowledge mechanisms of Israel. The proposed local knowledge rooted intervention strategy counters the hegemonic knowledge to achieve inhabitants' daily needs, and also attempts to preserve self-sufficient Palestinians' presence in the city. The project proposes a discontinuous urban infrastructure to re-create the autonomy over water, as the resource of life, and to re-produce textile industry, securing natives' future economic independence and quenched thirst. The project aims at paving a reality rooted in locals' identity, therefore, the intervention attempts to re-create the collective work by water management and the production process in order to create a state-independent community from a productive and economic point of view and in the water supply. The planning strategy is an expression of the Body and Life Cover for paving the way for an autonomous Palestinian community in the old city of Jerusalem and a liberated future.

Bibliography

Abu El-Haj, Nadia. Facts on the ground: Archaeological practice and territorial self-fashioning in Israeli society. University of Chicago Press, 2008.

Auld, Sylvia, Robert Hillenbrand, and Yusuf Natsheh, eds. Ottoman Jerusalem: the living city, 1517-1917. Altajir World of Islam Trust, 2000

Barakat, Rana. "Urban Planning, Colonialism, and the Pro-Jerusalem Society." Jerusalem Quarterly 65 (2016): 25-27.

Burgoyne, Michael Hamilton. Mamluk Jerusalem. An architectural study. 1987.

Canagarajah, A. Suresh, ed. Reclaiming the local in language policy and practice. Routledge, 2005.

Dana, Tariq. "A Resistance Economy: What is it and can it provide an alternative?." Rosa Luxemburg Stiftung PAL Papers Series (2014).

De Certeau, Michel. The practice of everyday life:" making do": uses and tactics, edited by Gabrielle M. Spiegel, 213-221. Psychology Press, 2005.

Dumper, Michael. "Israeli settlement in the Old City of Jerusalem." Journal of Palestine Studies 21, no. 4 (1992): 32-53.

Fanon, Frantz. The wretched of the earth. Grove/Atlantic, Inc., 2007.

Flyvbjerg, Bent, Tim Richardson, In Philip Allmendinger, and Mark Tewdwr-Jones. "Planning and Foucault." Planning futures: New directions for planning theory (2002): 44-63.

Hawari, Yara, Sharri Plonski, and Elian Weizman. "Seeing Israel through Palestine: knowledge production as anti-colonial praxis." Settler Colonial Studies 9, no. 1 (2019): 155-175.

Hommes, Lena, Rutgerd Boelens, and Harro Maat. "Contested hydrosocial territories and disputed water governance: Struggles and competing claims over the Ilisu Dam development in southeastern Turkey." Geoforum 71 (2016): 9-20.

Jabareen, Yosef. "The right to space production and the right to necessity: Insurgent versus legal rights of Palestinians in Jerusalem." Planning Theory 16, no. 1 (2017): 6-31.

Jabareen, Yosef. "The right to space production and the right to necessity: Insurgent versus legal rights of Palestinians in Jerusalem." Planning Theory 16, no. 1 (2017): 6-31.

Jones, Sue. "Threads of Identity: Preserving Palestinian Costume and Heritage, Widad Kamel Kawar." (2013): 211-213.

Lemire, Vincent. "The awakening of Palestinian hydropolitical consciousness: the Artas-jerusalem water conflict of 1925." Jerusalem quarterly 48 (2011).

Lemire, Vincent. "Water in Jerusalem at the End of the Ottoman Period (1850-1920). Technical and Political Networks." Bulletin du Centre de recherche français à Jérusalem 7 (2000): 136-150.

Lemire, Vincent. "Water in Jerusalem at the End of the Ottoman Period (1850-1920). Technical and Political Networks." Bulletin du Centre de recherche français à Jérusalem 7 (2000): 136-150.

Mignolo, Walter D., and Arturo Escobar, eds. Globalization and the decolonial option. Routledge, 2013.

Morales, Cristina. "counter space," accessed February 28,2021,

Scott, James C. "Everyday forms of resistance." The Copenhagen journal of Asian studies 4 (1989): 1-30.

Shehadeh, Lama. "ISRAELI MANAGEMENT OF WA-TER RESOURCES: A STORY OF NATION BUILDING, NATURE TRANSFORMATION, AND ALIENATION OF PALESTINIANS FROM THEIR ENVIRONMENT." (2019). The Jerusalem Arab Chamber of Commerce and Industry strategic plan 2018-2022.

Verderame, Nicola. "Vincent Lemire: La Soif de Jérusalem: Essai d'hydroh**istoir**e (1840–1948)." Water History 7, no. 3 (2015): 371-373.

التفكجي, خليل, كتاب الأستيطان في القدس. جمعية الدراسات العربية,2019.

Credits

Many people and beautiful souls had contributed to this work by multiple kind of supports; stories telling, physiological support and physical actual support...

The first and biggest one goes to Jerusalem's residents and associations- each interview made me feel at home, largening my passionate towards this research.

To my parents, sisters and brother that together secured my physical health and were always the main support system.

To my friends that stood by me in the multiple steps of this one and a half years of research and were the connectors between my human being and the real-time research; Waed, Firas, Yosef, Hadeel, Omar, Yehia, Nuha, Dima, Julie.

All were my Insparation and will continue to be...

The dominating power in a settler colonial situation produces knowledge that oppresses the natives' past and present, while disregarding local knowledge and transforming natives' lives. In the Old City of Jerusalem as a case study, for political reasons, economic considerations, and needs, Palestinian residents, threatened by residency revocations, stay in their homes hence being forced to deal with the power-knowledge mechanisms of Israel. The proposed local knowledge rooted intervention strategy; counters the hegemonic knowledge to achieve inhabitants' daily needs, and also attempts to preserve self-sufficient local Palestinians' presence in the city. The project proposes a discontinuous urban infrastructure to recreate the autonomy over water, as the resource of life, and to re-produce textile industry, securing natives' future economic independence and quenched thirst. The project aims at paving a reality rooted in locals' identity, re-producing the collective imagination through the manufacturing process as a generator for an independent economy and liberated life and future...