Redefining Learning Environments in Conflict Areas: 
A Palestinian Case Study

by

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REDEFINING LEARNING ENVIRONMENTS IN A CONFLICT AREA: A PALESTINIAN CASE STUDY

By

Jenine Kotob

Submitted to the Department of Architecture on May 23, 2013 in partial fulfillment of the requirements for the Degree of Master of Science in Architecture Studies

This thesis is an exploration of learning environments in the West Bank of the Occupied Palestinian Territories (OPT) as administered by private, refugee and public school systems. In considering the insularity of learning environments in the OPT, this thesis finds that despite increased school construction since 1994, public and refugee student drop-out rates have increased, enrollment rates have decreased, academic achievement is low, and students suffer from stress.

It is hypothesized that if schools are conceptualized as part of a broader learning environment, then the socio-spatial issues impacting student success may be improved. To test this hypothesis, learning environments in the OPT are examined with a two-fold methodology: historical and architectural. The two-fold analysis utilizes a conceptual framework, where child, building, neighborhood context, and education system, are understood as the four components of a learning environment.

The historical analysis is framed from the Late-Ottoman era until today and follows changing theories of education in parallel with the changing relationship between schools and the socio-spatial reality of the conflict. Results from the historical analysis indicate that educational institutions often cannot operate during times of crisis, leading local family and teacher networks to develop in formal education systems in unconventional spaces. It is determined that learning environments must be able to adapt to the conflict and must embrace local communities as architectural, spatial, and social resources. This finding serves as a critical foundation for the architectural analysis.

The architectural analysis uses data collected from field work at 24 schools in the West Bank in August of 2012 through informal interviews with locals, photography, and journaling. The data reveal that the socio-spatial contexts of each school are unique due in part to divisions of the land. In order to limit the number of variables, special focus was given to three schools in Ramallah, which is a unique enclave that encompasses within it the socio-spatial realities of other enclaves in the West Bank. Taking from the lessons of each school system, it is concluded that new learning environments in the Occupied Palestinian Territories must positively respond to the bleak structures of the occupation by becoming programmatically diverse, architecturally innovative, and spatially integrated in order to create new and less insular cultural centers of which the students and communities can be proud.

This thesis concludes with recommendations for educationalists, architects and development professionals that stem from revelations in the historical analysis and results from the architectural analysis. Learning environments must span outwards allowing for an expansion of school resources, a broadening of learning experiences for youth, and the unification of Palestinians in order to improve the socio-spatial disorder of the occupation.

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Title: Professor of the Aga Khan Program for Islamic Architecture
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Funding was made possible for field work through the Aga Khan Travel Grant at MIT. Throughout my three weeks in the West Bank, I met countless people on a daily basis who shared with me their struggles, stories, and dreams giving me insights that are not often made available to researchers. I found the Palestinian people to be unconditionally helpful, even in the face of hardship and difficulty during our daily excursions throughout a militarily divided land. In particular, I appreciate the time and selfless commitment that my driver and translator gave throughout the trip.

Last but not least, I must thank my close friends and family. My friends were extremely supportive in my research. They read through the 20 versions of my abstract, attended all of my intermediate presentations leading up to my final defense, and stayed up late nights with me in the MIT computer lab. My parents Shaban and Sana, and my brother Malik, engaged in long brain storming sessions that mainly consisted of my own ramblings and stream of consciousness. But over time, they too helped me to make sense of research on one of the most complex sites to study in contemporary times.

All of the above mentioned people were part of one of the most transformative periods of my life, and even as this thesis writing comes to a close, they will remain involved in my future development and growth.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Illustrations</td>
<td>8</td>
</tr>
<tr>
<td>List of Tables</td>
<td>10</td>
</tr>
<tr>
<td>Chapter 1: Introduction, Learning Environments in the OPT</td>
<td>11</td>
</tr>
<tr>
<td>Problem Statement</td>
<td>12</td>
</tr>
<tr>
<td>Learning Environment Spatial Framework</td>
<td>13</td>
</tr>
<tr>
<td>Thesis Chapter Outline</td>
<td>15</td>
</tr>
<tr>
<td>Chapter 2: Literature Review, Learning Environment Research</td>
<td>19</td>
</tr>
<tr>
<td>Education Research</td>
<td>20</td>
</tr>
<tr>
<td>Architecture Research</td>
<td>24</td>
</tr>
<tr>
<td>Development Research</td>
<td>26</td>
</tr>
<tr>
<td>Chapter 3: Methodology, How to Assess Learning Environments</td>
<td>30</td>
</tr>
<tr>
<td>Chapter 4: Historical Analysis, School Patterns from Late-Ottoman Era until Today</td>
<td>36</td>
</tr>
<tr>
<td>Introduction</td>
<td>36</td>
</tr>
<tr>
<td>Late-Ottoman Era</td>
<td>38</td>
</tr>
<tr>
<td>Between Ottoman and Israeli Control (1914 – 1946)</td>
<td>47</td>
</tr>
<tr>
<td>A Series of Administrations (1947 – 1967)</td>
<td>51</td>
</tr>
<tr>
<td>Israeli Administration (1967 – 1987)</td>
<td>62</td>
</tr>
<tr>
<td>The First Intifada (1987 – 1994)</td>
<td>66</td>
</tr>
<tr>
<td>Oslo Accords (1994 – 2000)</td>
<td>69</td>
</tr>
<tr>
<td>The Occupation Continues (2005 – Today)</td>
<td>84</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Summary</td>
<td>104</td>
</tr>
<tr>
<td>Chapter 5: Architectural Analysis, Three Schools in Ramallah</td>
<td>108</td>
</tr>
<tr>
<td>Introduction</td>
<td>109</td>
</tr>
<tr>
<td>Vignette: Private School Case Study</td>
<td>115</td>
</tr>
<tr>
<td>Vignette: UNRWA School Case Study</td>
<td>127</td>
</tr>
<tr>
<td>Vignette: Public School Case Study</td>
<td>146</td>
</tr>
<tr>
<td>Synthesis Of the Three Schools</td>
<td>159</td>
</tr>
<tr>
<td>Chapter 6: Conclusion, Broadening Learning Environments</td>
<td>162</td>
</tr>
<tr>
<td>Bibliography</td>
<td>168</td>
</tr>
<tr>
<td>Appendix</td>
<td>174</td>
</tr>
</tbody>
</table>
LIST OF ILLUSTRATIONS

Figure 1: Learning Environments Spatial Framework Diagram................................................................. 14

Figure 2: Enclave Site Visits for Field Work in August 2012, Not to Scale, Source: Jenine Kotob.............. 33

Figure 3: Ramallah as a Village, 1918, Source: Palestine Remembered.................................................... 38

Figure 4: Ottoman Empire in 1914, Source: Atlas of the Conflict .......................................................... 38

Figure 5: 1922 British Mandate for Palestine, Source: Atlas of the Conflict ........................................... 47

Figure 6: 1947 Palestine Partition Plan, Source: Atlas of the Conflict ..................................................... 51

Figure 7: 1948 after the Arab-Israeli War, Refugee Camp Locations, Source: Atlas of the Conflict ........ 54

Figure 8: UNRWA Tent Schools, 1949 ........................................................................................................ 55

Figure 9: 1947 Camp Typology, Source: Atlas of the Conflict ................................................................. 57

Figure 10: Ramallah as a Town, 1967, Source: Atlas of the Conflict ........................................................ 62

Figure 11: 1967 Palestine, Refugee Displacement, Source: Atlas of the Conflict .................................... 62

Figure 12: 1994, The Occupied Palestinian Territories, Source: Atlas of the Conflict ......................... 69

Figure 13: Separation Wall in red, Israeli construction began in 2002 ..................................................... 79

Figure 14: 2005 OPT with Separation Wall and enclaves, Source: Atlas of the Conflict ....................... 84

Figure 15: Single-Sided School, Source: UNRWA office Amman............................................................. 86

Figure 16: Double-Sided Hammerhead School, Source: UNRWA office Amman .................................. 86

Figure 17: Single-Sided School Option 2, Source: UNRWA office Amman ............................................ 87

Figure 18: West Bank Governorates with Schools, Source: MOEHE ....................................................... 88

Figure 19: Areas A, B, C, 2011, Source: UNOCHA.................................................................................. 90

Figure 20: Diagram of Schooling through Community, Source: Jenine Kotob ........................................ 104

Figure 21: Diagram of Schools as Independent Institutions, Source: Jenine Kotob .............................. 104
LIST OF TABLES

Table 1: Percentage of children (12-17) who were exposed to a form of violence at least once by one parent during the 12 months that preceded July 2011................................................................. 12

Table 2: Schools Visited in August, 2012 with Building Count, Year, Type, Location, Gender, People Counts, Information Gathered through Interviews with Officials ................................................................. 34

Table 3: The Stability-Instability Timeline Affecting Education in Palestine......................................................... 36

Table 4: Distribution of Classrooms by Authority and No. of Students/Classroom, Source: Educational Statistical Yearbook 1995/96 MOE & PCBS ........................................................................................................... 75

Table 5: School Count by Governorate, Administration and Gender, Source: MOEHE, 2012-2013 ............ 89

Table 6: Student Count by Governorate, Administration and Gender, Source: MOEHE, 2012-2013 .......... 91

Table 7: Population, Area and Density by Locality, Source: Palestinian Central Bureau of Statistics, 2007 (1 dunum=.001kmsq) ......................................................................................................................... 93

Table 8: Social Related Problems in School Sampling, Source: Field Work Interviews 2012 .................... 95

Table 9: Restricted Mobility on Travel to School in School Sampling, Source: Field Work Interviews in 2012 ........................................................................................................................................ 101

Table 10: Field Trip Mobility in School Sampling, Source: Field Work Interviews in 2012 ....................... 103

Table 11: Private School Case Study Profile .................................................................................................. 121

Table 12: UNRWA School Case Study Profile ............................................................................................. 135

Table 13: Public School Case Study Profile .................................................................................................. 153
CHAPTER 1: INTRODUCTION, LEARNING ENVIRONMENTS IN THE OPT

The environment surrounding children is a key element in the evolution and development of the child’s physical, mental, and psychological development, and affects the circumstances surrounding the way the child is raised, including the formation of ideas and beliefs, perceptions and attitudes towards the core issues relating to his life.¹

This thesis is an exploration of learning environments in the West Bank of the Occupied Palestinian Territories (OPT) as administered by three educational systems: private, refugee and public. In the West Bank, there are private schools that date back to the late Ottoman era with both secular and religious affiliations, refugee schools run by the United Nations Relief and Works Agency (UNRWA) that were created after the 1948 Arab-Israeli war that serve refugee populations within 19 camps in the West Bank, and public schools that are controlled by the Palestinian National Authority (PNA), which was established in 1994.

In order to understand learning environments in the OPT, this thesis examines the intersection of several major topics: the socio-spatial nature of conflict zones, local and global theories on education, and learning environments as architectural and spatial places. In a conflict zone, an environment for learning must be understood as an opportunity for promoting culture, community pride, and societal empowerment. In the OPT, the environment in which a child lives is absorbed by a military presence and is the reality of life for every child, regardless of political or social status. Schools intended for learning must find ways to encompass this reality, while simultaneously providing youth the ability to step out of the trauma for a few hours a day.

PROBLEM STATEMENT

Modern schools have existed in the OPT since the late-Ottoman era, and the development of new education systems along with the construction of new schools is related directly to the progression of the conflict. The eldest of these systems is the private school system, whose learning environments have always been closely related to their immediate spatial contexts due to local community involvement. UNRWA refugee schools were instituted after the 1948 Arab-Israeli War and sit on the edges of internal refugee camps on the land, remaining constrained to the same borders for 65 years. And, since 1994, at which time the Palestinian National Authority became the official government of the Palestinian people, the OPT have experienced a proliferation of public school construction. The most recent period of school construction is the result of humanitarian efforts and a discourse that demands education for all. Despite the boom in public school infrastructure, however, student drop-out rates have increased, enrollment rates have decreased, academic achievement is low, and students suffer from traumatic stress. Thus, this thesis questions the effectiveness of newly constructed schools that are designed as spatially and architecturally insular.

Children do not just suffer trauma as a direct result of the military occupation, but they can also suffer from issues such as domestic violence in the home.

<table>
<thead>
<tr>
<th>Region</th>
<th>Exposed to Violence</th>
<th>father</th>
<th></th>
<th>mother</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Psychological</td>
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<td></td>
<td></td>
<td></td>
<td>violence</td>
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<td>28.7</td>
<td>61.9</td>
<td>27.7</td>
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<tr>
<td>Gaza Strip</td>
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<td>75.9</td>
<td>43.2</td>
<td>73.3</td>
<td>45.2</td>
</tr>
</tbody>
</table>

Table 1: Percentage of children (12-17) who were exposed to a form of violence at least once by one parent during the 12 months that preceded July 2011.²

Aside from violence, children in the OPT have been documented to suffer from issues of poverty, overcrowding, child labor, and detention. In schools, these issues also affect teachers and staff; thus, counselors who are placed to work with youth may not be effective.

It is hypothesized that if schools are conceptualized as broad learning environments then the socio-spatial issues impacting student success may be improved. This hypothesis is based on preliminary research that shows a widespread lack of understanding and communication between educationalists and architects when defining learning environments through architectural, spatial, and social terms. This miscommunication has led to the need to redefine learning environments. By using the OPT as a case study, this thesis will show that in conflict zones a successful learning environment must address the needs of a child on a series of interrelated levels.

LEARNING ENVIRONMENT SPATIAL FRAMEWORK

To analyze the three types of educational systems, a spatial framework will be used as a form of cross-sectional examination. This thesis recognizes that, in a conflict zone, children are impacted on a series of levels which should be addressed by learning environments. The conceptual framework will look at learning environments as inclusive of a child’s journey to and from school, the school building in which they study, their neighborhood context defined by military boundaries, and finally as a result of certain administrative policies instituted by an educational system. This thesis utilizes constructivist theory as a foundation to bridge the gap between environment and learning. Constructivist theory, primarily addressed here through the work of E. Von Glaserfeld (1917-2010), emphasizes a child’s experiences as the source of knowledge and the teacher’s role as a support system or scaffolding. In this sense, there are no single truths established in the school but rather a multiplicity of realities carried by each individual that must be acknowledged and questioned. When applied to a conflict area such as the
OPT, children’s negative experiences as a result of their socio-spatial identities are realities that must be reckoned with in the learning environment and analyzed on a cognitive level.

Thus, the conceptual framework, as depicted in figure 1, is like a concentric spheres model, where the locus is the child, then the official place for learning within the building, and the spatial context of their daily lives that encompasses their family and community. Above all, the last level of this conceptual framework recognizes that the institutions in place -- private, UNRWA, and public -- play a significant role in policy formation that then affects each of these layers down to the child.

![Figure 1: Learning Environments Spatial Framework Diagram](image)

By using this framework, it is understood that a learning environment contains within it spatial characteristics – both territorial and architectural – that need to be analyzed. Each of the layers in this conceptual framework is bound by a physical, architectural manifestation. The neighborhood context is bound within a military enclave that is defined by walls, fences, checkpoints, and settler roads. Within a

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military enclave there are varied degrees of limitation placed on the constituents according to the enclave’s military classification. The school zone is bound by the perimeter wall constructed to wrap around the school’s outdoor spaces and can be understood as the negotiator between the learning environment and the outside world; it decides what can enter the space and what cannot. The building is enclosed by the walls of the school and is punctured by windows and doors, elements that also negotiate what can enter and what cannot. Finally, interior spaces have a variety of programs, and on the smallest scale are instructional classrooms defined by four walls with windows looking out to the outside world.

The element of focus that breaks through each of these layers is in fact the child, who is supported by friends, family, school staff and community. It is a child’s movement across these layers that make each layer a part of the learning environment. This spatial framework will be used as a conceptual as well as methodological tool throughout this thesis.

**THESIS CHAPTER OUTLINE**

The following section summarizes the main points in each of the chapters of the thesis.

Chapter two contains a literature review that was conducted on learning environments in three categories: Educational Research, Architectural Research, and Development Research. The literature review highlighted some important issues in relation to the education system and it was realized that terms like “school quality” were defined ambiguously by educationalists, leaving the design of learning environments open-ended. Furthermore, the research that has been conducted on the architecture of schools in the OPT tends to be in the form of pilot program testing, where schools that are more site-specific and of high quality are constructed. Then, student achievement in these schools is compared to that of students in lower quality schools. However, no conclusive results can ever be made because researchers acknowledge that there are too many variables that affect the learning environment in a
conflict zone. Between educationalists and architects, there is a communication gap, where educationalists are articulating the need for something ambiguous, yet, qualitatively important; and, architects are designing and testing schools in an insular fashion, regardless of the context. And generally, most publications on school architecture in the OPT do not address all of the educational systems. Instead, studies are separated according to institution – leading to misrepresentation of the current state of schools in the region. From this point, it was decided that two approaches need to be used in order to examine the current state of learning environments in the OPT: a historical and an architectural analysis.

Chapter three focuses on methodology and is entitled How to Assess Learning Environments. The historical approach is framed from the late-Ottoman era until today. It traces the relationship and fluctuation of learning environments of the three educational systems within a socio-spatial context, utilizing parallel discourses of educational theory. The architectural approach looks at contemporary schools within the three educational systems from field work done in August of 2012, and focuses primarily on those in the city of Ramallah. This approach uses the conceptual framework of a learning environment based on four layers: child’s journey to school, school building, neighborhood context and school system.

Chapter four is the historical analysis and is entitled Changing Times and Changing Schools. Palestinian land has changed significantly since the late-Ottoman era, and particularly since the 1948 Arab-Israeli War. What once was agrarian open space with villages has become a densely populated land divided into segregated enclaves. This transformation has had a significant impact on education. While ongoing political and military conflict has ensued since the early 20th century, there are notable ebbs and flows in the level of instability endured through the years. By looking at the transformation of learning environments over time, this chapter leads into the comparative analysis of each school system.
in the architectural chapter. These periods are significant in that they affect access to education and the community’s response when access is blocked. In significantly hard times, institutional schooling was closed from days to months and led families, teacher groups, and private NGOs to establish informal education in homes, mosques, and churches. During these periods of heightened instability, education was connected to the concept of a Palestinian community that transcended all divides, rather than just localized communities segregated by political or social status. Groups pooled their efforts and taught in unconventional, informal spaces. While not all children were able to tap into these networks due to the danger of war, those that did exist were located closely to where students lived – making travel for an education much shorter and safer. At such times, community assumption of control across the three educational systems leads to empowerment of youth and communities. This becomes significant as it establishes the empowering nature of education, as well as the flexibility of learning environments to encompass a variety of architectural spaces.

Chapter five is the architectural analysis, and it focuses on three schools in the Ramallah governorate. Due to the complexity of the militarized enclavisation, Ramallah was chosen for its unique position as the official center of PNA government activity. Among Ramallah’s characteristics is that it is home to many private, UNRWA, and public schools. Experiences of traveling to three case study schools were similar due to common architectural typologies. Results from the architectural analysis show that older schools, specifically in the private school system, have traditional school designs that reflect rote educational theory; however, their long presence on sites has allowed for learning environments to become invested in the landscape. In contrast, the newest public schools indicate a trajectory towards more innovative school design; however, the design lacks cultural relevance. Finally, the standardized design as implemented through UNRWA is both traditional in its form and isolated from the neighborhood. This analysis concluded that school buildings must also become active agents in the
environment, influencing change on the immediate surroundings. Thus, schools must be designed in a way that combats the bleak architecture of enclavisation and militarization.

Chapter six is the conclusion, and is entitled Broadening Learning Environments. This chapter begins by summarizing the points of synthesis from the historical and architectural analyses, and reminds the reader that the patterns that emerged from the historical analysis were used to develop a more relevant architectural approach. This resulted in an emphasis on the dynamics between learning environments and socio-spatial contexts. It is proposed that issues that relate more to community and life outside of the school must be addressed, because as constructivist theory poses, those experiences are carried with the child throughout the layers of spaces. Recognizing the outside world as lived by a child through architecture and program can begin to alleviate issues of high drop-out rates, low enrollment rates, low student scores, and psychological trauma. In making proposals for educationalists, architects and development professionals, this thesis reflects on the Palestinian traditions related to school-community socio-spatial relations unveiled in the historical chapter. In determining that ownership of education and unity across social and class boundaries can yield empowerment, these types of mechanisms are proposed for future approaches for the management of school construction and design in the OPT. This thesis concludes by reflecting on the field of architecture at large; and, a call is made for all school design in conflict areas to push the limitations of spatial and socio-political boundaries, and attempt to project towards ideals of the future.
CHAPTER 2: LITERATURE REVIEW, LEARNING ENVIRONMENT RESEARCH

There has been a variety of writing on schools and their architecture. In much of today’s education literature, places for learning are referred to as learning environments. The term learning environment, as opposed to school, has been appropriated by many researchers from the theoretical work of educational theorists such as, John Dewey, Paulo Freire and Munir Fasheh. This term can be used by a variety of disciplines and addresses the program of schools, the ethos of schools, or the architecture of schools. In this literature review, works will be divided according to three types: education research, design research, and development research.

Publications are either generalized in that they tend to write about seemingly universal truths on the architecture of schools, or they are focused on specific geographic contexts, or they are undermined by ideological or political motivations. The first group, which attempts to define universal truths, is typically written by humanitarian organizations that focus on issues facing communities in need or in crisis. Links are made between mental trauma, violence, socio-economic status, gender, and other similar human-defined indicators with architectural quality. The second category, of site-specific research, is typically sponsored and written by governmental groups or NGOs that work closely with given governments. These works try to focus on the role school architecture can play in improving student outcomes and achievement, which is seen to have a direct effect on the workforce and thus the potential improvement of a nation’s economic standing. The third category contains those writers that are neither from a design background nor who work in education, but are still deeply engaged in educational work and school architecture. These authors can vary from humanitarian groups, religious foundations, or even educational ministries. Typically, work in this category will be in the form of research reports and studies that have been funded by ministries or independent organizations.
Most, if not all, of the work done by educational theorists mentions the concept of learning environments; however, this is never clearly defined in spatial terms that can be easily translated into schools by architects and designers. Ambiguous definitions of learning environments could be the result of several issues, but most probably is a result of the authors’ limited understanding of the true comprehensive of architecture.

Also, most literature on the analysis of school design in the West Bank focuses on finding a correlation between building quality or site-specific versus standardized design and low student achievement. It has been shown that if basic elements, such as lighting, sound, sanitation and so on, do not meet a minimum standard, they can disrupt the learning environment in such a way that it can negatively impact student success. However, beyond these basic needs, most recent studies have not been able to provide tangible elements of design that can improve the learning environment in a way that can enhances student success in a more holistic manner.

It must be noted that much work has been done on the architecture of the occupation inside the OPT; however, these publications do not address learning environment and are not directly relevant to this research. At certain points, some reference is given to these works throughout the thesis in order to present the larger nature of fragmentation on the land as it exists through barriers, checkpoints and settlements.

**EDUCATION RESEARCH**

Educational research selected here looks primarily at studies that find links between learning environments and education in Palestine. These works focus on the nature of education in a conflict zone, and most utilize the OPT context as a case study.

Buckner and Kim, in a 2011 article entitled *Mobile Innovations, Executive Functions, and Educational Developments in Conflict Zones: A Case Study from Palestine*, focus on themes of conflict
education, mobile devices, and executive functions. In this research, the authors attempt to understand deficiencies of executive functioning as a result of long-term conflict in the region. Furthermore, they sought to develop educational resources for Palestinian youth. Through a series of administered tests with 185 Palestinian youth from ages 6-16, the authors made several conclusions: 1) schools that are more exposed to conflict have lower levels of executive functioning; 2) being in an urban environment is a strong predictor of performance on executive function exercises; 3) but, high exposure to risk in an urban environment distracts from planning-related executive functioning; 4) urban environments are positively correlated with better mental planning performance; and 5) private school education is a strong predictor of mental flexibility.⁴

Fahoum Shalabi, in his 2002 dissertation entitled *Effective Schooling in the West Bank*, uses a multivariable analysis approach to test for the effectiveness of different schools. The author looks at differences between private and public/UNRWA schools, as well as socio-economic distinctions, and spatial settings. Shalabi postulated that one of the most significant reasons for differences in student achievement could be a result of socio-economic status.⁵

Gillian Kerr-Sheppard wrote a dissertation in 2010 entitled *How Palestinian Refugee Families Living in Refugee Camps within the West Bank and the Gaza Strip deal with their engagement with formal education at primary and secondary school level*. Analysis was done on participants from four generations of refugees in ten camps in the West Bank and the Gaza Strip. The author reveals the negative social and psychological effects of prolonged stress and trauma. It was found that for refugee

families that suffered from these issues, there was a diminished sense of positivity and resilience in their engagement with education.⁶

Astor, Benbenishty, and Estrada wrote a 2009 article entitled *School Violence and Theoretically Atypical Schools: The Principal’s Centrality in Orchestrating Safe Schools*. This study focuses on a sampling of nine atypical schools from an Israeli national database, and it uses three years of qualitative and quantitative data. The schools are both Arab and Israeli, and are located in Israel and the West Bank. This study concluded that inspiring principal leadership in Israel and the OPT is a common qualitative feature of atypically low-violence schools. This study touches on school philosophies that develop in response to social, political, and religious realities in their spatial contexts. The article reveals the importance of positive imagery that encourages care and compassion. Further connections are found between well-maintained facilities and lower violence rates, indicating unified organization and ownership responsibility.⁷

Monisha Bajaj, in a 2011 article entitled *Human Rights Education: Ideology, Location, and Approaches*, provides six definitions of human rights education that have developed over time. Human Rights Education (HRE) definitions and implementations differ, and there is no one singular mode of understanding. Some include: HRE for Global Citizenship, HRE for Coexistence, and HRE for Transformative Action. The author defines HRE for coexistence as focusing on, “the inter-personal and inter-group aspects of rights and is usually a strategy where conflict emerges not from absolute deprivation, but from ethnic or civil strife.”⁸

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⁸ Bajaj, Monisha. “Human Rights Education: Ideology, Location, and Approaches.” *Human Rights Quarterly*
Dyke and Randall wrote a 2002 article entitled *Educational Reform in Post-Accord Palestine: A Synthesis of Palestinian perspectives.* After interviews of several educational leaders and administrators in the OPT, it was concluded that one of the most significant problems today is the lack of a clear, unified definition of educational philosophy. Further, it was noted that the people interviewed all acknowledged the need to improve teacher training. Also, the respondents noted that students should have the freedom to express themselves in the classroom in order to develop better problem solving skills and adaptability.⁹

Seth Frantzman, wrote a 2011 article entitled *Education and Empowerment: Lessons and History of the Christian Education Network in Israel and Palestine.* The author draws parallels between Christian education in Palestine and Christian education abroad. He finds connections in regards to pedagogy, finding that schools play an important role in their immediate contexts because of their ability to embrace community. This article follows a chronological timeline that gives some key insights into the transformation of private schools and their architecture from their early inception in the late-Ottoman era until today.¹⁰

Munir Fasheh, in a 1990 article entitled *Community Education: To Reclaim and Transform What Has Been Made Invisible,* describes the role of education in Palestine. The author notes that education during the time of the *Intifada,* or uprising, was an agent of hegemony, and he presents an alternative model of community education that is empowering. Fasheh calls on building diversity in educational practices in an effort to develop human resources.¹¹

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In reviewing these resources, it is found that education is viewed as a tool for empowerment in places of conflict. Beyond its ability to educate a population and develop a new workforce, education in a conflict zone plays an important role as a political, psychological, and social tool. It is agreed upon in these texts that the spatial nature of the conflict can have a negative impact on learning environments, especially as expressed by Kerr-Sheppard and Shalabi. Furthermore, these works emphasize the importance of community as a positive resource. Overall, this section highlights the variety and multitude of variables that can impact children, education, and learning environments.

ARCHITECTURE RESEARCH

This next section looks at publications from non-Palestinian and Palestinian contexts that discuss the role of school architecture and learning environments on education. This is different from the previous section, which looks primarily at other variables that can impact education. Here, the architecture of buildings is the primary concern. The selected publications only date as far back as 2005 in order to present the most up-to-date work on school architecture.

Kenneth Stevenson, in a 2010 article entitled *Educational Trends Shaping School Planning, Design, Construction, Funding and Operation*, provides architectural and planning solutions for issues such as over-crowding, diversity, and socio-economic distinctions in a Western context. Options such as a “school within a school,” are mentioned. Many of the solutions proposed explore proposals for policy change.¹²

Malinin and Parnell wrote a 2012 conference review entitled *Reconceptualizing School Design: Learning Environments for Children and Youth*. The authors present reviews of several papers submitted

to a conference on learning environments in many global contexts. All the papers focus on the importance of participant experience and the relationship with the physical environment.\footnote{Malinin, Laura, and Rosie Parnell. "Reconceptualizing School Design: Learning Environments for Children and Youth." \textit{Children, Youth and Environments}, 2012: 11-22.}

Mark Schneider wrote a 2002 article entitled \textit{Do School Facilities Affect Academic Outcomes?} The author looks at issues of air quality, thermal comfort, lighting, acoustics, building age, aesthetics, quality, school size, and class size. He concludes that basic comfort is necessary for effective student and teacher performance; however, no results can be drawn on differences accorded to design quality.\footnote{Schneider, Mark. "Do School Facilities Affect Academic Outcomes?" \textit{National Clearinghouse for Educational Facilities}, 2002: 1-24.}

Matar and Brighith wrote an article in 2010 entitled \textit{The impact of school design on academic achievement in the Palestinian territories: an empirical study.} The authors present data from pilot studies which were implemented in the OPT that compared standard-designed schools to site-specific schools. In order to compare the two, the authors tested student scores in Arabic and Mathematics after one year of occupancy. Also, students were asked to draw their school. The authors found that while results showed some type of correlation between higher scores and newer schools, there were too many variables to which to attribute the correlation.\footnote{Brighith, Imad, and Mohammed Matar. \textit{The impact of school design on academic achievement in the Palestinian territories: an empirical study.} OECD, 2010.}

Jean Bernard, in a 2012 report entitled \textit{A Place to Learn: Lessons from Research on Learning Environments}, gives a review of major theoretical roots on learning environment research (LER), lessons from field work, methods and tools used in LER and provides recommendations. Bernard provides a level framework that depicts areas of impact on the quality of learning environments. From smallest to largest they are, learning space (physical conditions, psychosocial & pedagogical climate), school or program (design, management, strategies, organizational climate), community (participation and support), and system (standards, policies, infrastructures, coordination and support). He provides this
framework model to be used in different contexts and essentially places school and community on the same level – in that they are one and the same.\textsuperscript{16}

Knapp and Noschis, editors of the 2010 report entitled \textit{Architectural Quality in Planning and Design of Schools: Current Issues with Focus on Developing Countries}, give conclusions from a conference that addresses a wide variety of contexts. They found that standard and site-specific design are both useful tools; a school is more than a school; and high-quality school environments must appropriately mix standard and site-specific design, as well as recognize the school’s role beyond its boundaries.\textsuperscript{17}

Higgins et al wrote an article in 2005 entitled \textit{The Impact of School Environments: A Literature Review}. In this review of research on the architecture of schools, it was determined that once schools met minimum health and quality standards it was difficult to show that differences in design had an impact on student success. It cautions about designing in an architecturally deterministic manner.\textsuperscript{18}

Very few theories on learning environments have been written out of the architecture world. Rather, the pieces that are written are quite revealing in that they most directly criticize school architecture that is more indicative of the institutionalization of education.

\textbf{DEVELOPMENT RESEARCH}

This next section looks at the discussion on schools and school architecture through the lens of developmental research. This type of work is written primarily by international NGOs and organizations whose role it is to assist developing countries in creating more sustainable political, economic, and social

\textsuperscript{18} Higgins, Steve, Elaine Hall, Kate Wall, Pam Woolner, and Caroline McCaughey. \textit{The Impact of School Environments: A Literature Review}. A Literature Review, Callaghan: The Center for Learning and Teaching, University of Newcastle, 2005.}
conditions through education. These publications date back to 2006 and cover Palestinian and non-Palestinian contexts.

In a 2011 report by UNICEF entitled, *Child Friendly Schools Case Study: Occupied Palestinian Territory* a pilot study was done on 100 schools in the OPT. These schools were transformed into Child Friendly Schools (CFS). The report describes the development model and discusses discoveries made after two phases of implementation. It was concluded that more emphasis must be placed on places outside of schools, such as the home, in order to bring parents and family into the mix. Part of the CFS model was the implementation of portable learning products that proved to be successful in the OPT.19

Barakat, Connolly, Hardman and Sundaram wrote an article in 2012 entitled, *The Role of Basic Education in Post-Conflict Recovery.* The authors conclude that education can act as a tool of inclusion and exclusion and economic well-being and can provide a means of recognizing minority cultures, languages and practices. The article encourages community ownership and capacity building, and designing for resilience and adaptability of local communities and authorities.20

World Bank Group, in 2006, wrote a report entitled *West Bank and Gaza Educational Sector Analysis: Impressive Achievements under Harsh Conditions and the Way Forward to Consolidate A Quality Education System.* This report highlights the urgency of improving efficiency and overall cost-effectiveness of service delivery by schools. There needs to be an availability of resources beyond delivery to provide higher quality of educational services. Education must be made more relevant in lieu of shrinking participation in certain streams. Supply-driven school projects based on donor aid must be implemented in more sustainable ways. Finally, the report recommends a more efficient use of

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19 UNICEF. *Child Friendly Schools Case Study: Occupied Palestinian Territory.* Ramallah: UNICEF, 2011.
resources that is indicated by a more unified and coherent school system bridging elementary, preparatory and secondary cycles.  

UNESCO, in 2011, wrote a report entitled *World Data on Education: Palestine*. This document provided a review of the basic objectives of the Ministry of Education and Higher Education (MOEHE) in the OPT, laws and regulations on education, administration and management of education, structure and organization of education, and the educational process. It was determined that the new curriculum established by the MOEHE is concerned with creating a Palestinian identity. It shows that UNRWA and public school scores fair much lower than international averages, however, private schools surpass international medians. The report identifies significant issues related to teacher quality and finds that teachers are still using dated teaching methods with teaching-centered approaches.

UNHCR prepared a 2011 report entitled *Refugee Education: A Global Review*. This research determined that integration of refugees into a national education system is significant, particularly in areas where refugees work and live closely to other schools. There must also be recognition of the connection between education and conflict in planning.

From this research, it is concluded that the role of organizations, such as UNICEF, is important in providing a platform for cross-disciplinary work that may not occur without their assistance. Also, in some cases development research supports the idea of a broader conceptualization of learning environments. This thesis does not discredit the work done by these organizations; however, it does highlight that their ultimate purpose is to maintain geo-political peace and may not always work towards the best interests of those in need. Furthermore, this type of work, at times, may be too global when used to approach specific conflicts and may omit the role of local powers.

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Among the three groups, there is no clear definition of what learning environments should look like and thus there is a communication gap. Furthermore, it was found that no single Palestinian publication focused on all three types of learning environments as they are studied independently. Through this literature review, it was determined that approaching research of learning environments in the OPT first requires a historical analysis. Setting up work through a historical frame will allow an architectural analysis to be more localized and relevant. In setting up this foundation, an architectural analysis can begin to look at school buildings as structures that are socially, culturally, and politically engaged. Just as educationalists have recognized the many variables that can impact learning environments, architects must also address building design in a way that addresses these variables in order to provide the best platform for education.
CHAPTER 3: METHODOLOGY, HOW TO ASSESS LEARNING ENVIRONMENTS

Between educationalists and architects, there is a communication gap in which educationalists are articulating the need for something ambiguous, yet qualitative, in architectural terms, and architects are designing and testing schools regardless of the context. In a conflict zone, learning environments have played a role in positively impacting society as well as being negatively impacted by the war. It is important to understand this dynamic in historical and architectural terms. From this point, it was decided that two approaches need to be used in order to examine the current state of learning environments in the OPT: a historical and an architectural analysis.

First, a historical approach examines learning environments from the late-Ottoman era until today. Second, an architectural approach analyzes learning environments from field work done in August of 2012. Typically, learning environments have been defined in an authoritative manner by academics, architects, and ruling bodies. However, when learning environments are studied through a historical lens, it will be shown that communities have played a role in developing their own types of learning environments that exist outside of the spatial lens that is typically used in research today. This approach traces the relationship and fluctuation of learning environments of the three educational systems within a socio-spatial context, utilizing parallel discourses of educational theory.

The historical chapter will be divided into major time periods that correlate with shifts in the political climate of the region, essentially rises and falls in trauma and turmoil. War and instability is marked in the periods of 1914-1948, 1967-1994, and 2000-2005. Periods of transition and relative stability occur from 1949-1966, 1994-2000, and 2005 to the present. Within each of these time periods, the author will locate learning environments in Palestinian society according to community use, authoritative protocols, and educational theory.
A synopsis of schools in the West Bank as of 2013 will follow and will be understood in terms of their neighborhood context and the effects on student behavior and mobility. Patterns that emerged from the historical chapter are used to develop a more relevant architectural analysis, resulting in an emphasis on the dynamics between learning environments and socio-spatial contexts.

The architectural approach looks more closely at contemporary schools within the three educational systems from field work done in August of 2012. A total of 24 schools all over the West Bank were visited. This chapter focuses on three schools in Ramallah in part because each enclave must be treated independently of one another, as well as for comparative purposes. Thus, in order to assist the reader in situating the schools into the spatial context, a brief description of Ramallah as a unique enclave will be given.

This chapter looks at donor contribution, design quality, and community ownership as they exist through the spatial framework outline in the introduction chapter of this thesis. Field work data was collected through informal interviews, photography, and journaling. Interviews were held with officials from schools as well as professionals with the PNA, UNRWA, and UNICEF. Post-field work analysis was conducted using architectural drawings and spatial maps. The names of schools and officials interviewed will not be included in this research in order to preserve anonymity of those involved.

**FIELD WORK BACKGROUND**

In August of 2012, field work funded by the Aga Khan Program for Islamic Architecture at MIT was conducted in the West Bank of the Occupied Palestinian Territories. At the time of preparing for travel to the West Bank, the US State Department had classified the OPT as a high risk location, and thus MIT students must obtain special permission to travel there. Travel must be approved by the Chancellor at MIT under the guidance of MIT’s legal aid. Permission was eventually given by MIT with specific safety protocol requirements per the same guidelines as US State Department Fulbright scholars.
All travel within the West Bank was done with a single vehicle and local driver. Due to Israeli military travel restrictions, no schools were visited in the Gaza Strip. Also, similar travel restrictions due to Israeli military checkpoints did not permit the driver to enter Jerusalem; and thus, schools in Jerusalem were omitted from the school sampling. Furthermore, travel from village to village was significantly lengthened due to Israeli road restrictions, which designated certain roads as permissible for Israeli settlers and other roads for Palestinians. This segregated road system made travel in the region very difficult and limited the number of schools visited per day.

At the time that this field work was conducted, schools were not in session due to the summer vacation. Furthermore, it was the Islamic month of Ramadan, in which Muslims fast from sunrise to sunset. Thus, students were not seen in school buildings, and most Palestinians were not out and about because of the difficulties of fasting in the summer heat. However, school officials agreed to meet with me on their own time. Interviews with officials were not always easy as some would respond to questions with one or two-word answers and no elaboration. Some of them only had a short period of time to spare for questions as well as providing tours of the school grounds. Each official brought along the school secretary or member of the staff who held onto the school’s keys. When touring the buildings, each room had to be opened individually, and staff seemed to be exhausted from fasting and the high temperatures. While it was not possible to view students and teachers in their spatial elements, there was more opportunity to unobtrusively explore the architecture of schools as well as their context of city, village, or camp. If further field work were to be conducted, a different time of travel would be selected in order to compare the effects on people occupying the spaces.

During this travel, a random set of schools were visited in the Northern, Central, and Southern regions of the West Bank. These included four private schools, 15 UNRWA schools, and five public schools. From the private schools, three were located in the Central region, specifically the Ramallah
governorate, and one from the Southern region in Beit Sahour. Of the UNRWA schools, six were in the Northern region, five in the Central region, and four in the Southern region. Finally, of the public schools, two were in the North, two in the Center, and one in the South. Therefore, most of the schools visited were in the Central region, specifically from the Ramallah governorate. A total of 10 out of 24 schools were located in the Central region from the Ramallah and Jericho governorates.
The map in figure 2 depicts the different enclaves that were visited during field work. The historical chapter will discuss how each school system’s buildings are geographically located in the landscape. The table below displays the schools visited with basic descriptions including number of year built, type, location, gender, student count, teacher count, and students per classroom.

<table>
<thead>
<tr>
<th>School Name</th>
<th>Number of Buildings</th>
<th>Year built</th>
<th>Type</th>
<th>Location</th>
<th>Gender</th>
<th>Student Count</th>
<th>Teacher Count</th>
<th>Students per Classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>6</td>
<td>2003</td>
<td>Private</td>
<td>Ramallah, Central</td>
<td>Mixed</td>
<td>900</td>
<td>54</td>
<td>28</td>
</tr>
<tr>
<td>School 2</td>
<td>5</td>
<td>1940-2007</td>
<td>Private</td>
<td>Ramallah, Central</td>
<td>Mixed</td>
<td>600</td>
<td>44</td>
<td>25-28</td>
</tr>
<tr>
<td>School 3</td>
<td>3</td>
<td>1991</td>
<td>Private</td>
<td>Ramallah, Central</td>
<td>Mixed</td>
<td>400</td>
<td>23</td>
<td>20-25</td>
</tr>
<tr>
<td>School 4</td>
<td>3</td>
<td>1964, 2011(reno)</td>
<td>Private</td>
<td>Beit Sahour, South</td>
<td>Mixed</td>
<td>675</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School 5</td>
<td>2</td>
<td>1995</td>
<td>UNRWA</td>
<td>Central</td>
<td>Boys</td>
<td>750</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td>School 6</td>
<td>2</td>
<td>2002</td>
<td>UNRWA</td>
<td>Kalandia, Central</td>
<td>Boys</td>
<td>900</td>
<td>24</td>
<td>33</td>
</tr>
<tr>
<td>School 7</td>
<td>1</td>
<td>1996</td>
<td>UNRWA</td>
<td>North</td>
<td>Girls</td>
<td>440</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td>School 8</td>
<td>1</td>
<td>1996</td>
<td>UNRWA</td>
<td>Hebron, South</td>
<td>Boys</td>
<td>589</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School 9</td>
<td>1</td>
<td>2004</td>
<td>Public</td>
<td>Ramallah, Central</td>
<td>Girls</td>
<td>700</td>
<td>31</td>
<td>23</td>
</tr>
<tr>
<td>School 10</td>
<td>1</td>
<td>2012</td>
<td>Public</td>
<td>Hebron, South</td>
<td>Girls</td>
<td>320</td>
<td>19</td>
<td>45</td>
</tr>
<tr>
<td>School 11</td>
<td>1</td>
<td>2002, 2012(expand)</td>
<td>Public</td>
<td>Jenin, North</td>
<td>Mixed</td>
<td>175</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>School 12</td>
<td>1</td>
<td>2000 (new)</td>
<td>Public</td>
<td>North</td>
<td>Boys</td>
<td>450</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>School 13</td>
<td>1</td>
<td>1999</td>
<td>Public</td>
<td>Ramallah, Central</td>
<td>Mixed</td>
<td>290</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>School 14</td>
<td>1</td>
<td>2007</td>
<td>UNRWA</td>
<td>Jericho, Central</td>
<td>Girls</td>
<td>558</td>
<td>27</td>
<td>35</td>
</tr>
<tr>
<td>School 15</td>
<td>1</td>
<td>2007</td>
<td>UNRWA</td>
<td>Nablus, North</td>
<td>Boys</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>School 16</td>
<td>2</td>
<td>1959, 2003(new)</td>
<td>UNRWA</td>
<td>Ramallah, Central</td>
<td>Girls</td>
<td>460</td>
<td>25</td>
<td>26-33</td>
</tr>
<tr>
<td>School 17</td>
<td>1</td>
<td>2004</td>
<td>UNRWA</td>
<td>North</td>
<td>Boys</td>
<td>600</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>School 18</td>
<td>1</td>
<td>1999</td>
<td>UNRWA</td>
<td>Jericho, Central</td>
<td>Girls</td>
<td>760</td>
<td>33</td>
<td>26-31</td>
</tr>
<tr>
<td>School 19</td>
<td>1</td>
<td>1984</td>
<td>UNRWA</td>
<td>North</td>
<td>Girls</td>
<td>768</td>
<td>24</td>
<td>30-32</td>
</tr>
<tr>
<td>School 20</td>
<td>1</td>
<td>1996</td>
<td>UNRWA</td>
<td>North</td>
<td>Boys</td>
<td>800</td>
<td>35</td>
<td>35-44</td>
</tr>
<tr>
<td>School 21</td>
<td>1</td>
<td>2011</td>
<td>UNRWA</td>
<td>North</td>
<td>Mixed</td>
<td>525</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>School 22</td>
<td>1</td>
<td>2006</td>
<td>UNRWA</td>
<td>Hebron, South</td>
<td>Boys</td>
<td>500</td>
<td>21</td>
<td>32-41</td>
</tr>
<tr>
<td>School 23</td>
<td>1</td>
<td>2007</td>
<td>UNRWA</td>
<td>Bethlehem, South</td>
<td>Girls</td>
<td>600</td>
<td>-</td>
<td>34</td>
</tr>
<tr>
<td>School 24</td>
<td>1</td>
<td>1997</td>
<td>UNRWA</td>
<td>Bethlehem, South</td>
<td>Girls</td>
<td>600</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2: Schools Visited in August, 2012 with Building Count, Year, Type, Location, Gender, People Counts, Information Gathered through Interviews with Officials

The count of students per classroom is dependent on the number of teachers available and the number of classrooms in each building. Generally, the smaller the number of students, the easier it is for
a teacher to manage and focus on proper teaching methods. Architecturally, if a room is too small and
the size of the student group is too large this can lend to overcrowding, ventilation problems, and noise
issues. Data from field work will reemerge in the architectural analysis in chapter five. The next chapter
is the historical analysis, which looks at learning environments from the late-Ottoman era until today.
INTRODUCTION

Historically, the Palestinian education system in the West Bank has been fractured by religious, cultural, economic, political, and even spatial boundaries. Since the Ottoman era, a series of socio-spatial models have existed on the land: early agrarian-village, modern industrial town, post-1948 refugee camp, and post-occupation military enclave. As local politics transformed in parallel with changes of the many socio-spatial models, educationalists, policy makers and the general population have differed in their visions for the future of Palestinian youth and the role of education. These differences have influenced design goals by architects and engineers in the region, as well as community usage of educational spaces. This chapter will trace changing voices on education in Palestine, starting briefly with Islamic teachings in the late-Ottoman era until present-day policies attributed to each of the three school systems. Simultaneously, educational theory has developed as a reflection of global trends; and, it will be explored through the works of educational theorists such as John Dewey, Paulo Freire, and Palestinians like Munir Fasheh.

By chronologically studying the shifts in educational space, policy, and theory, I will show that during periods of relative political stability, educational communities deepened their independence of one another. The time periods that are being looked at are listed in the table below.

<table>
<thead>
<tr>
<th>Status of Hostilities</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>War / Instability</td>
<td>1914 – 1948</td>
</tr>
<tr>
<td></td>
<td>1967 – 1994</td>
</tr>
<tr>
<td></td>
<td>2000 – 2005</td>
</tr>
<tr>
<td>Transition / Relative Stability</td>
<td>1949 – 1966</td>
</tr>
<tr>
<td></td>
<td>1994 – 2000</td>
</tr>
<tr>
<td></td>
<td>2005 – Present</td>
</tr>
</tbody>
</table>

Table 3: The Stability-Instability Timeline Affecting Education in Palestine
During these times, construction flourished and locals utilized their own school facilities. During periods of instability under Israeli occupation, schools were either demolished or evacuated by military order, which led to temporary disembodiment of official school systems, cessation of school construction, and the introduction of home schooling. In these periods of turmoil, individual Palestinian communities were able to transcend their socio-spatial boundaries; education adapted to the challenge by becoming a tool for liberation, and the home was elevated to the status of learning environment. This adaptation demonstrates that architects and designers can expand learning environments beyond school wall boundaries when conceptualizing educational spaces in a conflict zone.
LATE-OTTOMAN ERA

Figure 3: Ramallah as a Village, 1918, Source: Palestine Remembered

Figure 4: Ottoman Empire in 1914, Source: Atlas of the Conflict
Foreigners administered the Palestinian education system from the days of the Ottoman Empire, when formal schooling first emerged, until the PA was established in 1994.²⁴

In the late 19th century, most of Palestine was organized into clan-based agrarian villages, with a small number of urban centers that were much more industrialized. Under Turkish control, the empire was divided into provinces called vilayets. This term comes from the Arabic word wilayah, which means, “that which is governed,” or province. The beginnings of formal and institutionalized education began near the end of the late-Ottoman era; the oldest system being the Islamic schools known as kuttub schools, then Christian schools, and finally public schools known as Sultaniyya.²⁵ Kuttub and Christian schools, located more in village areas, were founded on religious principles in which education was implemented to instill ideals of community, tradition, and spirituality. Religious education played a role in maintaining social organization, whereby religion served as supreme law in many villages. In Ottoman vilayets, starting specifically in the Jerusalem area, Sultaniyya schools were developed by the Ottomans in an effort to modernize communities for a new industrial economy. These early schools would serve as the foundations for public and private schools in the current Occupied Palestinian Territories. Understanding how these original educational systems and their building structures fit within the context of an early Palestinian landscape, prior to changes due to the 1948 Arab-Israeli war, will give an idea of shared ideals of school place that can be found across the three school systems of today.

In this same time period, theoretical work on education by John Dewey was being produced. Dewey, an American philosopher (1859 – 1952), published several works on education that address learning environments, such as Experience and Education, Democracy and Education, and Schools of Tomorrow. Researcher Jean Bernard in a 2012 publication placed Dewey into a category called

²⁵ There were also Jewish schools during this time period; however, they were absorbed under a Zionist organization and function within the present-day boundaries of Israel. They do not function under Palestinian jurisdiction.
philosophical education theory. This type of work, according to Bernard, was based on the similar principles of thinkers such as Confucius (551-479 BCE), St. Augustine (354-440), Jan Amos Comenius (1592-1650) and Jean-Jacques Rousseau (1712-1778). According to Dewey, “Education systems should endeavor to establish autonomous, intelligent environments that are expressly designed to influence the cognitive and moral development of children, ‘a purified medium of action,’ free of the negative elements of the broader society and therefore capable of becoming a laboratory for social transformation.” Thus, on a global scale, we learn from Dewey that morality is essential in developing youth to be positive members of society and that learning environments should be places where deeply cognitive processes are learned that encourage children to question the status quo. These learning theories are found to be relevant to the study of kuttub schools in the next section.

KUTTUB SCHOOLS

Kuttub schools, which were located inside or near the local mosque, taught basic literacy and Quran to an agrarian village society. The mosque sat adjacent to the local guesthouse or madhafah; and both structures surrounded the central square or saha, which was wrapped by living quarters and fields for agricultural production. Hania Nabil Maraqa explains that the saha was used as a gathering space for the village; its significance was established because of the amenities attached to it. The mosque being located on the saha indicates its centrality to community life in the late-Ottoman era.

27 Kuttub schools were common under the Ottoman Empire; however, previous Islamic eras in Palestine also had their own educational structures. Dating back to the Mamlukis, elaborately designed madrassas were constructed adjacent to local mosques. One of the first madrasas was Madrasa al-Ashrafiyya, completed in 1482 and commissioned by Sultan al-Malik al-Ashraf Qaytbay, was located on the Haram of the Dome of the Rock and Masjid al-Aqsa. Madrassa’s and other ancient schools will be omitted from this study, as many of them have been destroyed or only remnants remain. For more information on the architecture of Mamluki madrassas, see works by Michael Burgoyne, Robert Hillenbrand, Michael Meinecke, Yusuf Najm, Nitza Rosovsky, and Archie Walls.
29 Ibid, 42.
The placement of *kuttub* schools in the mosque is indicative of societal thoughts on the purpose of education at the time and, more specifically, the desired vision for youth. Professor M.A. Badawi at Egypt’s Al-Azhar University describes how success was defined in Islamic education: “achievement of the student in the traditional system was measured by the totality of the student as a person. His piety and moral conduct was regarded as of equal, or indeed superior, importance to his attainment in other spheres.” Furthermore, Badawi explains that traditional Muslim education worked harmoniously with other localized institutions in a dualistic manner, in that it both confirmed them and was reinforced by them. With the mosque being, “the heart of all religious activities…the apex of the whole system,” it would only make sense to place religious education within or near the mosque, making knowledge more easily attainable by the people.

*Kuttub* schools, and specifically the textual knowledge that was transmitted through teachings of the Quran, instilled social order in the spatial context of the village. There was a back and forth dialogue between Islamic education and the use of space in the village, in that Islamic prescription for timed prayers, gender interactions, and religious tradition were taught to individuals. Through an Islamic education, the community established its daily practices and maintained traditional values from generation to generation. Education assisted in the preservation of a communal memory; and, this memory was transposed on the spatial layout of the village, specifically in terms of spatial direction towards Mecca and activation of spaces for five daily prayers.

Governors maintained mostly independent control over their provinces under the Ottomans and had localized leadership, ownership of spaces, and localized social use of space. Education was not viewed as a legal obligation until new laws by the Ottomans were implemented in 1896 and 1913 that

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31 Ibid, 105.
made education compulsory for 12 years. However, localized power and weakness of Ottoman grip enabled clan leaders of villages and urban centers to mold education according to the desires of the community. While kuttub schools were significant in developing the spiritual knowledge of youth, there still remained a large population of the society that was illiterate, primarily those that were not of the elite. According to historian Rashid Khalidi, as restated by Seth Frantzman, “Even in towns, such as Jerusalem, it has been estimated that only one in every seven Muslim children had access to education.” The isolation of schooling to the mosque, which was a space reserved for men, also indicates the gender disparities at the time in regards to education. Because most of the schools were limited to men, women only obtained knowledge of religion through social interactions outside of the formal school place. Thus, Islamic education in Ottoman Palestine could be deemed as limited, both socially and pedagogically according to modern standards. Education did, however, serve to maintain local traditions, and it provided the society with a sense of communal memory lending to greater spatial ties to the local settlement.

CHRISTIAN PRIVATE SCHOOLS

In parallel to Islamic education, early Christian education existed in local villages throughout the region. While there had been a Christian presence in Palestine since ancient times, the establishment of institutionalized schools did not become common until near the end of the Ottoman Empire. The Greek-Orthodoxy, which was the dominant Christian denomination for Palestinian Arabs at the time, established the first Christian schools in Palestine. The schools under the Orthodoxy were poverty stricken and looked after by Greek monks who ran the property. Only a few of these schools existed due

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to limited funds, and the education of these earlier groups focused on providing basic education for the Arab laity.\textsuperscript{36}

Christian missionary societies arrived to Palestine, primarily from England; soon after missionaries from Germany, Scotland, Denmark, France, and other European countries followed. These foreign groups typically designed structures that reflected European building styles. For example French Frere boys schools were established in cities like Bethlehem, Jerusalem, Haifa, Jaffa, and Nazareth, and “...the buildings constructed were imposing structures that projected French power in the Holy Land.”\textsuperscript{37}

The arrival of Christian mission groups to the Holy Land was an important step for European nations, and school buildings were symbolic expressions of that power. Palestinian educator and theorist Munir Fasheh explains that these schools were, “…effectively working to gain ‘converts’ to their respective cultures” and religions.\textsuperscript{38} According to Frantzman, when these missionary groups failed at converting the people, they began to establish schools and other services for local Arabs.\textsuperscript{39}

By 1860, there were seven Anglican schools in operation, and in 1895 there were 47 Anglican schools. These schools were located in many villages that were adjacent to Christian Holy Sites, such as, Jerusalem, Haifa, Nazareth, Nablus, Ramallah, and so on. Many of these schools would turn into local colleges and community schools over time.\textsuperscript{40} The schools also served both Muslim and Christian families, a tradition of private schools that would extend until the present-day. Thus, even though Christian missionaries came early on to bring change to Arab society, they quickly established themselves and embraced local groups.\textsuperscript{41}

\textsuperscript{36} Ibid, 190.
\textsuperscript{37} Ibid, 194.
\textsuperscript{39} Ibid, 190.
\textsuperscript{40} Ibid, 191.
\textsuperscript{41} Ibid, 193.
The Friends Quaker School in Ramallah (short “Friends”), established in 1869, is among the most enduring of the early Christian schools of Palestine. The Friends has a unique story in Palestine and is known today on a global scale for its historical work. The school was first established as the girls’ Hope School with 20 students, in the residential area of this early village.42 This school served a diverse community, both Muslim and Christian groups, and had two buildings for boys and girls. The first constructed structure was a traditional Palestinian stone house that expanded overtime into a school building.43 The Friends school was connected to an international network of other Friends schools, including in New England. They received financial support through these connections, and soon expanded into a boarding school with housing, kitchen, dining hall, and an adjacent meeting house. Girls from all over Palestine were invited to study at the boarding school. Eventually, Friends would come to educate many influential Palestinians, such as the politician Hanan Ashrawi.

Friends Girls School was unique in that it offered a progressive type of education system that transcended village boundaries. Ramallah, being an agrarian village with a population of 3,000 by 1889, was soon connected to a larger Palestinian and global grid. It was typical for Palestinian Arabs at this time to travel solely for religious pilgrimages; however, for people, especially girls, to travel for the purpose of education was a pioneering idea. Seeing these advancements, the Christian Endeavor Union of New England agreed to establish a Friends Boys School and collected money to donate towards its creation.44 The second school also started out of local Palestinian homes that sat near the Girls School. In 1905, new land was purchased out of the neighboring residential village of El-Bireh; and, in 1914 a two-and-a-half story stone building was erected. The school’s construction would come right at the

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43 Ibid, 18.
beginning of World War I, and so it would not get to enjoy the same quick and early success as the Girls’ School.

Unlike the kuttub schools, Christian education had to be more flexible in its curriculum because it typically served a larger Muslim population. Christian schools’ pedagogical style was established in European roots but melded with local subjects taught by Arab intellectuals. Thus, the Friends School also underwent similar changes after its establishment. Established when the city of Ramallah had a significant Christian population, the demographics and likewise socio-spatial settlement around the school changed over time. With a changing village, it became difficult to maintain a curriculum that was focused solely on Christian ideology; the Friends School therefore slowly secularized over time.45

OTTOMAN PUBLIC SCHOOLS

Finally, Ottoman public schools, called Sultaniyya, were established in major urban centers starting with the Jerusalem area. These were typically secondary schools and were part of the foreign government’s attempt, “at reforming the empire financially, legally, and militarily.”46 Nicolai notes that these schools were an imposition of Turkish culture and even taught in the Turkish language.47 Dewey spent some time in Turkey in 1924, after being invited by Mustafa Kemal (Ataturk). Dewey was asked to, “...make proposals to establish a democratic culture by the way of public school; to democratize the education of children; and to train the ‘army of teachers’ in accordance with the democratic principles.”48 While Dewey’s trip would come after the fall of the Ottoman Empire, some of his criticisms of the education system could be applied to the Sultaniyya schools established during modern-Turkish reign in Palestine. Dewey was critical of the lack of unity in Turkish school systems; however, he did not

46 Ibid, 189.
propose a type of uniformity. Rather, Dewey stated that, “...only by diversification of materials can schools be adapted to local conditions and needs and the interest of different localities enlisted.” One could postulate that the modern system used in today’s Turkey was a similar set up to what was established in Palestine by the Ottomans, where local traditions and the interest of localities were being denied in an effort to modernize and industrialize Arabs. *Sultaniyya* schools would remain on the land for some time, and would eventually be absorbed by the public school system of today.

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Figure 5: 1922 British Mandate for Palestine, Source: Atlas of the Conflict
As World War I began in 1914, Ottoman troops prepared for battle, and school facilities were utilized by the forces as forts. This became common for many of the schools in Palestine, such as the Friends School in Ramallah. After the construction of the Boys School in 1914, troops invaded the schools, forcing them to close their doors to students and teachers. The kitchen and dining hall then became stables for horses. After the defeat of the Ottomans, British forces soon occupied the Friends meetinghouse as a canteen. Throughout the war years, local Friends Quakers continued to meet regularly at the homes of Elias and Emily Audi. In October 1919, the schools reopened, and the Girls School continued as before. However, teachers at the Boys School did not return, and new staff was hired with assistance from Friends members from New England. Schools would continue to be affected by and participate in wars and political turmoil for the next 90 years, whether in the use of their infrastructure by combatants, by their production of politically aware activists, or by their destruction due to violence.

In 1917, with the fall of the Ottoman Empire, Palestine came under the control of the Allied Powers. By 1918, power transferred to British military control, and in 1920 transferred a third time to British civil administration. In the midst of these power moves, in 1917 the Balfour Declaration proclaimed that Britain “supported a Jewish homeland as long as it would not affect the rights of the existing Palestinian population.” The Declaration’s requirement that Palestinian life not be transformed would soon be ignored with the growth of Zionist ideology. The Declaration would come to be the international document that paved the way for the birth of the State of Israel. Palestinian locals, who had become accustomed to a local way of life, were soon faced with large waves of Jewish

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populations immigrating to the land, which would cause tensions in Palestine. As explained by Amiry, the influence from many internationals during this time period led to significant changes in the economic, spatial, and cultural orders of Palestine. In terms of architecture, new building techniques and innovations began to appear, moving away from more traditional Islamic styles towards more modernized and standardized structures.  

Under the British Mandate period, the school system drastically expanded in number. Most villages and urban centers had their own public schools; and traditional kuttub schools were absorbed into the public schools. Despite these changes, the public school system did not transform much in its curriculum and pedagogical approach. Minor changes, such as switch of the language of instruction from Turkish to Arabic, were made. By the end of the mandate period, more than one quarter of children were enrolled in school. Between 1933 and 1946, student enrollment rose from 6,986 to 21,268 students. Not enough schools were available for the growing student body, and acceptance rates in urban schools averaged only 50 percent. Under the British, the secondary school system was expanded in an effort to graduate more teachers for primary schooling. “The end of the mandate in 1947 left a legacy of expansion, centralization, limited resources, and an imported curriculum.” Ali Jarbawi, political scientist and professor, was cited by Nicolai as saying:

“Education has always been used as a political tool here. During the Mandate period, British used formal education to produce an elite. Under the Jordanians and the Egyptians, the Palestinian community was only rarely considered, while education focused on nationalist causes. And with the Israeli occupation from ’67, the curriculum was censored; with historic references to our land – even back to the time of the Crusades – were all changed to say Israel.”

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55 Ibid, 32.
56 Ibid, 32.
57 Ibid, 33.
From this point forward, education became part of an ideological battle; local communities sought to use education for their own needs, while authorities, like the British, sought to use education as a tool for their political and economic agendas. Locals began to see education as a means for social advancement as political tension and turmoil on the land intensified. These notions would lay the foundations for future grassroots mass movements, specifically the Intifadas of 1987 and 2000. These views were in opposition to the desires of the British powers at the time, and the other authoritarian bodies soon to follow.

\[59\] Ibid, 32.
The British Mandate period came to an end in 1947, when the British civil administration announced the termination of its reign. In 1948, Jewish leaders declared the state of Israel, and the Arab states retaliated militarily.\textsuperscript{60} The Arab-Israeli war of 1948 is known by Palestinians as the \textit{Nakba}, or catastrophe, referencing the loss of land.\textsuperscript{61} An armistice was reached in 1949; but, Palestine had changed significantly with Israel taking over most of the territory under the British Mandate, the state of Jordan taking over the West Bank up to East Jerusalem, and Egypt taking over Gaza.\textsuperscript{62} Education systems and their curriculums were controlled in each of the territories by the occupying nation.\textsuperscript{63} During this time, we see the emergence of a new school system: the refugee or UNRWA school. Three school systems by this point existed within Palestinian Arab communities: private schools, UNRWA schools, and public schools. While private schools were most intimately administered by local Palestinians, UNRWA schools were run by international educators and policymakers, and public schools fell completely under foreign control. Each system functioned in a manner that best served its own population according to their geographic, economic, cultural and political statuses. With the end of the British Mandate and the newly established geo-political framework of the land, education and its learning environments began to reflect national ideologies. New governments would find that education could provide the platform for developing the community’s collective sense of national allegiance.

Public schools that were established during the Ottoman Era and existed in the West Bank came under Jordanian jurisdiction. The education was free of charge and had an elementary cycle with grades 1-6, a preparatory cycle with grades 7-9, and finally a secondary cycle with grades 10-12. Students in

\textsuperscript{60} Ibid, 33.
\textsuperscript{63} Former Arab schools that exist within present-day Israel are not included in this research. Schools that had existed in villages that were destroyed during the Nakba were probably also destroyed or appropriated by Israel.
grades 10-12 would complete their studies with a matriculation exam called the *Tawjihi*. Public schools in Gaza fell under Egyptian rule, stopped at grade 11, and followed an Egyptian curriculum. Nicolai and others have criticized the school systems under Egyptian and Jordanian regimes of the time, in that they taught Palestinian children in a nature that supported their individual national and state agendas. “Palestinian identity, culture, and history were largely absent from the curriculum, with students devoting [more attention to] ‘Phaoraonic Egypt and the Hashemite leadership of the Arab revolt than to their particular history.’” Thus, Palestinians at this point still had no concept of their own sense of nationalism, and this was indicated by its omission in educational curriculum. However, the formation of a collective Palestinian national identity, in the modern sense of the term, would flourish in refugee communities.

In 1948, after the Arab-Israeli War, major shifts occurred on the land, where whole villages were depopulated and people were displaced, creating what would become one of the largest refugee populations to date. Palestinian refugee camps appeared in the West Bank and other Middle Eastern nations in the region as depicted in the next image.

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65 Ibid, 34.
From classroom doors slogans in Arabic on blackboards are visible: ‘We shall never forget Palestine.’ ‘We shall never accept any other national home.’ The reading room displays a large map of Palestine with a legend above it: ‘The Holy Land, which was lost cheaply, will not be restored without bloodshed of the new generation.’

The original count of the refugee population was at approximately 700,000. Refugees were defined as those people who were residents of Palestine, and who had now lost their homes and means of livelihood, rendering them needy. Those refugees that were displaced to Jordan, Syria, Lebanon, the West Bank, and Gaza would, in 1948, fall under the supervision and care of a temporary UN branch called the United Nations Relief for Palestine Refugees (UNRPR). By 1949, as voluntary efforts in this branch came to an end, the United Nations Relief and Works Agency for Palestine Refugees in the Near

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67 Bocco, Riaccrdo. “UNRWA and the Palestinian Refugees: A History within History.” *Refugee Survey Quarterly* 28, no. 2,3, 2010, 229. This number is often debated and is different according to the source.
East, eventually referred to as UNRWA, was established. UNRWA was responsible for assisting with development projects that could improve refugees’ living conditions, as well as providing educational, health, and social services in the camps.\textsuperscript{69} Benjamin Schiff has described “UNRWA as a state for the stateless people within a territory of another state.”\textsuperscript{70}

The United Nations, initially establishing UNRWA tent schools as depicted in the image above, supported an education system that has served three generations of refugees since their inception in the early 1950s. UNRWA, in its formation, had significant assistance from the international community. This came in the form of experts from many disciplines as well as funding. UNRWA received its funding from voluntary contributions, and by 1958 its total income was $34,191,457, which came from 28 member nations of the United Nations, four non-member nations and some miscellaneous sources. From UNRWA’s 1959 budget, $33,400,000 was for basic relief and education programs. In 1958, UNRWA spent $6,000,000 on education.\textsuperscript{71}

Over time, the refugee community began to participate more in several of UNRWA’s offices. This participation was due mostly to the education that refugees received from a young age through UNRWA. After completion of an UNRWA secondary education, many would eventually return to UNRWA.

\textsuperscript{70} Ibid, 86.
as educators, architects, policy-makers and so on. Robert Faherty, in a book written in 1959 on UNRWA schools, explains that, by 1959, nearly all teachers in schools are already refugees. UNRWA schools, as opposed to already established public and private schools, were born out of the war and represented education as a tool for liberation. This is generally echoed in the voices of refugee students and communities, where they express the significance of education in the midst of occupation. Faherty explains that education was viewed as a human right by refugees and UNRWA officials: “They have regained, and possess now in actuality, the theoretical human right to education.”\(^{72}\) For the first time, education became integral to a Palestinian cause and a humanitarian crisis. Education, through UNRWA, gave refugee communities a sense of optimism for a future that involved a return to the homeland – it gave people hope. This type of positive vision was instilled mainly from teaching staff and principals who were also refugees. Faherty described what he observed in refugee schools in 1959: “At this moment, as in past years, the Arab refugees’ schools help them to see some kind of forward path: learning is light, says their own legend on their black-boards.”\(^{73}\)

This type of voice would be echoed on an international scale by other educational theorists such as Paulo Freire (1921-1997). Jean Bernard placed Freire under a category of ideological education theory where, “...critiques of educational systems [are] explicitly concerned with education as a means to achieve social and political change or as a lever for economic development, national achievement and/or personal advancement.”\(^{74}\) Freire, in his book entitled *Pedagogy of the Oppressed*, proposed replacing existing ‘banking education’ with ‘liberation education,’ essentially enabling students to be the catalysts for social and political change. The term ‘banking education’ implied that education systems treated students as empty vessels in which educators deposited knowledge, disabling students from

\(^{72}\) Ibid, 7.
becoming critical thinkers and fighting oppression. In the case of the Palestinian refugees, the question of a future becomes significant, specifically, a future that involves returning to former villages and homes.

UNRWA, since the early 1950s, has provided students with primary and secondary education until the age of 16. After that, students had the option of entering UNRWA vocational education or completing a secondary education through local governmental schools or private schools. By 1959, there were 380 UNRWA-UNESCO schools in all areas of operation: Jordan, Lebanon, Syria, Gaza Strip, and the West Bank.75 Curriculum was identical to that of the host governments, including books and study materials. Refugee students who entered government and private schools in the Jordan region, or present-day West Bank, if successful in their tawjih, or matriculation, exam could be awarded UNRWA scholarships to attend university.76

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76 Ibid, 68.
Buildings were originally designed in the mid-late 1950s to serve different courses: Arabic, arithmetic, English, history, geography, science and over time began to include handicrafts. The decision to add handicrafts to curriculum was controversial, as it was seen as a Western construct and had little benefit to a typical and traditional Palestinian economy. However, over time it was accepted and came to be seen as an auxiliary stimulant to history, geography and literature. Thus, with new school designs, handicraft units began to appear near the schools. In smaller camps, handicraft units were one-story structures laid out in a T-form with three classrooms. Larger camps had H-form five classroom layouts. Classes inside the handicraft units included: metalwork, technical drawing and woodwork. These handicraft units were not viewed by staff as pre-vocational training, but rather an, “... an element of educational psychology, with bearing on character development; it has voluntary motivation and concreteness in achievement.”

Both camp environment and school place function hand in hand, in that children occupied both spaces on a daily basis. Palestinian camps varied according to their geographic locations. Depending on differences in economy, climate, and even psychological strain, UNRWA varied its ration awards. These economic differences had impacts on students in terms of funding of basic necessities, such as clothing, school materials, and transportation. If a camp was located close to an already functioning town or village, they typically shared amenities, and refugees often entered other towns for work.

UNRWA often rented space out of existing structures for schools. Some structures were as old as Roman times, and others were partial structures that remained after wartime destruction. At this point in UNRWA’s development, it was more concerned with providing education in an emergency.
response situation. In these early stages, funding was scarce and it was able to tap into resources on the land. Some camps were established near historically religious towns like Bethlehem, right up the road from sites like the Basilica of the Nativity. In complete opposition to the sacred architecture, camp housing sat in the form of crude shelters and tents; while UNRWA continued to construct large-scale refugee schools. Some camps were established in lands that were previously untouched, such as in the east bank of Jordan. Families that previously worked as peasant farmers began to cultivate the lands for agriculture (students would sometimes drop out of school in order to help their families with harvest work). In these places, UNRWA sought out small buildings for schools and had to find teachers willing to live in remote villages with fairly limited infrastructure. In camps that were extremely separated from society, such as those under the harsh conditions of the Jordan Valley, UNRWA sometimes rented village homes for schools – mud-brick structures to keep cool in the summer heat.

Faherty, after visits to 71 UNRWA schools in 1959, gave descriptive accounts of what he observed. Infrastructural problems of the camps at the time seemed to play just as significant a role in his descriptions, as did the state of school buildings.

Small children are playing in the road, their skirts covered with dust, and there is an elder mounted on a donkey that is carrying heavier burdens in sacks; at one side are the usual service buildings of an UNRWA camp – low white masonry structures, the feeding and milk-distribution centers, clinic, health office. Then the school buildings, an irregular group, rectangular, yellow-painted, some of one story, some of two, facing the sunlit sea at a distance of seventy-five yards.

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83 Ibid, 48.
84 Ibid, 26.
Faherty’s description is of a mountain refugee camp and its schools in Lebanon. Already, by 1959, there were three individual schools in this camp serving 896 boys and 301 girls. These schools were gender mixed at the time, due to economic difficulties; however, this typically would not have occurred according to gender separations as determined by Islamic traditions. Also, most UNRWA schools throughout the Middle East at this time also suffered from fly infestation, leading to common cases of malaria in camps.\textsuperscript{86} Students were also accustomed to traveling long distances to schools in several camps, some over 10 miles a day – making use of this time to read from their class books.\textsuperscript{87} Faherty described a primary school building that was constructed quickly and early on, in order to get schools out of tents. Poor building quality led to roof and window leaks during rainfall and cold drafts in the winter. Windows were broken, the doors were flimsy, and the overall building appeared to be diminishing in quality at a rapid pace. The classrooms he described were much smaller at this time, with two rows of benches filled with 50 boys and girls.

Already by 1959, UNRWA began constructing more permanent structures across many Palestinian refugee camps in their areas of operation. Some refugees expressed hesitation because they believed this would lead to resettlement and the denial of return; however, UNRWA continued its expansions. In newer school designs, usually of two-story structures, the school grounds increased and included annex buildings and a courtyard. The main school structure was often formed of local stone, had glass-paneled doors, larger windows, and railed balconies. Inside, schools had on average, 14-20 classrooms – still too small to serve an entire community, requiring the schools to function on a double-shift schedule. When schools first opened, there could be up to 100 students per classroom; however,

\textsuperscript{85} Ibid, 12.  
\textsuperscript{86} Ibid, 28.  
\textsuperscript{87} Ibid, 31.
as staff reorganized rooms and students moved away or dropped out, the count could drop to 50 on average. These would be temporary fixes, though, as a new generation born in the early 1950s soon joined the schools. Administrative storage space in the building served the principal, teachers, cleaning staff, and even students. In camp homes, teachers and students did not always have space to store notebooks and homework materials; therefore, the school building also shared its limited space for home materials.

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88 Ibid, 21.
89 Ibid, 21.
ISRAELI ADMINISTRATION (1967 – 1987)

Figure 10: Ramallah as a Town, 1967, Source: Atlas of the Conflict

Figure 11: 1967 Palestine, Refugee Displacement, Source: Atlas of the Conflict
In June 1967, the Six-Day War began and eventually resulted in Israel conquering the West Bank, Gaza, East Jerusalem, the Golan Heights and the Sinai Peninsula. The ceasefire line that was drawn after the end of the Six-Day War would come to be known as the 1967 borders. In 1968, the Palestine Liberation Organization (PLO) was formed with Yasser Arafat as its leader. The PLO retaliated and fought against Israel for several years. The 1973 Arab-Israeli war was launched by Egypt and Syria, and eventually the Camp David Accords established peace between Israel and Egypt in 1979. In 1982, Israel invaded Lebanon to dismantle the PLO, which was based there. From 1967 until 1987, the West Bank and Gaza were under total Israeli control and were officially known as the Occupied Palestinian Territories. The education system fell under the control of the Israeli Military Governor until 1979. After the signing of the Camp David Accords, Israel established a civil administration and created the ‘Office of Education for Judea and Samaria’ (Israel’s name for the West Bank). This office reported to the military and was staffed by military personnel.90

Palestinian life under occupation led to significant changes in Palestinian nationalism and political consciousness; and, education played a heavy hand in developing these transformations. Significant Palestinian development took place in the 1970s, with the establishment of institutions like universities, unions and professional associations. In 1978, the notion of sumud, or steadfastness, became integral to Palestinians in the Occupied Territories. “The idea of sumud was not only about building institutions for a future state, but also about Palestinian identity, resistance, and survival as occupation became more consolidated and repressive.”91 Universities and other institutions with political aims were heavily monitored and controlled by Israeli authorities in an attempt to prevent the growth of Palestinian nationalism. Schools in the private, public, and UNRWA systems did not receive

the same amount of closures and interferences from the Israeli military; however, youth experienced social and cultural shifts in their society as sumud intensified. Sumud remained strong in areas where national institutions existed, primarily in urban towns. Furthermore, the notion of sumud was prevalent primarily among elites and intellectuals, and it was not manifest in all levels of society, primarily omitting the poor and refugees.

Under Israeli control, school quality gradually decreased, funding requirements were not met, and construction came to a virtual halt. By 1982, approximately 78% of the youth population in the West Bank was attending government schools at the primary, preparatory and secondary levels. According to studies done during this period, only 53% of schools had libraries and 47% had laboratory facilities. Inside public schools, the Jordanian and Egyptian curriculums were maintained, and maps and books were censored of any reference to Palestinian heritage and geography. Concurrently, the international community began to pay more attention to the state of education in Palestine at the time. Charitable societies, NGOs, women’s groups, religious organizations, and political parties began to provide non-formal education.

Palestinians saw these alternatives to formal education as an opportunity to make up for the shortcomings of the recognized system. These efforts, as one observer remembers, were generally developed with a mandate to deliver services ‘during a period when the Israeli civil administration was letting our society crumble.’

Thus, where an official public education was now failing Palestinians, a non-formal education system emerged. By now, we see the complete transformation by Palestinian general society of their vision for education. For Palestinians, including refugees, education was now a human right and was to be

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92 Ibid, 35.
93 Lang, Erica. The Occupied Territories: Destruction or Development? Wales: Center for Development Studies University College of Swansea, 1990, 20.
94 Ibid, 36.
95 Ibid, 36.
delivered no matter what the circumstances were. This contrasts significantly with Palestinian society in the late-Ottoman Era. However, it is interesting to note that while thoughts on education changed, informal education seemed to be the best solution in the midst of war. Ultimately, in a grassroots approach, the people, whether by choice or force, reverted to more localized and community led education. The traditional school place was no longer suitable, and other locations were considered to allow for an education that was more pertinent to their situation.

Furthermore, under the occupation even school buildings could not protect youth from violence. “All children experience violence of some kind and many experience arrest, imprisonment, demolition of homes, and imprisonment and deportation of relatives... ‘Schools have become one of the centers of conflict between Israeli soldiers and youngsters.’ Closure of schools by the military authority is periodic. This environment is not conducive to study.” School buildings, because they represent spaces dedicated for children, are usually symbolic of safety and no-danger zones. However, in the case of war, no building is exempt. This becomes significant in understanding how a society envisions safety for its youth, and what spaces instill feelings of comfort. Does being at home, and ultimately closer to the family unit, impart a sense of comfort and safety? For parents, having children in close range and clearly visible may be a better solution in a conflict zone. Thus, educational environments, as seen through Palestinian history, have needed to maintain a sort of flexibility between private residential and public institutional spaces.

96 Ibid, 21.

By 1987, the country had transformed significantly. Israel had established a system of restrictions that controlled most aspects of Palestinian life. The general population in the Occupied Palestinian Territories had reached a turning point and mobilized together. Palestinians united for the first Intifada, or mass uprising, against the Israeli occupation that was mainly non-violent in nature.97 Some of the same themes of Palestinian self-consciousness and national recognition are similar to those that were established in the 1970s under occupation; however, rather than remaining tied to institutions and certain members of society, the Intifada now included all groups and distinguished itself in scale and character. During the Intifada we saw the participation of women, youth, and refugees in the camps and villages in popular demonstrations. Lang attributes this shift from elitist to all inclusive self-consciousness to the establishment of popular committees and informal organizations that represented less vocal groups. Spatially, the Intifada touched all parts of the Palestinian Occupied Territories in Gaza and the West Bank – camp, village, and town. This becomes significant in that every member of society is now united under a specific cause. “Relationships between families and neighbors were strong and co-operative, and Palestinians were collectively directing their anger against Israeli occupation.”98 It must be recognized that, while the Intifada was an opposition to the occupation, it was also a significant step in Palestinian societal and civic development.

During the Intifada, UNRWA schools were closed for quite some time. UNRWA’s internal contradictions as both a temporary and permanent organization, as well as being under international control but locally staffed, made UNRWA inflexible and unable to respond to the conditions of the

97 Ibid, 41. Lang clarifies that in a study done by the Palestinian Center for the Study of Non-Violence (PCSNV), all activities of the Intifada were documented and included: strikes, creation of alternative institutions, withholding taxes, boycott of Israeli goods and employment, resignations from Israeli positions, refusal to pay fines and so on. The study concluded that, “Violent confrontation played an insignificant role in organized community resistance to Israeli occupation.”
98 Ibid, 43.
Intifada. Public and private schools also were forced to shut down for periods ranging from several days to months. School infrastructure was left empty or was taken over by the Israeli military for camps and detention centers.

Palestinians involved in education played their role in the Intifada by establishing a parallel system of popular education. All three school systems, public, private, and UNRWA, worked together to establish informal school programs with the assistance of local neighborhood committees. These committees worked with the school systems to establish spaces of learning at home or in religious structures. Teachers would prepare take-home lessons for students and worked as volunteers in their own neighborhoods. The Israeli administration did not respond well to popular education practices, and they were deemed illegal. If participants in home schooling were caught, they were harassed and subject to arrest, and they were liable to be jailed for up to ten years and/or fined up to $5000. While this form of education became significant in national and social ideological practices, critics claimed that academic standards dropped quite drastically and for a long-lasting period of time. However, others viewed this resistance-led education as the establishment of a “giant educational laboratory” that challenged traditional modes of thinking in regards to educational pedagogy.

Palestine had made it on the map, and the Intifada had received much media attention. There was a large shift in donor assistance and funding from western and Arab sources. This was a significant shift in terms of the role of international players in the region. The Education Network was established during the first Intifada. The Network served as an umbrella organization for all educational NGOs that

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101 Ibid, 37.
102 Ibid, 37.
had grown in number during the uprising. The Education Network wanted to, “pose alternatives to
traditional educational methods... These progressive ideas were somewhat at odds with the education
plans of the PLO and its emerging political leadership.”¹⁰⁵ Much like the ideological battles we saw prior
to the 1948 Arab-Israeli War, Palestinian mass society and leadership could not agree on educational
pedagogy and theory.

Historically, authoritarian bodies in the region, whether Ottoman, British, Egyptian, Jordanian,
Israeli, or the PLO, have imposed their own ideals and desires for educational pedagogy and purpose on
Palestinian society. The use of education for economic and political purposes is accepted when
individuals’ rights are not significantly threatened; however, whenever with oppression, Palestinian
communities shift to informal and non-traditional forms of education and almost always utilize other
spaces for learning. The maintenance of education in times of significant turmoil is seen as a mechanism
for resistance, and we see the work of Paulo Freire come to life.

1994
Internal borders are defined between Israel and the future Palestinian state as a wall is erected around the Gaza Strip.
In 1993, negotiations between the PLO and Israeli Prime Minister Yitzhak Rabin led to what is now referred to as the Oslo Accords. Under the agreement, the Palestinian National Authority was established and brought an end to the first Intifada. As a consequence of the Accords, Israel established special zones, or enclaves, throughout the Occupied Palestinian Territories. These enclaves would soon be compared to the bantustans of apartheid South Africa. Architect and academic Sari Hanafi, refers to the division of Palestinian territory in such a manner as ‘spaciocide.’ According to Hanafi, Israeli occupation does not disseminate genocide with the killing of people, but rather the killing of space with the ultimate goal of encouraging a Palestinian exodus.106

These enclaves are divided into categorical zones A, B, and C. Zone A is under total Palestinian control, zone B has mixed Israeli and Palestinian control, and zone C is under complete Israeli control. Roadways, boundaries, and checkpoints have been installed that are under total control of the Israeli military. Since the establishment of the zones, it has been difficult for the Palestinian Authority to develop infrastructure across these military boundaries. Zones A and B have significantly grown in urban development, but cannot expand beyond their boundaries. These divisions have isolated Palestinian development and construction to the areas in which they are confined, producing a vertical world of subsoil and airspace development. In an interview with an official at, an NGO in the West Bank, school development has also had to turn to underground construction, especially in places like Jerusalem where Israeli control has tightened significantly.107 These types of construction methods are considered illegal under Israeli occupation and military law, and these conflicts are elaborated upon in “The Politics of Verticality,” by Eyal Weizman.108

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With the birth of the Palestinian Authority, we saw the emergence of the very first Palestinian educational ministry, the Ministry of Education and Higher Education (MOEHE). Education Minister Yasser Amr made the decision to open schools three days after the transfer of power from Israel to the Palestinian Authority. However, Israeli officials did not transfer information about the schools, including teachers, school building locations, property ownership, student attendance, and so on. New members of the education ministry traveled to each of the districts in an attempt to find administrative staff of local schools. “This meant that we became owner of the property and employers of all the teachers. But we didn’t know where the schools were, or how many staff we had,” said Khalil Mahshi one of the first members of the MOEHE.109

The MOEHE faced a significant issue, how to approach the fragmented nature of the geography, with Gaza and the West Bank completely separated from one another, and the many enclaves within the West Bank. New barriers, settler roads, and checkpoints would come to make traveling to school on an everyday basis extremely difficult – for both students and staff. The MOEHE attempted to symbolically overcome this by developing a national, Palestinian public education system in terms of curriculum and organization – completely omitting refugees from the scheme. Author Nubar Hovsepian, in his book entitled Palestinian State Formation: Education and the Construction of National Identity, criticizes the Palestinian Authority’s approach in how they reference a new paradigm for Palestinian identity. According to Hovsepian, the Palestinian Authority defines its citizens according to territory, thus excluding the refugees and omitting them from a Palestinian right to education.110

The MOEHE was determined, with the assistance of international NGOs, to update the education system, as it was seen “as an outdated, second-hand amalgam from other cultures.”111

However, Hovsepian criticizes the Palestinian Authority’s eventual curriculum in that it follows Paulo Freire’s banking education approach as defined earlier in this chapter. The curriculum that was agreed upon by the Palestinian Authority was actually a censored version of what was known as the Abu-Lughod plan, prepared by Ibrahim Abu-Lughod. Abu-Lughod spent most of his life in exile and eventually earned a doctorate from Princeton University. Abu-Lughod is significant in the history of Palestinian intellectuals and activists and has been praised by such thinkers as Edward Said.112

Abu-Lughod “believed that education can best be seen as, ‘the agency [vehicle] for the promotion of the development – of the child and the nation – and one which can contribute to the cultivation of a civic culture,’” that promotes not only democracy and free thinking but a democratic and deliberative method of achieving these goals.”113 Abu-Lughod’s plan involved promoting the design of local spaces that enhanced the teaching and learning experience, while working within new domestic standards that were consistent with international standards. Part of Abu-Lughod’s process for developing a new curriculum and initiating pedagogical reform included a series of town meetings in the West Bank and Gaza. This was the, “first time in the history of educational planning in the Arab World, [that educational planning] emerged from the bottom up following extensive consultations with teachers, students, parents, academics and members of the business community.”114 Abu-Lughod sought to develop a new type of critical pedagogy that encouraged cross-disciplinary learning and was more applicable to Palestinian local life and instilled in students the desire to self-reflect.

It is significant to note that while this type of thinking existed in Palestine and was considered in the early stages of the MOEHE’s formation, it was not adopted by ministry officials. The plan that was eventually agreed upon by the MOEHE could be, “seen as a mechanism for the transmission of

114 Ibid, 165-166.
knowledge, authority and values...restored the centrality of religion in the curriculum... and asserted
that Palestine is a democratic peace-loving state. That it is not yet a state, nor democratic, is simply
ignored.”\textsuperscript{115} Therefore, as opposed to Abu-Lughod’s plan which encouraged creativity and critical
thinking, the MOEHE’s plan still adopted much of the framework of previous authorities with the façade
of being truly Palestinian. Furthermore, Hovsepian points out that, in public schools, symbols of
resistance and liberation were being omitted from the scene, and a new era had emerged that
celebrated a new mechanistic democracy.\textsuperscript{116} This type of symbolism will be discussed in Chapter 4 in an
analysis of contemporary public school architecture.

Before long, Palestinians were upset with the Palestinian Authority’s new policies and education
plan. According to Nicolai, progressive leaders who had played a role in educational reform in the first
\textit{Intifada} wanted to see change in the MOEHE’s work. Also, tensions grew between the Palestinian
Authority and NGO groups that had been assisting in the region and had been receiving international
donor funding for quite some time. “The Palestinian Authority sought not to destroy NGOs but to bring
them into line; the NGOs sought not total independence from the Palestinian Authority but merely
autonomy and a willingness to use state authority to support their work without dictating it.”\textsuperscript{117}
Eventually, by 2002, there would come to be 926 Palestinian NGOs, with 76% based in the West Bank
and 24% based in Gaza. This growth in international attention really flourished after the Oslo Accords
due to official legitimization and global recognition of Palestine.\textsuperscript{118}

The MOEHE developed a five-year plan with support from UNECSO’s International Institute for
Educational Planning (IIEP). It was based on five developmental principles, “with education as a human
right, the basis for citizenship, a tool for social and economic development, the basis for values and

\textsuperscript{115} Ibid, 174.
\textsuperscript{116} Ibid, 186.
\textsuperscript{118} Ibid, 52.
democracy, and a continuous, renewable and participatory process.”\textsuperscript{119} The plan, which targeted years 2000-2005, had five goals:

\begin{quote}
Goal 1: To provide access to education for all children
Goal 2: To improve the quality of education
Goal 3: To develop formal and non-formal education
Goal 4: To develop management capacity in planning, administration, finance
Goal 5: To develop human resources across the education system.\textsuperscript{120}
\end{quote}

From these goals, the one that most directly affected school building infrastructure was Goal 1, in that the MOEHE needed to build more schools to make more space for students. Costs for implementing the plan were estimated at US$1.5 billion. Donor support averaged over US$200 per capita in aid per year, and from 1994-1999, “about 92% was directed to the government apparatus, the Palestinian Authority, and the rest to civil society organizations.”\textsuperscript{121} Aid agencies sought to consolidate the peace process. They were thus involved in more developmentally oriented projects that had overarching political objectives. Construction of schools was, therefore, largely financed by external donors as this was a very tangible mode of assistance that visibly symbolized societal growth under a new authority.\textsuperscript{122}

Khalil Mahshi reflected on the role of donors and categorized them into three groups, “donors with ready-made projects in mind, donors seeking to know what the Ministry’s priorities were before releasing funds, and the destructive group that included companies who wanted you to sign separate agreements.”\textsuperscript{123} When MOEHE agrees to work with a donor, they are obligated to follow the donor’s procedures and regulations. This becomes clear in the design of public schools in terms of their programmatic functions, design standards, and quality standards. Over time, though, the MOEHE developed standard designs; but these only became available with the passage of the 2000 Palestine

\begin{footnotes}
\textsuperscript{119} Ibid, 56.
\textsuperscript{120} Ministry of Planning (MoPIC). \textit{Palestine Assistance Monitoring System (PAMS)}. Ramallah: Ministry of Planning, 2005.
\textsuperscript{121} Nicolai, Susan. \textit{Fragmented Foundations}. London: Save the Children UK, 2007, 64-65.
\textsuperscript{122} Ibid, 65.
\textsuperscript{123} Ibid, 65.
\end{footnotes}
Law for Procurement of Public Works, and still were not always implemented. Some construction has also been organized by local parents’ committees, especially in the Hebron area in the south of the West Bank.\textsuperscript{124} After the signing of the Oslo Accords, the World Bank assigned the donor-created organization, Palestinian Economic Council for Development and Reconstruction (PECDAR), to implement and oversee major projects included school construction. Some donor countries that have worked through PECDAR in assisting with school construction are: Belgium, the European Commission, France, Greece, Japan, Netherlands, Norway, Saudi Arabia, South Korea, Spain, and the United States.\textsuperscript{125}

By 1996, public schools catered to 67.6% of all students, while UNRWA served 26.3% and private schools 6.1%.\textsuperscript{126} Schools during this time period suffered significantly from overcrowding, with sometimes over 50 students per classroom, leaving students required to stand.\textsuperscript{127}

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
No. of Students & Public & UNRWA & Private \\
\hline
1-19 & 666 & 16 & 413 \\
20-25 & 1165 & 82 & 320 \\
26-30 & 1696 & 162 & 292 \\
31-35 & 2098 & 207 & 276 \\
36-40 & 2688 & 374 & 159 \\
41-45 & 2523 & 755 & 71 \\
46-50 & 1253 & 1754 & 18 \\
55+ & 77 & 2 & 10 \\
Total & 12509 & 3352 & 1559 \\
\hline
\end{tabular}
\caption{Distribution of Classrooms by Authority and No. of Students/Classroom, Source: Educational Statistical Yearbook 1995/96 MOE & PCBS}
\end{table}

From the chart above, one can see that most private school classrooms had 1-19 students, most public school classrooms had 36-40 students, and most UNRWA school classrooms had 46-50 students. This is significant in that one can see how both public schools and UNRWA schools tended to suffer the most overcrowding.

\textsuperscript{124} Ibid, 74.
\textsuperscript{125} Ministry of Planning (MoPIC). \textit{Palestine Assistance Monitoring System (PAMS)}. Ramallah: Ministry of Planning, 2005.
\textsuperscript{127} Ibid, 57.
from overcrowding, with UNRWA facing the most significant class size challenge. In contrast, private schools serve a smaller percentage of the population – primarily elites who can afford the tuition – and do not suffer from overcrowding.

Overcrowding was sometimes so severe that a large segment of youth did not have access to schools because there physically was no seat available for them. Educational policy makers were therefore mainly concerned with improving access for all, which meant that school space had to increase. As a result, there was an eventual spike in construction for public schools, with more schools built over a larger area. The MOEHE even produced a school construction plan in 1995 that would cost US$231 million. Since 1995, over 10,000 classrooms have been constructed. This was viewed by many at MOEHE as the most celebrated achievement under the Palestinian Authority. For UNRWA, overcrowding led to a process of demolition of smaller, temporary schools, and the construction of more vertical structures that could accommodate growing camp populations. In contrast, private schools did not need to focus on physical expansion to the same degree nor for the same purpose. They would build up their own spaces according to programmatic expansion.

On a global scale, humanitarian and development organizations began to express the same goals. At the World Education Form in Dakar in 2000, the *Education for All* (EFA) goals were established. *Education for All* sought to, “address the failure of education systems to reach all children with quality education.” “EFA had the support of country governments, donors and UN agencies.” Bernard placed EFA and similar international economic and social development plans into a category of ideological philosophy, in that they also sought to, “influence policy in ways that result in systemic change.”

The EFA developed two strategies for learning environments:

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129 Ibid, 58.
1. All stakeholders – teachers and students, parents and community members, health workers and local government officials – should work together to develop environments conducive to learning. To offer education of good quality, educational institutions and programs should be adequately and equitably resourced, with the core requirements of safe, environmentally friendly and easily accessible facilities; well-motivated and professionally competent teachers; and books, other learning materials and technologies that are context specific, cost effective and available to all learners.

2. Learning environments should also be healthy, safe and protective. This should include: (1) adequate water and sanitation facilities, (2) access to or linkages with health and nutrition services, (3) policies and codes of conduct that enhance physical, psycho-social and emotional health of teachers and learners, and (4) education content and practices leading to knowledge, attitudes, values, and life skills needed for self-esteem, good health and personal safety.\(^{131}\)

EFA policies were implemented in the Occupied Palestinian Territories, and the MOEHE was required to create its own EFA plan. The objectives of the MOEHE’s five-year plan closely matched those of Education for All in that they addressed the needs of target populations that are generally marginalized (except for refugees).

While educational and architectural practitioners agree that quality of school buildings is central to a positive learning environment, they each approach the notion of quality in differing ways. Educational discourse by administrative bodies has left quality to be ambiguously defined. For example, the MOEHE in its 180 page, *Education Development Strategic Plan* for 2008 – 2012 (written with the support of UNICEF), uses the following descriptive statements to address the built environment:

- Educational facilities including infra-structure, buildings, furniture, equipment, educational materials, labs and libraries in institutions at all levels will be improved;
- These reforms will focus on investing in more cost-effective infrastructure and facilities;
- Provide an appropriate physical and educational environment for all students including those with special needs;
- Rehabilitation of the school environment and sanitary facilities at school.\(^{132}\)

UNRWA, in its 70 page, *Medium Term Strategy Plan* for 2010 – 2015, has addressed the built environment of camp infrastructure, including school facilities, as one of its strategic objectives:

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\(^{131}\) Ibid, 27.

• Improve the urban environment through sustainable camp development and upgrading of sub-standard infrastructure and accommodation;
• Improvement of critically substandard shelter, facilities and infrastructure
• Experience shows that the following factors are instrumental in achieving better quality in education: school expenditure; school facilities; provision of textbooks; smaller class sizes; adequate instructional time; and teacher training and sound teaching practices, especially for children with disadvantaged backgrounds;
• These assessments will be followed by appropriate interventions including making facilities accessible to those with mobility impairment.133

In both bodies of text, the administrative bodies employ terms that address quality that are ambiguous in their meanings: improve, reform, appropriate, upgrade, better quality. Similar language can also be seen in humanitarian aid policy documents, such as the Education for All goals established at the World Education Forum in Dakar in 2000:

3. All stakeholders – teachers and students, parents and community members, health workers and local government officials – should work together to develop environments conducive to learning. To offer education of good quality, educational institutions and programs should be adequately and equitably resourced, with the core requirements of safe, environmentally friendly and easily accessibly facilities; well-motivated and professionally competent teachers; and books, other learning materials and technologies that are context specific, cost effective and available to all learners.134

In the passage above, terms that address the built environment include: conducive, good quality, adequate, equitable, safe, environmentally friendly, and easy access. No doubt, in these documents, international humanitarian aid has had much influence in defining what a quality learning environment is as expressed in educational discourse.


Figure 13: Separation Wall in red, Israeli construction began in 2002
By 2000, the PA already had much to be proud of in the education sector: a working system, extensive school construction and a new Palestinian curriculum. However, the renewed occupation and its attendant violence have meant an end to much of that positive momentum. Extensive human rights violations inevitability have impacted on educational access and quality.135

Beginning on September 29, 2000 a second Palestinian Intifada broke out. As a result, the Israeli military responded by tightening security on the land and implementing harsher control. While the cause of the second Intifada is often debated, it is sometimes referred to as the Al Aqsa Intifada, after a visit of Israeli politician Ariel Sharon to the Temple Mount, otherwise known as Haram al-Sharif by Palestinians. These security measures still exist on much of the land today, and have a great impact on children’s lives and their education. Nicolai explains that, “the most common perception held by Palestinians is that the failure of Oslo was due to domination by Israeli security concerns”... potentially leading to the second uprising. 136 After this, violence increased drastically on the land and the whole of the PNA was deemed responsible for attacks against Israelis.137

Increase in violence led to drastic countermeasures by Israeli military forces, including incursions into Palestinian lands, checkpoints and road blocks, and curfews placed on entire cities. Furthermore, destruction of Palestinian structures, such as homes, and continued settlement growth on Palestinian areas grew steadily after 2000. In 2002, Israeli began construction of the Separation Wall between the West Bank and Israel and parts of the Gaza Strip and Israel. The wall was meant to follow the 1967 borders, but has since been constructed onto Palestinian territories leading to divisions of individual properties. Families are now disconnected from one another, people are unable to work on their own fields, and even individual homes are completely wrapped by the Separation Wall requiring tunnels to travel outside. All of these military constructs have had menacing effects on Palestinian education and

137 Ibid, 108.
children, especially on their journey to and from school. After the second *Intifada* began, enrolment in basic education dropped from 92 per cent in 1999/2000 to 88.4 per cent during the 2003/2004 school year.\(^{138}\) Also, during the period of the uprising, drop-out rates increased among boys in grades seven to nine, who may have been required to assist families in making an income.\(^{139}\)

Furthermore, due to the geographic fragmentation of the country, it has been increasingly difficult to maintain a centralized process of construction. As such, the MOEHE lost its grip on school design and construction, and engineering departments within individual district education directorates have taken over. Furthermore, due to violence during the second *Intifada*, much of the infrastructure has been damaged, and more attention needs to be paid to rehabilitation and repair work.\(^{140}\) Also, there are detailed reports of some 295 schools that were damaged by the Israeli military, with nine totally destroyed and 15 others that were forced to close. There are 43 documented cases of schools that were occupied by IDF and turned into military bases during the second uprising.\(^{141}\) Much like the first uprising, these large institutional buildings, designed to hold maximum student capacity, were large enough to serve as military outposts. This dual use of school buildings is an intriguing point of inquiry, especially for designers, who may need to reconsider the way learning environments are designed in order to be less suitable for military use.

Nicolai describes how, during the second uprising, parents felt a lack of control and found it difficult to keep children safe. This sense of helplessness was also felt by teachers and caregivers in the school place, who were also deeply affected by the trauma of the conflict. Teachers, staff and students felt extremely exhausted and overwhelmed as a result of their travel to and from school during this time.

\(^{138}\) Ibid, 109.
\(^{139}\) Ibid, 110.
\(^{140}\) Ibid, 75.
\(^{141}\) Ibid, 111.
period. There was also a fear associated with the travel, not knowing what violence could ensue.\footnote{Ibid, 115.} In order to address this, the MOEHE relocated 15,000 of a total of 27,000 teachers closer to their homes in order to keep schools running and keep teachers safe. However, some teachers and staff were still required to travel through danger just to get to school on a daily basis.

With regard to school design, the MOEHE’s building department worked to improve safety regulations, specifically issues such as exits, fire protection, laboratories and fences. These changes were made after it was realized that school buildings were being constructed with minimal preparedness to handle war conditions. Thus, here the symbol of school as a safety zone is truly put to the test during times of severe instability and conflict.

In regards to education quality, the MOEHE was required to minimize school activity while maintaining certain standards of learning as it was suffering severely from a financial crisis. Thus, certain changes were made to the curriculum and school systems including:

- \textit{Specifically developed student worksheets};
- \textit{Cutting down on holidays and time off};
- \textit{Adding sessions to the working day};
- \textit{Cancelling physical education, computer and art classes};
- \textit{Speeding up lectures and cutting class projects}.\footnote{Ibid, 119.}

These types of changes, such as cutting back on extracurricular activities, were actually deemed to be disadvantageous to children during a time of crisis. Creativity activities are seen to assist children in coping with trauma; however, budgets during times of war simply did not allow for it. As noted by Nicolai, since the beginning of the second \textit{Intifada}, where institutions failed, NGOs and civil society were able to play a large role in assistance, “due to their mobility and innovation – but not necessarily their
funding base.” During this time period, NGOs were able to provide books to the most affected areas and also open summer camps.

Much like the first uprising, parents’ councils increased activity, mainly because parents have more ownership over their children’s education as they were obligated to oversee the completion of their school work. Certain council groups even met to discuss the educational process and pedagogy, and methods to assist children in coping with stress and anxiety.

The second Intifada came to an end in 2005. In its wake, schools had become highly politicized places in which youth were often bombarded with images of their own classmates who had died due to violence and were seen as martyrs. As the uprising came to a close, schools and children would take some time to move past the violence that had ensued. Furthermore, the landscape would no longer look the same as it was now deeply misconfigured and fractured by bleak military constructs – making children’s travel to and from school all the more difficult.

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144 Ibid, 121.
145 Ibid, 122.
146 Ibid, 124.
2005
Internal borders are defined by Israeli disengagement from the Gaza Strip and continued construction of the Wall.

Figure 14: 2005 OPT with Separation Wall and enclaves, Source: Atlas of the Conflict
Today, going to school continues to put students and teachers at risk, while staying at home often seems no safer. Strict movement controls, humiliation at checkpoints, and loss of land and livelihoods have led to a feeling that even education has little hope to offer the average Palestinian child.\textsuperscript{147}

Today, Palestinian education is required up until grade 10 and is optional for grades 11-12. Higher-education facilities were not included in this research. The preparation stage is grades 1-4, the empowerment or basic stage is grades 5-10, and secondary education is grades 11-12.\textsuperscript{148} Students who do not want to attend secondary school have the option of attending a vocational school; although those facilities were not included in this study because they were considered separate entities in terms of architecture and curriculum, they too shape current learning environments.

Private schools typically offer a primary through secondary education. Some private schools also had facilities for non-traditional education such as hotel management that were under their control. UNRWA offers education in primary schools and basic schools. After completion of the basic education, refugee students can attend public schools for a secondary education. The public education system has school facilities for primary, basic, and secondary levels.

In regards to architectural standards, each system acts independently of one another; but, many of their needs overlap lending to similar visions. The Ministry of Education and Higher Education as well as UNRWA have initiated the rapid construction of public and refugee schools in order to provide ample space for education to take place in the face of a growing population. Whereas, private schools have functioned independently from this demand, since their populations are already limited due to the high cost of attendance.

There are three standardized designs that are used by UNRWA officials for school designs today. These are presented in the three following images:

The above prototype has a corridor with spaces towards one side only. There are windows towards the back façade and upper windows towards the corridors. This school type is used in many locations, but mainly in the Gaza Strip. This school type was the original type that started to be used in the early 1960s.

The double-sided school, or hammerhead model, has a corridor with spaces towards both sides of the school. This school type is used in Jordan, Syria, Lebanon and the West Bank.

The next is the newest single-sided school prototype, but still follows similar guidelines to the above mentioned single-sided building.
These three prototypes are used in UNRWA’s five fields of operation throughout the Middle East and are based on spatial agreements agreed upon with different educational departments. UNRWA provides design teams in each area with guidelines to follow for school construction, and individual teams have the flexibility to choose if they’d like to adjust designs to their own needs.

The images presented above are more idealistic and do not realistically portray the conditions of the camps. This will be elaborated on more in the next chapter which focuses on the architecture of the different learning environments. These standardized buildings allow UNRWA to construct their schools at a faster pace with limited staff and officials.
As of 2013, there are 320 private schools, 99 UNRWA schools, and 1,639 public schools in the West Bank, totaling 2,058 schools for Palestinian youth.\footnote{Statistical Division. The Main Results for the Preliminary Statistical Survey for Schools during the Year 2012-2013. Survey (Arabic), Ramallah: Ministry of Education and Higher Education, 2013.} As seen in the map above, there tends to be
higher concentrations of schools in seven areas: Jenin, Nablus, Tulkaram, Ramallah, Bethlehem, Jerusalem and Hebron. The following chart depicts the school counts for primary, basic and secondary schools in each of those governorates in 2013.

<table>
<thead>
<tr>
<th>Location</th>
<th>Private</th>
<th>Total Private</th>
<th>UNRWA</th>
<th>Total UNRWA</th>
<th>Public</th>
<th>Total Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jenin</td>
<td>12</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
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<td>1</td>
<td>4</td>
<td>25</td>
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<td>6</td>
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<tr>
<td>Tulkaram</td>
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<td>1</td>
<td>6</td>
<td>0</td>
<td>3</td>
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<tr>
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<td>5</td>
<td>50</td>
<td>2</td>
<td>6</td>
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<td>Bethlehem</td>
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<td>3</td>
</tr>
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<td>69</td>
<td>2</td>
<td>3</td>
</tr>
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<td>2</td>
<td>4</td>
<td>34</td>
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</tr>
<tr>
<td>Total:</td>
<td>236</td>
<td>57</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5: School Count by Governorate, Administration and Gender, Source: MOEHE, 2012-2013

As of 2013, there were more public schools in these seven governorates. Of the seven, Ramallah has the largest number of public schools, Nablus has the largest number of UNRWA schools, and Jerusalem has the largest number of private schools. Also, Jerusalem has the least number of public schools, Hebron is the least number of UNRWA schools and Tulkaram has the least private schools. Furthermore, Ramallah has the largest number of schools across all three educational systems. Lastly, one can hypothesize that Israeli permit laws for construction in Ramallah are not as strict because Ramallah falls within Area A jurisdiction.

The following map depicts several layers of Israel’s spatial divisions in the West Bank, but special attention should be given to areas that are under Palestinian control, Area A.
What is interesting to note is the correlation between areas with higher concentrations of schools and areas that fall under Palestinian control, or Area A. As can be seen, each of the cities with the highest concentration of schools correlates to cities that are under Area A jurisdiction. This confirms then that there definitely is a link between number of schools built and ease of obtaining building permits.
The next table shows how many students are in each of those governorates in 2013.

<table>
<thead>
<tr>
<th>Location</th>
<th>Private</th>
<th>Total</th>
<th>UNRWA</th>
<th>Total</th>
<th>Public</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Jenin</td>
<td>511</td>
<td>1,354</td>
<td>1,865</td>
<td>1,452</td>
<td>1,389</td>
<td>2,841</td>
</tr>
<tr>
<td>Nablus</td>
<td>3,429</td>
<td>5,075</td>
<td>8,504</td>
<td>4,451</td>
<td>4,446</td>
<td>8,897</td>
</tr>
<tr>
<td>Tulkarem</td>
<td>310</td>
<td>467</td>
<td>777</td>
<td>1,604</td>
<td>1,746</td>
<td>3,350</td>
</tr>
<tr>
<td>Ramallah</td>
<td>6,774</td>
<td>8,721</td>
<td>15,495</td>
<td>3,590</td>
<td>2,831</td>
<td>6,421</td>
</tr>
<tr>
<td>Bethlehem</td>
<td>4,585</td>
<td>5,517</td>
<td>10,102</td>
<td>2,217</td>
<td>1,742</td>
<td>3,959</td>
</tr>
<tr>
<td>Jerusalem</td>
<td>11,997</td>
<td>13,668</td>
<td>25,665</td>
<td>1,500</td>
<td>751</td>
<td>2,251</td>
</tr>
<tr>
<td>Hebron</td>
<td>2,655</td>
<td>4,870</td>
<td>7,525</td>
<td>590</td>
<td>679</td>
<td>1,269</td>
</tr>
<tr>
<td>Total:</td>
<td>36,769</td>
<td>28,988</td>
<td>303,486</td>
<td>402,407</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Student Count by Governorate, Administration and Gender, Source: MOEHE, 2012-2013

For those same governorates, public schools serve the largest population of students. Public schools in Hebron have the largest number of students at 58,890. UNRWA schools in Nablus have the largest population of students at 8,897. And private schools in Jerusalem have the largest population of students at 25,665. Overall, Ramallah seats most students with 80,648 in all school systems. In comparing Table 2 and 3, it can be seen that for private and UNRWA schools, the two governorates with the largest populations of students correlate with the governorates with the largest number of schools constructed. This correlation would seem to indicate that these private and UNRWA school systems are constructing primarily for the purpose of providing every student with a seat in school, or that at least, there is more control in regards to the number of students that are permitted per school.

However, for public schools where the largest population of students is in Hebron, Hebron is only the fifth highest of these governorates in terms of school count. Israeli military have shut down schools in Hebron on several occasions, requiring students to be moved to different schools. As mentioned in the previous chapter, parents’ councils in Hebron have built approximately 70 schools on lands which are donated from the community. This type of involvement is due to Hebron’s unique

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political position in regards to the Arab-Israeli conflict. The city has deep religious roots for both Jewish and Muslim communities in the West Bank. 20% of Hebron is made of up Jewish settlements, making it the most populated Jewish area in the West Bank. Due to this high Jewish presence, Israeli security is much higher in Hebron and no doubt has an effect on school construction. The under construction of schools has led to severe overcrowding in Hebron constructed learning environments. The story of Hebron gives one example of the differences across each of the enclaves within the West Bank.

From the tables above, it can be seen that Ramallah has advanced the most in regards to school construction across all three educational systems. One hypothesis for the large number of schools in the Ramallah governorate could be due to the fact that the headquarters for the Palestinian Authority are located in Ramallah and the city’s global status makes access to this enclave much easier which can facilitate greater construction of schools. This type of posturing may have something to do with Ramallah’s unique connections with the international world.

PRESENT-DAY NEIGHBORHOOD CONTEXT

Far from being a recent phenomenon, the ‘enclavisation of space’ has been ‘implemented as an instrument of spatial expansion and control since 1967 in the Occupied West Bank but [is] rooted in a long-standing policy of territorial expropriation—to dismember the space of the remaining Palestinian population.

Ghazi Walid-Falah

Neighborhood context, within the learning spatial typology, is defined as the collective spaces in which a child travels on a daily basis such as the school, home, place of worship, market place, and even the pathways in between each structure. Each neighborhood context is specifically confined within a military defined zone. Enclaves within the OPT are categorized by different levels of authoritative control and are labeled as Area A, B, or C. Area A is under complete Palestinian military and civilian

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control except for travel in and outside of the enclave, Area B is under joint Palestinian and Israeli control, and Area C is under Israeli military and civilian control. In a military enclave, students and their school community encompass a variety of experiences and each of those experiences will be looked at according to documented behavior in school and effects of living close to Israeli structures.

**SPATIALIZED PSYCHOSOCIAL BEHAVIOR**

In order to present the most up to date analysis on psychosocial behavior, data collected from field work in 2012 will be used in the following section. Life in a military enclave affects a child’s experiences outside of the school zone; however, these problems cannot be checked at the door when a child comes to school. Each child in the OPT is affected to some degree by military control which varies according to a variety of circumstances. This section will look at varied levels of military control and socio-economic standards and their relation to children’s experiences. These variables indicate that a child who studies at a school in one enclave can have different experiences than a school in another enclave. Students whose lives are more difficult as a result of a poor standard of living and domestic problems may suffer from psychological trauma and problems in school. Students whose families have a higher standard of living also are affected by the militarized land, but they do not suffer the same difficulties as poorer children. Students’ daily experiences can be both positive and negative regardless of whether they are in a private, UNRWA, or refugee camp school.

<table>
<thead>
<tr>
<th></th>
<th>Amari Camp</th>
<th>El-Bireh Camp</th>
<th>Ramallah Camp</th>
<th>Kalandia Camp</th>
<th>Beit Sahour</th>
<th>Al-Fawwar Camp</th>
<th>Hebron</th>
<th>Jenin Camp</th>
<th>Jenin Camp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>4,713</td>
<td>38,802</td>
<td>27,460</td>
<td>8,831</td>
<td>12,367</td>
<td>6,544</td>
<td>163,146</td>
<td>10,371</td>
<td>39,004</td>
</tr>
<tr>
<td>Total Area</td>
<td>97 dunums</td>
<td>23,012 dunums</td>
<td>16,560 dunums</td>
<td>350 dunums</td>
<td>8,306 dunums</td>
<td>870 dunums</td>
<td>74,102 dunums</td>
<td>420 dunums</td>
<td>37,342 dunums</td>
</tr>
<tr>
<td>Population to Area (dunums) Ratio</td>
<td>48.6</td>
<td>1.7</td>
<td>1.7</td>
<td>25.2</td>
<td>1.5</td>
<td>7.5</td>
<td>2.2</td>
<td>24.7</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Table 7: Population, Area and Density by Locality, Source: Palestinian Central Bureau of Statistics, 2007 (1 dunum = .001 kmsq)
Standards of living can be significantly lowered due to lack of space and overcrowding in the neighborhood. Refugee camp schools, regardless of their enclave and military jurisdiction, can suffer from overcrowding and density. This is because land that was allotted to the refugee camp when it was established in the early 1950s has not changed in area. The Amari Camp has a population to area ratio of 48.6 and resides in Area A, while the Al-Fawwar Camp has a population to area ratio of 7.5 and resides in Area C. Al-Fawwar is located within the Hebron governorate which sits on 74,102 dunums and Amari Camp is located within the Ramallah governorate which sits on 16,560 dunums.

In contrast, other localities that were looked at in this field work, such as El-Bireh, Ramallah, Beit Sahour, and Jenin, did not suffer in the same way from density issues. Of the sampling, the Amari Camp was the densest spatially, followed by the Kalandia and Jenin Camps which were nearly half the density of Amari. Al-Fawwar Camp was the least dense of all the camps in the sampling. Hebron, while it is not a refugee camp, was slightly denser than the other localities. This is probably a result of Israeli settlement growth and relocation of Palestinians deeper into Palestinian approved lands.

The following table includes specific categories of psychosocial issues related to a child that could impact his or her education: domestic problems, early drop out, learning and behavior problems, and remedial protocol. Domestic problems are defined as problems that occur outside of the school zone and directly impact the family unit, such as divorce, household violence, and jailed family members (typically boys and fathers). Early drop out is defined as students who leave school prior to completion of the time required from that school system. Learning and behavior problems are defined as psychosocial factors that disrupt the school environment, whether in regards to a student having difficulty with his or her own work, whether a student impacts the work of those around him or her, or if a student negatively alters the physical environment by damaging school property.
<table>
<thead>
<tr>
<th>School</th>
<th>Location</th>
<th>System</th>
<th>Domestic / Home / Outside Problems</th>
<th>Early Drop Out</th>
<th>Learning + Behavior Problems</th>
<th>Remedial Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>Small % with broken homes</td>
<td>None mentioned</td>
<td>Damage building after receiving bad scores</td>
<td>Counselor</td>
</tr>
<tr>
<td>School 2</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>Divorced Parents</td>
<td>None mentioned</td>
<td>Minor scribbling on walls</td>
<td>Counselor and Social Workers; Special Ed was cut due to $</td>
</tr>
<tr>
<td>School 3</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>None mentioned</td>
<td>None mentioned</td>
<td>Minor scribbling on walls</td>
<td>Security Cameras installed</td>
</tr>
<tr>
<td>School 4</td>
<td>Bethlehem, Area A</td>
<td>Private</td>
<td>None mentioned</td>
<td>None mentioned</td>
<td>Graffiti by kids</td>
<td>Counselor, Special Ed Teacher; students required to clean rooms</td>
</tr>
<tr>
<td>School 5</td>
<td>Ramallah, Area A</td>
<td>UNRWA</td>
<td>None mentioned</td>
<td>~ 3% drop out rate</td>
<td>Dyslexia, graffiti by kids</td>
<td>Counselor, Special Ed Teacher</td>
</tr>
<tr>
<td>School 6</td>
<td>Ramallah, Area C</td>
<td>UNRWA</td>
<td>Fathers in jail; military incursions into homes</td>
<td>Yes</td>
<td>Slow learners, violence, hyperactivity, angry, insomnia</td>
<td>Counselor</td>
</tr>
<tr>
<td>School 7</td>
<td>Jenin, Area A + B</td>
<td>UNRWA</td>
<td>Family stress, 1 case of martyr in family</td>
<td>None mentioned</td>
<td>Slow learners</td>
<td>Counselor</td>
</tr>
<tr>
<td>School 8</td>
<td>Hebron, Area A + C</td>
<td>UNRWA</td>
<td>Divorced Parents, other domestic problems</td>
<td>None mentioned</td>
<td>Mentally disabled, slow learners, high stress</td>
<td>Counselor, Special Ed on Weekends</td>
</tr>
<tr>
<td>School 9</td>
<td>Ramallah, Area A</td>
<td>Public</td>
<td>None mentioned</td>
<td>Yes, for marriage</td>
<td>4 students are slow learners</td>
<td>Counselor; Academic help through Al-Nahda Org.</td>
</tr>
<tr>
<td>School 10</td>
<td>Hebron, Area A + C</td>
<td>Public</td>
<td>Domestic problems</td>
<td>~2% drop out rate primarily for marriage</td>
<td>Slow learners, depression</td>
<td>½ time Counselor, security cameras</td>
</tr>
<tr>
<td>School 11</td>
<td>Jenin, Area A + B</td>
<td>Public</td>
<td>Students jailed</td>
<td>5% drop out rate</td>
<td>Post-jail trauma</td>
<td>Counselor, Relaxation Exercises</td>
</tr>
<tr>
<td>School 12</td>
<td>Jenin, Area A + B</td>
<td>Public</td>
<td>None mentioned</td>
<td>None mentioned</td>
<td>Mentally disabled, slow learners, hyperactivity</td>
<td>Special Ed Teacher</td>
</tr>
</tbody>
</table>

Table 8: Social Related Problems in School Sampling, Source: Field Work Interviews 2012
The table above indicates that all public and refugee schools had learning and behavioral problems regardless of whether they were located in Area A, B, or C. These behavioral issues include: slow learning, dyslexia, hyperactivity, mental disabilities, psychological trauma, depression, insomnia, graffiti, anger and high stress. The reasons for these issues are related to factors such as poverty, overcrowding in neighborhood, spatial density, health, domestic or family problems, and military activity. Schools typically had one counselor in place but sometimes the counselor only came part-time. Some UNRWA schools offered unique programs which implemented relaxation exercises for students who had been jailed for a three to six month period, or weekend classes to assist students who had learning issues. School five and nine from the table above, an UNRWA and public school, both located in Area A, did not suffer from significant domestic or home issues.

Of the school sampling, private schools did not report many learning or behavior issues, home or domestic problems, or drop outs. They all had counselors in place, some had special education teachers for students with handicaps, one school also had security cameras in place in each classroom, and another school required that students clean up classroom spaces. These types of remedial measures assist in dealing with issues if any were to arise. However, from the data it can be seen that most of the private schools located in Area A did not have significant home life problems that could be correlated with behavioral issues at school.

In an interview with an official from school one listed in the table above, a private school, it was explained that most students were from well off families and did not have home problems. However, the school is obligated to accept a certain percentage of students who suffer from class-based socioeconomic issues, and if they don’t many of the donors would retract their funding. The ties to donor funding are deeply engrained in each school system, private, UNRWA, and public, and will be discussed later in regards to building design. Of all the private schools visited, there was not much

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mention of domestic problems or issues in regards to standard of living. However, during times of political hardship such as the second intifada, some private schools had difficulty obtaining tuition from all the families because parents did not always collect their salaries. Thus, in difficult times, even private schools are not exempt from economic strains.

From the field work, it can be concluded that there are ties between socio-economic standards and psychosocial behaviors of students as a result of military enclavisation. Private schools in the study, which were further away from Israeli structures and with communities of higher standards of living and lower spatial density, did not suffer as much from learning and behavioral issues. Public and UNRWA schools, including those in Area A, indicated that students had learning and behavioral issues, most probably because constituents in their communities were of different class and social status. UNRWA and public schools that were located in Areas B + C tended to suffer the most from learning and behavioral issues because of a combination of the worst military control and socio-economic related issues.

EFFECTS OF CLOSE PROXIMITY TO ISRAELI STRUCTURES

Israeli structures include Israeli settlements, military check points, the Separation Wall, and Israeli-controlled streets. Proximity to these types of structures could impact the child as well as his or her family, teachers, staff, and the school zone itself. The experiences that all members of the school have in relation to these places result in documented cases of trauma and psychological disorders. School children, staff, and others in the school zone all face their own struggles related to the context in which they live.

Area A does not suffer as much from military interruptions related to closely situated Israeli structures; however, when students travel outside of the area they are required to deal with military security protocol such as the Perimeter Wall. Area B schools fall into a gray zone between A and C, such
as those in the Jenin Camp. This camp suffers regularly from military incursions and attacks, and has been reconstructed as a whole several times since its inception after 1948. Area C tends to be more closely situated near settlements and settler roads, and proximity to these structures can have negative effects on children, their homes, and their learning environments.

MILITARY INCURSIONS INTO HOMES

Of the school sampling, schools that were visited in Hebron are located in Area A + C and are under Israeli control. These include an UNRWA school and a public school in a city called Fawwar. The Al-Fawwar Camp and district are located southwest of the Hagai settlement and are thus under the restricted zone C, for the protection of settlements and settlers. Also, 2km to the west of the schools is the Al Majnoune Israeli military base. Al-Fawwar is located near military metal gates, military tower, and checkpoints on the road to Yatta city.\textsuperscript{154} Thus, of the schools visited, Al-Fawwar is deeply constrained by closeness to Israeli structures, and this has had adverse effects on the school community’s daily travels.

In an interview at an UNRWA school in Al-Fawwar, an official said that the Israeli Defense Forces raid the camp regularly at night, often doing checks into students’ homes and even taking away parents and placing them in jail. This official said that students are left afraid, they stay up late at night, and some don’t come into school the next day. The school must provide special care for these students. The official also told a story of a boy who fell victim to a shooting and was left permanently handicapped.\textsuperscript{155} These types of violent acts were more common in areas like Al-Fawwar because of its close proximity to Israeli activity and physical structures.

The student who suffered injury from the shooting was no longer able to attend the refugee school because it was not equipped with the necessary infrastructure for disabled peoples. However, the school official said the boy still stays close to the school grounds and is often seen on his wheelchair.


outside of the school’s perimeter wall. The school provided the boy with connections with other children his age and he often returned to play with his friends. This is a key example of how a central location for children to learn is important, especially when homes inside the refugee camp suffer from military incursions.

THE SEPARATION WALL

An official at an UNRWA school located in Area C explained in an interview the difficulty for children to think creatively due to close proximity to the Separation Wall. Parts of the school’s perimeter wall actually include the military Separation Wall. From inside the school zone on the second floor of the building, the Separation Wall is clearly visible as a concrete structure that has punctured the living spaces of many of these students and wraps around their school building. Using hand gestures, he expressed that the students could not imagine life beyond the wall, which acted as a physical and mental block that negatively impacted student success.156 Even though the region is currently in a relative state of calm, there are still daily events that put children and school personnel in the line of danger due to frontline spatial battles.

The official went on to state that students who lived on the other side of the wall were required to pass through the wall’s check point on a daily basis, to and from school. This walk is a serious ordeal for many of these students who range in age from grades one through nine. The walk through the wall often results in students being delayed to school, being recipients of verbal attacks from IDF soldiers, and also being caught in violent clashes along the wall. It has become common for Palestinian demonstrators to come to the wall near the UNRAW school to non-violently protest. According to the school official, the IDF would use tear gas, rubber bullets, and a substance called green liquid which was extremely pungent in nature to subdue demonstrators, and these elements often entered into the

school zone. Thus, present-day military activity that inflicts destruction directly on schools is typical in those Areas that are highly militarized, specifically close to the Separation Wall.

The school official at a public school located in Jenin, explained that he partially envied schools that were closer to the Separation Wall. While this discourse seems slightly incredulous, he expressed that their school was in desperate need of funds which typically come from outside donors. Schools that were located on or in close proximity to the wall received more funding than his school. This type of discourse makes it apparent how deeply intertwined schools, spatial problems, and donor aid are in the OPT.

EFFECTS OF CHECKPOINTS ON MOBILITY

Negative experiences of exclusion and denied entry are common in the daily lives of Palestinian children at checkpoints. If a student is denied entry to the school zone, they must return home or sometimes are left outside of parental control and go to different parts of the neighborhood to spend their days. Delayed entrance results in time that is taken away from a student’s school day and can have adverse effects on a student’s studies; especially, in comparison with students who live closer to school and do not have the same travel difficulties.

The following table lists restrictions on daily mobility to school for students in the school sampling.
<table>
<thead>
<tr>
<th>School</th>
<th>Location</th>
<th>System</th>
<th>Restrictions on Mobility to School</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>Easy access to school for students and teachers</td>
</tr>
<tr>
<td>School 2</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>Some students late to school because of delayed entry at check point</td>
</tr>
<tr>
<td>School 3</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>Travel from other villages by car, taxi, bus; Nearby students can walk</td>
</tr>
<tr>
<td>School 4</td>
<td>Bethlehem, Area A</td>
<td>Private</td>
<td>Easy access to school for students and teachers</td>
</tr>
<tr>
<td>School 5</td>
<td>Ramallah, Area A</td>
<td>UNRWA</td>
<td>Students walk to school, car if they are very far</td>
</tr>
<tr>
<td>School 6</td>
<td>Ramallah, Area C</td>
<td>UNRWA</td>
<td>Some students late to school because of delayed entry at check point through Separation Wall</td>
</tr>
<tr>
<td>School 7</td>
<td>Jenin, Area A + B</td>
<td>UNRWA</td>
<td>Students walk to school, not too difficult</td>
</tr>
<tr>
<td>School 8</td>
<td>Hebron, Area A + C</td>
<td>UNRWA</td>
<td>Students walk to school, difficult in the winter, sometimes up to 1 mile, must cross settler road which can close randomly, settlers can harass students</td>
</tr>
<tr>
<td>School 9</td>
<td>Ramallah, Area A</td>
<td>Public</td>
<td>Students walk to school, drive if they’re from far away</td>
</tr>
<tr>
<td>School 10</td>
<td>Hebron, Area A + C</td>
<td>Public</td>
<td>Students walk to school, difficult for those who walk far, some can obtain cars, avoid settler road</td>
</tr>
<tr>
<td>School 11</td>
<td>Jenin, Area A + B</td>
<td>Public</td>
<td>Students walk to school, ~18 students cross Separation Wall and are often delayed entry especially on Jewish holidays</td>
</tr>
<tr>
<td>School 12</td>
<td>Jenin, Area A + B</td>
<td>Public</td>
<td>Students walk to school, difficult in winter</td>
</tr>
</tbody>
</table>

Table 9: Restricted Mobility on Travel to School in School Sampling, Source: Field Work Interviews in 2012

For private schools, many students traveled by car. Travel by car enabled students to bypass many of the difficulties of traveling by foot, such as far distances, exposure to natural elements, and dealing with Israeli military and settlers. Some students could also afford local bus or taxi as a means of transportation. Furthermore, some private schools also provided housing for students within the school zone. By living on the school’s campus, students are more integrated into the learning environment and school life and are spared the difficulties in travel. One private school in the sampling reported students having difficulty in traveling to school through a checkpoint. Thus, even private schools and their students can suffer from delays in mobility when trying to get to school.
Travel across certain boundaries is dependent on an individual’s identification. Refugees, who are stateless people, are less likely to be granted permission to pass unless they have papers showing that they work or study across the barrier. This implies that only travel that is necessary for one’s livelihood is permitted. If the school is conducting a field trip, for example, students may be denied permission to cross the barrier. Field trips to other places are essential to a child’s cognitive growth, in that they expose students to other contexts for comparative learning and also allow information taught within the classroom to be tested outside in the real world. In the case of the OPT, where students are denied travel for school field trips, they lack access to experiences that happen outside of the school’s immediate environment. A child’s exclusion from a place becomes the focus, as opposed to the positive learning that was intended by teachers.

In interviews, officials were asked about class field trips. Some schools reported that they did not take students on field trips; some schools had difficulties taking all students on field trips; some schools had difficulties taking certain staff on field trips; some schools took field trips to nearby places only; and some schools had the flexibility to take students to far places even outside of the OPT all together.

The following tables lists issues related to field trip mobility for the schools included in the sampling.
<table>
<thead>
<tr>
<th>School Name</th>
<th>Location</th>
<th>System</th>
<th>Field Trip Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>School 1</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>Students could travel; principal was denied travel</td>
</tr>
<tr>
<td>School 2</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>2 field trips per year for students</td>
</tr>
<tr>
<td>School 3</td>
<td>Ramallah, Area A</td>
<td>Private</td>
<td>Student travel is easy because most are American citizens; visit parts of the OPT and Israel</td>
</tr>
<tr>
<td>School 4</td>
<td>Bethlehem, Area A</td>
<td>Private</td>
<td>No response given</td>
</tr>
<tr>
<td>School 5</td>
<td>Ramallah, Area A</td>
<td>UNRWA</td>
<td>Students restricted at checkpoint</td>
</tr>
<tr>
<td>School 6</td>
<td>Ramallah, Area C</td>
<td>UNRWA</td>
<td>Students restricted at checkpoint</td>
</tr>
<tr>
<td>School 7</td>
<td>Jenin, Area A + B</td>
<td>UNRWA</td>
<td>Travel within Jenin is easy, difficulty beyond</td>
</tr>
<tr>
<td>School 8</td>
<td>Hebron, Area A + C</td>
<td>UNRWA</td>
<td>Students restricted at checkpoint</td>
</tr>
<tr>
<td>School 9</td>
<td>Ramallah, Area A</td>
<td>Public</td>
<td>2 field trips per year to nearby areas only</td>
</tr>
<tr>
<td>School 10</td>
<td>Hebron, Area A + C</td>
<td>Public</td>
<td>Students restricted at checkpoint and barriers</td>
</tr>
<tr>
<td>School 11</td>
<td>Jenin, Area A + B</td>
<td>Public</td>
<td>Students restricted at checkpoint</td>
</tr>
<tr>
<td>School 12</td>
<td>Jenin, Area A + B</td>
<td>Public</td>
<td>Travel within village is easy, difficulty beyond</td>
</tr>
</tbody>
</table>

Table 10: Field Trip Mobility in School Sampling, Source: Field Work Interviews in 2012

The sampling indicates that the majority of private, UNRWA, and public schools suffer in regards to field trip mobility but for different reasons. The private schools have an easier time traveling, especially as indicated by the American-Jordanian school in which most of the students are American citizens. UNRWA schools seem to have the most difficulty in travel for field trips. Restrictions are primarily a result of citizenship identification or a higher number of Israeli barriers and checkpoints around the neighborhood. An official at a public school in Area A in Ramallah, explained that while there are field trips they were mainly to nearby areas because of restrictions in traveling to further locations.157 Thus, from the sampling of private schools, a combination of being located in Area A and having students with approved identification makes traveling easier.

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SUMMARY

Figure 20: Diagram of Schooling through Community, Source: Jenine Kotob
1918 Villages

Figure 21: Diagram of Schools as Independent Institutions, Source: Jenine Kotob
1949 Towns

Figure 22: Diagram of Schooling through Community, Source: Jenine Kotob
2000 City

Legend

House  Mosque  Church  School
In the Ottoman era, the land was mainly organized by villages and some urban towns; and, Islamic and Christian private schools were controlled by localized communities and closely situated next to village and town centers.

From 1914-1947, the land transformed significantly from villages to modern cities; and, schools became occupied by military troops during war. This would be the first of several times, where we would see communities establish informal education in homes or religious meeting houses. This becomes significant in that it establishes the empowering nature of education, as well as the flexibility of learning environments to encompass a variety of architectural spaces, especially those that are owned by local communities and families.

Between 1948 and 1987, private and UNRWA schools, along with foreign ruled public schools, were in operation on a politically divided Palestine. With the birth of the refugee population, and rule from foreign bodies, schooling became standardized in regards to buildings and curriculum; and, for the first time education was being instituted as a human right. UNRWA schools would establish themselves as inclusively for refugee students, but were excluded from the territory and placed within refugee camp boundaries.

The first Intifada was from 1987 to 1994, and most schools were closed during this period for different lengths of time, leading to informal education led by families and teacher networks in homes, churches and mosques. People who engaged in schooling form home, could be fined or jailed as it was considered a crime by Israel at the time. Informal education of this time period was tied to the element of community, and not just localized communities within one’s own political or social group, but a Palestinian community that would transcend all divides.

In 1994 the Oslo Accords were signed and public schools were placed in Palestinian hands for the first time, with the establishment of the PNA. As an official curriculum was being established, with
the support of international NGOs, humanitarian discourse began to solidify itself on the territory. Education for All was announced as a national goal, and school construction skyrocketed.

By 2000, an Israeli occupation resulted in military divisions of the land into Areas A, B, and C. Where Area A was Palestinian controlled, Area B was controlled by both factions, and Area C was controlled by Israel’s military. In 2000, there was another uprising, or Intifada, this time the PNA and other authoritative bodies could not withstand the conflict. Again, informal education appears in local homes. In 2002, as the battles continued, Israel began the construction of the Separation Wall, between its lands and the Gaza Strip and the West Bank. By 2005, the uprising came to a halt, the OPT took on the form of a land of islands and enclaves, and schooling was now established for individual and isolated communities.

Today, the land and its people are divided into a series of island enclaves controlled by the Israeli Defense Forces or IDF. This type of conflict has been described as “spaciocide” by historian and architect, Sari Hanafi, where the killing and constricting of space is the ultimate mechanism of attack. Each of these enclaves is further segregated into different populations of varied levels of socio-economic status as well as political identity.

From this exploration it was found that each educational system, which reflects a social, religious or class-based segment of Palestinian society, is not able to sustain itself in times of severe conflict due to the closure of school buildings by military authorities. This results in the appropriation of education by local families, teacher groups, and private NGOs, that teach out of informal spaces such as homes and places of worship. As such, local ownership and transcendence across the three institutions leads to empowerment of youth and communities, unfolding into the two Intifadas. Groups pool their efforts together and teach in informal spaces. This type of community engaged flexibility combats the insularity common to school institutions as manifested through their architecture. The patterns found
through the historical analysis, helped to develop a more relevant architectural approach, which emphasizes the dynamics between learning environments and socio-spatial contexts.

In regards to school architecture, it was found that during the most stable times, construction progressively increased in quantity and/or quality. While these new waves of school buildings were deemed positive by local ruling bodies, their architecture seems to be more insular in nature over time – making schools islands that are not as closely related to the neighborhood context. The next chapter will look specifically at how the architecture of schools functions within the larger learning environment framework, keeping in mind the socio-political lessons learned from the historical chapter.
CHAPTER 5: ARCHITECTURAL ANALYSIS, THREE SCHOOLS IN RAMALLAH

Figure 23: Private School Case Study Image, Source: Jenine Kotob

Figure 24: UNRWA School Case Study Image, Source: Jenine Kotob

Figure 25: Public School Case Study Image, Source: Jenine Kotob
INTRODUCTION

In the historical chapter, it was shown that private schools have deep historical roots, and thus school grounds may be located closer to old historical centers and sites that have significance to the community. Overtime, the sites have had the opportunity to expand spatially and are deeply integrated into the neighborhood context. Today private schools are doing the best in regards to economic, social, and academic stability. However, there are still some minor instances of behavioral problems due to community and family pressures. Private schools tend to be more diverse in their student populations as well as curriculums, and are strongly connected on a national and global scale through student travels and alumni work.

UNRWA schools were first instituted with the birth of the refugee population in 1948, and thus, their origins are related to war, displacement, and suffering. School spaces came first as tents, and then temporary one-to-two story structures, and today are tall standardized buildings. Their curriculum and school design are heavily influenced by humanitarian aid discourse. Refugees’ schools solely serve a poor student population who are not granted official political recognition as Palestinians. Refugee students suffer from issues related to lower standards of living inside camps; and, sometimes display reported behavioral problems in the school place.

Public schools were controlled by Palestinians for the first time in 1994, after the signing of the Oslo Accords. While this step was significant in moving closer to Palestinian unification and growth, their beginnings were very shaky and also deeply influenced by humanitarian aid. Multiple stakeholders were involved in the development of public schools, and the most significant goal was the construction of new schools in order to make sure every student had access to an education. Historians acknowledge the limits that existed for the development of a national pedagogy due to the desire to maintain peace with Israeli neighbors. Today, these students, much like refugee students, display some reported
behavioral problems in the school place, and some suffer from domestically related issues and travel problems to and from school.

For both UNRWA and public schools, there has been a general decline in student achievement and an increase in student dropout rates, in the context of presumably better physical school conditions – which will be looked at in this chapter. Some studies have attributed this to the lack of relevancy that today’s schooling may have in the face of the reality of an occupation. Others have postulated that this could be a result of needing to help parents at home either monetarily or through house chores. In any case, there have been attempts to develop vocational education in parallel to general schooling, but these programs and their structures are outside of the scope of this thesis. In order to address some of the issues facing school communities, this chapter will look at the architecture of schools as they exist today and will base the analysis on the previous historical chapter.

Important findings were made in the historical chapter, which have an impact on the architectural analysis that follows. The first discovery was that during times of severe hardship, school buildings and formal education were prevented from functioning; and, local community groups, regardless of class and status, developed informal schooling in private spaces. The second discovery was the significance of collective community efforts and the capacity at which locals are capable of functioning in times of crisis. The first discovery presents a problem that is potentially inherent to the nature of an institutionalized education and may never be resolved as long as the conflict continues. However, this thesis does not call on the complete eradication of the institution of education and the buildings that support it because there is much good that comes from these places. The second discovery highlights the importance and value that can be placed on community and the resources that schools can tap into within a neighborhood. These two discoveries, when combined, reveal that where school buildings are failing in the face of a long-term conflict, the community as a collective force and
space can provide positive resources. Bridging the gap between school zone and community has been a concept in the realm of architecture and education for quite some time, but this presents new problems in the face of an occupation. By basing this analysis on the findings of the historical chapter, special emphasis will be placed on the notion of spatial flexibility in school planning and responsive architecture in school design. In focusing on these two concepts, the purpose is to find positive examples of community ownership and designs that provide positive spaces that work towards opposing the negative environment of the occupation.

This instills the need to develop new mechanisms that don’t just react to the spatial qualities of the occupation, but respond to them. What is the difference between reacting and responding? Reacting to the occupation through school design happens when schools are isolated from the spatial realities of the neighborhood context and are constructed in an insular fashion. This may be the result of the need to protect students from military activity or the desire to give students a break from their everyday lives. This insularity makes the rectangular classroom the foundational unit in school design, rather than the child and his or her experiences. On the other hand, responding to the occupation through school design requires directly addressing and reinterpreting the architecture and spatiality of the occupation. Rather than designing schools based on the classroom and interior activities, schools must be viewed as structures with value on a community level that can add richness to the fabric of a neighborhood. This type of integrated approach to the architecture of schools breaks the boundaries of the institution and makes schools’ design have positive impacts.

To return to thoughts on constructivist theory, David Jonassen notes that schools should, “create real-world environments that employ the context in which learning is relevant,” and should “represent the natural complexity of the real world.”158 This requires looking at the manifestations of

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the conflict, i.e., the separation wall, checkpoints, settlements, and enclaves, which are the current backdrop and stage for a child’s spatial context. As constructivists would propose that teachers must provide youth with the scaffolding to understand their experiences, so too must the architecture of schools. In other contexts, there have been proposals to use the architecture of schools to assist in curriculum, especially for programs such as environmental studies.

In order to present the architecture of the three school systems in their current state, the following pages contain three vignettes of specific schools that were visited in the Ramallah governorate during field work in 2012. Each one is depicted in the image to the left. The first is a private school located in the west of Ramallah which will be called the Private School Case Study; the second is an UNRWA school located in the south and will be called the UNRWA School Case Study; and the third is a public school located in the north of Ramallah and will be called the Public School Case Study. The narratives will highlight differences in each of the schools as they relate to the conceptual framework of child, building, neighborhood context, and system.

Due to the complexity of the militarized enclavisation, Ramallah was chosen for its unique position as the official center of PNA government activity. Among Ramallah’s characteristics is that it is home to many private, UNRWA, and public schools. According to academic Lisa Taraki, “No other city in
Palestine has such an eclectic and diverse middle class, which has given Ramallah/al-Bireh its unique character.\textsuperscript{159} She continues, “One of the more noteworthy effects of the post-Oslo urban regime in Ramallah has been the deepening of residential segregation and the salience of place-based class and status differentials.”\textsuperscript{160} Thus, even within Ramallah itself there are levels of segregation according to differences such as class and status. Prior to the establishment of the PNA, these class and status differences were less prominent as the disparate communities worked together, especially during the intifada. But, as Taraki points out, that is no longer the case:

*As social cleavages deepened and Ramallah became Palestine’s premier city, the language of coexistence began to change. Several incidents, strongly reminiscent of classic acts of urban violence in world cities where the dispossessed attack the perceived symbols of privilege and power, have occurred in recent years.*\textsuperscript{161}

This is exemplified by the elite, middle class, and poor communities who are bolstered and supported by their own schools. Thus, for each school system in Ramallah, there are issues related to the context of the occupation but also deep social issues that divide the communities. In looking at the architecture of schools, not only will the infrastructure be analyzed as to how it can assist immediate communities, but also how it can promote connections across a divided land and society.

The private school case study is situated on a higher elevation than its immediate surroundings, and it is wrapped primarily by open fields with some residential units. Its prime location indicates the wealth of its communities in that they have networks that are able to support better lands, as well as the ability of families to pay the required tuition. The UNRWA school case study is situated on the same elevation as the Amari Refugee camp and sits directly on its edges. The school serves a refugee community in which most staff and students live inside the camp and suffer from lower standards of


\textsuperscript{160} Ibid, 15.

\textsuperscript{161} Ibid, 16.
living and poverty. Finally, the public school case study is located in the urban residential area of El-Bireh within the Ramallah governorate. It is situated into the landscape so that its outdoor spaces are nestled into a hill. The school primarily serves middle class families who are unable to afford the private schools in nearby areas, but are not of refugee status. Many of the public school’s parents work for the PNA, the headquarters of which are located just a few minutes away from the school.

These three schools will be examined as representatives of the three school systems across the West Bank. At certain points, data and support from other school visits will be brought into the analysis in order to reflect a broader sampling.
My first school visit was to a private school located in the western part of Ramallah. It was a hot and sunny day, but there was a cool breeze atop this dusty hill. I arrived to the school by car, as do most students who come to this school – either by public transportation or in their parents’ vehicles.

The views around the private school were breathtaking; it seemed as if all of Palestine surrounded me with no end in sight. I instantly began taking photographs of the hills that wrapped the school’s site as I approached the Secondary School building. Waiting for me was an official who worked for the school for quite some time and had agreed to show me around and answer my questions.

I noticed that the glass on the front door of the building was broken. Intrigued, I asked the official what had happened. He explained that some students had gotten upset when they saw their
scores on the Tawjihi\textsuperscript{162} exam and angrily took it out on the building. This would be a common sight throughout the remainder of the building and begins to highlight some of the pressures that students might face at home. In this sense, the building starts to become a recipient for violence and trauma – damage expressed on its façade reflects hardships that the students face.

Another point of stress for certain students may be the cost of tuition. The official explained that students are required to pay 5,000 shekels per year, or $1,000USD. In regards to funding, the school uses student tuition as well as donations from other evangelical organizations and a few nonprofit groups. The school had just received $100,000USD in donations for the installation of a new cooling system. Furthermore, the school applied for a grant in the past year and won $170,000 for further renovations of the structure. This private school, along with others visited, apply for funding on a regular basis for architectural projects that are important for their schools. Thus, it is not the donor group or individual that decides where funding should be allocated, but rather the school’s administration. This is significant in that it shows that there is more control of building design and additions, generally supported by local contractors and engineers.

The official explained that the site I was visiting was actually the second location for this school, which was originally established in 1962 as a girls’ orphanage in the center of Ramallah. However, in 1967 the school was badly damaged from a bombing attack and two girls at the orphanage were killed. Because of this, it was decided to move the school to a safer and more isolated location. This narrative has become a part of the school’s history and can even be found on the Evangelical network’s website for members worldwide to hear.

As I entered the door into the Secondary School, my eyes moved upward to follow the two-story ceiling. To my left, I could see stairs with tall windows behind them – allowing bright light to flow into

\textsuperscript{162} Tawjihi is a national exam administered at the end of secondary school education. It marks a significant stage in the transition from high school to college, and scores are highly anticipated and widely discussed in the community.
The entranceway. The walls were painted pale blue up to four feet in height, then white to the ceiling. The floors had a tile finish and reflected the bright sun. To my front, there were green shrubs that framed the opening leading into the main hallway. Cabinets that held student trophies and art work were hung along the right wall. Directly to the right were doors that led to administrative rooms – the principal’s office, teachers’ lounge, printing center, and small book store. It was summertime; the rooms were not in use and so there was no need to have the mechanical blinds lifted up. A small fan sat in the corner of one of the windows to allow slight air movement. The teachers’ lounge had two long tables, chairs stacked in the corner, and tall cabinets for storage. I passed another broken door. This building was constructed much later than the other structures on the site, and was designed slightly more unique with the atrium in the entranceway. However, beyond this point, the main floor plan would be similar for all the buildings on the site.

Next we moved into a classroom; it was fairly large, measuring at least 18 feet by 20 feet in area. I noticed that the room was slightly stuffy. There was no air conditioning in the entire structure, and the windows had been closed for the summer. One wall of the room had two windows with white bars on their exterior, typical of many Palestinian structures. Each was approximately six feet by eight feet in area. The gray curtains were set back, letting a natural diffused light brighten the room. A wooden chair rail, about four inches in height, wrapped the room, and the windows sat right above it. Along the back wall were mounted wooden strips, almost the length of the wall and two inches thick. They seemed to be used for tacking class projects on the walls. The desks and chairs had been pushed to the back of the classroom during the summer months. However, the wooden desks seemed brand new and each had its own chair.

I turned left back into the hallway and walked. I noticed large cabinets along the wall and a bar of hooks beneath them. The cabinets and hooks were for students to put away their belongings when
they arrived to school, the equivalent of western school lockers. The halls were lit with overhead fluorescent lights, but every now and then a window would appear with bars that divided the scenic views of Ramallah. I could clearly make out the tall apartment buildings and Ministry structures that wrapped most of the downtown area. The halls would serve as a means of connecting classrooms and different activities for the students.

The next room we visited was a science laboratory with fluorescent lighting. The windows were all closed, and these too had mechanical blinds similar to those in the teachers’ lounge. The laboratory was divided by large tables with cabinets beneath them and a black marble countertop. Each table had its own built in sink and connections for Bunsen burners. Stools were turned upside down and sat atop each table. On the back wall was a glass cabinet filled with glass beakers and lab equipment.

The next room on our path was a computer room. There were approximately 32 computers, all probably from the late 1990s or early 2000s. The back wall had windows along it, with the mechanical blinds lowered halfway. Natural diffused light filled the room. During the visit, the room was being used by the Amideast, an American educational organization with offices in the West Bank, for testing purposes. I was told that organizations could rent out the space for a fee. On the front wall of the room was a large white marker board and in front of it a desk with a computer for an instructor.

I continued down the long halls until I arrived to the large student auditorium. The room entrance had wooden doors with white paneling and a wooden pediment that sat above the door frame. In the pediment was a circular emblem that said "Emmanuel" beneath it in both English and Arabic. Inside, the room was filled with folding chairs for seating of up to at least 300 people. There was a stage at the front with curtains and a grand piano. The school’s logo was on the foot of the stage and was at least four feet in height. The ceiling had alcove lighting, and on the far right wall was a mural that depicted Christian stories. On the back wall hung a traditional Palestinian woman’s dress that was
swallowed up by the massive size of the white wall behind it. A small door behind this room led to a kitchen where staff and families would prepare for large events with the community. All other private schools that were visited also had auditoriums or large rooms for collective events.

As I walked to the outdoors with the school behind me, the official was excited to point out the newly paved ground with a colored floral center piece. I looked up to see the building I had just left; the façade was of typical Palestinian white rough limestone. Breaking up the surface were stripes, about three feet in width, that extended to the roof and were made up of smaller sized limestone pieces. Hanging on the center stripe right above the doorway was a red map of the entire land of historic Palestine, and engraved in it was the name of the school in Arabic and the year it was built, 2003. Beneath it sat a green sign that said the name of the school in English lettering, also with the year 2003.

Next, I was guided towards the other buildings on the site: the elementary school, evangelical home, nursery, administrative building and kindergarten. All of the structures were built out of the traditional white limestone and wrapped a central courtyard that was being renovated at the time of this trip. The courtyard was isolated from the outside, and its perimeter was filled with tall green trees that framed the blue sky. All of the garden beds were surrounded with a short stone wall, perfect for students to sit on beneath the tree shadow line when they would take their lunch break. All Palestinian schools, regardless of system, did not have cafeterias; students typically ate outside or throughout the interior spaces of the school.

This courtyard also served as the location for lessons on environmental learning, where students learned about composting and recycling. One portion of the site used the perimeter wall as wooden supports for gardening of plants. The administration hoped that, eventually, the gardens could develop produce that could be sold to the community, thus serving two purposes: teaching students the essentials of gardening while making a profit for the school. Historically, Palestinians are traditionally
farmers and gardening is something that is passed on from generation to generation. Thus, these types of spaces are reserved for lessons that are both globally and locally relevant to cultural practices.

I walked in between each of the different structures, evangelical home and elementary school to our right, nursery and administrative building to our left, and kindergarten ahead of me. The home was three stories in height, with balconies that wrapped the front façade of each story. There were doors and windows with green frames and metal bars on the outside. Beneath each window sat a pot of flowers that draped over the rim. This side of the home faced the interior of the courtyard, overlooking the main crossing paths amongst all of the buildings. Each building had its own designated outdoor areas. The kindergarten students were not permitted to mix with older students during outdoor free time as per the requirements of the MOEHE. The nursery had a large playground with slides and cartoonish sculptures. Tires standing on their side wrapped the playground with a rainbow colored arrangement. The entire playground was wrapped with trees, providing shading all year round.

Near the other side of the school’s grounds there was a large paved basketball court and two hoops. Hovering directly above the court, with only a masonry wall and short trees to separate, was a residential villa. I was told that there were no problems between residents and the school community. The masonry wall was actually the school’s perimeter wall, separating the massive school complex from the rest of the community. The wall varied in height and material as it twisted and turned around the school structures. At certain points it turned into a retaining wall with dropping landscape behind it, and at other points it was just a metal fence that wrapped around student agricultural projects.

Sitting along the perimeter of the basketball court was the restroom facility for the students, also constructed of traditional white limestone. Along the structure were outdoor water fountains for the students. The roof of the restroom structure extended outward, providing a covering for an outdoor
meeting area for the students. In the morning, the students would line up with their classmates in the meeting area to hear announcements before the day would begin.

I continued walking back to where I had started. The official took me to the roof of the main school building to show me around the neighborhood. I realized he wanted to point out another building not too far from where we stood that was also a part of the school – a vocational school for the students in grades 11 and 12 that offered training in computer systems, hotel management, electronics and so on. As he pointed to this structure, I noticed the significance in being able to claim a building that was not located on the main school grounds. The distance between the two structures expanded the school’s zone, and allowed for a greater sense of ownership of the neighborhood context. The school and the community were one and the same.

As I neared the end of the tour, I was taken back down to the street level and passed a student-painted mural on the back wall. It was a series of images of animals, as if to represent a petting zoo in Ramallah’s backyard.

<table>
<thead>
<tr>
<th><strong>Date of Establishment</strong></th>
<th>1962 in Ramallah city center, then moved to new site in 1967</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Donor Funding</strong></td>
<td>Evangelical Network, non-profit organizations, private donors</td>
</tr>
<tr>
<td><strong>Cost of attendance</strong></td>
<td>5,000 shekels per year, or $1,000USD</td>
</tr>
<tr>
<td><strong>Number of staff</strong></td>
<td>54 teachers; 22 staff and administrators</td>
</tr>
<tr>
<td><strong>Number of students</strong></td>
<td>900</td>
</tr>
<tr>
<td><strong>Average students per class</strong></td>
<td>28</td>
</tr>
<tr>
<td><strong>Grade levels</strong></td>
<td>Preschool, Kindergarten – 12th grade</td>
</tr>
<tr>
<td><strong>Buildings on site</strong></td>
<td>6: Kindergarten, Nursery, Library + Administrative, Evangelical Home, Bathrooms, Secondary School</td>
</tr>
<tr>
<td><strong>Buildings beyond site-proper</strong></td>
<td>1: Hotel management and vocational training</td>
</tr>
<tr>
<td><strong>Interior spaces</strong></td>
<td>Classrooms, computer lab, science lab, art room, library, auditorium hall, administrative offices, book store, teachers’ support rooms, student and staff restrooms, bedrooms</td>
</tr>
<tr>
<td><strong>Outdoor spaces</strong></td>
<td>Basketball court, playground, open paved courtyard, green learning spaces, covered tiled courtyard</td>
</tr>
<tr>
<td><strong>Total site-proper SF</strong></td>
<td>86,252 sq. ft.</td>
</tr>
<tr>
<td><strong>Elevation of site-proper</strong></td>
<td>2,660 ft.</td>
</tr>
</tbody>
</table>

Table 11: Private School Case Study Profile
ANALYSIS

The private school case study has been in development on this site since 1967. At this private school, flexibility in regards to the spatial boundaries has allowed this school to deepen its investment in the neighborhood context by tacking on buildings overtime. Even as newer buildings are being constructed, they span out beyond the immediate school zone further into the neighborhood. This expansion should not be taken lightly, as it expresses the ability of Palestinians to plan and construct broadly in the face of militarized enclavisation where the loss of land is always a threat.

The school perimeter wall delineates the boundaries for the school zone and is the first indicator used in qualifying outdoor spaces. School boundaries result in the exclusion of certain types of sensory information and the inclusion of others. Architect James Ackerman addresses the nature of institutions and architecture: “Buildings provide space and shelter for the functions of social groups. The purpose and the values of the group and its relationship to other groups is the essential content to which a building gives form. Architecture is the physical form of social institutions.”\(^{163}\) The perimeter wall can be read as the negotiator between social institutions of the school system and the local community. The wall of the private school indicates the school’s programmatic and functional flexibility in regard to its expansion over time, transformation, and amalgamation of materials. This flexibility enables a dialogue between the school’s spaces and the neighborhood context, where both are pushing the bounds of one another over time. These intimate dialogues create the sense that there is a shared claim or ownership between the neighborhood community and the school community on the entire neighborhood context. This thesis argues that these moments of shared ownership of architecture and space are potentials for combatting years of a military occupation that seeks to dismantle Palestinian claims to land and collective community.

In regards to community access, there were multiple entrances at this school giving the community at large greater access onto the site. However, the private school made no steps towards disabled people’s accessibility. This is probably due to the old age of most of the structures, and would need to be considered for future updates. Programmatically, this school’s auditorium is a special space, in that it can brings families and the local community into the school and allows them to get involved in their children’s educational experiences. Encouraging and facilitating parent and student activity has been shown to enhance a child’s education. This space is essential in bringing the local community into the school; however, academic Alan Green further states that these spaces must work to reintegrate what the community deems as necessary in regards to social services.\textsuperscript{164} Thus, just having the space is not enough. According to Green, schools should deploy their spaces, “based on the needs of the community... [including], out-of-school facilities and programs as a completely legitimate extension of the educational program.”\textsuperscript{165}

For students at this private school, because it was further away from the city, driving was typical. However, other private schools could be located closer to residential centers like a school visited in Beit Sahour, Bethlehem. Whether a private school is located in a suburb or city, they tend to be further from structures of the occupation and their children have the option of driving as opposed to walking. Structures like the Separation Wall and settlements are seen in the backdrop to daily life and may not require much interaction. This realization was important, in that it began to show that regardless of class and status, every student at least visualizes what a military enclave is through physical manifestations such as high walls, towers, and barbed wire. Furthermore, neighborhoods that belong to Palestinians, poor and elite alike, sit in the shadows, at lower elevations than highly developed Israeli settlements that exist in Palestinian territories. Three miles east of the school in Ramallah is the

\textsuperscript{165} Ibid, 72.
Pesagot Israeli settlement, hovering above the rest of the city. The Separation Wall constructed by Israel is located approximately two miles to the south of the school. Thus, even though they may enjoy lifestyles that are better than some Palestinian communities, students of private schools still share the same fractured landscape.

Looking directly at the school’s architecture, there are several buildings that serve 900 students, alleviating issues of over-crowding in classrooms and shared spaces. Each of the buildings is similar in form, plan, material, and scale – regardless of year of construction. The buildings as they develop over time have turned the school zone into a micro-city of its own. This has led to a mixture of interior and exterior spaces that allow for a diverse curriculum. Academic Paul V. Gump describes the journey that a child takes through a school building as a process of moving through experiential segments. Each segment indicates a moment of reality, with its own temporal duration, bound by certain spatial limitations. With more diverse and active segments, the learning environment can become more stimulating.\[166\] These types of spaces allow children to have a variety of experiences on the school grounds each year. With each year that they progress, they move from floor to floor, then from building to building, with different outdoor spaces to utilize. The experiences of the youth in this private school are encompassed from the nursery age until adulthood and are expressed through their travel throughout the learning environment over the years.

The classrooms, regardless of subject, were fairly standardized and repetitive, and were laid out in a format where teachers stood in the front and taught to the students. This type of rectangular classroom has been described by academic J.W. Getzels as the room for the, “empty learner,” and is based off of theories on child cognitive processes from the turn of the century.\[167\] Getzels explains that

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these rooms were designed with, “the conception of the learner as an ideationally empty organism associating discrete stimuli and responses through the operation of rewards and punishments under the control of the teacher.”¹⁶⁸ So even the newest structure on the site, the Secondary School Building (built in 2003), was still being designed without consideration for new theories on teaching methodology. This type of disconnect would indicate the severe lack of communication between architects and educationalists in the OPT as mentioned in the literature review of this thesis. This classroom layout was common in all of the private schools visited during field work.

The private school case study has certain positive and negative attributes in its learning environment. Overall, the school’s system with a minimal number of stakeholders who share a united vision allows school planning and design to happen on a much more intimate scale. Renovations and additions are much more relevant to what the school needs because they are determined by the school’s administration. Through research, it was not learned whether or not the community was also involved in a process of participatory planning and this would be a point for further exploration in the future. In regards to the neighborhood context, the school has developed a flexible perimeter that is tied with its longstanding development on the site. The correlation between time and school growth into the neighborhood can lead to a sense of shared ownership between community and school over the learning environment that can enhance the school’s relevance for students and families. In regards to the school architecture, the form and materiality of the buildings are still being constructed in more traditional school designs. Here, there is a potential for innovation and advancement which can add value to the neighborhood at large. Thus, the intention of new buildings should not solely be to enhance the quality of spaces in pursuit of better student scores, but rather to add value to the neighborhood richness through more diverse architectural projects. Finally, in looking at the classroom scale, where students spend most of their day, rooms are still being designed in traditional organizational plans with

¹⁶⁸ Ibid, 3.
rote teaching methods in mind. Even though there is a variety of spaces, academics and architects agree that spaces must be designed in new, interesting ways where students are able to make their own decisions as a part of their individual growth.

In conclusion, by looking at the learning environment of the private school case study from the level of system to child, it is apparent that there are strongest links between the neighborhood context and the school buildings. The child’s journey is made easy through vehicular movement and the school’s administrative system maintains close control over the school. Thus, the four layers of this learning environment seem to work most in sync with one another. However, the school has not transformed its design since its establishment in the late 1960s, making most of its spaces and architecture outdated. New architectural forms for schools should be added to the Palestinian landscape, as an opportunity to counteract the bleak backdrop of enclavisation and to give students spaces to be proud of.
The UNRWA school case study was less than two miles from the private school I had visited the day before. Even though I had visited the West Bank six times previous to this trip, I had never gone to a refugee camp. All my preparatory reading wrote of the low quality of the camps, and I expected the same for the schools. However, when I arrived, I was instantly surprised by the tall four-story structure that stood before of me.

This school was located on the edges of the Amari camp, so I did not have to drive through the camp to arrive to its entrance. In fact, the entrance of the school faced a main street that connected the camp to one of the Ramallah governorate’s suburbs, El-Bireh. I wondered who this entrance was designed for. If one were not from the camp, like regular visitors from international groups and officials from UNRWA, one could completely bypass the child’s life in the camp and their journey from home to
school. But for a child, their daily walk would require that they walk from their home, through the camp’s winding paths and dense infrastructure, around the back of the school and to the main road.

The entrance was a blue sliding gate that fit into a large perimeter wall that wrapped the school property. The portion of the wall that was made of rough limestone was approximately 10 feet tall and faced the street; as the wall peeled back onto the site it maintained its height but changed into a wire fence. On the street side, there was a sidewalk with railing along the school’s boundary, to protect children from street traffic. The massive school building hovered not too far behind the wall, and mounted atop its roof was a blue and white UNRWA flag representing UNRWA’s helping hand.

As I passed through the blue gate I was met with shorter white walls that separated parts of the outdoor area from the main building. Painted on the white stone walls were framed scenes of green trees and blue rolling hills. To my left was the outdoor play area for all the children of the school. Near the back of the courtyard was a shaded stepped area that seemed to be able to seat 200 small children if they all sat crowded together. The steps continued towards the right along the back side of a second UNRWA school and were left exposed to the open sky. To the left and right of the courtyard were basketball hoops for children to play. The school perimeter wall continued around and behind the courtyard and served as the perimeter wall for the other school as well.

The main building, adjacent to the courtyard, had four stories of solid, opaque mass on its ends and four stories of windows in between. The solid mass on the ends contained the stair wells, while the classrooms were indicated by the windows. The entrance doorway was set back under a cantilevered second floor in the center. The cantilever was supported at the end with columns, and shallow arches connected each of the supports. While most of the building’s façade was a sand-colored stone, white columns broke the façade all the way to the roof. As the columns reached the ground level, they were painted to depict large red stone. Above each of the black-barred windows were solid cantilevered
shades. A white name plate hung above the main archways leading into the building and had the name of the school and the UN’s logo in blue.

I walked through the archways and under the outdoor covered area; the door was set back approximately 20 feet. As I walked towards the main door, a makeshift storage area was to our right and seemed to have been installed after the construction of the main building because its walls and doors were prefabricated aluminum pieces.

Once inside, my eyes danced all over the corridors, surprised and in awe at the massive and intricate murals painted along the walls. Each column that continued down the halls followed the pattern of the stone-painted columns from the exterior. In between each column there was either a doorway leading into a classroom or a historical depiction of Palestine. On the walls just below the ceiling were clearstory windows that brought light into the main hallway. If a room had computers or laboratory equipment, then these interior windows had metal bars placed on them to protect the equipment. At either end of the hallway sat open stairwells leading to the next story.

I met an official of the school at the entrance, and instantly I asked him about the murals on the walls. He explained that they had hired a professional artist from the community to do the paintings in an effort to beautify the building and give life to the bland walls. I noticed that alongside the murals were “no-gun” signs. According to the school official, these were mandated by UNRWA indicating that schools are no-violence zones. But he felt that they were intended for international visitors, mainly NGOs, to give them a sense of comfort. In reality, however, there was no way to keep the school an absolute safe zone in the midst of an occupation; and thus, even though the signs were put up, it was in vain. I was personally intrigued by the juxtaposition of the two types of imagery: symbols of beautification and reminders of a conflict. The murals were not only there to beautify; but their content

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169 Mural work is typical in Palestinian public spaces. Murals generally depict memories of Palestine prior to the Nakbeh of 1948 and are located all over the West Bank. For more information on mural work in Palestine see “Palestinian Expression inside a Cultural Ghetto,” by Kamal Boullata in the Middle East Report 1989.
portrayed pre-1948, i.e., pre-war, Palestine. The overabundance of the murals placed the school in a
time machine, plunging back into the refugee community’s memory of what they believe to be their true
homes and identities. This reflective imagery wrapped the walls of the school and consumed me. I could
only imagine how this would appear to a child, much smaller in size than me; but the no-gun signs would
break my fantasy and quickly bring me back to the reality. Perhaps this is a small glimpse into the life of
a refugee, constantly straddling between two realms, one deeply engrained in memory and the other a
bleak reality. These thoughts remained in my mind as I traveled throughout the school.

I sat in the official’s office, where I could ask questions and talk with him casually. He was from
the Amari Camp but came originally from a village called Al-Lid which was depopulated in 1948. He
received teacher training from UNRWA and eventually took a leadership role in the school in 1999, just
four years after the school’s opening. He still resides within the camp, and he shared that this closeness
to the students was an asset allowing him to stay abreast of the students’ home lives. The students, as
well as he, usually walk from the camp to the school. If a student lived outside the camp, he could
potentially arrive by car if he had the ability to do so. Teachers were either from the camp or
neighboring cities, and usually arrived by car if they were further away.

UNRWA hired staff that included 33 teachers, along with maintenance attendants, a counselor,
and some special teachers for disabled students. Special education is available for students with learning
disabilities such as dyslexia. Students with physical disabilities are required to study on the main floor,
and thus so is their entire grade level, each year that they study at the school because there are no
ramps or elevators to other levels. Thus, if computer labs or the library are on higher levels, they cannot
enter these spaces. On the top floor, there is a resource learning center completely unattainable by
students with disabilities.
As I continued through the building, the murals became more and more intricate. I looked closely at the images and noticed that the students had scribbled on most of the walls and their murals. Hanging from the ceiling of the main corridor were threaded pottery art projects created by the students. Near the main entrance, there was a fairly expansive mosaic image of the Dome of the Rock in Jerusalem. The image depicted the neighboring mosque, known as Masjid al-Aqsa, with some of the other structures located on the site. Beyond these structures were images of greenery. Quranic text referencing the Masjid al-Aqsa site appeared on the left region of the mosaic, and this was wrapped in a ceramic frame.

![Figure 29: Dome of the Rock Mosaic and Quranic Script, UNRWA School Case Study, August 2012, Source: Jenine Kotob](image)

The translation of the Quranic text in the frame reads as:

_In the name of God, the most gracious, the most merciful
Exalted is He who took His servant by night from al-Masjid al-Haram to al-Masjid al-Aqsa, whose surroundings We have blessed, to show him of Our signs.
Indeed, He is the Hearing, the Seeing._

This verse from the Quran is significant in that it locates the night of Prophet Muhammad’s ascension into heaven at the site of the Dome of the Rock. The holy site of the night of ascension in Jerusalem is sacred to Muslim Palestinians and Muslims world-wide.

Because it was summer time, the school had stacked a group of chairs and desks against the elaborate mosaic. On the wall of this mosaic, and adjacent and similar in size to the religious scripture, was a sign thanking the French organization Terre Des Hommes Foundation for implementing a music program in the school. After visiting the school, I learned more about the program and what the plaque recognized. The program name is *Music Bridges West Bank, Italy, and France*, and its goal is to provide a platform for cross-cultural dialogue through music. Students and music professionals from Italy and France work in three refugee camps in the West Bank: Jalazone, Amari, and Kalandia. The French foundation, in conjunction with a local music association in Ramallah called Al-Kamandjati, believes that music will cultivate skills that are applicable to a child’s entire life such as social skills, listening skills, motor skills, positive performance, and so on. This plaque would be the first of many that I would notice as I toured the building.

I continued through the building, passing a teachers’ lounge, teachers’ restrooms and teachers’ kitchen space. All were well maintained. The kitchen and restrooms featured white tile and gray-painted door frames and counter tops. The teachers’ lounge was a large space, spanning at least 30 feet in length and 15 feet in width, with windows along the longer of the two walls. The room was filled with tables and cabinetry, and the walls had bulletin and white marker boards for notes.

After the teachers’ spaces, I walked down the halls, all the while observing the murals. The paintings depicted agrarian farming scenes, with live animal stock and vast landscapes. A tall painting of a Palestinian woman dressed in traditional garb was depicted next to a classroom entrance. As I walked through the door, our eyes met at eye level. Again, above the murals were more clearstory windows,
protected by bars to keep computers safe from theft. The computer room was filled with three rows of six tables, each with a computer on top. At the back of the room was a floor to ceiling mural of a generic water landscape with a boat and tower. The boat had a Palestinian flag at the top of its mast. Other rooms that we visited also had similar murals. The art room next to the computer lab had a floor-to-ceiling mural of Jerusalem, with the Dome of the Rock painted in vivid blue and gold colors. The structure was nestled into a dense city backdrop showing the Old City of Jerusalem’s domed roofscape with tall industrial buildings in the background. Half of the mural was covered, though, by furniture being stacked up during the summer months.

Room to room we traveled. Next we found ourselves in a classroom with the desks laid out in rows. It was a bright white room, approximately 18 feet by 15 feet. The back wall had hooks for students to hang their bags and coats. The wall furthest from the classroom door was broken up by large windows, about three feet by four feet in dimension. The windows let in a great deal of natural light and ventilation. Above my head, the ceiling was broken up by light strips and dropped beams that spanned the room’s width. I stepped towards the window, and my eyes were struck by the outside scene of a dense refugee camp behind the school building. This image was hidden from view as I approached the school’s entrance, and only now was I made aware of the realities of the camp’s urbangscape.

Turning away from the reality of the camp beyond the school, I walked down the hall toward the library. The room was long and had two rows of wide tables surrounded by chairs. Along the back wall and the wall that contained the door were book shelves. The opposite long wall was also covered in windows, but the curtains were pulled down to protect the books from the summer sun. Beneath the windows were storage cabinets for the room. One of the walls had a fan attached to it, and that sat close to the ceiling. On the front wall there was a television with a VCR suspended close to the ceiling,
an area reserved for magazines and newspapers, and a door that led to an adjacent closet that housed a sink and cabinets.

Further down from the library was the science laboratory. The room was long and the floor was broken into a series of stepped levels that incrementally rose by three inches towards the back. On each level there were two wide tables and three stools. Each table was set up with connections for Bunsen burners. The wall furthest from the classroom entrance was covered in windows that were draped with curtains to protect the equipment. The other walls were covered with scientific posters, such as the periodic table of elements and images of the human anatomy. The room was fitted with three air fans along the walls close to the ceiling. The front of the classroom had a large table for the teacher with a green chalkboard and door that led to a storage closet.

The official took us from the interior of the building to the outside again. The restroom entrances were located on the outside and were attached to the courtyard space. Inside, there were twelve toilets, all in traditional Middle Eastern style. The walls were tiled white, and each stall had its own door painted in gray. Next, we walked to the canteen where students could buy snacks during their 30-minute midday break. The room was about four feet by seven feet and had an angled ceiling with a single light strip. It was very cramped, damp, and had no natural lighting. Inside there was a thin refrigerator unit, three small tables with a single chair, and a sink suspended on the wall.

As we walked out from this space, we were taken to the back side of the building, which sat only five feet from another UNRWA school. The space between the two was very cramped, and the closeness nearly eliminated the sunlight creating what felt like a dark alleyway. In this dark space, seats were set up along the building walls.

After this, we walked back through the main courtyard and the school official complained about the small amount of outdoor space for this school of 750 students. He explained that students can get
rowdy and have a lot of energy; because of this they need more space. The younger students, grades one through three, had a different break schedule than the older students, grades four through nine, so they would not all be in the courtyard at once. We eventually parted ways, and passed once again through the school’s perimeter wall, leaving behind the scenes of historic Palestine.

<table>
<thead>
<tr>
<th>Date of Establishment</th>
<th>1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor Funding</td>
<td>Saudi Arabia</td>
</tr>
<tr>
<td>Cost of attendance</td>
<td>Free</td>
</tr>
<tr>
<td>Number of staff</td>
<td>33 teachers; 7 staff and administrative people</td>
</tr>
<tr>
<td>Number of students</td>
<td>750</td>
</tr>
<tr>
<td>Average students per class</td>
<td>32</td>
</tr>
<tr>
<td>Grade levels</td>
<td>1st – 9th grade</td>
</tr>
<tr>
<td>Buildings on site</td>
<td>1: Main Building</td>
</tr>
<tr>
<td>Buildings beyond site-proper</td>
<td>None</td>
</tr>
<tr>
<td>Interior spaces</td>
<td>Classrooms, computer lab, science lab, library, administrative offices, teachers support rooms, student and staff restrooms</td>
</tr>
<tr>
<td>Outdoor spaces</td>
<td>Basketball court, covered seating area for 200 students, driveway</td>
</tr>
<tr>
<td>Total site-proper SF</td>
<td>29,481 sq. ft.</td>
</tr>
<tr>
<td>Elevation of site-proper</td>
<td>2,760 ft.</td>
</tr>
</tbody>
</table>

Table 12: UNRWA School Case Study Profile

ANALYSIS

The UNRWA school case study was constructed in 1995 and is one of several school facilities that serve the Amari Refugee Camp, which was established in 1949. In 2007, there was a total count of 4,713 people living in the camp’s 97 dunums (24 acres) lending to overcrowding; of this, 39.1% were under 15 years of age. In 2012, the unemployment rate of the camp was recorded at 45% lending to issues of poverty. The camp is connected to public electricity, water, and sanitation networks that each suffer from their own inefficiency’s and require rehabilitation and upgrading. Thus, camp residents suffer from electricity cut-offs, water loss at certain points of the system, and wastewater discharge into camp streets. These infrastructural issues affect the quality of living in the neighborhood context for the

172 Ibid, 9.

135
school and its children. The camp is clearly distinguished from the rest of the Ramallah governorate, which tends to be of a higher quality, lending to more unique and negative experiences for refugee children. Furthermore, refugee camps are often targeted by Israeli Defense Forces and suffer from military incursions. UNRWA schools, like a school in the Amari Camp, are broken into with tanks and then occupied on top floors as look out posts.\footnote{UNRWA. "Press Statement: UNRWA School in Amari Camp Occupied." \textit{UN International Meeting on the Question of Palestine}. March 13, 2002. http://unispal.un.org/UNISPAL.NSF/0/8845E45881766ED185256B7C0057C3DC (accessed May 6, 2013).} These differences in quality and experience in the camp need to be addressed on all the layers of the conceptual framework, including child, building, neighborhood context, and system.

Beginning with the layer of education system, this school is part of the larger UNRWA administration which is responsible for the institution of the school as well as the refugee camp. On an administrative level UNRWA is focused on improving the basic needs of the camp, which as mentioned earlier, can have a significant impact on children and their relative success in school. The camp has its own committee that has regular workshops and works with the UNRWA Camp Improvement branch. Through these workshops, it was determined that certain projects were necessary including: paving streets and improving the landscape of the camp, improving infrastructure and restoring houses, establishing a sewage network, rehabilitating the electricity network, constructing public spaces, and providing furniture for certain institutions.\footnote{Ibid, 15.} Many of these proposals were developed through a participatory approach that involved the community. Thus, UNRWA’s close relationship with the community it serves at large as well as the school community is a positive aspect of its administrative organization.

However, because of the extra-territoriality of the camp, it functions more independently of the host country – the OPT. Because of this, the camp and its school have more of a connection with their
refugee counterparts in other nations across the Middle East. This presents a strange dynamic for the Palestinian education community, in that, the societal and administrative divisions are extremely deep between the different groups.

Furthermore, refugee students attend these schools only until grade nine, and after that are expected to go to public schools. In several interviews, this transition was described as being difficult on the students because of the stark socio-economic and cultural differences between the different populations. In an interview, an UNRWA official explained that the school established a summer program to assist students who were expected to join a public school in the next year. The students were exposed to the school during the program ahead of time and were able to meet other children in an informal setting. These internal socio-spatial relations, as mentioned by Taraki, result in tensions between different communities in Ramallah; but, they may not be as severe in other enclaves within the OPT where economic and political differences between refugee and non-refugee communities are less significant.

Next, the relationship between building and neighborhood context will be looked at more closely. While UNRWA is responsible for both school and camp, it maintains that the school functions on an independent level from the camp; and, this is expressed through the perimeter wall that strictly defines the school zone. This tall, massive wall limits community engagement with and access to the school. The UNRWA school case study has one entrance that faces the suburbs of Ramallah. Even though its students and some teachers and staff live inside the camp itself, they are required to walk around the building to the main road to enter the site. Furthermore, the wall defines the boundary where the camp ends and where school begins. This type of delineation is difficult considering the fluid nature of the camps. In other school visits during field work, it was found that certain communities would use the perimeter wall of the school informally as walls for their own homes. There were
examples of the wall being punched through for windows and even exhaust systems. It is impossible to contain the school zone and keep the camps out.

A deeper look must be taken at the dynamic across the boundary between the neighborhood context and the structure for education itself, the building. This dynamic encompasses social issues that affect the child’s experiences in both realms, and during the journey in between. Academic Hugh Matthews describes a child’s journey through streets, or what he describes as “thirdspace.” Streets can be understood as the margins in between the spaces that have been designed for us to occupy. According to Matthews, the streets are uncontrolled and enable a variety of experiences and cultural confrontations. “…The street provides a setting for disparate activities, it also is a space that is deeply invested with cultural values that forms part of the spatiality of growing up.” 175 From this, it can be understood that all children as they explore streets are involved in a constructivist process of attaining knowledge through the accumulation of experiences – which are both unique and similar at the same time. Matthews describes a child’s movement through streets as a walk from childhood to adulthood. For children in the refugee camp, moving towards adulthood means growing with the occupation, not independent of it. As mentioned at the beginning of this chapter and based on the historical analysis, finding opportunities to involve the neighborhood context in the learning environment is important for providing a sense of shared ownership of education as well as making education more relevant. Recognizing a child’s experiences outside of the school zone is both an issue of curriculum development as well as spatial flexibility in school planning. Here lies the opportunity for a connection between the realm of school and neighborhood; but, in facing the school away from the camp and using a tall perimeter wall, there is a complete denial of these experiences and the journey of a child.

On the level of architecture, the building on this site is similar in design to that of the private school structures. It has a rectangular floor plan, with a single corridor and classrooms on either side. The school was four stories in height, with a UN flag mounted on its top. Unlike the private school, the camp school had no views into the neighborhood from the ground floor, but rather was encapsulated by a tall perimeter wall. The building is one of three standard UNRWA designs, and is called a hammerhead because of the stairs situated on either end of the building. For UNRWA schools, once a site was selected, one of the three designs was chosen depending on its shape and space. The leftover spaces would become children’s outdoor play area. This results in a lack of design care for the outdoor play area, which has the potential to be a significant space for adding to the richness and variety in student activity.

Academic Robin Moore reflects on the work of landscape architect Simon Nicholson who postulates about the nature of school yards:

*The only way to provide for a high degree of individual expression is to ensure that the environment is ambiguous, open-ended, and changeable so that the children can manipulate it physically and mentally to suit their own ends. This will require a revolutionary change in the way in which authorities manage school yards.*

Moore continues that outdoor spaces should be diverse and should allow for children to play. In this passage it is important to note that it is encouraged to design the school yard as open-ended and changeable, which echoes constructivist thought on the multiplicity of space. This concept is significant in that it recognizes each child is unique, especially as they come in with their own experiences from the neighborhood context or “thirdspace.” Comparing the outdoor spaces of the UNRWA school to that of the private school, there is a significant difference in how diversity is interjected into the landscape. The private school case study has provided students with a variety of outdoor spaces that encourage a

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milieu of experiences. Even though UNRWA schools do not have the luxury of expansive space as the private school, Moore notes that diversity in space does not need a lot of room. Diversity can be programed through the use of structural elements, plants and trees, water, and even wildlife. Architectural elements can be placed throughout the open space to break it up, providing spaces for hiding and exploration, climbing and moving.

Furthermore, these spaces are only allowed to be used by the student population during school hours. During other interviews, it was explained by officials that this was done in order to minimize potential damage to school facilities without the supervision of the administration. While this could present a problem indeed, it seems like the lack of public spaces in the camps is a larger problem – especially as indicated by the camp community network.

School yards...represent potentially neutral territories at the social interface of school and community where the culture of the future and the culture of the present – childhood and adulthood – intersect.... The hope for change lies in the power of the community to take over these dead territories and work with children to redevelop them. It is a political situation requiring direct community action involving the fundamental rights of children to have access to a healthy environment.\[177\]

The outdoor space of the school should be made accessible to the local community and families throughout the year, making it a shared space by both school and neighborhood. These types of opportunities lay the foundation for bridging community and school, and making each one have a sense of responsibility and investment in the other.

Also, the fixed nature of the perimeter wall does not allow for expansion of the school zone over time. Other UNRWA schools that were visited had a process of school construction, then demolition, and then new construction in order to make more space for a growing population. This has resulted in a process of verticalization as opposed to horizontal expansion. By moving vertically, the school grows in height and its monumentality as an institution grows – separating it further and further from the

\[177\] Ibid, 119.
community. Thus, the school building’s design is significantly limited by the lack of space of the camps and the inflexibility in the boundary of school zone.

Another UNRWA standard that was seen from site visits was a structure that included an atrium in the center with a winding stairwell; and, a wing on either side with classrooms and spaces. UNRWA’s use of other designs that are not typically found in the Palestinian landscape has added some diversity to the architecture of schools. During an interview with an official from UNRWA’s design team, it was mentioned that the MOEHE requested to see UNRWA’s construction documents and was beginning to implement their designs in the OPT as well. UNRWA’s global influence has provided it with the ability to transcend certain limitations or drawbacks of being in the OPT; and, at certain times newer architecture indicates innovations in school design that counters the negative aspects of the structures of the conflict – including refugee camps. However, regardless of new innovations in design, if these structures remain behind tall perimeter walls and do not work to integrate the community better, they cannot be actualized as transformative and empowering spaces.

Beyond form, this school building has an image that is being presented outwardly to the community, and a different image that faces inward towards itself and students. UNRWA’s position as an international humanitarian organization grants it the right to put its own flag on top of school buildings. The flag, which embodies the humanitarian mission, implies that the school is a symbol of peace. Furthermore, all over the building’s façade and interior spaces are images of no-gun signs. This also implies that the school is a symbol of peace and more specifically, a no-violence zone. However, as was mentioned schools can suffer regularly from military related activity. Thus, these symbols of safety and peace remain just that, superimposed, institutional images on a building. This institutionalization is the type of façade and message that is being presented towards the community and has little to do with any sort of local tradition.
Also, visible on the façades of UNRWA buildings are plaques that indicate donor aid either for an entire building, wing expansion, or floor addition. Out of the entire school sampling, this varied if multiple buildings or levels were newly constructed or expanded over time and all currently existed on the site. This is because UNRWA’s designs have also changed over time, and thus plaques become temporal indicators of when a building was constructed. And buildings become symbols of changing institutional styles. Between the UN flags, donor plaques, and no-gun signs, the school gave a sense of otherness – more closely connected to other UNRWA schools scattered throughout the Middle East as opposed to the immediate context.

On the interior of the building, walls of classrooms, as well as hallways, were typically painted with murals that evoked traditional Palestinian themes. These images had within them symbols that were prevalent in Palestinian political discourse. Elaborate murals are common in Palestinian public spaces, as the one depicted below in the northern city of Nablus.

These symbols can be distilled forms from Palestinian traditions and cultural practices such as dress, food and dance. Or they can relate more directly to themes of loss and conflict, such as the symbol of the key which represents homes that once belonged to Palestinian families. However, murals inside school buildings were not commonly found, except for UNRWA schools. These murals either focused on symbols of Palestinian traditional life or on religious themes. In the UNRWA school case study there were both types of themes. The elaborate imagery speaks to the nature of refugee memory.
and narrative.\textsuperscript{178} The future of refugees is left unknown and is at the heart of the political debate. Thus, they remain inside temporary camps with no future in sight. They live a sort of in-between life and often find the strength to survive to the next day by recalling on memories from before the \textit{Nakba}, or the Catastrophe of 1948. These stories are shared from generation to generation.

Religious imagery is not typically found in schools, even Christian private schools. Thus, it is interesting to find it so abundant in refugee camp schools. However, as discussed in the historical chapter \textit{kuttub} schools that were located in villages during the Late-Ottoman era were deeply connected with the local mosque and focused on religion. \textit{Kuttub} schools became absorbed into the public school system when the British took control, and indicate one of the last forms of community-led education. Perhaps the emergence of these symbols in refugee schools is a recollection or reinvention of older memories of localized, religious schooling.\textsuperscript{179}

At the smallest scale, the classrooms are also rectangular in shape and indicate traditional designs with the teacher in front of the room. The same ideas are echoed from the analysis of the private school, where the classroom environment does not allow for new types of teaching methodology and more current theories on student experience in space. Furthermore, while there was some diversity in classroom program such as computer and science labs, these rooms were not always accessible to disabled students because they were on higher floors. On a global scale, newer designs for classrooms include proposals like open plans where the space is left completely free of objects. The hope here is that there will be less interference from teachers in an effort to increase student capacity to make their own decisions. However, even if a classroom was designed in a certain way, research has


\textsuperscript{179} For more on the reinvention of village life in refugee camps see: Maraqa, Hania Nabil. \textit{Palestinians; From Village Peasants to Camp Refugee}. University of Arizona, 2004, 42-43.
shown that it is difficult to enforce this after teachers and students took over. Thus, school architecture all the way down to the classroom, is not being examined for its impact on human behavior, but rather for its role as a building that can serve the greater community. Expanding classroom and building function so that community is enabled to enter the structure will enable a greater sense of neighborhood ownership of the school. And in recalling the historical chapter, these types of spatial and architectural integrations can lay the foundation for societal empowerment.

The UNRWA school case study has some positive and negative aspects in its learning environment. The conceptual framework looks at the layers of system, neighborhood context, building and child on an individual basis as well as how they link with one another. Overall, it was found that the biggest limitation on the expansion and flexibility of learning environments is the restriction of space. While the private school was able to expand overtime and deepen its roots in the community, the refugee camp school, along with the camp, has fixed boundaries that were established in 1949 that can never be transformed. This lends to a sense of static-ness, where the school zone and even its interior spaces are frozen in a past time. Even if UNRWA as a global network has some positive impact on school designs by adding variety, these structures are still hidden behind tall perimeter walls that are used for safety and protection of the school.

The perimeter wall that wraps the school and access points into the school zone express a rejection of the camp and produce inwards facing environments. Furthermore, the façade of the building portrays an image of humanitarian institutionalism and offers no connections with the local community. As mentioned earlier, it is important that the architecture of schools instill a sense of positivity in order to combat the negativity of the camp and other manifestations of the occupation. However, this opportunity is missed by isolating the school behind a tall, impermeable perimeter wall and by using outward indications of the institution of UNRWA.

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180 Higgins
In conclusion, this school, along with UNRWA’s other refugee schools must place more effort in bridging the gap between school building and neighborhood context in order to make learning environments more suitable for children. However, UNRWA should continue moving towards the construction of more innovative projects in order to provide positive structures that can add value to the neighborhood in opposition to the sensation of loss that is a result of the occupation.
It was my fourth day of travel, and I was finally visiting my first public school located in the Ramallah governorate. Even though the school was in the Ramallah governorate, it was considered under the jurisdiction of the El-Bireh Municipality and was located in a suburban, residential area of Ramallah. The perimeter wall near the front of the school was made of rough white limestone and was three feet in height. It was broken up by 10-foot high limestone columns that sat approximately every eight feet. Above the short portion of the wall were steel fence panels, framed by the tall columns. The break in the materiality with the metal fence allowed me to walk along the wall from outside the school zone and see what was going on inside. Likewise, from inside the wall one could see what was happening in the neighborhood.

There were not many structures around the site itself, except for some tall apartment buildings down the road and to the rear of the structure. Most of these were still in construction and had yet to
be completed. There was a small, old house across the street from the school that sat on a wide open plot of land. I imagined what it might be like to be a child who went to school in a place like this – there did not seem to be much stimulus or excitement going on in this area aside from the new construction projects. There seemed to be a lack of connection between the school and its surrounding context in terms of building types and program.

I arrived to the site by car, and drove through the blue gate and up the large driveway. On either side of the driveway were garden beds with trees, bushes, and flowers. Each garden bed was made of concrete and was intentionally designed to fit into the sloping site. To my left was the main school building made with a white limestone façade. The building was three stories in height and its surface was flat and smooth to the top. At window locations, the stone would peel back, creating punch outs for light. Each window had its own decorated metal fencing for protection. The surface of the building did not change at all from the front, to its sides, and around to its back – it maintained a constant flatness with the smoothed limestone. The windows also continued in rows around to the back of the building with the same height, except for some smaller windows on the ground floor.

There was a paved area on the right side of the main building, suitable for ten or more cars to park inside the school’s perimeter wall. There were parking spots painted on the ground with paved barriers every three spaces with planters inside. The school’s perimeter wall transformed from limestone at the entrance and was now a rising concrete retaining wall. Its highest point in the back nearly tripled in height from the ten foot tall metal and stone fencing at the front of the building. A paved road wrapped the school site, and beyond the perimeter wall sat a large construction site. Metal fencing stretched along the wall’s top to protect pedestrians who walked above. Around the back of the building, I could see a large blue tarp attached to the school from the top of the perimeter wall. The tarp was installed to shield the students from the dust of the construction site.
The wall was painted with several large, framed murals. The mural to the right depicted a night scene with a boat on the water. It seemed to be a generic mural with no real place or context. The mural was approximately five feet by five feet. The next mural was also of a water scene, but this time at sunset with a red sky. In the foreground there were two shadow people sitting on a dock, looking out towards the water. This mural was at least double the width of the first but the same in height. To the left of this mural was the name of the school in Arabic, painted on a yellow background. It was approximately ten feet in width and three feet in height, raised three feet off the ground. Beneath the name was another garden bed with a few plants. Continuing along to the left was a mural of the Dome of the Rock nestled in the Old City of Jerusalem beneath a blue sky. The image was set in a frame and was approximately ten feet in width by six feet in height, raised one foot off the ground. In the foreground were trees, grass, bushes and other greenery. Finally, to the left of this mural were three more large murals that appeared to be of generic European or Western sites. One showed a blond child playing with water in a flower garden, another a cottage with a water wheel, and another depicted an aristocratic woman sitting in a chair along blue water with a waterfall behind her. It struck me as strange that these Western scenes were at the greeting area of the school, especially in such large dimensions. These large images, while attempting to add beauty to the gray concrete, also created the illusion of expansiveness and infinity.

Behind the school, I could see more garden beds beneath the main building. The beds were made of poured concrete and rose in height along with a ramp that sat along the building. The ramp traveled towards a back entrance. From this point, I returned to the front of the building to meet the school official.

The official had agreed to meet with me for an interview and tour. She spoke proudly of the school, but referred immediately to the overcrowding problem in classrooms, with approximately 50
students per class on average. The building was constructed only in 2004, but when the school first opened there were 480 girl pupils, and now, eight years later, there were 700 girl pupils. The official worked in the school since its opening, and before that she was a teacher at another school. The students at the school are typically from the El-Bireh and Ramallah areas; however, the school also receives girls from refugee camps once they’ve completed their ninth grade with UNRWA.

There are some drop outs in the school, mainly for early marriage. According to the official, of the last year’s 12th grade class, 56 students took the tawjihi exam and 70% passed. This was a drop from last year’s 96% passing. By the 10th grade, if students are doing poorly in school or do not enjoy academics, they have the choice to attend nearby vocational schools. These schools offer curriculum towards being seamstresses and in cosmetology, but are beyond the scope of the public school case study.

The school was funded and designed by an independent Spanish organization and constructed by a Palestinian contractor. The Spanish organization checks in every now and then to make sure things are running smoothly. A project was also funded by the government of Holland to design rooms specifically for improving student behavior and cooperation with one another. There was also a donation from an Italian organization for exercise equipment for the girl pupils. They were also donated 17 laptops for students to use on school grounds. Also, they received a donation of 15,000 shekels for musical instruments to be housed in the school. Some of the rooms are rented out to the Amideast or SAT testing services for examinations of students. All donations must be approved through the municipality before being accepted. According to the official, they have been rewarded on several occasions for their excellence in student achievement and success by the El-Bireh municipality. The school was selected by the ministry to be used in the summers for a camp that lasted 21 days long. Another camp happens at the school during the summer for children of parents who are in prison.
Throughout the school year, students participate in all sorts of extracurricular activities such as dance, music, art, and sports.

She said that the teachers and staff appreciated the design of the structure and felt that it was one of the best in the area. Because of these, she explained that the girls treated the schools better in that they did not scribble on the walls or damage property. The El-Bireh municipality manages the school and its building and does annual checks on the infrastructure and safety. The building has heating, but no air conditioning – rooms are fitted with fans. Restrooms are maintained regularly by staff and cleaned three times a day. Water tanks are cleaned twice a year by the municipality. The official continued to discuss the school and her work, as I motioned that we proceed with the tour of the interior spaces.

Her office was near the entrance to the building and to our right was the main hallway. Along the walls of the halls were two murals of traditional Palestinian imagery. One was a Palestinian woman standing with the sun behind her head and stones beneath her feet. She held a pot on her head in the painting. The other was a scene of a series of houses in a Palestinian neighborhood. These murals were painted near the bottom of the wall and only went up halfway its heights. Above the murals were barred windows to the outdoors. The bars were used to hold smaller images and paintings – some of Islamic scripture in Arabic and others evoking Palestinian themes. These last paintings seemed to be student produced.

Across the hall from the murals was the teacher’s kitchen and lounge. The tiled kitchen had a large double sink with upper and lower yellow cabinetry. Some of the cabinets seemed to be falling off the hinges and several drawers were left open. Further down the hall the classrooms began, and in this area a wall devoted to images of students with high scores and their grade mark. This seemed to be a way to reward high student achievement. Near the wall of images was a glass door that led to the back
of the building. Looking through the door I could see the paved area outside that was covered by the blue tarp. I noticed that the glass on the door had been hit by a blunt object and was broken. The official explained that in the summer, the school had been broken into two times. Police did a routine investigation, but no one was caught. The intruder damaged the door and some furniture in the principal’s office.

Down the hallway, we entered into a classroom. The door to the classroom had a chalkboard back. Chalkboard doors are used for writing announcements and leaving messages. The classroom was approximately 25 feet by 15 feet and had four large windows on the wall opposite the door. These windows let in a lot of natural light, but had no curtains attached for shade. The wall with the door for the classroom had small windows located near the ceiling. These windows were also barred, but let light into the main hallway and helped with cross-ventilation. Walls were painted a glossy mint green from the floor base until half of the full height. A wooden chair rail wrapped the entire space and the back wall had hooks for hanging bags and jackets of the same wood material. Three rows of five desks each divided the room. Each desk had its own chair and appeared to be of good quality. At the front of the classroom there was a green chalk board with spot lighting above it. The entire room had light strips on the ceiling.

Next, we walked to the science laboratory which was slightly muggy and was dark because the windows were shut and the curtains closed. There were six large working stations, each with a table that had a sink inside and hookups for Bunsen burners. Each station had enough stools for six students on average. Cabinets sat in the back of the lab that stored equipment.

The remainder of the hallway connected to more instructional classrooms. The hallway was broken up by heat radiators approximately every 10 feet. At the end of the hall were two windows, about three by five feet in dimension, that looked out onto the basketball court. In front of the windows
was a ping pong table for the students to use during the break period. Looking out the window, I noticed that the court was extremely large and was completely exposed to the sky. There was a short three foot concrete wall that wrapped the court yard, allowing students to see out into the residential neighborhood. At the back of the court were four steps that could be used as seating. Closer to the building, there was a ramp that wrapped down towards the court. The walls of the ramp were made of concrete and changed in height according to the slope of the ramp. In the center of the wrapping concrete folds was a large green garden with plants.

I stepped back from the window to continue the tour of the interior spaces. Next I walked to a small restroom which seemed to be for staff and teachers. It contained one traditional toilet and one Western. The floors and walls were covered with white tiles, and each stall had its own full door. There were two hanging sinks and a small mirror. I walked around the corner to another part of the building. Here, I walked into the home economics classroom that included a stove run by propane gas, a toaster oven, a microwave and counter space with a sink. Behind the counters, the room continued another 30 feet and had three long tables set up in a rectangular formation with plastic chairs tucked underneath. The room was dim because the four windows had their curtains closed. There were glass paneled cabinets along the wall that contained the door that had student embroidered projects on display.

I moved out of this classroom, and back into the hallway. I moved to the second story using the stairwell. There were small windows, approximately one foot by one foot in dimension, punched into one of the walls of the stairwell. These windows provided some lighting, but it was dimmer in the stairwell, and not much could be seen through the windows without standing directly in front. The first room I saw on the second floor was the music room. There were rows of desks, in which the students sat side by side as opposed to behind one another. On the shelves, there was a CD player with speakers.

152
as well as a drum set. Most of the back of this room was paneled off with temporary walls because the
space was being used for storage of furniture during the summer vacation.

Next, I walked into the library, where the curtains were also drawn closed to protect the books.
Shelves lined the walls of the room and tables sat directly against them. There was a teacher’s desk near
the door and two free standing piano’s in the back.

This was the last space I saw in the building and after this the tour was concluded. I thanked the
official for showing me the site and as we walked out, I began jotting down my notes.

<table>
<thead>
<tr>
<th>Date of Establishment</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor Funding</td>
<td>Spain (entire facility design and maintenance), Holland (classroom design for counseling), Italy (exercise equipment)</td>
</tr>
<tr>
<td>Cost of attendance</td>
<td>Approximately $15/ year</td>
</tr>
<tr>
<td>Number of staff</td>
<td>31 teachers; 7 staff and administrative people</td>
</tr>
<tr>
<td>Number of students</td>
<td>700</td>
</tr>
<tr>
<td>Average students per class</td>
<td>50</td>
</tr>
<tr>
<td>Grade levels</td>
<td>5th – 12th grade</td>
</tr>
<tr>
<td>Buildings on site</td>
<td>1: Main Building</td>
</tr>
<tr>
<td>Buildings beyond site-proper</td>
<td>None</td>
</tr>
<tr>
<td>Interior spaces</td>
<td>Classrooms, computer lab, science lab, library, administrative offices, teachers support rooms, student and staff restrooms</td>
</tr>
<tr>
<td>Outdoor spaces</td>
<td>Basketball court, open stepped seating, open paved courtyard, driveway, parking</td>
</tr>
<tr>
<td>Total site-proper SF</td>
<td>34,159 sq. ft.</td>
</tr>
<tr>
<td>Elevation of site-proper</td>
<td>2,800 ft.</td>
</tr>
</tbody>
</table>

Table 13: Public School Case Study Profile

ANALYSIS

The public school case study was constructed in 2004, and is the newest of all the three schools
that are being analyzed in this chapter. While this school is public and is fully controlled by the MOEHE,
it was completely designed by an independent organization from Spain. This makes the school
somewhat unique in comparison to private and UNRWA schools, because the administrative body that is
in control of it is not responsible for the school’s design. Furthermore, of the public schools visited
another was completely designed by an outside organization and another had an entire new structure
added to the site with funding from an independent donor. This pattern is common for the Ministry when constructing new schools because no money for construction comes from local sources. Several organizations have approached the Ministry over the years, such as the Child Friend Schools funded by UNICEF, to deploy school pilot programs for research. This presents a strange situation, where public school design can start to be viewed largely as a product of the humanitarian aid phenomenon. Each school starts to be unique across the OPT and falls more within groupings that are categorized according to who the donor is, as opposed to the educational system or even geography. These designs also reflect developments in theory on school architectural design, because humanitarian agencies tend to stay up-to-date with the most recent research and have more flexibility in terms of funding for innovation.

This lends to a great deal of diversity for public school design across the OPT and from the public school sampling newer projects had different architectural designs. The newest of all the schools, built in 2012, had a large atrium in the center, a skylight overtop, and all circulation and classrooms wrapping around the center. This school used sound panels to mitigate noise in the atrium and was painted with bright colors. One school had two buildings, an older one with a part that was constructed in 2000 and another that was newly built in 2012. The old structure had a typical rectangular form with a long corridor as its central axis. The new structure was the only school visited across all three systems that had curved surfaces on its façade and was a bright orange as opposed to the traditional, white limestone. A school built in 2000 indicated older, traditional school design; and, also had a rectangular form with a corridor for classroom access. The last of the public schools was built in 1999, and fell more in line with older, traditional building types as well. It had a simple rectangular building form, with a corridor cutting through its center and classrooms along this axis. The schools that were built in 2012

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181 For programs that have implemented pilot studies and infrastructure design for schools see: The Child Friendly Schools Case Study by UNICEF, Palestinian Territory Belgium Partnership Program, Arab Fund Support Program, Agence Francaise Development Grant, Support to Palestinian Education Program and the KfW Development Bank.
were much more colorful and unique in their design; while those from 2000 and 1999 older styles. Thus, in looking at the sampling and reflecting off of publications from pilot studies, there seems to be a trajectory of moving towards more diversified and unique designs as a result of humanitarian aid influence. So when analyzing the public schools in the OPT, certain generalizations can be drawn however each school should mainly be treated independently of the others.

In looking at the neighborhood context of the public school case study, it is an area that primarily serves a middle class young adult population with apartment complexes around the school. This population is not the same community as the students that are attending the school, and thus most commute either by foot or car. The school is located approximately one mile to the east of the Pesagot Israeli settlement and to the approximately four miles north of the Israeli constructed separation wall. There were no real complaints in regards to the school being too close to structures of the occupation; however, these manifestations would still serve as a background to the everyday life of the children. Some of the children come from other villages and are required to travel through checkpoints and the Separation Wall, and have mobility issues in regards to delayed travel. Thus, the location of the school is not necessarily ideal for the type of population it is serving but the expansive lends to more space for the school zone.

The public school is designed to be integrated into the site, nestled about 20 feet down into a hill. Its perimeter wall is actually a massive concrete retaining wall that traced its edges. In the back of the building was a large basketball court, elevated slightly higher than the rest of the site, lending to a feeling of openness. Integration into the landscape can serve as a positive development in school design especially in regards to countering the negative and invasive structures of the occupation. Structures like the Separation Wall and settlements have often been described by historians and architects as being
alien-like and unnatural to the land.\textsuperscript{182} In designing schools to be more naturally inserted in the land, there is an opportunity to utilize the architecture in a manner that promotes a sense of belonging for Palestinian youth. As mentioned earlier, school architecture can also serve as a sort of curriculum or be enriched with the possibility of teaching lessons. Schools should be designed in a way that they provide youth and communities with the ability to reflect on their identity as Palestinians, be active members of society, and feel like owners of their own landscape.

On the exterior surfaces of this site, the images depicting far off places are used as a means to beautify the school grounds. The use of artwork in school spaces is not a new phenomenon that is specific to the OPT. However, the art must be made relevant to the immediate context of the society and should be able to make an important statement. In other public schools in the sampling, art work was sometimes used to teach students lessons about issues like hygiene, respecting the environment, recycling, and physical activity. These are positive ways to use artwork as an addition towards holistic curriculums that help develop the whole child in all aspects of his or her life. These types of work can be furthered if they are considered as pieces that can directly come into dialogue with the gray world of an occupation. The intention should not be to design art that can be politically charged, but that is transformative and meaningful.

Kamal Boullata describes a mosaic mural that was designed by artist Abed Abedi in the mid-1980s for a school in the Galilee. The artist focused on recreating a biblical story that could be reinterpreted to encourage cooperation and connectivity between Muslim and Christian religious groups, while simultaneously reflecting on the nature of living in conflict.

Here, Abedi, a Muslim by tradition, working together with a Christian leader ... did not play to the theatrics of the great theme of "Palestine" nor to the confining interpretation of religious art. Instead, Abedi drew his inspiration from a legend that he interpreted through his palpable experience of Christians and Muslims living in a Jewish state.\textsuperscript{183}

Furthermore, the artist used the children of the school as the builders of the mosaic which enabled them to, “physically recreate their own environment with the new imagery of a legend that functions as a bridge between a mythical past and a promising future.”\textsuperscript{184} Engaging students in the creation of their own spaces instills a sense of empowerment and ownership of the learning environment around them. These types of design mechanisms are what serve as responsive, as opposed to simply reactive.

Because of the expansive site, the school building was constructed with a large footprint. The building is broken into two volumes with classrooms and interior spaces; and, a volume that connects the two with a corridor. The building sits staggered on the landscape, making movement inside the structure slightly more dynamic where students and staff can move around corners and wind down the hall. However, on the smallest scale, classrooms are still the same rectangular plan as was found in more traditional buildings in the OPT. Outside the building, exterior spaces are also very large. However, these are all spacious black top school yards with no elements that break up the space that can enrich it programmatically. Thus, the school building and the outdoor spaces, which together make up the school zone, have much potential for innovation and creativity in design. Only time will tell how this building and its spaces transform.

In conclusion, in analyzing the public school case study, along with other public schools from the sampling, it was determined that newer public schools in the OPT have the potential to be designed in more creative and innovative ways because of influence from humanitarian aid designs; such as, the school with the curved exterior façades and the brightly painted walls. This school specifically was designed in a way that was more integrated into the landscape; however, the architecture of the

\textsuperscript{184} Ibid, 26.
building still reflects more traditional forms and plans. There seems to be an over emphasis on site-integration, which is often proposed as a mechanism to make school more relevant and incorporated into a community. However, this should not result in overlooking potentials for upgrading interior designs and building forms which can reflect contemporary discussions on learning environment theory. Furthermore, the immediate context in which this school is constructed does not necessarily seem to be the same environment in which students are living. Students must travel to this school from distant places, making travel more dangerous and time consuming. Great consideration should be placed on how students are arriving to school and how a child’s approach can impact the design of the school. It was learned from this analysis that artwork in school should also make a statement that is meaningful and engaging with the students. Artwork, as well as architecture, in school place must be able to serve as a platform for building hope and vision, enabling the youth in the OPT to see a future beyond walls, checkpoints, and settlements.
SYNTHESIS OF THE THREE SCHOOLS

Since the British Mandate, locating the territorial border between Jews and Arabs has been a tenuous project. Yet such a border is at the heart of the “symbolic resources” that both Israelis and Palestinians deem necessary to establish visceral ties to the land. Throughout history, one of the most explicit, and most meaningful, ways to bind people to the land, and to history, has been architecture.185

As academic Alona Nitzan-Shiftan reveals in the above passage, borders and divisions as manifested through structures of an occupation result in the need to design architecture in a way that is long-lasting and meaningful in order to institute cultural and social ties to the land for both Palestinians and Israelis. The architecture of schools are not outside of this realm, as they are potentially the ultimate structures in encouraging cultural ties to land because of the nature of their function as cultivators of future citizens.

The analysis of the three schools looks at how each educational system approaches its own learning environments, and what positive and negative aspects can be ascertained from each one. Looking at school architecture at this stage in the OPT is essential for assessing the opportunities for growth. Furthermore, the analysis across the three systems implies that schools can begin to view one another as potential resources for promoting a more integrated educational system.

In the OPT, the conflict consistently presents a problem for developing architectural ties to the land. It is difficult to predict when violence, trauma, and crisis can occur, which can result in the complete or partial destruction of buildings. Each school in the sampling has within its history the narrative of conflict as recalled through staff, families, and students. Resilience in school architecture is inextricably tied to the strength and investment of a given community. However, school architecture also has the potential to develop and nurture those ties if it is given the opportunity to develop in the land overtime.

On each level of the conceptual framework, system, neighborhood context, building, and child, there are opportunities for strengthening the ties between community and school. Private schools showed that smaller and localized administrative bodies can have more control over the construction and renovation of their school grounds. But public and UNRWA schools taught that global networks can offer new ideas and innovations in learning environments in regards to architecture and site-planning. There must be a balance between the two levels of administrative work, where global and local come together to produce architecture that is more relevant to communities. In looking at neighborhood context, UNRWA schools show that denying the immediate site can result in exclusion of experiences that are a part of a child’s development and growth. Opportunity to counter this may lie in site-integrated designs as promoted by public school designs. Further, if school grounds have time to develop, private schools show that buildings can move beyond the immediate school zone – resulting in shared ownership over the neighborhood by locals and school community.

In regards to school architecture, older schools regardless of system tend to be more traditional, with spaces that do not promote diversity and creativity as discussed in newer theories on learning environments. However, newer schools, specifically found in the public school sector because of the great influence from humanitarian aid, are on a trajectory towards new, innovating designs. Standardization, as in the UNRWA schools, is not necessarily viewed as a negative thing in this thesis as it is helpful in providing infrastructure for education at a faster pace. However, there should be attempts to redesign the school façade and outdoor spaces in a way that is more locally relevant and thoughtful. Finally, on the child’s scale, his or her journey from home to school encompasses within it a series of visual and physical experiences related to the conflict. Regardless of school system, all children live the realities of the occupation with Israeli structures of fragmentation and enclavisation all around them.
Thus, there should be an emphasis both in school curriculum as well as through responsive learning environments to promote positivity in a militarized land.

Israeli military and occupation structures have been inserted into the realm of reality for all children, regardless of class, identity, and status. Confronting these structures is part of the everyday routine of a child, including their journey to and from school. While the conflict continues, architecture of schools must provide a way for this landscape to be re-visualized by children. There is a potential in school architecture, where it can serve not just the children that use its spaces but the community as well. Conceptualizing learning environments in this all-encompassing and responsive way can enable greater links between community and school on a social level, perhaps alleviating some of the difficulties of life under an occupation.
CHAPTER 6: CONCLUSION, BROADENING LEARNING ENVIRONMENTS
SYNTHESIS OF TWO APPROACHES AND SUMMARY OF RESULTS

Community education is critical to the empowerment of the Palestinian people and is a necessary development of the intifada, which reflects a collective human response to an oppressive situation.\textsuperscript{186}

In order to bring this research full circle, it is necessary to return to the initial literature review found at the beginning of these pages. Educationalists, architects, and development researchers have written extensively on education and schools. More recently, the term “learning environment” was beginning to be used by certain members of each of these groups;\textsuperscript{187} however, this term was not conceptualized to its full potential. Thus, using the historical and architectural analyses, spaces for learning were reinterpreted as potential models to broaden learning environment typologies and to combat insular school designs. The two-fold approach brings together human resilience and design innovation in order to make learning environments more relevant to a place of conflict.

The writing of this thesis was completed at the same time as the 65\textsuperscript{th} anniversary of the Nakba, or 1948 catastrophe, which marks the beginning of contemporary discourse on the Palestinian struggle. Sumud, or steadfastness, represents the uniqueness of a Palestinian resistance that does not wane. Palestinian sumud has revealed, both historically and architecturally, how education and schools are a community’s weapons against one’s adversary. That adversary can either be an occupier, as in the case of the OPT, or an abusive parent, a racist police officer, or even an issue such as poverty. While the OPT is unique, it still encompasses within it many of the same social issues facing developing and low-income populations all over the world, but at a much more acute scale. These types of similarities were revealed

\textsuperscript{186} Fasheh, Munir. "Community Education: To Reclaim and Transform what has been Made Invisible." \textit{Harvard Educational Review} 60, no. 1 (February 1990): 19.
at the end of the historical chapter, such as behavioral disruptions displayed by students in school. This thesis found that these types of problems are related to socio-spatial conditions that are outside of the school building and can be caused by a variety of problems. As constructivist theory poses, learning is a process that happens through experience. In places of trauma and violence, recognizing this is of extreme importance because education must provide children with a glimpse of hope towards a better future despite their negative experiences. Insular school designs treat education as an escape from daily difficulties, not a solution.

Through historical and architectural analyses, this thesis has shown that insular school designs have the potential to undermine Palestinian education because of a lack of flexibility and inability to integrate into the neighborhood context. This type of insularity has a consistent pattern that occurs throughout Palestinian history as institutions deepen their grip on education and school construction during times of relative stability. However, in the face of serious instability, the community and its informal spaces have proven time and time again that they are a resource that can be tapped into for a more positive education. Thus, the term “school building” must be de-emphasized, and learning environment must be vehemently used. A learning environment has the potential to manifest itself as a multiplicity of appearances – a church, a mosque, a house, or possibly even a street or alleyway. Also, learning environments must deepen their roots in a neighborhood, diversify their program, and expand their spaces in order to better encompass a child’s life beyond school walls. These lessons lend way to proposals, which may already be under consideration by schools and communities, for each discipline where a broader learning environment is kept in mind.
LESSONS FOR EDUCATIONALISTS

In the OPT, education is highly valued as a tool that can allow for empowerment and liberation of an occupied people. At the meeting point between the family, community and the school are opportunities for education to be more effective and more encompassing of a broader landscape.

Some of the funding that goes into new school construction can be channeled into modernizing educational reach through the use of technology. Barring a resolution to the political/military conflict and the concomitant easing of travel restrictions, schools and students should be equipped to engage in e-Learning and virtual exchanges with the broader Middle East and beyond. By having direct interactions with distant students and communities, Palestinians will have exposure to ideas and influences beyond the checkpoints and Separation Wall.

Solutions include the re-allocation of money from new construction programs towards:

- A school bus transportation system to alleviate problems related to long walks to and from school
- Making supplementary schooling at home an option through the use of new technologies or mobile learning techniques
- Increasing student scholarships into private schools where success is the highest. By moving more students out of public and UNRWA schools there can also be an alleviation of overcrowding
- Increasing accessibility for disabled youth either through programming or elevators
- Using e-Learning to introduce Palestinian students to communities and concepts outside of their country

Addressing the above points also requires bringing the communities into the schools. Domestic violence, post-traumatic stress, poverty, and other social problems can be addressed in the school place. Schools should provide space for adult education, venues for family counseling, and so on; and they should encourage communities to hold celebrations and cultural activities in the school building. While issues such as teacher training are also important, this thesis approaches educational efforts from a spatial
perspective; and, by acknowledging that education should be conceptualized in a broader sense schools must address issues beyond school walls.

**LESSONS FOR ARCHITECTS**

The most recent discourse on the architecture of schools has urged designers to steer clear of architectural determinism. However, this type of warning also leaves design of schools open-ended and does not provide any new solutions. This thesis urges designers to conceptualize places for education as learning environments that are not limited by a rectangular building and traditional classrooms that instill rote teaching. If learning can be conceptualized as being experiential in a variety of spaces, then school architecture can be reinterpreted as such. Furthermore, if learning arises out of experiences of conflict, then designs of learning environments must be positive responses to the bleakness of occupation as manifest through barriers, checkpoints, and settlements.

Furthermore, steps should be taken to move away from donor dependency in order to place education back in the hands of Palestinians. If economic conditions render that impossible, at least the inspiration, design, control and management of schools should be led and guided by Palestinians. Palestinians should not just be made a part of school design, but they should initiate it and take control of it.

Solutions for new designs or renovations for existing structures include, but are not limited to:

- More access points through perimeter walls to allow community integration and ease of approach for students
- Expanding interior views to the outside into local neighborhoods
- Dispersing school spaces throughout the neighborhood, and making structures smaller and more approachable in scale
- Design facades to be locally relevant and innovative
- Interior designs and murals should be positive to contrast the manifestations of the occupation
- Accessibility for disabled youth should be increased either through programming or elevators to higher levels
- Community participation in school designs, as well as programming buildings and outdoor areas to include more community spaces to increase feelings of ownership.
Humanitarian aid has contributed to insular schools for the Palestinian community; however, this thesis proposes that learning environments must span outwards beyond the communities they serve in order to provide learning opportunities beyond their socio-spatial context and truly provide people with a sense of empowerment and dignity regardless of social and class status. Furthermore, designs must reflect community integration and access in order to develop programs and curriculums that can alleviate issues of trauma and violence. Because the political-military conflict is ongoing, designs of schools must not reflect current divisions according to political and social influences, but rather should strive towards ideals of the future – because buildings of tomorrow far outlast the problems of today.

LESSONS FOR DEVELOPMENT PROFESSIONALS

On a larger scale, the OPT have suffered over time with deepening spatial separation by virtue of the Separation Wall and military checkpoints. But beyond that, as pointed out by Lisa Taraki, Palestinians are divided according to citizenship status and class. Thus, learning environments can serve as potential places that bridge these groups rather than continuing to divide them by insular school buildings. Schools should work to cross-pollinate their studies and interactions. This model of cross-pollination is more pertinent for UNRWA and public schools. There should be more policy exchange between the two, where construction funding can be pooled together to place schools where necessary and to merge students regardless of an identification card that indicates whether one is a refugee or a non-refugee. Refugee schools, originally intended to be temporary structures, have become permanent institutions. With families now having lived in refugee camps for decades, there is no longer any justification to keeping them segregated from public schools.
Solutions for development professionals that stem from this thesis on broader learning environments include:

- More cross-institutional work between the three school systems that encourage the mingling of students across these different socially and class-based communities, in hopes that they may become more unified in the future
- Assessing school districts and finding ways to bring refugee students, starting from a younger age, into public schools and vice versa according to safer travel paths to school
- Increased integration between MOEHE and UNRWA on an administrative level in order to bring together economic and human resources across the three education systems

The human rights approach to educational aid in a conflict zone is limited in that it narrowly targets communities most in need, pulling all resources from external donations, and not allowing resources that exist on the ground to be pooled together. By stipulating cross-administrative resourcing, links across different community boundaries can be developed that would begin to alleviate challenges faced by those with poor socio-economic status.

This thesis concludes by reflecting on areas for potential future research. In recognizing that learning environments must be conceptualized as broader places, beyond school walls, a new approach to designing schools should be taken. This approach must reflect on practices from architecture, landscape architecture and urban design, while incorporating new gains that have been made in research on education. Educationalists, architects and development professionals can work in collaboration with one another with learning environments as a platform for engagement. This collaboration in the Occupied Palestinian Territories can transform learning environments into educational laboratories that can infuse excitement and vitalization for youth who carry with them the burden of an unknown future.
BIBLIOGRAPHY


APPENDIX

Informal questionnaire used during interviews of officials at schools from field work in August of 2012:

1. When was the school established?
2. What year was the building built?
3. How many buildings do you have total?
4. Who funded the construction of the building?
5. Was the architect/engineer a foreign company or Palestinian?
6. When did you start working at this school?
7. What were you doing before you worked here?
8. Why do you think education is important for Palestinian kids?
9. How many students are in your school?
11. How many students per each class?
12. Where do the students come from?
13. Do any students have difficulty getting to school from their village?
14. Do you have students with special needs? Handicapped?
15. How does your building serve the special needs students? The handicapped students?
16. How many girls do you have in the school?
17. Do the students enjoy the building that they study in?
18. Do you hear students, staff, teachers complain about the building? Temperature? Air quality?
19. Do they respect the building?
20. Do you allow students to use the space to hang art work and projects?
21. Do students have their own private spaces for personal books and bags?
22. Do teachers have their own private spaces for personal books and bags?
23. How often are the bathrooms cleaned in a day?
24. Do kids have toilets for their height?
25. Are their special desks, chairs, window heights for kids?
26. When does class start in the morning?
27. How many classes in a day?
28. When does class finish?
29. Do teachers drive to school? If so, is there parking for them on the campus?
30. Is there a canteen for student food? Can most students afford food?
31. Is there a place for students to sit and eat their food?
32. To teachers retrieve training for emergencies? Earthquakes, fire, etc? attacks?
33. Do you have problems with water? Does it shut off? If yes, do you have a well?
34. Do you involve the parents of children in school? Monthly meetings?
35. If a student is doing poorly in school or misbehaving, will the school go to the child’s home?
36. Do you have children with psychological trauma?
37. Where do you find the most difficulty with financial matters?
38. What are some extracurricular activities for students?
39. Do you have enough space outside for activities?
40. What is the safety of the school like? Any crimes or break-ins?
41. What is the purpose of the wall surrounding your campus?
42. Do your students work towards the tawjihi?
43. Most students who take tawjihi, do they pass?
44. Is it possible to get this past year’s scores for students?
45. What other things are important in your curriculum other than tawjihi?
46. Does your school focus on preserving Palestinian identity? What type of programs? Cultural? Political?
47. What school do your students go to after graduation?
48. Do your students stay in the country or go abroad?
49. Do you have any system set up to connect students with vocational programs if they are doing poorly in school?
50. What is your drop-out rate?
51. Do any students work while they study in your school?
52. Have any students ever been injured by the building? Broken glass, slippery floor, bad stairs etc.?
53. Do you ever rent out your rooms to outside groups for money?
54. Does your school do different types of fundraising?
55. Have you done any recent major renovations?
56. How often does the MOEHE or UNRWA come by to do building checks?
57. What does it look for?
58. Do you have students who come from refugee camps? (public school question)
59. If so, do you ever see differences in their work or scores? Do most of them pass the tawjihi?