
http://radar.gsa.ac.uk/4023

Copyright and moral rights for this thesis are retained by the author

A copy can be downloaded for personal non-commercial research or study, without prior permission or charge

This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the Author

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the Author

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given
Physical planning system and the physical spatial structure of the human settlement

The case of Palestine from late 19th century to 1994 with special reference to Tulkarm city, West Bank

A theses submitted to the Mackintosh School of Architecture, Glasgow University in the fulfilment of the requirements of the degree of Doctor of Philosophy

By

Abdel Rahman Abdel Hadi Mahrok
BSc. Architecture

December 1995
Abstract

Human settlements are the basic constituents of the historical spatial organisation of society and its physical environment. The human settlement is composed of several elements which together form an overall system. These elements are the physical environment, society, the spatial structure and planning.

The physical spatial structure of the settlement is an important framework within which other systems of the settlement exist and function. The physical spatial structure of the human settlement consists of five main elements; central area, neighbourhoods, the fringe, open land beyond the fringe and road system.

The physical spatial structure of the settlement has always been affected by the decisions of people who live within it. These decisions constitute the physical planning system of the human settlement. The physical planning system aims to control and manage the physical spatial structure of the settlement. The physical planning system, in this respect, is seen as the state intervention in the control and management of the physical spatial structure of the settlement. The physical planning system is composed of two main elements; institutional arrangements and instrumental representations.

The important question is what relationship does exist between the physical planning system and the physical spatial structure of the settlement?

This research aims to investigate this problem by considering the physical planning system in Palestine and its relationship with the physical spatial structures of Palestinian settlements from the late 19th century to 1994.

The importance of Palestine in this investigation depends on the fact that, within this century alone, Palestine had four different physical planning systems. These systems have drastically affected the physical spatial structures of Palestinian settlements.

This research is based on the examination of the elements of each physical planning system in Palestine and the way by which they have affected the physical spatial structures of Palestinian settlements. A detailed case study is provided for the city of Tulkarm in order to illustrate the actual effects of the physical planning system in Palestine on elements of the physical spatial structure of this settlement.

Within the above theoretical framework and empirical investigations, this research is an important attempt to achieve more insights into models and theories of both the physical planning system and the physical spatial structure of the settlement.
# Table of Contents

Abstract ................................................................................................................................................ ii
Table of contents .................................................................................................................................. iii
List of figures ....................................................................................................................................... viii
List of tables ........................................................................................................................................ xi
Note on Translation and quotation ........................................................................................................ xii
Introduction .......................................................................................................................................... xvii
Acknowledgements ........................................................................................................................... xiii

**Part One**

**General Background**

The human settlement, its spatial structure and the physical planning system

**Chapter One**

The human settlement; its definitions and its elements

1.1 Definitions of the human settlement ................................................................................................... 3
1.2 Systems theory ................................................................................................................................ 4
1.3 Elements of the human settlement .................................................................................................... 4
  1.3.1 The physical environment ............................................................................................................ 5
  1.3.2 Society .......................................................................................................................................... 8
  1.3.3 The spatial structure ...................................................................................................................... 12
  1.3.4 The planning system .................................................................................................................... 18
Conclusion ........................................................................................................................................... 19

**Chapter Two**

The physical spatial structure of the human settlement

2.1 Urban-rural differences .................................................................................................................... 21
2.2 Spatial structure of the human settlement ..................................................................................... 22
  2.2.1 Definitions of the spatial structure of the human settlement ...................................................... 23
  2.2.2 Elements of the spatial structure of the human settlement .......................................................... 25
  2.2.3 The physical spatial structure of the human settlement ............................................................... 25
Conclusion ........................................................................................................................................... 33

**Chapter Three**

The physical planning system: its definitions, its elements and its relationship with the physical spatial structure of the human settlement

3.1 Historical development of planning in human settlements ................................................................. 35
3.2 Definitions of the physical planning system .................................................................................... 39
Chapter Four
The physical planning system in Palestine and the physical spatial structures of the Palestinian settlements (from late 19th century to 1994): problem, hypothesis and methodology

4.1 The physical setting of Palestine

4.2 The government systems in Palestine (from late 19th century to 1994)

4.2.1 The Ottoman government system

4.2.2 The government system of the British Mandate

4.2.3 The end of the British Mandate and the creation of the West Bank under the Jordanian government system

4.2.4 The Arab-Israel war, 1967 and Israel’s occupation of the West Bank

4.3 General situation of the physical spatial structure of the Palestinian settlements (from late 19th century to 1994)

4.4 General situation of the physical planning system in Palestine (from late 19th century to 1994)

4.5 Research problem, hypothesis and methodology

4.5.1 Statement of the research problem

4.5.2 Hypothesis

4.5.3 Research methodology

Part Two
The physical planning system in Palestine from late 19th century to 1994

Chapter Five
The Ottoman physical planning in Palestine from the late 19th century to 1918

5.1 The Ottoman physical planning in Palestine (1856-1918)

5.2 The Ottoman administrative system

5.2.1 The Ottoman administrative system and the physical spatial structures of the Palestinian settlements

5.3 The Ottoman judicial system

5.3.1 The Ottoman judicial system of the Islamic Shari’ah

5.3.2 The Ottoman civil judicial system

5.3.3 The Ottoman judicial system and the physical spatial structures of the Palestinian settlements

5.4 The Ottoman land system

5.4.1 The Ottoman Land Code, 1856

5.4.2 The Ottoman Land Code, 1856 as an instrument for the control of the physical environment
5.4.3 The Ottoman land system and the physical spatial structures of the Palestinian settlements........ 82
Conclusion........................................................................................................................................ 83

Chapter Six
The physical planning system in Palestine during the British Mandate period (1920-1948)
6.1 The Mandatory physical planning system in Palestine (1921 - 1948)........................................ 87
6.1.1 Institutional arrangements of the Mandatory physical planning system in Palestine............... 88
6.1.2 Instrumental representations of the Mandatory physical planning system in Palestine............ 93
Conclusion........................................................................................................................................ 104

Chapter Seven
The Jordanian physical planning system in the West Bank (1948-1967)
7.1 The Jordanian physical planning system in the West Bank (1948-1967)..................................... 108
7.1.1 Institutional arrangements of the Jordanian physical planning system in the West Bank............. 109
7.1.2 Instrumental representations of the Jordanian physical planning system in the West Bank.......... 114
Conclusion....................................................................................................................................... 120

Chapter Eight
The Israeli physical planning system in the West Bank (1967-1994)
8.1 The Israeli physical Planning System in the West Bank (1967-1994)........................................ 123
8.1.1 Institutional arrangements of the Israeli physical planning system in the West Bank................. 125
8.1.2 Instrumental representations of the Israeli physical planning system in the West Bank.............. 129
Conclusion.................................................................................................................................... 150

Part Three
The physical planning system in Palestine and the physical spatial structure of Tulkarm city from late 19th century to 1994
Chapter Nine
The physical planning System in Palestine and the physical spatial structure of Tulkarm Town from late 19th century to 1948
9.1 Historical background of Tulkarm............................................................................................ 155
9.2 Physical setting of Tulkarm....................................................................................................... 160
9.3 Physical planning system in Palestine and the physical spatial structure of Tulkarm.................... 162
9.4 Ottoman physical planning in Palestine and the physical spatial structure of Tulkarm.................. 163
9.4.1 Ottoman physical planning in Palestine and the central area of Tulkarm............................... 163
9.4.2 Ottoman physical planning in Palestine and the neighbourhoods of Tulkarm......................... 163
9.4.3 Ottoman physical planning in Palestine and the fringe of Tulkarm........................................ 166
9.4.4 Ottoman physical planning in Palestine and the open land beyond the fringe of Tulkarm........ 166
9.4.5 Ottoman physical planning in Palestine and the road system of Tulkarm............................... 167
9.4.6 Ottoman physical planning in Palestine and the physical spatial structure of Tulkarm; a dialogue 167
9.5 Mandatory physical planning system in Palestine and the physical spatial structure of Tulkarm (1918-1948).................................................................................................................. 170
9.5.1 Mandatory physical planning system in Palestine and the central area of Tulkarm.................. 170
9.5.2 Mandatory physical planning system in Palestine and the neighbourhoods of Tulkarm .......... 176
9.5.3 Mandatory physical planning system in Palestine and the fringe of Tulkarm ...................... 177
9.5.4 Mandatory physical planning system in Palestine and the open land beyond the fringe of Tulkarm .............................................................................................................................................. 178
9.5.5 Mandatory physical planning system in Palestine and the road system of Tulkarm .............. 178
9.5.6 Mandatory physical planning system in Palestine and the physical spatial structure of Tulkarm; a dialogue .............................................................................................................................................. 180
Conclusion .......................................................................................................................................... 183

Chapter Ten

The physical planning system in the West Bank and the physical spatial structure of Tulkarm city (1948-1994)

10.1 Jordanian physical planning system in the West Bank and the physical spatial structure of Tulkarm (1948-1967) .............................................................................................................................................. 185
10.1.1 Jordanian physical Planning System in the West Bank and the central area of Tulkarm ....... 188
10.1.2 Jordanian physical planning system in the West Bank and the neighbourhoods of Tulkarm .. 188
10.1.3 Jordanian physical planning system in the West Bank and the fringe of Tulkarm .......... 189
10.1.4 Jordanian physical planning system in the West Bank and the open land beyond the fringe of Tulkarm .............................................................................................................................................. 190
10.1.5 Jordanian physical planning system in the West Bank and the road system of Tulkarm ......... 190
10.1.6 Jordanian physical planning system in the West Bank and the physical spatial structure of Tulkarm; a dialogue .............................................................................................................................................. 193

10.2 Israeli physical planning system in the West Bank and the physical spatial structure of Tulkarm (1967-1994) .............................................................................................................................................. 193

10.2.1 Israeli physical planning system in the West Bank and the central area of Tulkarm .......... 194
10.2.2 Israeli physical planning system in the West Bank and the neighbourhoods of Tulkarm .... 197
10.2.3 Israeli physical planning system in the West Bank and the fringe of Tulkarm ................. 197
10.2.4 Israeli physical planning system in the West Bank and the open land beyond the fringe of Tulkarm .............................................................................................................................................. 197
10.2.5 Israeli physical planning system in the West Bank and the road system of Tulkarm ......... 198
10.2.6 Israeli physical planning system in the West Bank and the physical spatial structure of Tulkarm; a dialogue .............................................................................................................................................. 198

10.3 Outline Town Planning Schemes and future of the physical spatial structure of Tulkarm; the proposed Scheme of the Centre for Engineering and Planning, 1988 (Tulkarm Scheme 1988) .............................................................................................................................................. 201

10.3.1 Tulkarm Scheme 1988 and the central area of Tulkarm .............................................................................................................................................. 201
10.3.2 Tulkarm Scheme 1988 and the neighbourhoods of Tulkarm .............................................................................................................................................. 204
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.3.3 Tulkarm Scheme 1988 and the fringe of Tulkarm</td>
<td>205</td>
</tr>
<tr>
<td>10.3.4 Tulkarm Scheme 1988 and the road system of Tulkarm</td>
<td>206</td>
</tr>
<tr>
<td>Conclusion</td>
<td>206</td>
</tr>
<tr>
<td>Chapter Eleven</td>
<td></td>
</tr>
<tr>
<td>General conclusions and recommendations of this research</td>
<td></td>
</tr>
<tr>
<td>11.1 General conclusions</td>
<td>210</td>
</tr>
<tr>
<td>11.2 Recommendations</td>
<td>217</td>
</tr>
<tr>
<td>References and bibliography</td>
<td>223</td>
</tr>
</tbody>
</table>
# List of Figures

1.1 The relationship between the community, communal activity and the physical environment as three elements of the human settlement .......................................................... 6
1.2 Interaction between the different elements of the human settlement .......................................................... 6
1.3 Conceptual representation of elements of the human settlement ........................................................................ 7
1.4 Systems of society and their interrelationships ......................................................................................... 9
1.5 Moscow Red Army Theatre in the shape of a star. By A. Albyan, 1935-40 ........................................... 11
1.6 Continuity in space and the human settlement. The organisation of San Christobal de las Casas, Mexico ......................................................................................................... 15
1.7 A representation of space coherency and continuity in the traditional Islamic city of Qairouan ............................................................................................................................................... 15
1.8 Space extension in the baroque city. A representation of Karlsruhe by Markgraft Wilrhelm, 1739 ................................................................................................................................................. 15
1.9 Absolute and relative spaces in the human settlement ............................................................................. 16
2.1 Components of the urban spatial structure .............................................................................................. 24
2.2 Conceptual representation of elements of the spatial structure of the human settlement and their relationships ......................................................................................................................... 26
2.3 General model of the physical spatial structure of the British town .......................................................... 28
2.4 Elements of the physical spatial structure of the Palestinian village ........................................................ 30
2.5 Elements of the physical spatial structure of the British village ............................................................. 31
3.1 The relationship between learning process, cognitive space and planning ............................................. 41
3.2 The physical planning system as a planning institution and its relationship with environment ............. 43
3.3 General structure of the planning institutions and their instrumental representations ....................... 45
4.1 General location of Palestine .................................................................................................................. 50
4.2 The development of the Ottoman Empire, 1359-1678 ........................................................................... 53
4.3 Sykes - Picot agreement map, 1916 ......................................................................................................... 53
4.4 Peace settlement map, 1923 .................................................................................................................. 54
4.5 The Royal Commission partition plan for Palestine, 1937 ................................................................. 54
4.6 United Nations partition plan for Palestine, 1947 .................................................................................. 56
4.7 Final settlement of borders in Palestine after armistice agreements between Israel and Arab states, 1949 ..............................................................
4.8 Palestinian territories occupied by Israel in 1967 ......................................................... 57
5.1 Ottoman institutional arrangements which affected the physical spatial structure of
the Palestinian settlements ................................................................................................. 70
5.2 Development of the physical spatial structures of Jerusalem and Jaffa, 1841-1914 ...... 74
5.3 Ottoman institutions in Jerusalem and Jaffa in the late Ottoman period ......................... 75
5.4 General layout of land division in the village of Beit Nabala ............................................. 84
6.1 Institutional arrangements of the Mandatory physical planning system in Palestine .... 89
6.2 A proposed drainage scheme for Khadouri school in Tulkarm in 1938 referring to
the Regional Outline Town Planning Scheme of Samaria District (S15) ......................... 94
6.3 Town Planning Areas and Regional Planning Areas in Palestine, 1946 ........................... 95
6.4 Jerusalem District Regional Outline Town Planning Scheme, 1946 ................................. 96
6.5 Samaria District Regional Outline Town Planning Scheme, 1946 ..................................... 97
6.6 Outline Town Planning Schemes for the towns of Jenin and Ramallah-Al-Bireh .......... 101
6.7 Salfit village in the late 1930s and early 1940s ................................................................. 102
6.8 Salfit village: Detailed Outline Town Planning Scheme, 1945 ........................................... 103
6.9 The plan of *Afula town illustrating the effect of Detailed and Parcelation Schemes on
the physical spatial structure of the settlement .................................................................. 104
7.1 Institutional arrangements of the Jordanian physical planning system in the West Bank ... 110
7.2 Jordanian Outline Town Planning Schemes for the towns of Jenin and Ramalla-Al-Bireh.. 118
8.1 Israeli settlement policy in the West Bank since 1967 ....................................................... 124
8.2 Institutional arrangements of the Israeli physical planning system in the West Bank ...... 126
8.3 Regional Partial Planning Scheme no. 1/82, 1982 .............................................................. 132
8.4 Regional Partial Outline Plan for Roads - Order no. 50 ...................................................... 132
8.5 Salfit Outline Town Planning Scheme, 1974 ................................................................. 134
8.6 Salfit town in 1976 ............................................................................................................. 135
8.7 Salfit Outline Town Planning Scheme, 1993 ................................................................. 136
8.8 Qalqilyah in 1938 ............................................................................................................. 138
8.9 Qalqilyah in 1986 ............................................................................................................. 138
8.10 Qalqilyah Outline Town Planning Scheme, 1986 ............................................................ 139
8.11 A Alfunduq village: Shamshoni Outline Town Planning Scheme, 1980s ....................... 140
8.11 B Alfunduq village: Local Partial Outline Town Planning Scheme of the Central
Planning Department, 1991 ............................................................................................ 141
8.12 A Saffarin village: Shamshoni Outline Town Planning Scheme 1980s ......................... 142
8.12 B Saffarin village: Local Partial Outline Town Planning Scheme of the Central
Planning Department, 1992 ............................................................................................ 143
8.13 Deir Al-Ghusoun village Outline Town Planning Scheme prepared by Centre
for Engineering and Planning, Ramallah, 1988 ............................................................. 145
8.14 Deir Al-Ghusoun village Outline Town Planning Scheme prepared by the Central Planning Department, 1991 ................................................................. 146

8.15 Detailed Town Planning Scheme for the Local road no. 557, Shofah–Far’aon, Tulkarm sub-district prepared by the Central Planning Department ................................................. 149

8.16 Detailed Town Planning Scheme in the village of Hablah, Tulkarm sub-district, 1986 ................................................................. 151

9.1 Tulkarm sub-district in the late Ottoman period ........................................................................................................................................ 157

9.2 Tulkarm sub-district during the British Mandate ........................................................................................................................................ 158

9.3 Tulkarm sub-district during the Jordanian rule and Israeli occupation ................................................................................................................................ 159

9.4 General location of Tulkarm ........................................................................................................................................ 161

9.5 The village of Tulkarm before 1892 ........................................................................................................................................ 164

9.6 Tulkarm town in the late Ottoman period ........................................................................................................................................ 165

9.7 Tulkarm railway station in 1918 ........................................................................................................................................ 168

9.8 Existing paraffin lamps and proposed electrical lamps in Tulkarm in 1929 ........................................................................................................................................ 169

9.9 Tulkarm town in 1928 ........................................................................................................................................ 171

9.10 Tulkarm Town Planning Area showing a proposed site for the public square ........................................................................................................................................ 172

9.11 Tulkarm town in the early 1930s ........................................................................................................................................ 173

9.12 Tulkarm town in the late 1930s ........................................................................................................................................ 174

9.13 Tulkarm Outline Town Planning Scheme, 1945 ........................................................................................................................................ 175

9.14 Open land beyond the fringe of Tulkarm during the British Mandate period ........................................................................................................................................ 179

9.15 Incomplete Outline Town Planning Scheme for Tulkarm, 1942 ........................................................................................................................................ 181

9.16 Road system of Tulkarm according to Tulkarm Outline Town Planning Scheme, 1945 ........................................................................................................................................ 182

10.1 Tulkarm town in 1959 (with author’s representation for Tulkarm Outline Town Planning Scheme, 1961) ........................................................................................................................................ 186

10.2 Tulkarm city in 1967 with the three villages of Showaikah, Dhennabah and Irtah ........................................................................................................................................ 187

10.3 Open land beyond the fringe of Tulkarm after 1948 ........................................................................................................................................ 191

10.4 Road system of Tulkarm town from 1959 to 1967 ........................................................................................................................................ 192

10.5 Tulkarm city in 1970 with the three villages of Dhennabah, Showaikah and Irtah ........................................................................................................................................ 195

10.6 Tulkarm Outline Town Planning Scheme, early 1970s ........................................................................................................................................ 196

10.7 Housing project of Government Employees, Tulkarm, 1992 ........................................................................................................................................ 199

10.8 Road system of Tulkarm according to Tulkarm Scheme 1970s ........................................................................................................................................ 200

10.9 Tulkarm city, mid 1980s with the three villages of Showaikah, Dhennabah and Irtah ........................................................................................................................................ 202

10.10 Tulkarm Outline Town Planning Scheme prepared by the Centre for Planning and Engineering, 1988 ........................................................................................................................................ 203

10.11 Road system of Tulkarm according to Tulkarm Scheme 1988 ........................................................................................................................................ 207

11.1 Planning idea and design concept for the city of Tulkarm ........................................................................................................................................ 220

11.2 Hypothetical alternative proposal for Tulkarm Detailed Outline Town Planning Scheme ........................................................................................................................................ 221
11.3 Neighbourhood no. VI in figure 11.2 illustrates how planned land division and parcelation constitute the main tool for determining the final spatial identity of the neighbourhood.

List of Tables

Table 8.1 Outline Town Planning Schemes for villages of the West Bank, 16.9.1991
Table 9.1 The development of buildings in Tulkarm (1917-1985)
Note on Translation and quotation

Whenever Arabic names and words necessitate illustration of the guttural, the 'ayn' ('a) is used in the Arabic as in 'Abdullah and Shari'ah. The Arabic 'hamzah' is indicated with ("') as in Al-Balqa".

In general, terms which are most closely related to the formal pronunciation of Arabic words are used rather than a faithful transliteration to the script.

Translation of Arabic scripts is given below:

<table>
<thead>
<tr>
<th>Arabic</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td>١</td>
<td>d</td>
</tr>
<tr>
<td>٢</td>
<td>z</td>
</tr>
<tr>
<td>٣</td>
<td>dh</td>
</tr>
<tr>
<td>٤</td>
<td>t</td>
</tr>
<tr>
<td>٥</td>
<td>z</td>
</tr>
<tr>
<td>٦</td>
<td>r</td>
</tr>
<tr>
<td>٧</td>
<td>s</td>
</tr>
<tr>
<td>٨</td>
<td>sh</td>
</tr>
<tr>
<td>٩</td>
<td>kh</td>
</tr>
<tr>
<td>٠</td>
<td>d</td>
</tr>
<tr>
<td>١٠</td>
<td>t</td>
</tr>
<tr>
<td>١١</td>
<td>s</td>
</tr>
<tr>
<td>١٢</td>
<td>th</td>
</tr>
<tr>
<td>١٣</td>
<td>s</td>
</tr>
<tr>
<td>١٤</td>
<td>gh</td>
</tr>
<tr>
<td>١٥</td>
<td>sh</td>
</tr>
<tr>
<td>١٦</td>
<td>j</td>
</tr>
<tr>
<td>١٧</td>
<td>j</td>
</tr>
<tr>
<td>١٨</td>
<td>j</td>
</tr>
<tr>
<td>١٩</td>
<td>j</td>
</tr>
<tr>
<td>٢٠</td>
<td>j</td>
</tr>
<tr>
<td>٢١</td>
<td>j</td>
</tr>
<tr>
<td>٢٢</td>
<td>j</td>
</tr>
<tr>
<td>٢٣</td>
<td>j</td>
</tr>
<tr>
<td>٢٤</td>
<td>j</td>
</tr>
<tr>
<td>٢٥</td>
<td>j</td>
</tr>
<tr>
<td>٢٦</td>
<td>j</td>
</tr>
<tr>
<td>٢٧</td>
<td>j</td>
</tr>
<tr>
<td>٢٨</td>
<td>j</td>
</tr>
<tr>
<td>٢٩</td>
<td>j</td>
</tr>
<tr>
<td>٣٠</td>
<td>j</td>
</tr>
<tr>
<td>٣١</td>
<td>j</td>
</tr>
<tr>
<td>٣٢</td>
<td>j</td>
</tr>
<tr>
<td>٣٣</td>
<td>j</td>
</tr>
<tr>
<td>٣٤</td>
<td>j</td>
</tr>
<tr>
<td>٣٥</td>
<td>j</td>
</tr>
<tr>
<td>٣٦</td>
<td>j</td>
</tr>
<tr>
<td>٣٧</td>
<td>j</td>
</tr>
<tr>
<td>٣٨</td>
<td>j</td>
</tr>
<tr>
<td>٣٩</td>
<td>j</td>
</tr>
<tr>
<td>٤٠</td>
<td>j</td>
</tr>
<tr>
<td>٤١</td>
<td>j</td>
</tr>
<tr>
<td>٤٢</td>
<td>j</td>
</tr>
<tr>
<td>٤٣</td>
<td>j</td>
</tr>
<tr>
<td>٤٤</td>
<td>j</td>
</tr>
<tr>
<td>٤٥</td>
<td>j</td>
</tr>
<tr>
<td>٤٦</td>
<td>j</td>
</tr>
<tr>
<td>٤٧</td>
<td>j</td>
</tr>
<tr>
<td>٤٨</td>
<td>j</td>
</tr>
<tr>
<td>٤٩</td>
<td>j</td>
</tr>
<tr>
<td>٥٠</td>
<td>j</td>
</tr>
<tr>
<td>٥١</td>
<td>j</td>
</tr>
<tr>
<td>٥٢</td>
<td>j</td>
</tr>
<tr>
<td>٥٣</td>
<td>j</td>
</tr>
<tr>
<td>٥٤</td>
<td>j</td>
</tr>
<tr>
<td>٥٥</td>
<td>j</td>
</tr>
<tr>
<td>٥٦</td>
<td>j</td>
</tr>
<tr>
<td>٥٧</td>
<td>j</td>
</tr>
<tr>
<td>٥٨</td>
<td>j</td>
</tr>
<tr>
<td>٥٩</td>
<td>j</td>
</tr>
<tr>
<td>٦٠</td>
<td>j</td>
</tr>
<tr>
<td>٦١</td>
<td>j</td>
</tr>
<tr>
<td>٦٢</td>
<td>j</td>
</tr>
<tr>
<td>٦٣</td>
<td>j</td>
</tr>
<tr>
<td>٦٤</td>
<td>j</td>
</tr>
<tr>
<td>٦٥</td>
<td>j</td>
</tr>
<tr>
<td>٦٦</td>
<td>j</td>
</tr>
<tr>
<td>٦٧</td>
<td>j</td>
</tr>
<tr>
<td>٦٨</td>
<td>j</td>
</tr>
<tr>
<td>٦٩</td>
<td>j</td>
</tr>
<tr>
<td>٧٠</td>
<td>j</td>
</tr>
<tr>
<td>٧١</td>
<td>j</td>
</tr>
<tr>
<td>٧٢</td>
<td>j</td>
</tr>
<tr>
<td>٧٣</td>
<td>j</td>
</tr>
<tr>
<td>٧٤</td>
<td>j</td>
</tr>
<tr>
<td>٧٥</td>
<td>j</td>
</tr>
<tr>
<td>٧٦</td>
<td>j</td>
</tr>
<tr>
<td>٧٧</td>
<td>j</td>
</tr>
<tr>
<td>٧٨</td>
<td>j</td>
</tr>
<tr>
<td>٧٩</td>
<td>j</td>
</tr>
<tr>
<td>٨٠</td>
<td>j</td>
</tr>
<tr>
<td>٨١</td>
<td>j</td>
</tr>
<tr>
<td>٨٢</td>
<td>j</td>
</tr>
<tr>
<td>٨٣</td>
<td>j</td>
</tr>
<tr>
<td>٨٤</td>
<td>j</td>
</tr>
<tr>
<td>٨٥</td>
<td>j</td>
</tr>
<tr>
<td>٨٦</td>
<td>j</td>
</tr>
<tr>
<td>٨٧</td>
<td>j</td>
</tr>
<tr>
<td>٨٨</td>
<td>j</td>
</tr>
<tr>
<td>٨٩</td>
<td>j</td>
</tr>
<tr>
<td>٩٠</td>
<td>j</td>
</tr>
<tr>
<td>٩١</td>
<td>j</td>
</tr>
<tr>
<td>٩٢</td>
<td>j</td>
</tr>
<tr>
<td>٩٣</td>
<td>j</td>
</tr>
<tr>
<td>٩٤</td>
<td>j</td>
</tr>
<tr>
<td>٩٥</td>
<td>j</td>
</tr>
<tr>
<td>٩٦</td>
<td>j</td>
</tr>
<tr>
<td>٩٧</td>
<td>j</td>
</tr>
<tr>
<td>٩٨</td>
<td>j</td>
</tr>
<tr>
<td>٩٩</td>
<td>j</td>
</tr>
<tr>
<td>٠٠</td>
<td>j</td>
</tr>
</tbody>
</table>

On the other hand, whenever the original words of the reference are quoted in the text of this research, they are typed in bold Italic in the form "Italic".

Whenever it is intended to highlight the words of author, they are typed in the ordinary bold in the shape 'bold'.
Introduction to this research

The relationship between human settlements and space is a relationship of coexistence. Human settlements primarily exist in space and they develop and grow through time. Without this change there would be no history.

Human settlements could therefore be seen as structures of the historical spatial organisation of societies and their physical environments (Lappo & Pivavarov, 1984, in Bourne et al., eds., 1984). This strong relationship between the human settlements and space-time settings have, since early history, been the field of several efforts of analysis and exploration. Concepts of space and time have always (directly or indirectly) affected the spatial layouts of the human settlements (Van De Ven, 1987).

Spatial structures not only are essential elements of settlements, but also they represent an important source for models and theories of growth processes and patterns of the settlements (Knox, 1982).

The spatial structure of the human settlement includes several elements and denotes spatial settings of the physical environment and society. It is also governed by several organisational systems which work within society (Bourne ed., 1982/b). These systems include the physical, social, cultural and personality systems (Cooke, 1983). All these systems constitute organisational instruments and they generate several mechanisms for the control and management of human settlements and their spatial structures. The physical system or the physical spatial structure of the settlement constitutes the container of and provides for the necessary functional requirements for other systems of the human settlement (Ibid.). The physical system is composed of five main elements; central area, neighbourhoods, the fringe, open land beyond the fringe and road system (Smailes, 1955; Blumenfield, 1975; Alexander et al., 1977; Arraf, 1986; Roberts, 1987, Healey et al., 1988). The main mechanism which deals with the control and management of the physical spatial structure of the settlement is the physical planning. The physical planning is primarily a way of thinking about problems of the physical spatial structure of the settlement and their solutions and is directed towards the future (Glasson, 1978/b). Since deciding upon problems and future of human settlements is not an individualistic but a collective concern and process, it relates to the politics of system controls within these settlements (Faludi, 1973).

The physical planning is therefore the state intervention into the management and control of the physical spatial structures of the settlements. The physical planning system is, in this respect, a governmental system which is composed of two important elements; institutional arrangements and instrumental representations (Healey et al., 1988). Institutional arrangements constitute the different planning departments responsible for surveying, analysing and resolving problems of the physical spatial structure of the settlement (Faludi, 1973). Instrumental representations, on the other hand, include the different plans, projects, schemes and regulations forming the general programme and policy for the control and management of physical spatial structures of settlements (Clambi, 1980).

However, it is argued that the conceptual frameworks of both the physical spatial structure of the settlement and the physical planning system still need more theorising and modelling (Lynch, 1984/b; Healey et al., 1988). Actual interrelationships and interdependencies between the physical planning
system and the physical spatial structure of the settlement needs deeper insights and clarification (Batty, 1995).

This research aims at considering the physical planning system in Palestine and its relationship with the physical spatial structures of the Palestinian settlements from the late 19th century to 1994.

Several objectives are related to this aim:

(1) To provide a background and documentation for the different physical planning systems in Palestine.

(2) To provide a background and documentation for the physical spatial structures of several Palestinian settlements.

(3) To provide a justification for the validity of the above theoretical framework in examining the actual relationship between the physical planning system and the physical spatial structure of the settlement.

This consideration is based on the exploration of elements of the different planning systems which have been implemented in Palestine during the above period. Four planning system are considered:

(1) The Ottoman physical planning system. Although this system did not constitute a complete comprehensive system, it provided several controls over the physical spatial structures of the Palestinian settlements. These controls were mainly represented in the administrative, judicial and land systems of the Ottoman Empire. The main instrumental representations which were used by these systems were the municipal regulations, Majallat Al-Abkam Al-'Adliyah and the Ottoman Land Code, 1856.

None of the above Ottoman systems and their instruments recognised elements of the physical spatial structures of the Palestinian settlements. Moreover, this research has found that by the end of the Ottoman role in Palestine, the physical spatial structures of the Palestinian settlements tended to be more dispersed and fragmented.

(2) The physical planning system of the British Mandate. This system was the first of its kind in Palestine and provided several institutional arrangements and instrumental representations for the control and management of the Palestinian settlements. Institutional arrangements included the High Commissioner, Central Planning Commission, District Planning Commissions and Local Planning Commissions. Instrumental representations included Regional Outline Town Planning Schemes, Town Planning Areas, Outline Town Planning Schemes, Detailed Town Planning Schemes and Parcelation Schemes.

Although this system constituted an important achievement for both the theory and practice of the physical planning in Palestine, it neither recognised elements of the physical spatial structures of the Palestinian settlements nor provided any provisions for their identity and integrity. These structures continued to disperse and segregate without preserving their traditional character or achieving modernised plans and layouts.
(3) The Jordanian physical planning system. This system, which was inflicted in the West Bank after 1948, mainly depended on the Mandatory system with few changes. These changes increased the ambiguity and uncertainty of the institutional arrangements of the previous system. At the same time, this system provided Outline Town Planning Schemes for most municipal areas and an Outline Town Planning Scheme for only one village in the West Bank. There was no development in these Outline Town Planning Schemes other than those of the Mandate. The physical spatial structures of the Palestinian settlements in the West Bank continued during the Jordanian period, to suffer from the same previous problems.

(4) The Israeli physical planning system in the West Bank after 1967. This system has theoretically followed its Jordanian predecessor. The Israeli physical planning system in the West Bank not only did not provide any provision for the development of the physical spatial structures of the Palestinian settlements in the West Bank, but also it has intended to damage and distort these structures. At the same time, there have been several attempts on the level of the Outline Town Planning Schemes to provide better recognition for elements of the physical spatial structures of Palestinian settlements. Although the Israeli physical planning system provided the opportunity for the preparation of these schemes, most of them did not receive approval.

Zoning policies of the Outline Town Planning Schemes have failed to provide sufficient control over the development of the physical spatial structures of the Palestinian settlements.

It is crucial for the development of the physical spatial structures of the Palestinian settlements in the West Bank to change the structure and powers of the Local Planning Commissions so that they include:

(1) Suitable provisions for the development of the physical spatial structures of these settlements and the integration and coherence of their elements.

(2) To represent municipal areas and villages at the same time.

(3) To reintroduce Town Planning Areas and to widen them so that they include both municipal areas and villages at the same time.

(4) To include qualified planning staff and to establish planning departments in each Town Planning Area.

(5) To change provisions of Outline Town Planning Schemes so that they depend on the actual unforeseen division and parcelation of land rather than on zoning policies.

All these changes should necessarily be accompanied by suitable regional and sub-regional planning policies and schemes.

This research depends for the analysis of the physical planning systems in Palestine on primary and secondary sources. Primary sources include:

(1) The text of the Ottoman Land Code, 1856.

(2) The texts of the Mandatory Town Planning Ordinances.
(3) The texts of the Jordanian Town Planning Laws.

(4) The text of the Israeli Military Order no. 418.

At the same time, this research provides a wide range of documents such as plans and Town Planning Schemes for several Palestinian settlements which have been reproduced by author during the period of the research and they are published here for the first time.

This research is divided into three parts:

(1) Part one provides the background for the general theoretical arguments upon which the research depends later and is divided into four chapters.

(2) Part two analyses the physical planning systems in Palestine and their relationships with the physical spatial structures of the Palestinian settlements from late 19th century to 1994. This part is also divided into four chapters as well.

(3) Part three investigates in detail the effects of the different physical planning systems in Palestine on the physical spatial structure of Tulkarm city. This part is divided into three chapters the last of which includes the conclusions and recommendations of this research.
Acknowledgements

Many individuals and institutions have contributed to this research and made its completion possible. Now then, I am greatly pleased to thank them all.

I owe a special dept of thanks and gratitude to my supervisor Mr. Christian Hermansen, Director of Post Graduate Studies, Mackintosh School of Architecture, for his support, advice, patience and understanding during the whole period of my research.

I am also greatly indebted to Dr. Raid Hanna of the Mackintosh school of Architecture for his valuable comments and advice without which this research would have lost much of its value. I owe special thanks to Mr. Tony Vogt, former Director of Post Graduate Studies, Mackintosh School of Architecture, for his encouragement and support at early stages of this research.

Dr. Khalid Qamhiyah unselfishly provided countless help and support since the first days of my work on this research.

My thanks to Professor Anthony Coon, Director of the Centre for Planning, Strathclyde University, Glasgow, who encouraged me to enter the venture of the physical planning problems in Palestine.

My thanks also to the administrative staff of Mackintosh School of Architecture and Glasgow School of Art. Amongst these, Mrs. Christine Bates, Secretary of Post Graduate Studies, Mackintosh School of Architecture deserves special thanks for her help and support. Special thanks also to Mr. Jim Docherty of the Finance Office, Glasgow School of Art for his help and understanding.

I owe special thanks to Mr. Jamal Shkokani, Deputy Director, Central Planning Department, West Bank; Mr. Ibrahim Muslih, Director of Public Works Department, Nablus Mr. Mahmoud Barhoush, Engineer of Tulkarm municipality; Mr. Hasan Abu-Shalbak of Bable Engineering office, Ramallah; Engineer of Salfit municipality, and the staff of Centre for Engineering and Planning, Ramallah for providing valuable information necessary for this research.

Most of this information could not have been possible to reach me without the help of my brother in law Mr. Zeyad Munawer. To him, I owe great debt of thanks and gratitude.

I am greatly indebted to Barakat Trust Institute, Oxford; Palestinian Students' Fund, London; International Islamic Charitable Foundation, Kuwait; Muslim Aid, London and Muslim student society, Glasgow for their financial help without which this research would not have been possible.

My thanks to Mrs. Linda McArdle who typed the greatest part of this research. My thanks also to the authorities of the library and computer services at Leeds University and Leeds Metropolitan University for providing me the opportunity to use these services during a long period of my research.

Last but not least, I am especially grateful to my wife Ra'idah and our five children Ro'a, 'Aomair, Derar, Khoulah and Hammam for their patience, support and forbearance during the long period of this research. As what is noted by Beazley and Harverson (1982), I have always sympathised...
with the wife of that author who angrily destroyed the writings of her husband who had spent too much time on them.

Finally, I owe thanks to all those who could not be mentioned here but contributed to the development of this research.

The most important acknowledgement here is that this research could not be completed without the help of Allah the Almighty. Any credit for this research is his while any shortcomings are mine.
This research is dedicated to my wife Ra’ida and our five children Ro’a, ‘Aomair, Derar, Khoulah and Hammam
Part One

General Background

The human settlement, its physical spatial structure and the physical planning system
Chapter One

The human settlement;
it's definitions and its elements
Introduction:

In order to understand the effects of the physical planning system in Palestine on the physical spatial structures of the Palestinian settlements, it is crucial to understand the general theoretical frameworks of both the physical planning system and the physical spatial structure of the human settlement.

This chapter aims to explore definitions and elements of the human settlement as a necessary requirement for understanding its physical spatial structure and the relationship of this structure with the physical planning system. Two objectives are related to this aim:

1- To explore definitions of the human settlement.
2- To explore elements of the human settlement.

The human settlement is seen as the basic component of the historical and spatial organisation of society and its environment (Lappo & Pivavarov, 1984, in Bourne et al. eds., 1984). Elements of the human settlement are (Rapoport, 1977; Palomaki, 1984, in Bourne et al. eds., 1984):

(a) The physical environment.
(b) Society.
(C) The spatial structure.
(d) The planning system.

With the achievement of these objectives, it would be possible to provide the necessary foundation for understanding concepts of the human settlement, its elements and the nature of the relationship between these elements.

1.1 Definitions of the human settlement:

The global report on Human Settlements (Habitat - The United Nations Centre for Human Settlements, 1987, p. 5) defines the human settlement as the place where organised human activities occur. Although this definition recognises two important features of the human settlement which are 'places' and 'human activities', the incidental relationship between them provides little explanation about the actual interconnections between places and human activities. Before happening in a place, human activities pass through complex socio-cultural and socio-economic processes. Needs, motivations and goals play a crucial role in these processes (Cooke, 1983).

On the other hand, Daniel and Hopkinson (1979) argue that the inhabited places of the human activities can be considered human settlements. The inhabiting of places by people takes place through grouping or clustering which results from people's selection and choice of certain places and locations (Rapoport, 1977). This helps to comprehend the human settlements as "the spatial localisation of population within populated places" (Bourne et al. eds., 1984, p. 355). Therefore, the human settlement would be seen as the inseparable combination between people and space e.g. settlements without people are not human settlements, and human settlements always occupy space. People always
organise their space in order to fulfil their needs (Mcloughlin, 1969). It is a matter of fact that the change of the human settlements always happens through time and without this change there is no history. This leads to more specification in sighting the human settlement as the basic constituent of the changing historical-spatial structure of society (Lappo and Pivavarov, 1984, op. cit.) and its physical environment. This means that the human settlement is composed of several interrelated elements which together form a complete system of the settlement.

It is now useful to refer briefly to ‘systems theory’.

1.2 Systems theory:

It is a natural, precise, and explicit way to explore the complex relationships which constitute the human settlement (Bourne ed., 1982/b). The ‘system’ is “a complex combination of interrelated parts, an organised body of things, and a group of objects entirely interrelated in a unity” (McLoughlin, 1969, p. 75).

In its most basic form, a system comprises three sets of components (Johnston, 1979):

(1) Elements or parts of the system (the variables).

(2) Interactions and relationships between these parts or variables.

(3) Environment from which the system derives inputs and to which it sends outputs.

Systems theory is usually accompanied by complex statistical and mathematical models. These models merely use individuals and societies as numerical values. Statistical and mathematical models cannot deal with sensation, perception, moral norms, or cultural values of the human settlements. Furthermore, the application of statistical techniques in morphological studies (Knox, 1982) and spatial studies (Grossman, 1984) of human settlements is problematic.

On the other hand, Hall (1963, in Ungur & Ungur, 1991) demonstrates that two main processes must be considered in order to analyse a human settlement system:

(1) The determination and organisation of the relationships between variables or elements of the system.

(2) The definition of the behavioural settings of these elements.

1.3 Elements of the human settlement:

Palomaki (1984, in Bourne et al., eds. 1984) determines three different elements of the settlement system (figure 1.1):

(1) Community:

Every settlement’s community has special characteristics which form its identity and affect the general identity of the settlement.
(2) **Communal activity:**

Cooke (1983) argues that communal activities are based on the value-system of society and they play an important role in the spatial organisation of society and its physical environment.

(3) **The physical environment:**

The physical environment mainly constitutes the man-made physical environment which is produced by society and its communal activities (see also Knox, 1982). It also includes the natural geographical settings of the man-made physical environment.

Alternatively, another classification suggests that the human settlement consists of five elements: nature, man, society, shells - the built environment-, and networks of infrastructure and communication system. Each element consists of several sub-elements which are systematically interrelated within the whole framework of the human settlement system (Doxiadis, 1968, figure 1.2).

On the other hand, the organisation and control of both the physical environment and society of the settlement are seen as products of planning (Faludi, 1973). This implies that the planning system is an important element of the human settlement without which it would lose its character as an integrated systematic phenomenon.

At the same time, the above elements of the human settlement develop in space and provide for a certain spatial structure of the settlement.

It would therefore be possible to suggest that the human settlement consists of four elements: physical environment, society, spatial structure, and planning system (figure 1.3).

### 1.3.1 The physical environment:

The physical environment refers to the natural geographical environment of the human settlement together with its man-made environment. In addition to the buildings, it also includes forms of land uses, lines of communications, patterns of transport, and systems of infrastructure.

The physical environment is the materialistic realisation and the container of the social structure and its spatial structure (Hillier and Hanson, 1984).
Figure (1.1): The relationship between the community, communal activity and the physical environment as three elements of the human settlement.

Source: Author.

Figure (1.2): Interaction between the different elements of the human settlement.

Figure (1.3): Conceptual representation of elements of the human settlement.

Source: Author.
1.3.2 Society:

According to Davis (1961), society is a system of relations which organise the individuals within the spatial structure of the settlement. Davis (1961) listed four basic requirements for society:

(1) Conservation of individuals.

(2) Functional differentiation among individuals.

(3) Cohesion between individuals.

(4) Maintenance of the social system.

On the other hand, society could be seen as 'the overall system of the ordained and commonly accepted rules and institutional settings which organise the relationships between individuals on different space-time associations within the human settlement' (Rapoport, 1977; Smith, 1980; Cooke, 1983).

This overall system consists of four sub-systems: the physical system, the social system, the cultural system, and the personality system (figure 1.4).

1.3.2.1 The physical system:

The physical system constitutes the systematic relationships and interactions within the physical environment which provide for the maximum functional requirements of society (Cooke, 1983). The means of systematising these relationships and interactions is control and management which form the planning of the physical environment (Hall, 1975).

1.3.2.2 The social system:

The social system is the set of variables which constitutes the institutional arrangements, interactions and relations between people of society (Encyclopaedia Britannica, 1992).

In order to be maintained, the social system needs the adjustment or the adaptation of the social organisation (the organisation of society within its physical environment using signs and symbols as representations according to its culture, Rapoport, 1977). The adjustment of the social organisation can be achieved through the economic activity as a strong tool of human interaction and development of the human settlements (Cooke, 1983). Development of the settlement and economic activities within it depend on the political power which directs motivations and goals of society (Ibn Khuldoun 1332-1406 AD, the prolegomenon, edited by Wafi, 1957, pp. 867-8).

The social system thence, through the political framework activates the process of goal attainment (Cooke, 1983). The process of goal attainment can be achieved through the transformation of norms, values, and beliefs to a system of control which directs the interests of society to its common good. This process which increases the ability of society to attain its goals and future growth constitutes planning (Faludi, 1973).
Figure 1.4: Systems of society and their interrelationships.

Source: Author.
1.3.2.3 The cultural system:

Rapoport (1977) argues that norms, values, and beliefs of a society constitute elements of its cultural system which also includes all capabilities and habits acquired by man as a member of society. The process of transforming these elements into a system of control aims at fulfilling a satisfactory level of cultural integration in society (Cooke, 1983).

Each culture constructs its model of the world through sets of classifications contained in sign and symbol systems such as language, mythology and science (Akhundov, 1986). Among the most important of these classifications which determine human consciousness of the settlements are the forms of perception of space and time (Rapoport, 1977).

The basic framework upon which these classifications depend within the cultural system is 'ideology'. This is because people of the same ideology possess much cohesion and integration which helps them to build higher levels of communication and interaction. It would be useful at this point to consider ideology and its relationship with the human settlements.

Ideology is simply a systematic body of ideas (Hall, 1977) which guides thought and directs the action of society in order to fulfil predetermined aims at certain periods of time (Altman and Rosenbaum, 1973). The basic characteristics of ideology are its substantive content, its ethical role, and its method of operation (Ibid.). Consequently, the role of ideology is crucial for both the social and cultural systems. For the social system, it is a strategic tool of goal attainment. For the cultural system, it is a tool of accelerating social interaction.

The relationship between the physical settlement and ideology can be formalised by looking at the general layouts of settlements as a reflection of the prevailing ideology of a particular period. Renaissance and baroque buildings which symbolise the power of the national governments are good examples of this relationship (Knox, 1982). Examples of this relationship appear in the modern architectural styles such as the contemporary Soviet architecture (figure 1.5).

Ideology is also believed to be among the important factors which make Moslem cities totally comprehensive societies (Lapidus, ed. 1967). Zionist ideology is another example which has been the driving force for Jewish settlement activity in Palestine. Zionist ideology was found to be the inspired guide of Zionism. Zionism appeared essentially as a form of Jewish nationalism in order to maintain Jewish identity with security and dignity in a country of Jewish majority (Altman and Rosenbaum, 1973). Attachment to the land of Palestine, building an independent economy, absorbing the immigrants, and defending the achieved goals have been the basic doctrines directing the Jewish settlement activities in Palestine. The physical planning system has always been an important tool of Zionist ideology (Ibid.). This system has drastically affected the development of the Palestinian settlements (Rishmawi, 1986; Khamaysch, 1989; Coon, 1991).
Figure (1.5): Moscow Red Army Theatre in the shape of a star. By A. Albyan, 1935-40

1.3.2.4 The personality system:


The previous three systems of society comprise the objective part of it. The personality system, on the other hand, represents its subjective part. The personality system embraces the individual’s inherited and acquired moods, attitudes, and opinions which determine the way in which he interacts with the environment. The personality system mainly depends on the socio-cultural systems which represent the external context of personality. There is also a belief that genetic factors play an important role in the formation of personality (Encyclopaedia Britannica, 1992).

Through co-operation and integration within the cultural system, the political power with its ideology leads individuals towards goal attainment. Simmie (1993) demonstrates that statutory town planning in Britain has been, after 1947, the vehicle of pioneers and elites for motivating society towards redeveloping and rebuilding the country.

1.3.3 The spatial structure:

Settlement activities essentially take place in space and they continue to develop and grow through time thereafter. Without this process of change there would be no history, which combines space and time in the spatial structures of the settlements.

It is necessary to shed some light on the general concepts of space and time in order to comprehend the spatial structure of the settlement.

By organising the physical settlement, society organises space and attaches itself to it. The life of society is therefore connected to space (Rapoport, 1982). The organisation of time normally happens through the sequential and incidental organisation of human activities which at the same time encroaches space. In the Islamic city for example, the need to observe prayer five times a day connected the mosque to the most active place of the city: the market.

From early days, every human begins to perceive and conceive the world around him through time and space. Our sensations of time and space give us biological purposive orientations by reflecting the objective reality of our environment (Ákhundov, 1986). Not only do the notions of space and time occupy vital positions in philosophy, science, theology, and art, but also they form fundamental notions of culture. Therefore, they play a crucial role in the human settlement systems. Van De Ven (1987, p. 24) argues that “it is the act of building that in the end makes us conscious of the phenomenon of space and of the unique atmospheric marvels we perceive “.
1.3.3.1 Historical development of concepts of space:

It would be worthwhile now to briefly review some of the historical developments of notions of space in order to provide a good background for the relationship between space and the human settlements.

(1) The Platonic theory of the finite geometry of space:

Space for Plato (428-347 BC) was three dimensional consisting of four elements: earth, air, fire, and space. Every concept of Platonic space was curbed in favour of geometry (Van De Ven, 1987). The physical objects were defined by geometrical forms which were determined by geometrical planes containing empty space (Jammer, 1954). Effects of the Platonic thought are clear in most of modern architectural and planning movements which emphasise concrete geometrical spaces.

This 'New Platonic' interpretation of space can be traced for example in Francis Ching's conception of space as "a material substance like wood or stone with dimensions and shape depending on its boundaries as defined by the elements of form" (Ching, 1979, p. 108). Views such as that of Ching are criticised by Hillier and Hanson (1984) who demonstrate that understanding space in architecture and planning is not possible by only understanding the surfaces which determine the space. This understanding could rather be possible by understanding the spatial relationships in the building, group of buildings and the human settlement as a whole.

(2) The Aristotelian theory of infinite and empty space:

Space for Aristotle (384-322 BC) was continuous and infinite. It was conceived as the multitude of all places occupied by objects while place was conceived as that part of space which bound every object (Jammer, 1954). On the other hand, continuity of the Aristotelian space can be, for example, expressed by repeating the same design elements from the scale of the whole human settlement to that of the individual building. A good example of this idea is the organisation of San Cristobal de las Casas in Mexico (Rapoport, 1977, see figure 1.6).

(3) The atomistic, coherent and systematic space of the Islamic philosophy:

Islamic philosophy referred to material and space as a passage of extremely short duration which required constant inference of the creator for the maintenance of coherence and continuity of the universe. Every thing in the universe was conceived to consist of atoms and accidents but not of material and characters as it was in Aristotelian theory. The spatial value could only refer to the coherency of invisible, equal, and devoid atoms which form an object. The system of spaces of atoms or objects could form the spatial extension and continuity (Jammer, 1954)

These conceptions strongly affected Islamic architecture, urban design, and planning where several devices were developed for delimiting space as a positive religious element (Bacon, 1967;
The Islamic city is not a random collection of streets and buildings only. It constructs volumes of space which conform to the scale and needs of its inhabitants. The use of this space is also significant. Domes for example reflect the inner space which pushes outwards for the search of expression. On the contrary, domes of Christian cathedrals of Western Europe are likely to be envisaged in terms of structure and mass rather than space (Bacon, 1967).

It could be argued thence that the mosaic-plans of the traditional Islamic settlements with their coherency and continuity are representations of Moslems' perceptions of atomistic coherent space (figure 1.7).

(4) The Cartesian real three-dimensional space:

Descartes (1596-1650) did not differentiate between space and physical objects. Space represented for Descartes an animate three dimensional extension of materialistic reality. As Van De Ven (1987) demonstrates, the Cartesian idea of space extension can be seen in the Baroque city planning in the seventeenth and eighteenth centuries (figure 1.8). From this example, it is obvious that the empty space around the city is an extension of a well-defined geometrical structure of its built environment.

(5) Absolute and relative spaces of Newton:

According to Isaac Newton (1642-1704), there were two kinds of space; absolute space and relative space. Absolute space could not be measured or identified without being related to something else. Relative space was the space by which the absolute space could be measured (Akhundov, 1986; Sack, 1980). The best way to differentiate between absolute space and relative space was the accelerated motion.

Since the whole composite space of the human settlement is essentially composed of and determined by smaller spaces, it could be argued that the whole composite space of the settlement represents its 'absolute space', while smaller spaces compose 'relative spaces'. One example which represents the absolute space is the Kirdi farmstead in the African Cameroon (see figure 1.9.A). The walled domiciles are just like stars weaving in space where no boundary of the village appears. Presumably, the boundary of the village is at a point where no further houses exist. On the contrary, the Moundang compound in the Cameroon (figure 1.9.B) represents the whole settlement as a relative space which is isolated from the outside absolute space.
Figure (1.6): Continuity in space and the human settlement. The organisation of San Cristobal de las Casas, Mexico.


Figure (1.7): A representation of space coherency and continuity in the traditional Islamic city of Qairouan.


Figure (1.8): Space extension in the baroque city. A representation of Karlsruhe by Markgraf Wilhelmi, 1739.

Figure (1.9): Absolute and relative spaces in the human settlement.
A- The 'absolute' settlement of the Kirdi farmstead in the African cameroon.


B- 'Relative' space of the Moundang compound in Cameroon.

(6) The fourth dimensional space of the modern time:

Maxwell (1831–1879) explained that absolute space is immovable and unchangeable. It is only possible to distinguish between different parts of space by relating them to material objects. It is not possible to differentiate between parts of time except by the different events which happen through them. Based on these conceptions, Einstein (1879–1955) developed his theories of relativity for the moving objects where space was considered as a four-dimensional field, its fourth dimension is time (Van De Ven, 1987).

According to Swinburne (1968), this fourth dimension is called "space-time" where points are considered as point-instants e.g. points in space at certain instances of time. The basic means for exploring the relationship between space and time is movement which creates the sequential experience of different spatial settings at different time intervals (Ullman, 1974). This could be considered a very important concept for planning where movement systems occupy vital positions. Planning for movement systems should not only provide for more flexible movement and accessibility, but also for how movement relates to the spatial structures through which it penetrates.

Finally, it could be concluded that the development of concepts of space have often been related to the development of the human settlements and their spatial settings.

1.3.3.2 Time and movement:

Ullman (1974) suggests that movement can be considered as the "key word" for space. He defined movement as "change in space" and change as "movement through time". Although movement is related to time in the sense that it starts at certain time and stops at another, movement does not happen merely to indicate its time intervals. Even in the physical sciences, time intervals of movement are measured to discover other relations, particularly spatial relations. The first result of moving an object is the change of its setting in space. The new spatial setting or ‘location’ affects the relationship between the moved (or moving) object and other objects related to it. Locational change is therefore one of the important parameters through which the spatial relations can be explored. The importance of time for locational change and spatial relations is that of sequence. Or like what Leibnis has said "time is the abstract of all relations of sequence" (Ullman, 1974).

In this respect, one moment of time is present. All other moments of time related to the present moment are (Swinburne, 1968):

(1) Moments of the past before the present.

(2) Moments of the future after the present.

Sequential relationships between different temporal aspects of human settlements are of great importance for both controlling and organising these settlements (Rapoport, 1977).

1.3.3.3 Exploration and analysis of time:

The organisation of time can be explored and analysed through two frameworks:

(1) ‘Linear time’ as a continuous flow of time from past to present and to future afterwards. Behaviours and decisions of linear temporal characteristics are always future oriented in order to attain
new settings (Rapoport, 1982). Settlements of such temporal characteristics always process new forms of development in their systems. Failure of these developments to attain goals of society is a major problem of the linear-time developments. This problem raises calls to reintroduce previous states of the settlement systems which may be more suitable (Doxiadis 1968; Tabalds, 1992).

On the other hand, time could be studied in several ways. Observation is the way of studying the present and retrospection (or retrodiction) is the way of studying the past. Prediction is the way of studying the future. These ways must be conducted in the prospect of building scientific approaches and deductive consequences for the problem of time (Rapoport, 1977).

(2) ‘Cyclical or spiral time’ which refers to rhythm and arrangement of human activities through repetitive intervals on regular or semi-regular basis (Rapoport, 1977; Swinburne, 1968; Ungur and Ungur, 1991).

Cyclical and spiral time not only provides for activities and decisions to be practised repeatedly on different time spans, but also it helps to enrich the built environment with a variety of forms. The diversity of these forms provides a wide range of alternatives to suit various human choices.

Both linear and cyclical time are important frameworks for exploring the relationship between the spatial structures of human settlements and the physical planning system. They also provide important frameworks for exploring the planning system which is always related to time e.g. it deals with present time settlements to provide better settlements for the future.

1.3.4 The planning system:

All societies need some mechanisms for the allocation of land uses and to decide upon the best ways for conducting development (Evans, 1993). It has been shown that the adaptation and development of the social system can only function within the physical system of the settlement in order to maintain the social organisation. The social organisation aims at attaining social goals which depend on the political sphere for their formulation and processing. These systematic processes require control and guidance as two important components of systems (McLaughlin, 1969). The challenge has always been how to manage and control the resources of the whole human environment. On the other hand, the process of learning, foreseeing the future and goal attainment generally constitutes planning (Faludi, 1973). Planning, in other words means “the making of an orderly sequence of actions that will lead to the achievement of a stated goal or goals” (Hall, 1975, p. 6).

It is important now to note that there are several types of planning according to the system of the human settlement with which it deals, such as physical planning, economic planning and social planning (Hall, 1979/b; Glasson, 1978/b; Ratcliffe, 1981/b). The concern of this research is with physical planning which deals with the physical environment. McLaughlin (1969, p. 15) denotes that the physical planning is “an activity respectable to the government”. Healey et al. (1988) point that physical planning constitutes the program by which the state seeks to manage land use and change in the physical environment. On the other hand Evans (1993) argues that it is a bureaucratic activity for imposing state control over land use and development.
Accordingly, for this intervention and activity, the state needs certain institutions and instruments for establishing the needed programmes for the control and management of the settlements. According to Faludi (1973) these institutions and instruments constitute a main and very important factor affecting the physical environment.

Conclusion:

This research attempts to explore the effects of the physical planning system on the physical spatial structure of the human settlement in order to provide better understanding of the relationships between them. Such understanding of these relationships would help to develop a physical planning system which would create more improved and integrated spatial structures of the human settlements.

The previous discussions in this chapter have been used as a vehicle for clarifying concepts of the human settlement as a necessary prerequisite for understanding the relationship between its physical spatial structure and the physical planning system.

Two basic tools have been used for this clarification:

1- Definitions of the human settlement.
2- Elements of the human settlement.

Although both the above definitions and elements clearly indicate the importance of the physical spatial structure of the settlement, little was provided to illustrate the importance of the physical planning system as an important element of the human settlement. This chapter highlights the important position of the physical planning system in both definitions and elements of the human settlement.

Yet on the other hand, this chapter reveals that the interrelationships between the physical planning system and the physical spatial structure of the settlement needs more consideration. This leads to the requirement that these two important elements should be analysed to their basic components in order to explore the interactions and interdependencies between them.
Chapter Two

The physical spatial structure of the human settlement
Introduction:

The previous chapter has concluded that there are several interconnections and interrelationships between the human settlements and space. The spatial settings and representations form the spatial structure of the settlement which is one of its important elements. The aim of this chapter is to explore the spatial structure of the human settlement in general and its physical spatial structure in particular. This exploration is a preliminary requisite for understanding the relationship between the physical spatial structure of the human settlement and the physical planning system.

Several objectives are related to this aim:

(1) Since the concept 'human settlement' is a general term which includes both urban and rural settlements, it is necessary to define these two kinds of settlements and to apprehend differences between them. This would help to achieve a more generalised approach to the spatial structures of the human settlements.

(2) To define the spatial structure of the human settlement.

(3) To determine elements of the spatial structure of the human settlement.

The spatial structure of the human settlement is seen as the spatio-temporal arrangements of the physical environment, society, and their interrelationships according to organisational systems which control all of them (Bourne ed., 1982/b). From such a definition, five elements could be identified:

(a) Spatial settings of the physical environment or the physical spatial structure.

(b) Spatial settings of society or the social spatial structure.

(c&d) Temporal settings of both the above elements.

(e) Organisational systems (physical, social, cultural and personality systems) which through the planning system arrange and control the previous four elements.

2.1 Urban-rural differences:

Hillier & Hanson (1984) argue that 'rural' and 'urban' are spatial terms with behavioural inferences implying that the spatial order is crucial for differentiating between the settlements. Therefore, it is important at this point to consider types of the human settlements and differences among them in order to shed some light on the effects of these differentiations on the general model of the spatial structure of the settlement.

Ibn Khuldoun (1332-1406) in his pioneer prolegomenon (edited by Wafi, Cairo, 1957) distinguished between two types of human settlements; “Al-Badow” (rural) and “Al-Hadar” (urban) settlements. Al-Badow settlements survive on the basic activities of agriculture and pasture. They are small villages or hamlets consisting of simple structures of stone, clay, or wood which are mainly used for shelter or other basic needs. Al-Hadar settlements, on the other hand, flourish when economic and social developments encourage people of Al-Badow settlements to plan and build towns and cities which
are big, beautiful, well-serviced, and well-built. People of these towns and cities usually work in industry and commerce.

More recently, Carter (1981/c) determines four criteria for the differentiation between urban and rural settlements:

(1) The population measure:
It is a simple and direct way of differentiating between urban and rural settlements though it is not clear which figure should be used. This varies from country to country. In Norway and Iceland, settlements of population of more than 200 are considered urban. The figure in Israel is 2000. In Sweden, the population density is introduced where the figure is 200 inhabitants with not more than 200 metres between houses.

(2) Administrative boundaries:
These boundaries which are usually determined by the governments differentiate between urban and rural areas. In Britain for example, all county boroughs, municipal boroughs, and urban districts are considered urban. Urban areas in Iraq are those which lie within the boundaries of municipal councils.

(3) Employment:
Employment in agriculture has always been a main difference between rural and urban areas. This criteria also differs from country to country. In Israel, not only the urban area is that of 2000 people or more, but also 66% of its labour force must be employed in non-agricultural occupations. In the Netherlands, although the figure 2000 people is used for the urban area, it is required that 80% of the population should work in non-agricultural occupations.

(4) Urban services:
Urban areas are required to have certain functions and facilities such as water supplies, sewage systems, hotels, secondary schools, and networks of commercial services. Again, the need to include these services differs from country to country.

However, McLoughlin (1969) argues that such differences have diminished under the pressure of urbanisation creating problems for their study and guidance. On the other hand, Lapidus, ed. (1969) demonstrates that Middle Eastern settlements have not suffered from such severe problems of urbanisation. A more generalised model of the human settlement would therefore be applicable in such settlements. This could provide for more flexibility in exploring the Palestinian settlements and their spatial structures at a more generalised level without the difficulty of considering the rural and urban settlements separately.

2.2 Spatial structure of the human settlement:
Knox (1982) argues that explorations of the spatial structure of the human settlement are a good source for models, concepts and theories about growth processes and patterns of interaction in these settlements.
Alternatively, Rapoport (1977) argues that the spatial structure (or the "spatial organisation" in his terms) is a crucial feature of the built environment and it is therefore the "key element" for its exploration and analysis.

2.2.1 Definitions of the spatial structure of the human settlement:

Spatial structure, spatial organisation, and spatial pattern are terms which have been used to describe aspects of the spatial structures of the human settlements.

Webber (1964) considers the spatial structure as the product of patterns of communication in society.

Morill and Dormitzer (1979), on the other hand, argue that both the spatial organisation and spatial structure mean patterns of location and interaction which determine the space of human society.

From the above definitions, it is obvious that they determine five different aspects of the spatial structure of the human settlement:

1. Relative location of services.
2. Organisation of human activities.
3. Patterns of communication.
4. Geometric aspects like distance, pattern and location.
5. Patterns of location and interaction in space.

None of these definitions formulates a complete model of the spatial structure of the human settlement.

Alternatively, Bourne ed. (1982/b, p. 30) argues that the spatial structure of the settlement could be seen as the "form and the overlay of patterns of behaviour and interaction within sub-systems with a set of 'organisational' rules that link these sub-systems together" (figure 2.1). "Form" in the above definition is the "arrangement of individual elements - such as buildings and land uses (or collectively, the built environment), as well as social groups, economic activities and public institutions" (Ibid.)
Figure (2.1): Components of the urban spatial structure.

According to the above definition, it could be concluded that the spatial structure of the settlement is the combination of form, patterns of behaviour, interaction of systems of form and behaviour, and organisational rules which arrange these systems.

From the above discussion, spatial structure of the human settlement could be seen as 'the spatial structure of the physical environment, society and the organisational systems which control space relationships within and between them through time'.

2.2.2 Elements of the spatial structure of the human settlement:
It could be concluded thence that the spatial structure of the human settlement is composed of the following elements (figure 2.2):

1. Spatial settings of forms, shapes, and structures of the physical environment which constitute the physical spatial structure of the settlement.

2. Spatial settings of the society which constitute the social spatial structure.

3&4) Temporal dimensions of the above two elements.

(5) Organisational systems of all the above four elements.

2.2.3 The physical spatial structure of the human settlement:
The physical spatial structure of the settlement is sometimes used to refer to some aspects of its physical geography such as mountains, rivers, trees, plains and hills (Gallion & Eisner, 1980/c). The physical aspects like climate, geology, hydrology or meteorology could even be considered elements of the physical spatial structure. The locational differentiations of these elements produce different characters of the physical space (Ibid.). Yet the natural physical phenomena, first of all, exist in space and would, using Newton's terms, constitute absolute space (see chapter one). To suit human use, this absolute space should be adapted into relative spaces in order to attain the goals of society. The main feature of this adaptation is the built environment, the construction of which is the main tool for transforming and adapting the geographical environment.

2.2.3.1 The physical spatial structure of the settlement, or form of the settlement:
To avoid any misconception in the understanding of the physical spatial structure of the settlement, it is important at this stage to explore the term 'settlement form'.

Linguistically the word 'form' has several meanings. It is the external appearance, shape, arrangement or configuration of things and species. It also includes their outward aspects (without colour) which show the organisation and order of their structure, and the manner, method or style of their design.
Figure (2.2): Conceptual representation of elements of the spatial structure of the human settlement and their relationships.

Source: Author.
In philosophy, form for Plato was the abiding reality which made things what they were (Encyclopaedia Britannica, 1988). For Aristotle, form was the organisation or the arrangement of material elements which made things (ibid.).

Cant, on the other hand, considered form as a mental property, that is to say, it was imposed by individuals on material objects (ibid.).

In the field of architecture and design, Alexander (1964, p. 15) denotes that form is the utmost objective of design. It is created by the “abstract pattern or diagram of physical relationships which resolve a small system of interacting and conflicting forces”.

Alternatively, Ching (1979, pp. 50-1) without defining what is form, lists seven aspects of form. These are shape, size, colour, texture, position, orientation and visual inertia of an object. All these aspects are affected by distance of the viewer, angle of viewing, light and visual context around the object being viewed.

On the scale of the human settlement, Cherry ed. (1974) suggests that it refers to buildings, roads, land uses and the like.

Lynch (1984/b, p. 48) argues that form of the settlement is “the spatial arrangement of persons doing things, the resulting spatial flows of persons, goods and information, and the physical features which modifies space in some way significant to those actions including enclosures, surfaces, channels, ambience and objects,..... the cyclical and secular changes in those spatial distributions, the control of space and the perception of it”.

From the above discussion, the following points could be concluded:

1. Settlement form always refers to a physical substantial reality which can be shaped, arranged, organised and structured. It is visible and tangible with visual properties and relationships that can be abstracted.

5. The physical spatial structure of the settlement is more suitable for describing the physical spatial settings and representations of the human settlement. It includes both the physical and spatial realities of the settlement and its environment. It is also more dynamic and more related to the general concept of the spatial structure of the settlement which has been outlined above.

2.2.3.2 Elements of the physical spatial structure of the human settlement:

According to Knox (1982), Smailes (1955) argues that the physical spatial structure of the settlement (British town) could include three major elements: the historic core or the “kernel”, the “integuments” which surround the core and the “urban fringe” which surrounds the integuments (figure 2.3).
Figure (2.3): General model of the physical spatial structure of the British town.

According to Cherry (1974) elements of the physical spatial structure of the settlement (city) include size, density and shape.

Blumenfield (1975) argues that main elements of the physical spatial structure of the settlement (city) which continue to keep its identity are:

1. Site.
2. Landmarks; natural or man-made.
3. Patterns of streets and land sub-division.
4. Central area.
5. Districts or neighbourhoods.

Alternatively, Alexander et al. (1977) hypothesize that on the scale of a town or a city there could be as much as 109 important elements of its physical spatial structure. By reviewing these elements, it could be possible to list them under the following categories:

1. Size.
2. System of transport and street pattern.
3. Neighbourhoods.
4. Services and facilities.
5. Buildings of the city (concentrating on height, density and system of organisation).
6. Green areas and water surfaces.
7. Important buildings and sites.
8. Houses (types and conditions).
9. General structure or shape of the city.

On the other hand, Lynch (1984/b) identifies several elements of the physical spatial structure of the settlement (city). These elements include:

1. Settlement size.
2. Neighbourhoods of the settlement.
3. Areas of conservative potential:
4. Movement system.

Arraf (1986) suggests that the physical spatial structure of the settlement (Palestinian village) is composed of ‘nowat’ (nuclei) ‘ahya’ (neighbourhoods), ‘judur’ (fringe), ‘maqaleb’ (agricultural land beyond the fringe) and road system of the settlement (figure 2.4).

Alternatively, Roberts (1987) suggests that the physical spatial structure of the settlement (British village) could include five elements (figure 2.5):

1. Private space which constitutes the buildings and spaces between and around them.
2. Public space which constitutes the streets, lanes and pathways.
3. Communal space which constitutes the common facilities of the settlement.
4. Centre of the settlement.
5. Agricultural land around the settlement.
Figure (2.4): Elements of the physical spatial structure of the Palestinian village.

Figure (2.5): Elements of the physical spatial structure of the British village.

Healey et al. (1988), on the other hand, identify several elements of the physical spatial structure of the British city in order to examine effects of the British physical planning system on these elements. These elements are:

(1) Centre of the settlement.
(2) Inner area of the settlement.
(3) Settlement fringe.
(4) Open land beyond the fringe of the settlement.

From the above review it could be argued that most writings about the physical spatial structure of the settlement (city) are elusive and lack the spirit of a theory and are "...boring more than discouraging... [With] a sign of deeper difficulties" (Lynch, 1984/b, pp. 343).

Nonetheless, it could be concluded that the physical spatial structure of the settlement consists of the following main elements:

(1) Central area of the settlement:
The central area of the settlement constitutes its original nuclei where the major facilities and services exist (Healey et al., 1988). In urban settlements, it is the work-place for many people. In rural settlements, it is the centre of communal facilities and activities and a place of great social interaction (Arraf, 1986; Roberts, 1987).

The central area of the settlement also accommodates many valuable and historic buildings and "represents a sense of civic identity to which citizens can relate" (Healey et al., 1988, p. 46).

(2) Neighbourhoods of the settlement:
The neighbourhoods of the settlement constitute its main physical spatial structure since the human settlements are essentially born as places for residence and shelter (Hakim, 1986). The neighbourhoods of Palestinian settlements, for example, have represented independent spatial and social units (Arraf, 1986).

With the growth and development of the neighbourhoods, they have increasingly suffered from problems of deprivation, deterioration and poverty (Healey et al., 1988). These problems have increasingly highlighted the role of the physical planning system in the neighbourhoods as areas of main problems of spatial change (Ibid.).

(3) Fringe of the settlement:
The fringe of the settlement represents the green belt directly around its neighbourhoods (Arraf, 1986). They are of great importance not only as green areas, but also as a source of valuable agriculture produce (Arraf, 1986) and a place for natural beauty and recreation (Healey et al., 1988). With the growth of the settlements, the fringes became arenas for the conflict between urban sprawl and the need to preserve the valued landscape (Arraf, 1986; Healey et al., 1988). The fringes provide good chances
for the development on sites of good locations and high environmental quality. Yet such development causes much battling between the development pressure and advocates of green belts and building sprawl containment policy (Healey et al., 1988).

(4) Open land beyond the fringe of the settlement:

The open land beyond the fringe of the settlement is the theatre for the conflicting interests of protecting the agricultural land as the strategic resource of national food and interests of exploiting the land for other purposes (Ibid.). The open land beyond the fringes of the Palestinian settlements has been the theatre of great conflict between the Palestinian rights of use and ownership and settlement activities of the Israeli occupation (Coon, 1991).

(5) Road system of the settlement:

It is argued that the road system is the main component of the physical spatial structure of the settlement (Lynch, 1981). The road system is the main tool for accessibility which is very important for human activities and interactions (Tolly & Turton, 1995). Human activities are usually located according to the cost of reaching their destinations (Lynch, 1981). At the same time, the road system is the only means by which spatial characteristics of other elements of the physical spatial structure of the settlement can be experienced.

Ancient roads were narrow, twisting and mainly pedestrian providing for better settlement proportions and homogeneity (Arraf, 1986; Tabalds, 1992).

The invention of the car brought dramatic changes to roads of the settlements and drastically affected their spatial structures (Doxiadis, 1968). Modern roads are usually related to problems of congestion, pollution and traffic queues (Tabalds, 1992).

Since its early days, the physical planning system directed considerable efforts to deal with the road system and solve its problems (Lynch, 1981).

More importantly, road alignment and road construction constitute major tools for governments during the process of implementing the planning schemes (Coon, 1991).

Conclusion:

This chapter has defined the spatial structure of the human settlement and the physical component of this structure. Elements of the physical spatial structure of the human settlement have also been defined. An important finding of this chapter is that despite the great number of spatial determinants or elements of the physical spatial structure of the settlement, it is possible to determine five major elements of this structure which are listed above.

Previous discussions of this chapter have also been used to relate elements of the physical spatial structure of the settlement to the physical planning system. For the diversity of these elements and the importance of their relationships with the physical planning system, it is necessary to consider this system which is explored in the next chapter.
Chapter Three

The physical planning system: its definitions, its elements and its relationship with the physical spatial structure of the human settlement
Introduction:

The previous chapter has concluded that the physical spatial structure is an important component of the human settlement and has several important elements. In order to understand the crucial relationship between elements of the physical spatial structure and the physical planning system it is essential to explore this system in more detail.

This chapter aims to investigate the physical planning system of the human settlement in order to understand its definitions and to determine its elements. This provides a preliminary requisite for understanding the relationship between this system and the physical spatial structure of the human settlement.

Several objectives are related to this aim:

(1) To explore the historical development of planning in the human settlements. It is evident that from early days of human history man experienced conscious control over his settlements (Bacon, 1967; Scargill, 1979; Ratcliffe; 1981/b). The physical spatial structures of the human settlements are seen as the outcome of people’s decisions (Bacon, 1967).

(2) To define the physical planning system of the human settlement and to determine its elements. The physical planning system is composed of institutional arrangements and instrumental representations which form a program for the management and control of change in the physical environment (Healey et al., 1988). Two main elements constitute this system: institutional arrangements and instrumental representations.

(3) After defining the physical planning system and determining its elements, it is necessary to explore the general relationship between this important system and the physical spatial structure of the human settlement.

3.1 Historical development of planning in human settlements:

From early days, human settlements have been subjected to several socio-economic and socio-political powers. These powers are considered important factors affecting the pattern and layout of the spatial structures of the human settlements (Scargill, 1979). The spatial structures of the human settlements have always been determined by the multiplicity of decisions made by the people who inhabit them (Bacon, 1967). For example, ancient towns in Tigris-Euphrates, Nile and Indus valleys had a good degree of scattering of buildings and spaces (McLoughlin, 1969). Yet though Hiorns (1956) describes some of the ancient settlements like the Mesopotamian ‘Ur’ (2500 BC) as planned, Morris (1994/c) argues that the order which existed in Ur but not planning. Morris (1994/c) prefers to consider Harappan cities (2500-1500 BC) in the Indus valleys as the first planned settlements. Miletus (rebuilt 500 BC) was the first town to represent an overall ‘chequerboard’ planning. It was designed by Hippodamus whom Aristotle described as “the discoverer of the method of dividing cities” (Scargill, 1979, p. 144). Aristotle himself pointed out some concepts of settlement growth which included:
The growth of a city must not be allowed to distort the sense of community.

After a certain limit, the growth should be transferred to new settlements (Scargill, 1979; Ratcliffe, 1981/b).

The control over the whole pattern of towns through regular gridiron, aesthetic styles and the distribution of public buildings and common centres has continued to develop from the Hellenistic period to the Roman era (Scargill, 1979). Islamic towns and cities developed certain patterns in accordance with the rules of Islam and the ways by which these governed the Moslem society (Al-Hathlol, 1986). In the Medieval world both the location and pattern of settlements was planned by the rulers and the controlling class of society (Hall, 1975). During the Renaissance, town planning continued to develop through the implementation of rules for the city as a complete unit (Scargill, 1979).

Town planning flourished in the 17th and 18th centuries as a representation of great power and political development (Hall, 1975).

The Industrial revolution brought a dramatic change in the growth and development of human settlements (Telling & Duxbury, 1986/g). Small villages grew up to large towns, towns became large cities and the resultant growth patterns were outstanding (Hall, 1975).

Worries about effects of the increasing problems of the settlements brought several attempts to solve these problems.

3.1.1 Historical development of the British physical planning system:

In Britain for example, state intervention was minimal and only by mid 19th century statutory acts such as Public Health Act of 1848, began to appear. These early acts aimed to promote better health conditions especially sanitation (Hall, 1975). Afterwards, several idealised small private settlements began to appear since mid 19th century like Saltaire (1853) and Bournville (1879) (Ratcliffe, 1981/b).

In 1898, Ebenezer Howard (1850-1928) published his book ‘Garden Cities of Tomorrow’ giving rise to the ‘Garden City’ idea.

Several other developments in planning thought and practice followed exerting more pressure on the government to intervene in the control and management of the British settlements.

In 1909, Housing, Town Planning Etc. Act was the first step towards statutory town planning in Britain (Ratcliffe 1981/b). Aiming at securing good sanitation, convenience and comfort relating to the use of land being developed or likely to be developed, this act granted local councils or land owners the right to prepare planning schemes (Ratcliffe, 1981/b; HMSO, 1992).

In 1919, another act; Housing and Town Planning Act appeared (HMSO, 1992). This act abolished the need to obtain the approval of the Local Government Board for planning schemes and gave the right to more than one local authority to prepare joint planning schemes (HMSO, 1992).

In 1925, Town Planning Act separated town planning from housing giving more independence and identity to the physical planning system (Ratcliffe, 1981/b).
In 1929, Local Government Act authorised county councils to prepare planning schemes which district councils may not have prepared and to attend joint planning committees. County councils were also empowered to take over planning powers of urban or rural district councils which they may not have wished to exercise (Ratcliffe, 1981/b).

Until this time, the provision of country planning had not been referred to. It was first recognised in the Town and Country Planning Act, 1932 which abolished previous town planning legislations and introduced a new system. It empowered local authorities to prepare planning schemes for any land in their area (Bruton ed., 1984/b).

In 1935, the act of 1932 was supplemented by the Restriction of Ribbon Development Act which provided provisions for the control of new developments within 220 feet of classified roads (Telling & Duxbury, 1986/g).

In 1947, Town and Country Planning Act was a historical landmark of British planning (Ratcliffe, 1981/b). It also was a corner-stone of the system as a whole after the Second World War (Hall, 1975).

The important attributes of this act included:

(1) To increase the efficiency of public control over land use and development, the act "nationalised the right to develop land" according to a plan (Hall, 1975, p. 115).

(2) Concurrently, the act established local planning authorities in county councils and county borough councils (Ratcliffe 1981/b; Telling & Duxbury, 1986/g).

(3) Local planning authorities were entrusted to prepare development plans for their areas (HMSO, 1992) after conducting a survey for the whole area. The survey should cover physical, economic and social features of the area. This move is considered a divert in the concern of planning from amenity and convenience to secure proper control over land use (Telling & Duxbury, 1986/g).

(4) Subsequently, no development was allowed without obtaining a planning permission from the local planning authority (Ratcliffe, 1981/b).

(5) Local planning authorities were granted powers and procedures to enforce their control over development (Ratcliffe, 1981/b; HMSO, 1992).

(6) Local authorities were allowed to purchase land compulsorily for planning purposes (HMSO, 1992).

(7) If the land value would increase as a result of the planning permissions, the act required the owners to pay a ‘development charge’ at 100% of the increase. If the planning permission was rejected the owner was entitled to some kind of compensation (HMSO, 1992).

(8) The act made the planning system more successful and more directed towards development control and plan-making (Cherry, 1974).

According to Ratcliffe (1981/b, p. 85), this act "provided the most comprehensive and radical framework for the control of land use in the world".
In 1959, the New Towns Act aimed at stimulating the designation and development of new towns by permitting for co-operation between District Councils and Local Authorities on partnership basis (Ratcliffe 1981/b).

Afterwards, the Secretary of State for the Environment was empowered under the Town and Country Planning Act, 1971 to keep continuity and consistency of planning policies (Telling and Duxbury, 1986/g). Under the same act, both the Secretary of State For Industry and Transport and the Secretary of State For Agriculture had to be consulted on planning matters relating to industry, transport or agricultural land (Ibid.). The act also reinforced the system of structure and local plans and provided details and statutory requirements for both the content and the processing of these plans (Ratcliffe, 1981/b).

In 1978, the Inner Urban Areas Act established 7 partnership areas, 15 programme authorities and 19 other districts. All of these institutions were empowered to make loans or grants and to establish improvement areas according to special programmes such as Industrial Improvement Areas (Bruton ed., 1984; Healey et al, 1988).

Concurrently, Town and Country Planning Act, 1990 supplemented the existing physical planning system with more restricted enforcement powers.

Planning and Compensation Act 1991 introduced some important changes: district and national park were requested to produce district local plans, the development plan system was simplified, and planning decisions had to comply with the development plan (HMSO, 1992). Planning and Compensation Act 1991 considered, for the first time, demolition a kind of development which should have a planning permission (HMSO, 1992).

By 1992, the government adopted a more sensitive policy towards rural issues. Marsden et al. (1993) state that from eight issues outlined in structure plans, four of them related to rural areas. These issues are (Marsden et al, 1993):

1. Green belts and conservation in town and country.
2. Rural economy.
3. Mineral works and the protection of mineral resources.
4. Tourism, leisure and recreation.

On the other hand, it is believed that contemporary town planning in Britain is confronted with several problems (Evans, 1993). These problems include (Cherry ed., 1988; Evans, 1993):

1. It has no special orientation towards resolving problems of the British environment.
2. It fails to function for the benefit of the whole community.
3. It has no clear theoretical grounds for directing and guiding planning practice.
3.2 Definitions of the physical planning system:

The physical planning is seen as "the regulation of land use and development and of communication" (McLaughlin, 1969, p. 5).

Ratcliffe (1974, p. 3) defines physical planning as the artfully and scientific way of directing land uses, building settings, and communication routes in order to attain satisfactory levels of economy, convenience and beauty which are capable to produce "a civilised physical background for human life".

On the other hand, Hall (1975) defines physical planning (or "spatial planning" using his words) as that kind of planning which aims at developing, managing, and controlling the spatial structures of the human activities. According to Hall (1975), the physical planning is multi-dimensional and multi-objective with two main characteristics:

(1) It depends upon information processes and specialised expertise of society.

(2) It works on different frameworks with different objectives and methods of weighing and evaluation.

Alternatively, Glasson (1978/b) defines the physical planning as the planning of the physical structures of land use, communications, and utilities, and it has been originated in the control and regulation of town development.

From the above review and previous discussions in chapters one and two, it would be obvious that planning is primarily a way of thinking about problems of the environment and it is oriented predominantly towards the future. It is deeply concerned with the relationship between goals of society and its collective decisions and it strives for comprehensiveness. (Glasson, 1978/b). Yet thinking about goals and future growth is learning (Faludi, 1973) which according to Gold (1980) is a 'cognitive process' that depends upon:

(1) Socio-cultural settings.

(2) Decision making.

(3) Personality.

On the other hand, the cognitive processes produce images and spatial schemata as 'cognitive representations'. These representations form the 'cognitive space' which represents individuals' images of their physical environment. Images of the physical environment afterwards affect the way in which society adapts its actual physical environment (or the objective space). Every adaptation in the physical environment will provide new cognitive images and generate new ideas for adapting the physical environment (figure 3.1).

Therefore, the physical planning is composed of a set of interrelated systems. Yet it is necessary at this point to differentiate between this system of procedural planning and the systems approach of planning of McLoughlin (1969) who considers planning as the control of a system. The system in the latter case consists of human activities and communication with locational or spatial dimensions.
Chapin (1965) argues that this system deals with the subject matter of planning e.g. settlements and regional systems of the settlements. On the other hand, the procedural planning deals with the management and control of settlements and regions. The concern here is therefore with the physical planning as a procedural system. Faludi (1973) argues that it is important for the understanding of procedural planning to understand the institutions through which it works and the procedures which it adopts.

Depending on the above definitions and frameworks, Faludi (1973) suggests a general model illustrating the relationship between the physical planning system and the environment (figure 3.2). According to this model, the planning institution as a learning system is composed of different interconnected parts relating to the environment. These parts include:

(1) The survey department:
This department receives and collects information from the environment. Information is processed by two filters: the first one lies before the survey department and controls the direction through which information should be searched. The second filter controls the messages from the survey department to other parts of the institution.

(2) The development plan department:
The development plan department produces statutory plans and programs depending on:

   (a) Information from the survey department.

   (b) Its own cognition and images.

   (c) Directions of the planning committee department.

   (d) Goals for which the planning institution has been established.

(3) The planning committee department:
This department represents the legislating body which selects from alternate solutions produced by the development plan section.

(4) The development control department:
The development department controls planning permissions according to the development plan.

Through this control and other constraints (known and unknown), the planning institution manages and directs the change in the environment.
Figure (3.1): The relationship between learning process, cognitive space and planning.

Source: Author.
Alternatively, Healey et al. (1988, p. 3) suggest that the physical planning system is "the collection of institutional arrangements, powers and resources which constitute an explicit program for the management of land use and environmental change". In general, a program refers to scheduled intentions of actions for attaining goals. It depends on the cognitive space and the learning process (Faludi, 1973).

The formulation, scheduling and implementation of these actions need certain instruments which require certain representations (Clambi, 1980).

Therefore, it could be possible to suggest that the physical planning system is 'the institutional arrangements and their instrumental representations which constitute a program for managing and controlling the physical spatial structure of the settlement and directing its change towards the future goals of society'.

3.3 Elements of the physical planning system:

From the above discussion, it could be possible to conclude that the physical planning system is constituted from the following elements (figure 3.3):

(1) Institutional arrangements.

(2) Instrumental representations.

In order to intervene with land use and spatial change, the government, as the highest institutional level, announces the basic law for establishing its physical planning system. Such a law is the essential and most important instrumental representation of the physical planning system. This law first establishes a central planning institution which could be a special ministry or a department in one of the government’s ministries. The responsibility of the central planning institution is to supervise other planning institutions and to represent a junction between them and the government. Instrumental representations of the central planning institution include general planning bye-laws and regulations and national planning policies and plans.

The principal planning law might directly establish or empower the government or the central planning institution to establish regional and local planning institutions.

The regional planning institutions supervise local planning institutions, issue regional planning bye-laws and instructions and prepare regional planning policies and plans.
Figure (3.2): The physical planning system as a planning institution and its relationship with environment.

The local planning institutions, on the other hand, are responsible for the day-to-day planning practice and the preparation of local bye-laws, instructions, planning polices and plans.

3.4 The physical planning system and the physical spatial structure of the human settlement:

The physical planning is considered one of two main conceptual frameworks for building theories and models of the spatial structures of the settlements (Lynch, 1984/b). The planning institutions in this respect is the only comprehensive framework for dealing with the physical spatial structure of the settlement (Ibid.). Lynch (1984/b) argues that the planning institution affects the physical spatial structure of the settlement through its policies and instruments. The main factor affecting these policies and instruments is the value system of the planning institutions in particular and the whole settlement in general. According to Lynch (1984/b), this value system could include the following values:

1. Strong values which constitute the principal objectives of planning policies such as providing good housing and good services.
2. Wishful values which despite their link to the settlement spatial structure, are rarely achieved because of the difficulty to shape the settlement spatial structure according to their ends such as improving equality or family and child support.
3. Weak values which are not dependant on the settlement spatial structure and their implementation is difficult, such as reducing crime or increasing social stability.
4. Hidden values which are not clearly stated but still important such as preserving the political control or increasing the flexibility of the planning process.
5. Neglected values which are not believed to be important or strongly related to the structure of the settlement such as the symbolic and sensory experience of settlements.

Healey et al. (1988) suggest that the approach for understanding the physical planning system and its processes is to understand the different priorities, values and interests working within it. Such an approach provides the basis for investigating the planning policies and their processes, as a step towards building a theory of planning which is still missing (Ibid.).

Since the physical planning system is seen as a programmed intervention by the state in the management of land use and environmental change, the concern should therefore be with the different means of the state intervention which have produced spatial change (Healey et al., 1988).

In their study of effects of the British physical planning system on the physical spatial structure of British settlements (cities), Healey et al. (1988) conclude several points.
<table>
<thead>
<tr>
<th>Institutional arrangements</th>
<th>Instrumental representations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government of the state.</td>
<td>- Main principal law of planning.</td>
</tr>
<tr>
<td>Central planning department (in the form of independent ministry or as a department of another ministry).</td>
<td>- General planning laws and regulations.</td>
</tr>
<tr>
<td></td>
<td>- National planning schemes and policies.</td>
</tr>
<tr>
<td>Regional planning departments.</td>
<td>- Regional bye-laws, rules and instructions.</td>
</tr>
<tr>
<td></td>
<td>- Planning policies and schemes.</td>
</tr>
<tr>
<td>Local planning departments.</td>
<td>- Local bye-laws, rules and instructions.</td>
</tr>
<tr>
<td></td>
<td>- Planning policies and schemes.</td>
</tr>
</tbody>
</table>

Figure (3.3): General structure of the planning institutions and their instrumental representations.

Source: Author.
1. The physical planning system and the central area of the settlement:

   (a) Local planning authorities have a strategic role in focusing on long-term goals for developing the central areas of settlements where the local plan proved to be crucial for deciding on the future of a central site.

   (b) The main tool to achieve planning goals in central areas is the development control and land policy instruments such as the reorganisation of land parcels and the regulation of land use and environmental change.

   (c) Future plans should make their essential concern to make central areas livelier with better economies by permitting more houses and small spaces to develop in these areas.

2. The physical planning system and the neighbourhoods of the settlement:

   (a) The local plan proved to be crucial for identifying projects and relationships which are necessary to support policies and goals of developing the neighbourhoods of the settlement.

   (b) The role of the public sector is crucial for the development of the neighbourhoods.

3. The physical planning system and the fringe of the settlement:

   (a) The planning policy and development in the settlement fringe have been managed by complex political and economic processes.

   (b) The interest of the local community have weak influence on political decisions and planners’ actions in the fringe.

   (c) The relationship between the local and central planning institutions is very important for the benefit of the settlement fringe.

   (d) The separation between the plans and actions greatly damages the development of the settlement fringe and places in doubt the accountability of public actions.

   (e) The policy of settlement fringe can be made in practice through both the development control process and plan-making machinery.

4. The physical planning system and the open land beyond the fringe of the settlement:

   (a) The local authorities are the main factor in the development of the open land beyond the fringe of the settlement.

   (b) The development of the settlement fringe is challenged by several uncertainties such as the future of agricultural and other uses of the land and the alteration which these can employ on the physical planning system.
Conclusion:

This chapter has provided a short brief for the general development of planning in human settlements with quick reference to the development of the British physical planning system. It has also provided definitions and elements of the physical planning system and the relationship between it and elements of the physical spatial structure of the human settlement.

The above discussion has been used as a tool for clarifying the general concept of the physical planning system and its elements in order to explore the relationship of this system with the physical spatial structure of the human settlement.

This chapter, and the previous two chapters have provided a general framework for exploring the human settlements, their physical spatial structures and their physical planning systems.
Chapter Four

The physical planning system in Palestine and the physical spatial structures of the Palestinian settlements (from late 19th century to 1994): problem, hypothesis and methodology
Introduction:

The previous chapters have provided a general theoretical framework for the analysis and exploration of the relationship between the physical planning system and the physical spatial structure of the human settlement. Each of the human settlement, the physical planning system and their elements have been defined.

It is necessary now to provide a detailed empirical investigation for the actual relationship between the physical planning system and the physical spatial structure of real world human settlements.

This chapter aims to outline the general problem of both the physical planning system and the physical spatial structures of the Palestinian settlements, the hypotheses of this problem and the general methodology to investigate it.

Several objectives are related to this aim:

(1) To explore the general situation of the physical spatial structures of the Palestinian settlements.

(2) To explore the general situation of the physical planning system in Palestine.

(3) To determine the problem statement and hypothesis of this research.

(4) To determine the method for investigating the above problem and testing the above hypothesis.

It is also important to provide a short outline for the physical setting and government systems of Palestine in order to highlight the general framework of the physical spatial structures and the physical planning systems in this country.

4.1 The physical setting of Palestine:

Present day Palestine, which comprises the West Bank, Gaza Strip and Israel is a country of Bilad Al-Sham (the Fertile Crescent) in West Asia at the eastern coast of the Mediterranean. It lies between longitudes 34° 15' and 35° 40' east the meridian of Greenwich. Horizontally, it lies between latitudes 29° 30' and 33° 15' north of the Tropic of Cancer (LDM & IPS, 1973). It is bounded at the north by Syria and Lebanon, at the east by Syria and Jordan, at the south by Egypt and the Red Sea, and at the west by Egypt and the Mediterranean (Saleh, 1985; Wright ed., 1989). The area of Palestine is 27,460 sq. km. or two thirds of the area of Wales (using normal area unit used in Palestine; the 'donam', which is 1000 sq. m., the above area is therefore 27,460,000 donam) (see figure 4.1).

Palestine is comprised of several distinctive geographical parts (LDM & PSI, 1973):

(1) The coastal plain along the Mediterranean cost with average width of 15 to 25 km.
(2) The mountain region which includes the Galil, Samaria and Jerusalem and Al-Khalil (Hebron) mountains. The average altitude of these mountains ranges from 1100 metres (Al-Jarmaq mountain) to 550 metres in Samaria mountains.

(3) The Jordan rift which includes the Jordan valley, Dead Sea and the valley of Araba. It is a part of the great geological rift which starts from Aleppo in Syria and ends at the Red sea.

The Jordan rift includes two lakes: AL-Houla lake which was drained in 1957 and Tibras lake from which the river Jordan steps southwards to the Dead Sea the surface of which is 400 metres below sea level.

(4) AL-Naqab desert which is comprised of medium hills of altitudes form 300 to 500 metres to the south of Palestine.

In addition to the river Jordan (the biggest river in the country), Palestine has several other small rivers in the coastal plain which include Al-Maqt'a, Al-Azraq and Al-'Aoja rivers (Ibid.).

At the same time, Palestine has the moderate climate of the Mediterranean with a distinctive summer (average temperature 30 C) and winter (average temperature 10 C) (Ibid.).

The rainfall in Palestine ranges from 350 mm. in the south to 1000 mm. in the north (Ibid.).

4.2 The government systems in Palestine (from late 19th century to 1994):

Modern history of Palestine has had several government systems which include the Ottoman, British Mandate, Jordanian and Israeli government systems. These government systems have constituted the important background upon which the physical planning systems in Palestine have depended. It is necessary here to provide a short outline for these systems.

4.2.1 The Ottoman government system:

In 638 AD, the Moslem Arabs conquered Palestine which since then remained under Moslem control until 1918 (except during the Crusaders rule which began in 1099 AD. and lasted nearly a century) (Bethel, 1979).

In 1517 AD, Moslem Ottomans under the Leadership of Sultan Salim I (1512-1520) took over Palestine from the Mamloks, the centre of whom was Egypt (Grannot, 1952; Alsanapa, 1971; Al-Dabbagh, 1982). The Ottomans are one of the ‘Oghus’ Turkish tribes which adopted Islam at the beginning of the 8th Century AD. In the 13th century AD the ‘Qaye Khan’ clan of the Oghus settled the town of ‘Sogut’ in the Muslim Seljuk state of ‘Qonea’ in Anatolia. When the leader of Qaye Khan, Ertughrul Bek died in 1299 AD, his son, Othman Bey, came to power in the state of Qonea and established the Ottoman state (Al-Nimr, 1975; Al-Daggagh, 1982; Abu Gunimah, 1986). Orhan Bey, the successor of Othman Bey, conquered the Byzantine city of Bursa in 1326 AD and Iznik in 1331 AD. Murad I (1359-1389) afterwards took over Salonik, Plovdiv and Sofia in 1361. In 1453 Mohammed the Conqueror (1451-1481) took Istanbul. By 1687, the Ottomans established a great Empire extended from
central Asia and central Europe to Iran, Ethiopia and North Africa (Vogot-Goknil, 1966; Alsanapa, 1971, figure 4.2).

Although this section is not a history of the Ottoman Empire, it is worthy to notice that Ottoman history, as Levey (1975) states, needs special attention and cautious observation especially from Westerners. Levey (1975) points out that the Oxford English dictionary puts 1530 AD as the first date when the word 'Turk' was used for the characters of cruelty, savageness or tyranny. Yet when Westerners have come in touch with the kind, gentle, and courteous Turkish people, they were surprised and ashamed of their surprise at the same time (Levey, 1975).

4.2.2 The government system of the British Mandate:

On the 28th of June 1914, Archduke Ferdinand, the Emperor of Austria was assassinated in Sarajevo, Bosnia. This incident was a main cause for the First World War (Cotterell, 1984). Britain declared war on the Central Powers on 4 August 1914 while the Ottoman Empire, which joined Germany, declared war on Britain on 5 November 1914. The British forces from Egypt began to attack the southern Ottoman positions in Sinai desert (ibid.).

Jerusalem was captured on 8 December 1917. On 23 September 1918, Haifa was captured with almost the whole northern parts of Palestine, from which the Ottoman troops continued to retreat (ibid.). By September 1918, the whole area of Palestine came under the direct military control of the British army (Al-Hoot, 1981).

Despite the several promises of the British government that Palestine would be a part of the independent Arab States after the war, these promises have never been realised (ibid.). On the contrary, Britain and France had in the Sykes - Picot agreement, 1916, excluded Palestine from the intended Arab States (Odd & Sales, 1970, figure 4.3). Moreover, and before the end of the war, the Balfour declaration was announced in 2.11.1917 promising that His Majesty's Government views with kindness the establishment of a Jewish national home in Palestine (Wright ed., 1989).

During the entire period of the British military occupation, Palestine was not yet a country but a land with no identity and an ambiguous future (Al-Hoot, 1981). The final boundaries of Palestine had finally been fixed in the peace agreement, 1923 (Dodd & Sales, 1970; Al-Hoot, 1981, figure 4.4)

4.2.3 The end of the British Mandate and the creation of the West Bank under the Jordanian government system:

Before General Bolze, the last military governor in Palestine left the region in 1.7.1920, he asked Herbert Samuel, the first High Commissioner in Palestine to sign the following declaration:

'I declare the receipt of one complete undivided Palestine' (Al-Hoot, 1981, p. 138).
Figure (4.2): The development of the Ottoman Empire, 1359-1678.


Figure (4.3): Sykes-Picot agreement map, 1916.

Figure (4.4): Peace settlement map, 1923.

Source: see figure 4.3, p.31.

Figure (4.5) The Royal commission partition plan for Palestine, 1937.

After nearly three decades of the British mandate, Palestine could not keep a unity for which several schemes of partition had been prepared (Al-Nimr, 1975, figure 4.5).

In 1947, Britain decided to refer the problem to the general assembly of the United Nations which approved in 29.11.1947, a resolution for the partition of Palestine and the termination of the Mandate before August 1948 (Al-Hoot, 1981). The partition plan of the united nations included the establishment of two states; one Jewish and one Arab with Jerusalem an international zone (Dodd & Sales, 1970, figure 4.6). Rejecting all partition plans, the Palestinians had nothing but to fight a losing battle (Al-Hoot, 1981).

On Saturday, 14.5.1948, one day before the termination of the mandate, the state of Israel was declared on an area from 71% - 79% of Palestine (Cattan, 1967; Saleh 1985). The remaining parts of the country were divided into two parts. The first part was the West Bank; the hilly region west of the river Jordan with an area nearly 5000 sq km and population around 500,000 (Saleh, 1985). The second part was the Gaza strip; a small region of around 370 sq. km. on the southern coast of Palestine with around 200,000 Palestinians (Saleh, 1985) who were put under the Egyptian military control (Al-Nimr, 1975).

Final boundaries were determined in armistice agreements between Israel and Arab states in 1949 (figure 4.7). After the departure of the British from the West Bank, a government from Palestinian directors of the previous mandate departments was established.

This government did not last long before its dissolution by King ‘Abdullah who established a military administration despite the opposition of the Arab League States (ibid). In 1950, general elections were held in Jordan and the West Bank for a corporate parliament which approved the amalgamation of the West Bank to Jordan (ibid). After the unification, the West Bank became a part of the Hashmite kingdom of Jordan where the Jordanian system of government and control was implemented (ibid).

4.2.4 The Arab-Israel war, 1967 and Israel’s occupation of the West Bank:

In 5.6.1967, under the hoax that Egypt closed the Straits of Tiran, Israel invaded and occupied the remaining parts of Palestine. It also occupied parts of Jordan, the Syrian Golan Heights and Sinai desert from Egypt (Cattan, 1967; Dodd & Sales, 1970; LDM & IPS, 1973) (see figure 4.8).

In the West Bank, from 650 to 750 thousands Palestinians (Saleh, 1985; Coon, 1991) were put under the direct Israeli military control which intended, from the start, to change the prevalent conditions in the region.
Figure (4.6) United Nations partition plan for Palestine, 1947.

Source: Cattan, Henry. To whom does Palestine belong. Beirut, Dar Al-Ahad, 1967.

Figure (4.7): Final settlement of borders in Palestine after Armistice agreements between Israel and Arab states, 1949.

Source: see figure 4.6.
Figure (4.8): Palestinian territories occupied by Israel in 1967.

4.3 General situation of the physical spatial structure of the Palestinian settlements (from late 19th century to 1994):

In addition to its important location, Palestine was one of the first inhabited places in the world (it is sometimes claimed that Jericho is the oldest settlement in the world, Wright ed., 1989).

Since early history, Semitic tribes from the Arabian Mesopotamia settled Palestine which became a holy place for Islam, Christianity and Judaism (Saleh, 1985).

Historically, several factors have affected the establishment of the Palestinian settlements:

(1) Location of the settlement near a good road providing good accessibility for its site (LDM & IPS, 1973).

(2) The existence of water resources (Ibid).

(3) Defensive potential of the site (Ibid).


Locational patterns of Palestinian settlements have mainly been affected by the above factors. During the Ottoman period, the state played no major role in deciding upon the location of the Palestinian settlements. Grossman (1980) argues that since the mid 19th century, the Ottoman Land Law, 1856 which called for the registration of individual holdings, was a major factor for creating offshoot settlements. It is also stated that Ottoman authority, sometimes, urged cave dwellers to settle in ordinary settlements. The village of Ras 'Attiyah was created at the beginning of the 20th century as a result of this practice (Ibid.).

The only example of direct state intervention in the establishment of settlements in the recent history of Palestine was the town of Be"r Al-Sab'a (Beer Sheeba) which was established in the beginning of the 20th century by the Ottoman authority (Biger, 1984).

On the other hand, it is also evident that since mid 19th century, the Ottoman authority began to play an increasing role in affecting the internal structure of the Palestinian settlements (Kark, 1986). This was mainly carried out by establishing public buildings, improving services and infrastructure and developing road system (Ibid.).

After the end of the Ottoman rule and the emergence of the British Mandate, the Palestinian settlements entered a new era. Security began to diminish as a locational determinant for Palestinian
settlers. The proximity to farm land began to gain more importance (Grossman, 1983). The physical spatial structure of the Palestinian settlements in this period was affected by the following factors:

(1) The increasing level of security.

(2) The improving accessibility.

(3) The introduction of new construction methods and building styles (although Kendall, 1949 demonstrates that the Mandatory authority encouraged the Palestinians to use traditional Palestinian building styles).

(4) Land registration and land subdivision processes which encouraged the increase of individual holdings (Granott, 1952).


(6) Planning efforts of the Mandatory planning authority which introduced new measures for development control and prepared planning schemes for several Palestinian settlements (Kendall, 1949).

During this period, the Palestinian settlements witnessed considerable growth. For example, the number of buildings increased 6 times in the town of Tulkarm and in the village of Deir Al-Ghusoun, 4 times in the villages of Dennabah and Showaikah and 2.6 times in the village of Irtah (Centre for Engineering and Planning, 1988, planning reports of the town of Tulkarm and the village of Deir Al-Ghusoun). However, although the traditional compact core of the Palestinian settlement retained its character during this period, the physical spatial structures of the Palestinian settlements in general tended to be more dispersed and fragmented (Kendall, 1949; Grossman, 1983).

By the end of the British Mandate and the establishment of Israel in 1948, the Palestinian settlements entered a new period.

In the West Bank, where the Jordanian rule was established, both rural and urban settlements went through far-reaching changes (Effrat, 1982).

A number of villages increased in size (Ibid.) and several villages adopted the municipal status (Benvinistii & Khayat, 1988; Coon, 1991).

Despite the claims that rates of the general growth in the West Bank were low during the Jordanian rule (Coon, 1991), it is evident that rates of growth in built-up areas were fairly high. In all the five Palestinian settlements mentioned above, the number of buildings recorded the highest level from the pre 1917 period until 1985 (Centre for Engineering and Planning, 1988, op. cit.). In another example, AL-Khalil (Hebron) town underwent its main growth during the Jordanian rule (Effrat, 1982).
The villages of this period retained compact physical spatial structures with well-defined axis in the south of the West Bank while villages in the north were more dispersed (Effrat, 1982). Yet it remained possible to identify the old traditional core of the village despite the continuous increase in the dispersion and the use of non-traditional building styles (Grossman, 1983).

The urban settlements at the same time witnessed changes in the trends of building sprawl and the general layout and size according to the expansion of their municipal boundaries (Effrat, 1982).

In addition to the previous factors which affected the physical spatial structures of the Palestinian settlements during the Mandatory period, new factors apparently came into effect. These factors included:

1. The armistice line between Jordan and Israel and new security routs in the West Bank brought several changes. Several new settlements were found and existing settlements underwent major expansions in these areas (Ibid.).

2. Very little public intervention was experienced in the economic development of the West Bank which greatly benefited from the migration of the Palestinian work force to the strong economic centres in the Arabian Gulf (Effrat, 1982; Owen ed., 1982).

3. Despite the enforcement of two planning laws in the West Bank during this period, the planning practice lost much of its influence. Outline Town Planning Schemes were prepared for most municipal areas but only for one village (Coon, 1991).

In 1967, the Israeli occupation brought the third transformation to the system of the Palestinian settlements in the West Bank. The physical, social, cultural and personality system began to experience the effects of the Israeli administration (Khamaysch, 1989; Coon, 1991). For the purpose of this study, transformations in the physical spatial structure of the Palestinian settlements during this period have been outstanding. They have the following features:

1. The increasing decay and destruction of the traditional cores of the settlements (Grossman, 1983; Khamaysch, 1989).

2. The increasing dispersion and segregation of the physical spatial structures of the settlements. The built up area of Beit Nabala was, in 1945, 450 dunams while, in 1987, it was 1500 dunams but with very much lower density (Khamaysch, 1989).

3. The increase in the ribbon development along access roads leading to towns and villages (Bahiri, 1989).
New factors which have been affecting the physical spatial structures of the Palestinian settlements in this period included:

(1) General Israeli policies towards the Palestinians and their settlements (Rishmawi, 1986).

(2) Jewish settlement activities in the West Bank (Khamaysch, 1989).

(3) Israeli planning system in the West Bank (Bahiri, 1989).

4.4 General situation of the physical planning system in Palestine (from late 19th century to 1994):

Within the above government systems, several planning systems were implemented in Palestine and have greatly affected the settlements of the country. These systems include:

4.4.1 The Ottoman physical planning system in Palestine (1856-1918):

It is claimed that town planning law did not exist in Palestine before 1921 (Goadby and Doukhan, 1935). However, it is agreed that town planning, in one way or another, did exist there (Ibid.). The municipalities had, since 1877, some powers to control the construction of buildings and streets, and to expropriate land for public use.

On the contrary, Biger (1984), pretends that such Ottoman town planning or its regulation did not exist in Palestine. Nor there was any intention of the Ottoman authorities to impose such regulation. On the contrary, Coon (1991) explains that Palestine has had a remarkably long experience of statutory town planning since the days of the Ottomans.

There is therefore a need to search for such factors which could have mediated the settlement change in Ottoman Palestine. Among these factors, the political and religious institutions have special importance for the understanding of land systems, urbanisation and land development (Biger, 1984).

4.4.2 The Mandatory physical planning system in Palestine (1921 - 1948):

During the British Mandate period, Palestine experienced, for the first time, a comprehensive and well determined physical planning system which was established through several laws. The first of these was the Town Planning Ordinance (TPO), 1921 (PRO, CO742/1, the Official Gazette of the Government of Palestine, no. 36, 1.2.1921). Town Planning Ordinance, 1921 was amended twice; in 1922, and in 1929.
In 1936, a new Town Planning Ordinance was enacted in order to amend and consolidate the previous system. The Town Planning Ordinance, 1936 was amended in 1937, 1938 and 1941.

In 1945, a new Town Planning Ordinance was published in the Gazette, but it was not enacted (Coon, 1991).

4.4.3 The physical planning system in the West Bank during the Jordanian rule (1948 - 1967):

After being a part of the Hashmite Kingdom of Jordan, the physical planning system of the West Bank was established in this period by two main laws for the Planning of Towns, Villages and Buildings, Law no. 31, 1955 and Law no. 79, 1966. These laws mainly depended on their Mandatory predecessors with greater vagueness and uncertainty in their powers and structures. They afterwards provided the Israeli authorities with good chances to complicate and tighten the physical planning system in the West Bank After 1967.

4.4.4 Israeli physical planning system in the West Bank (1967-1994):

The Israeli physical planning system in the West Bank has depended on the Jordanian planning law no. 79, 1966 which should, according to the international law, be the planning law of the West Bank after 1967 (Rishmawi, 1986).

The Jordanian Law no. 79, 1966 was amended by several Military Orders. The first of these was the Military Order for the Planning of Towns, Villages and buildings (Judea and Samaria) no. 418, 1971 which established the base of the Israeli physical planning system in the West Bank. Military Order 418 has been afterwards amended by several military orders (Coon, 1991).

4.5 Research problem, hypothesis and methodology:

Both the physical spatial structures of the Palestinian settlements and the physical planning system in Palestine which have been outlined above have suffered from several research difficulties which include:

(1) Studies of the spatial aspects of the Palestinian settlements (Shmueli et al., eds., 1977; Grossman, 1980, 1983; Effrat, 1982; Arraf, 1986;) do not provide a systematic analysis of the physical spatial structure of the Palestinian settlement and its elements. Nor do these studies construct a relationship between this structure and the physical planning system in Palestine.

(2) Very little attention has been directed to the nature and effects of the physical planning system on the settlements of Ottoman Palestine.

62
Although the Mandatory physical planning system gained greater intention, very little has been directed to the study of this system and its elements.

Studies of the Jordanian physical planning system concentrate on the Jordanian planning law no. 79, 1966 as a vehicle for the assessment of the Israeli physical planning practice in the West Bank.

Although the Israeli physical planning system has recently been studied, there still a need for more consideration of this system and its elements.

Most of the existing studies of the physical planning system in Palestine (Goadby & Duokhan, 1935; Rishmawi, 1986; Khamayseh, 1989; Coon, 1991) do not relate it to the physical spatial structures of the Palestinian settlements or provide a general framework for such a relationship.

**4.5.1 Statement of the research problem:**

This research aims to consider the physical planning system in Palestine from late 19th century to 1994 in order to investigate its relationship with the physical spatial structures of the Palestinian settlements.

Two sub-problems are related to the above main problem:

1. To investigate the evolution of elements of the physical planning system in Palestine from late 19th century to 1994.

2. To investigate the effects of the above physical planning system on elements of the physical spatial structures of the Palestinian settlements.

**4.5.2 Hypothesis:**

For the purpose of directing the investigation of the research problem, it is suggested that the physical planning system in Palestine has since late 19th century been an important factor affecting the physical spatial structures of the Palestinian settlements but providing little for the systematic development of these structures and their elements. It is also suggested that examining elements of the physical planning system in Palestine against elements of the physical spatial structures of the Palestinian settlements is a major important tool for constructing the theoretical and empirical relationship between them.

**4.5.3 Research methodology:**

Although the analytical framework which has been outlined in chapters one, two and three explains the main two variables of the research problem of this study, several difficulties still exist:

1. The limited tradition of research in this field (Natoli, 1969; Headey et al., 1988).
The complexity of the interrelationships within and among elements of the physical planning system and between them and elements of the human settlement (Healey et al., 1988).

The need for sufficient information about changes in elements of the physical planning system and the relevant changes in elements of the physical spatial structure of the settlement (Natoli, 1969).

The difficulty to apply certain research methodologies in studies of the physical spatial structures of the settlements such as analytical techniques (Knox, 1982) and statistical techniques (Grossman, 1983).

However, despite the above reservations, it could be possible to examine the research problem of this study using the historical analytical approach.

This approach includes two parts:

1. The examination of the evolution of physical planning systems and their elements in Palestine from late 19th century to 1994.

   This part depends on both primary and secondary sources. Primary sources upon which this part depends are:

   a. Ottoman Land Code, 1856.
   b. Mandatory planning ordinances in Palestine from 1921 to 1948.
   c. Jordanian planning laws in the West Bank from 1948 to 1967.

   During the discussion of the above documents, this part presents several instrumental representations of the above planning systems. Primary documents of these representations have been collected and reproduced by author during the research period. Most of them are presented in this research for the first time.

   This part is divided into four chapters one for each of the physical planning systems in Palestine which have been mentioned above.

2. The examination of the above planning systems against elements of a Palestinian settlement in a detailed case study.

   This examination includes the historical analytical discussion of the effects of each of the above planning systems on elements of the physical spatial structure of Tulkarm city.
This discussion depends on aerial photographs and maps of the town since the beginning of the British Mandate. It also includes the discussion of most of the Outline Town Planning Schemes prepared for the town since the days of the British Mandate. Most of these documents have been collected and reproduced by author during the research period. They are presented in this research for the first time as well.

An important methodological difficulty arises here when determining the limits of each element of the physical spatial structure of the settlement. There has been no official or non official attempt to determine these limits. Even with the work of Healey et al. (1988) which has been mentioned above, no such limits are provided for elements of British settlements which they studied.

However, where an Outline Town Planning Scheme for the settlement exists, boundary of this scheme determines the outer limits of the fringe of the settlement. The land between this boundary and the boundary of the Mandatory Land Register of the settlement constitutes the open land beyond its fringe. Where no idea is provided for the central area or the neighbourhoods of the settlement, they are determined by author according to the distribution of commercial services and its general spatial pattern.

This part is divided into two chapters. The first chapter deals with effects of the physical planning systems in Palestine on Tulkarm when it was a town of the country from late 19th century to 1948.

The second chapter deals with effects of the physical planning systems in the West Bank on Tulkarm after 1948.

Chapter eleven at the end of this part outlines the main conclusions and findings of this research.
Part Two

The physical planning system in Palestine from late 19th century to 1994
Chapter Five

The Ottoman physical planning in Palestine from late 19th century to 1918
Introduction:

This chapter aims to explore the Ottoman physical planning system in Palestine from late 19th century to 1918. Since a nameable planning system did not exist in Ottoman Palestine (Goadby & Doukham, 1935), the aim is therefore to explore the different means by which the Ottoman authorities controlled the development and growth of the Palestinian settlements. Goadby & Doukhan (1935) and Coon (1991) limit these means to the Ottoman municipal and statutory regulations which exert some control over the construction and alignment of buildings and roads. In the same time, Biger (1984) pretends that such regulations never existed. Yet both these opinions overlook the fact that the Ottoman Empire was an Empire of the Islamic Caliphate where Islam governed every aspect of life (Findley, 1986)). The whole system of the Empire was based on the Islamic Shari‘ah (Eisenman, 1978).

It would therefore be pivotal to understand the general system or systems of the Ottoman Empire which have affected the physical spatial structures of the Palestinian settlements. Al-Nimr (1975) and El-Nahal (1979) argue that three systems were responsible for the control of Ottoman settlements. These systems were the administrative, judicial and land systems.

Several objectives are related to the above aim:

(1) To understand the Ottoman administrative system. The concentration will be on the Ottoman administrative hierarchy.

(2) To understand the judicial system of the Ottoman Empire in general and its correspondence in Palestine. Elements of the Ottoman judicial system are briefly outlined. A short reference is also made to Majallat Al-Ahkam Al-‘Adliyah (or the Ottoman Civil Code).

(3) To understand the Ottoman land system which was the main tool of the Ottoman fiscal system. The land system in Islam and the Ottoman Empire is briefly discussed. The Ottoman Land Code, 1856 and its relationship with the physical spatial structures of the Palestinian settlements are also outlined.

5.1 The Ottoman physical planning in Palestine (1856-1918):

Goadby and Doukhan (1935) claim that town planning law did not exist in Palestine before 1921 although they agree that town planning in one way or another did exist there. They demonstrate that since 1877, municipalities had some powers to control the construction of buildings and streets, and to expropriate land for public use. There also were several special regulations for the construction and alignment of roads like those of 1868 and 1891.

Since a defined planning system did not exist, nor did the institutional arrangements or instruments of this system exist, the search would be for such factors which could have mediated the settlement change in Ottoman Palestine. Among these factors, political and religious institutions have special importance for the understanding of land systems, urbanisation and land development (Biger,
It is therefore important to understand the Ottoman administrative, judicial and land systems in order to understand the process of development and control in the settlements of Ottoman Palestinian.

The system of administrative control maintained the Ottoman supremacy over their territories. The main feature of this control which had direct relevance to the control of the physical spatial structures of the Palestinian settlements was the administrative hierarchy.

At the same time, the Ottoman judicial system dealt with all aspects of everyday life of the community (Findley, 1986) including the mediation of the spatial change of the settlements and resolving the conflicts of this change.

The Ottoman land system, on the other hand, constituted a very important factor of control and change in the Palestinian settlements (Granott, 1952; Arraf, 1986).

These three systems are not mutually exclusive and they greatly relate to each other.

5.2 The Ottoman administrative system:

Figure (5.1) illustrates the different administrative institutions of the Ottoman Empire and their relationship with the physical spatial structures of the Palestinian settlements. In the early Ottoman days, the Ottoman ruler was called 'Padshah' and used only a single Vizier (minister) to help him. Later, a number of ministers were appointed with a Grand Minister "Vezier-i-Azam, later Sadr-i-Azam" at their head (Unsal, 1973/c, p. 12).

By the mid nineteenth century the Ottoman Empire was governed through a provincial administration system which consisted of the following elements:

(1) 'Wilayah' (province):

The Ottoman Empire was divided into Wilayat (provinces, sing. Wilayah) each of which was governed by a Wali (general governor) (Al-Dabbagh, 1982; Findley, 1986). The Wali who directly subordinated the Minister of the Interior in Istanbul, was since 1852 empowered to appoint several officers and to establish a Provincial Administrative Council (Al-Nimr, 1975; Findley, 1986).

The responsibilities of the Provincial Administrative Council included the administration of Waqf, customs, education, courts, agriculture, land registration, taxes, police and the observation of law and order (Al-Dabbagh, 1982; Findley, 1986).

(2) 'Sanjak' (county):

Each province was divided into units each of which was called Sanjak (county). Each county was governed by a Mutasarref (Lieutenant governor) who subordinated the Wali of his province. Every Mutasarref had the same staff of administrative officers like the Wali. There also was a County Administrative Council in every county similar to that of the province with similar duties (Al-Nimr, 1975; Findley, 1986).
Change in the physical spatial structure of Palestinian settlements during the Ottoman rule

Figure (5.1): Ottoman institutional arrangements which affected the physical spatial structures of the Palestinian settlements.

Source: Author.
(3) ‘Qada” (district):

Counties consisted of smaller units each of which was called Qada” (district) with a Qa” immaqam (Lieutenant colonel) governing each district. The Qa” immaqam subordinated the Mutasarref and had the same staff of administrative officers. Yet there was no administrative council in the district where the Qa” immaqam was responsible to directly conduct the duties of his officers (ibid.).

(4) ‘Nahiyah’ (sub-district):

The district was divided into Nawahi (sub-districts, singular Nahiyah) each of which was governed by a Mudir (governor) who was normally appointed by the Qa” immaqam (ibid.). The Mudir was responsible for observing order and security in his sub-district, looking into the needs of the population, safeguarding tax collection and keeping roads safe and convenient (Al-Nimr, 1975). The Mudir with the help of the Sub-district Administrative Council was also responsible for encouraging the development of the sub-district and to solve any problems which might affect this development (ibid.).

(5) ‘Qariyah’ (village):

The sub-districts were divided into smaller echelons of administrative divisions. These were villages, hamlets and farms which were governed by their Shiyokh (chiefs, singular, Shaiykh). To control these chiefs and minimise their power, the Ottoman authorities appointed a salary-paid chief to guarantee his support and loyalty. He was called Mukhtar (Gerber, 1986). Responsibilities of the Mukhtar were to provide comfort and justice for his people with special attention for the poor and the needy. He was also responsible for collecting taxes and sending them to the Qa” immaqam (Al-Nimr, 1975).

(6) ‘Harah or Hai’ (quarter or neighbourhood):

The Provincial Administration Law, 1887 divided towns and cities into Harat or Ahya” (neighbourhoods, singular Harah and Hai respectively). The neighbourhood should contain at least fifty houses and it had the administrative level of a village (Findley, 1986). Each neighbourhood had its own Mukhtar or chief and its own services like small shops, a mosque and a bath (El-Nahal, 1979).

(7) ‘Al-Baladiyah’ (municipality):

The provincial Administration Law, 1867 introduced the establishment of municipal councils in the main towns (Al-Nimr, 1975). Findley (1986) claims that municipal administrations were not applied until 1877. Yet according to Al-Nimr (1975), a municipal council was established in Nablus of Palestine in 1868. When appointing the chief of the first municipal council in Nablus, the Mutasarref of Al-Balqa” County (for which Nablus was the centre) insisted on the following issues:

(a) Improving the environmental quality of the town.

(b) Developing the economy of the town.

(c) Improving and maintaining the built environment of the town (ibid.).

In 1886, municipal councils were allowed to be established in towns and villages which were capable of development (ibid.).
The municipalities also were separate and independent judicial bodies which are considered one of the revolutionary developments within the traditional system of the Ottoman administration (Gerber, 1986).

(8) ‘Majlis Al-Wilaya Al-'Aomomi ‘(Provincial General Assembly):

The provincial Administration Law, 1871 introduced the establishment of Provincial General Assemblies in the provinces (Al-Nimr, 1975; Findley, 1986). The Provincial General Assembly consisted of elected members, four from each county in the province. The Provincial General Assembly met in the provincial centre every year to discuss a wide range of issues. These included plans for development projects such as roads and public buildings, ways of developing trade, industry, agriculture, education, the purchase of land for public use and any other issues suggested by the Wali or the Sublime Porte (Findley, 1986).

On the main lines of the above system of the local administration, the administration of towns and villages of Palestine continued to develop on its own path until the provincial administration law of 1913 which altered some of the above regulations (Findley, 1986). The Wali, Mutasurref, and Qa’im immaqam should according to the law of 1913 be appointed by the Ministry of Interior with the agreement of the Cabinet and a decree from the Sultan. Other officials were appointed by the ministries for which they worked. It also insisted that all public works’ projects like roads, drainage works, irrigation canals, tram and bus lanes in the towns and cities should be the responsibility of the Wali. This responsibility also included lighting and water projects in the towns and cities, the development of agriculture, trade and industry, and the establishment of public institutions (ibid.).

The above administrative hierarchy continued in Palestine until the end of the World War I when it was altered by the new British administration.

5.2.1 The Ottoman administrative system and the physical spatial structures of the Palestinian settlements:

The Ottoman authorities began in the mid 19th century to demonstrate increasing interest and activity in the development of Palestinian settlements especially the main and important towns and cities (Al-Nimr, 1975; Kark, 1986). From these towns and cities, Jerusalem and Jaffa experienced considerable developments (Kark, 1986). Less important towns like Nablus or even some important villages like Tulkarm and Salfit were also affected by the Ottoman developments (Al-Nimr, 1975; Kendall, 1949). According to Kark (1986), the Ottoman authorities directly influenced the built environment of Jerusalem and Jaffa by improving public administration and the construction of infrastructures and public buildings. Between 1841 and 1914, both Jaffa and Jerusalem underwent vast expansions and developments in their built environments and the general layout of their physical spatial structure.
(figure 5.3). The municipalities of both cities (as in other parts of the country) were the most influential factor through their control over building permits, the construction of public projects and the improvement of road networks (Kark, 1986). The provincial administration was also influential through the building of sarays (government buildings), mosques, clock towers, public parks and fountains (Ibid.). The above developments clearly influenced the direction and general layout of both Jaffa and Jerusalem.

Other influences were the increasing importance of the Jerusalem-Jaffa road where most of the development of Jerusalem in this period took place. Most of the development in Jaffa was in the direction of the railway station (figures 5.3 and 5.4).

5.3 The Ottoman judicial system:

The Ottoman judicial system was a system of Islamic justice. The Islamic system of justice depends wholly on Islamic Shari'ah. Islamic Shari'ah (the sacred Moslem law revealed by God and his Prophet Mohammed, peace being upon him, and its interpretations by Moslem scholars) constitutes a complete system of control for all aspects of life. According to El-Nahal (1979), the system of Islamic Shari'ah contains two parts. The first part is run by the Qadi (judge) according to the Shari'ah. The second part is an 'extraordinary' system which is run by the governor and his officers depending on administrative legislations called 'Qanon' (ibid.).

During the second half of the 19th century and with the growth of the reform movement, the Qanon increasingly began to play an important role in the control system of the Ottoman Empire (Findley, 1986). The Nihtamiyah (or civil) courts were introduced in 1864 and Majallat Al-Ahkam Al-'Adliyah (or the Ottoman Civil Code) appeared afterwards (ibid.).

It could be possible therefore to identify two parts of the judicial system in the late Ottoman Empire: the judicial system of the Islamic Shari'ah and the civil judicial system.

5.3.1 The Ottoman judicial system of the Islamic Shari'ah:

Although the Islamic judicial system has not been codified before 1869 (Eisenman, 1979), the Islamic Shari'ah provided strong theoretical bases for the application of law to practical legal problems (El-Nahal, 1979).

By the mid nineteenth century, the judicial system of the Islamic Shari'ah in the Ottoman Empire consisted from the following elements:

(1)Shiykh Al-Islam (Chief in Islam):

Shiykh Al-Islam had the same position of Sadr-i-'Azam yet sometimes with greater power. He
Figure (5.2): Development of the physical spatial structures of Jerusalem and Jaffa, 1841-1914.

Figure (5.3): Ottoman institutions in Jerusalem and Jaffa in the late Ottoman period.

Source: See figure 5.2.
was the highest reference of Islamic Shari’ah. Responsibilities of Shiyykh Al-Islam included the supervision of courts and the judicial system, education and Islamic schools, ‘Waqt’ (endowment) system and the institution of Ifta” (the interpretation of Islamic Shar’iah by Moslem scholars one of whom is called Mufti).

(2) Al-Mahkamah Al-Shar’iyyah (Court of the Islamic Shari’ah):

In the middle of each province there was a central court which supervised the courts of counties and districts. In Palestine, the central court was in Jerusalem while lower degree courts existed in the centres of Nablus, Jenin and Ajlun (now in Jordan) districts. In Nablus, this court was called Majlis Al-Shara’ Al-Sharif (Council of the Dignified Shari’ah) (Al-Nimr, 1975). Al-Mahkamah Al-Shar’iyyah was normally held in the mosque, but central courts of provinces or counties had their special buildings. According to Al-Nimr (1975), the Council of Dignified Shari’ah had the duties of many departments. It dealt with the registration, examination and adjudication of problems of taxation, criminal and civil cases, environmental problems, the control of the built environment and many other issues.

(3) Al-Qadi Al-Shar’ai (Judge of the Islamic Shari’ah):

In each province there was a Qadi appointed by the Qadi of Anatolia with the agreement of the Sultan (El-Nahal, 1979). According to Mann’a (1986), most of the Qudat (judges) of Jerusalem were appointed directly from Istanbul. The Qadi of Jerusalem should be from the Hanafi Madhab (Hanafi school of Islamic fiqh) which was the formal school of the Ottoman Empire (Al-Nimr, 1975, El-Nahal, 1979). Before the period of reforms, this school was enriched “with the highest degree of actual efficiency which it has ever possessed in a society of high material civilisation since early Abbasid times” (Eisenman, 1978, p. 2).

The Qadi of the province (or of Jerusalem in the case of Palestine) was empowered to appoint both the Qudat of county and district courts and a group of Qudat to help him in his court. Each one of these was called Na”ib Al-Shari’ah Al-Sharifa (Deputy for the Dignified Shari’ah) and they were from other schools of Islamic fiqh like the Shafi’i, Maliki and Hanbali schools (see also El-Nahal, 1979).

(4) Al-Mufti (The interpreter or the expounder of Islamic Shari’ah):

The main duty of the Mufti (was and still is in these days) to give fatwa (an opinion on a question which had no specific answer in the Shar’iah). For the Qadi, fatawi (opinions) were more advisory than obligatory, yet when he asked for a fatwa, it indicated that he needed some guidance with his case (El-Nahal, 1979). The Moslems often used to resolve their disputes with the help of the Mufti. If he failed, they took their cases to the court (Al-Nimr, 1975). The Mufti was also called Ra”is Al-‘Aolama” (the head of scholars) and therefore possessed a very respectable position. Normally, there were several Muftis, one for each madhab. Unlike the Qadi, the Mufti served the community at his home but not in a special office (Ibid.).
5.3.2 The Ottoman civil judicial system:

By the eighteenth century, the Ottoman authorities were helpless in dealing with the social, political and economic disorders (El-Nahal, 1979). On the contrary, the nineteenth century began to witness new reforms (Granott, 1952; Al-Nimr, 1975; Al-Dabbagh, 1982; Findley, 1986).

Sultan Mahmood II (1808-1839) started the reforms in 1839 with the 'Gulhane' decree which guaranteed honour, ownership and life for all subjects of the Empire. The decree also gave both Muslims and non-Muslims the same legal rights, changed the system of tax farming and established a special council for judicial studies (Al-Dabbagh, 1982; Findley, 1986). These reforms were also accompanied with new and quite revolutionary cultural transformations.

5.3.2.1 Nethamiyah (secular or civil) courts:

As a result of the reforms movement, Nethamiyah (secular or civil courts) were introduced in 1864 (Gerber, 1986). These courts were responsible for criminal and civil cases. Judge of the Shari'ah court was himself the judge of the Nethamiyah court which also included three Moslem and three non-Moslem members (ibid.). Although Gerber (1986) considers these courts as the beginning of development in the Ottoman judiciary, they were greatly condemned within the whole Empire (Al-Nimr, 1975). Moreover, Qudat of the Shari'ah considered it as a regrettable non-Islamic innovation (Eisenman, 1978).

The secular courts contributed to the management and control of the Palestinian settlements through the Land system which was made the responsibility of these courts. However, as far as the Shari'ah system is concerned, the new secular system greatly damaged the control of the Shari'ah on the built environment and the whole aspects of Moslem life.

5.3.2.2 Majallat Al-Ahkam Al-'Adliyah (the Ottoman Civil Code):

Although the Islamic legislations concerning the built settlements are numerous and highly evaluated, they are still generally distributed within the books of Islamic fiqh. A good account of these legislations is provided by Hakim (1986) and Salagoor (1990).

The first attempt to codify the Islamic Shari'ah was Majallat Al-Ahkam Al-'Adliyah (Eisenman, 1978). According to Eisenman (1978), Majallat Al-Ahkam Al-'Adliyah appeared in 1869 as a response to the establishment of the Nethamiyah courts. It was intended to be a reference for the judges of these courts who had little knowledge of the Islamic fiqh and Arabic language. Majallat Al-Ahkam Al-'Adliyah is considered "a legislative milestone" which was the first to undertake the codifying of "pure Islamic fiqh" (Eisenman, 1978, p. 20).

5.3.2.3 Majallat Al-Ahkam Al-'Adliyah as an instrument for the control of the built environment:

According to Salagoor (1990), the main book of the Majellah relating to the built environment is the book of " 'Anwa'a Al-Sharikat" (types of partnerships). The built environment was included within the book of partnerships because the building process was seen as a partnership with light, air and land (Salagoor, 1990).
Articles of the Majallah relating to the built environment are well considered by Salagoor (1990), yet it is important here to include a brief description of these articles which include the following concepts:

(1) The harm:

The concept of not to cause harm nor to reciprocate harm is a fundamental rule of Islamic Shari’ah which aims at maintaining the satisfaction and justice within the Moslem community (art. 19). In the built settlement, this rule means that no private or public development should cause harm, either to public or private interests and if any harm exists, it should be removed (art. 20).

(2) The Old:

In the built environment, this concept refers to existing conditions the start of which are not known. Existing conditions should be left unchanged unless they cause harm (arts. 6 - 7). The priority is given for the removal of any harm levied by old situations.

(3) Ownership:

Every owner of a property also owns what is above and beneath it, and he has the right to behave freely in his property. Yet this behaviour should not cause any harm to others, either on the property or adjacent to it. If any harm results, the owner should resolve any disputes with the parties (private or public) which are affected by his harm. If no agreement is reached, either the harm should be removed or the behaviour should be prevented (arts. 1192, 1194, 1197).

(4) Neighbouring rights:

Observing the rights of neighbours is an important Islamic conduct which is well mentioned in both Qur’an and proverbs of the Prophet Mohammed - peace being upon him. Although the general rule of harm to a large extent governs the behaviour towards neighbours, the Majallah allocates several points which control neighbouring behaviour affecting the built environment. These points include:

(a) Height of development:

Every person has the right to raise his building and a wall around or on the top of a building according to his needs.

(b) Usage of development:

Every person has the right to use his development in the way which satisfies his needs. However, he could be prevented from so doing if an enormous harm affects the privacy of others, the safety of the building or quality of the surrounding environment.

(5) Private and public roads:

The Majallah differentiated between public roads which are a thoroughfare roads and private roads which are cul-de-sac lanes or alleyways serving certain groups of people and houses.

The private cul-de-sac road is a joint property of the people who live around it. No one can construct anything in it without the permission of other holders. Yet closing the mouth of such a road is
prohibited even if all the holders agree upon it. The person who has a wall on a private road but not the right to pass through it has no right to open a door onto the road (arts. 1119-1120).

In the public road, every person has the right to use the road as long as he does not cause harm to others. Yet certain uses like opening a door onto the public road or selling and purchasing in it need the permission of the governor.

From the above articles of the Majallah, it is obvious that they are much more general guide-lines than detailed and definite rules. The articles were much negative than positive controls or as Salagoor (1990, p. 272) describes “more proscriptive than prescriptive”. They concentrate on what should not happen more than on what should happen.

5.3.3 The Ottoman judicial system and the physical spatial structures of the Palestinian settlements:

The Shari'ah court was an important body which experienced a wide range of controls in Moslem settlements. These included the enforcement of building regulations which were based on concepts of the Shari'ah, and resolving disputes over the built environment according to these regulations. Very little information is available for the examination of the relationship between the Ottoman judicial system and the physical spatial structure of the Palestinian settlements. Such examination could be conducted through the review of registers of the Shari'ah courts in Ottoman Palestine and isolating the relevant cases.

However, Al-Nimr (1975) provides a case were a group of people complained to the Na" ib of Nablus about a mill which might damage the structure of their buildings. The Na" ib judged (after consulting the professionals) that no harm was inflicted by operating the mill and the people had no right to stop it (see Al-Nimr, 1975, V. 4, pp. 89-90).

On the other hand, effects of the Ottoman civil judicial system on the physical spatial structure of the Palestinian settlements could be mainly explored through the Ottoman land system which is discussed below.

5.4 The Ottoman land system:

The land system which mainly refers to land tenure and distribution (Granott, 1952) is considered one of the main factors affecting settlements form and structure (Scargill, 1979).

Land system retains special importance in Islamic countries and Palestine. Granott (1952) denotes that land in the Islamic world has, more than any other place on the earth, attained the situation of a strong conservative religious institution which gave all regulations and laws of land a theocratic form.

Land ownership in Islam is part of the general ownership which is “the legal rule established by the law-giver (Allah) who confirms the ways of acquiring ownership [and of the commitment for its
requirements)” (Salagoor, 1990, p. 221).

Depending on the general rules of land ownership in Islam, the Ottomans issued in 1856 a special code to regulate for the ownership of land in the Empire.

**5.4.1 The Ottoman Land Code, 1856:**

The Land Code was issued on the 7th of Ramadan 1274 AH/1856 AD but was not implemented in Palestine until the end of the 1850's. The Land Code aimed at reorganising the ownership of Land and redistributing it in order to produce more effective agriculture and better revenues.

The Land Code classified land ownership into the following types (Stein, 1984):

1. **Mulk land:**
   
   This type mainly existed in the built up areas and the green land on their fringes. After the Land Code, the Ottomans began to give title deeds of full freehold ownership for this type of land.

2. **Miri land:**
   
   This land was not owned by a title deed but rather by a usufruct which enabled the holder to use the land and benefit from it while its ownership was retained by the state. The holder was to pay for the title of this land but at the same time, he was prevented from using the soils of such land for non-agricultural purposes. Miri land mostly constituted the open agricultural land beyond the fringes of the villages and towns. The Land Code aimed at preserving the agricultural land and maintaining its produce (Stein, 1984).

3. **Waqf land:**
   
   Waqf refers to “an estate donated to provide revenues for a beneficent or pious purpose within the Moslem community and aside perpetuity (usually for a family and its heirs) which was regarded as inalienable” (Khalidi ed., 1992, p. 570).

   This type of land included two categories:

   (a) True waqf which was endowed from Mulk land, where the owner had full ownership of the land and the full right to use it according to his will.

   (b) Untrue waqf which was endowed from miri land, the ownership of which was retained by the state and not for the individuals who endowed it (Dumper, 1992).

4. **Mawat land:**
   
   This land constituted those parts of miri land which were unsettled, unused and had no title deeds. It was possible to give such land a title (e.g. to make it mulk land) by paying its existing value. This provided for the expansion of many villages and towns either in their built up areas or agricultural land (Stein, 1984).
(5) Mahlul Lands:
This land referred to Lands which were left uncultivated for more than three years and were repossessed by the government. It was possible for the holder of such land to reclaim it after paying its value, otherwise, others had the right to claim the land after paying that value.

(6) Matruk Land:
This land mainly constituted lands which were left for public use like roads, public spaces, worship areas, common pasture lands and common woodlands. The ownership of such land was only in the hands of the state which prevented the transfer of such land.

(7) Mudawarah or jiftlik land:
This land was privately owned by the state before being transferred to the private ownership of Sultan Abdul Hamid II. What differentiates these lands from miri land is that they did not belong to the Moslem community but to the Sultan who was free to use them in any way he wanted. In Palestine, most of mudawarah land existed in Bisan and Jericho districts.

(8) Musha'a Land:
This land was commonly owned by the whole population of a village or a group of villages. Each person had a share but not a parcel of the land. Shares were periodically redistributed among the people to maintain a just use of the land by all the share holders. Despite the benefit of this custom for preserving the land of the village and augmenting the co-operation between its people, it had some problems. The periodic distribution of the land discouraged the peasants to care for the land which after a short period would become the share of another holder.

5.4.2 The Ottoman Land Code, 1856 as an instrument for the control of the physical environment:
Several points in the Ottoman Land Code, 1856 generally referred to the control of the built environment. It is useful now to explore these points in order to apprehend the effects of this code on the Palestinian settlements.

The exploration of these points depends on the Arabic draft of the Land Code as it appears in the work of Yousif Ibrahim Attallah; Land Laws in the West Bank.

Art. 12 insisted that no body could use the soil of his land for making bricks and tiles without the consent of the Ma” moor (director of land).

Art. 28 prohibited the cutting of natural trees in any land.

Art 31 prevented the construction of any new buildings on miri land without the consent of the Ma” moor who could order the demolition of the buildings which did not have permission.

Art. 32 determined the nature of the buildings which could be erected on miri land. These buildings included mills, stores, stables and the like for agricultural uses.

Art. 93 insisted that no one could erect any buildings or plant any trees in a public road.
did, these had to be removed immediately.

Art. 94 insisted that no building could be constructed, nor any trees planted in the open public spaces and outdoor prayer spaces. These spaces together with the public roads were not available for sale or purchase.

Arts. 95, 96 and 97 gave the position described above for the markets, bayader (threshing floors) and mara'ai (pastures).

Art. 103 restricted the “ihya”' (revivification) of mawat land for agricultural uses, yet it was ruled out in 1911 that the construction of buildings was also ihya” for mawat land. Supervision of the Ma” more was the only means to control this development.

Art. 132 prevented the filling with earth of any part of the sea without the consent of the Sultan.

The above points of the Land Code, 1856 were very broad and vague. The Code was intended to regulate the general use and distribution of land in order to increase the revenue of the state from these lands. Even for these two aims the Code created more problems than it was intended to solve (Arraf, 1986). Within the context of the built environment, these controls were not systematic and they did not form a system for planning the growth and development of the settlements.

5.4.3 The Ottoman land system and the physical spatial structures of the Palestinian settlements:

There is little information about the actual settings of the physical spatial structures of the Palestinian settlements during the Ottoman period. Early documents on the spatial layouts of the Palestinian settlements and their lands are Mandatory and the built environments of these settlements have greatly changed since the days of the Ottomans.

However, the Ottoman land system was since mid 19th century the main factor shaping the overall physical spatial structures of the Palestinian settlements (see Granott, 1952; Stein, 1984 and Arraf, 1986 for more detail on this argument).

General effects of this system included:

(1) Boundaries of the land of the settlements became identifiable giving each settlement its special spatial layout.

(2) By encouraging the people to register their holdings, the individual holdings increased and the general space of the settlement became more divided.

Figure (5.4) illustrates the above two effects (notice that the shape of the settlement existed in the days of the Ottomans, but was surveyed and mapped during the British Mandate).

(3) The Ottoman land system was the only settlement system in Palestine which differentiated between the open land beyond the fringe of the settlement and other elements of the settlement by differentiating between mulk and miri land. The open land beyond the fringe of the settlement was mostly classified miri while other elements of the settlement mostly occupied mulk land.
(4) Although the construction of buildings on miri land was prohibited, the increase in the individual holdings encouraged the expansion of the built up areas providing more dispersed patterns of the settlement (Grossman, 1980)

(5) The Ottoman land system in Palestine was the first to recognise the official reservation of roads, open spaces and public squares for the benefit of the public.

(6) The institution of waqf provided for developing the infrastructure of towns and villages. It also provided for building and maintaining public buildings of different kinds (mosques, baths, schools, etc.), and for building and maintaining residential and commercial buildings (Dumper, 1992).

Conclusion:

The previous discussions in this chapter have been used as a vehicle to explore the nature of the physical planning mechanisms in Ottoman Palestine and their relationship with the physical spatial structures of the Palestinian settlements.

It could be concluded that the physical planning system in Ottoman Palestine worked through several institutional arrangements within the general system of the Ottoman administration. The most influential institution which directly related to the physical spatial structure of the Palestinian settlements was the municipality.

Other institutional arrangements, from the Sublime Porte to the mukhtar of the village or the hai, influenced the physical spatial structures of the Palestinian settlements.

At the same time, several instrumental representations in the form of laws and regulations related indirectly to the physical spatial structures of the Palestinian settlements. The municipal laws were the most relevant of these instrumental representations to the direct control and supervision of the physical spatial structures of the Palestinian settlements.

Instrumental representations in the form of maps and plans or cadastral surveys did not exist for the Palestinian settlements in Ottoman Palestine.

One of the main findings of this chapter is that the Ottoman settlement system referred to several elements of the physical spatial structure of the settlement. The neighbourhoods were represented in the administrative system as separate independent identities. The roads, built up areas, fringes and open land beyond the fringe all were also recognised by the Ottoman land system. Yet this recognition could not create a formidable and coherent framework for the physical spatial structures of the Palestinian settlements.
Figure (5.4): General layout of land division in the village of Beit Nabala.

However, the very limited tradition of research in this field makes it difficult to judge the extent to which these elements helped to form integrated physical spatial structures for the Palestinian settlements in Ottoman Palestine. Hopefully, future research efforts will help to aid this purpose.
Chapter Six

The physical planning system in Palestine during the British Mandate period (1920-1948)
Introduction:

The previous chapter has discussed the different factors influenced the physical spatial structures of the Palestinian settlements during the Ottoman rule. By the end of 1918, the British authority inherited the Ottoman legacy in Palestine.

This chapter aims to explore the physical planning system in Palestine during the British Mandate Period (1920-1948) and its relationship with elements of the physical spatial structures of the Palestinian settlements.

After falling under British control in 1918, Palestine remained under the British military administration until mid 1920. In July 1920, the civil administration of the Mandate was mainly concerned with the reconstitution of the judicial and legislative systems in Palestine. In January 1921, the first town planning legislation appeared instituting a comprehensive and explicit planning system. Several legislations followed in order to consolidate, amend and improve this system which remained in force until the end of the Mandate in 1948.

Several objectives are related to the above aim:

(1) To explore the institutional arrangements of the Mandatory physical planning system in Palestine, their powers and their duties.

(2) To explore the instrumental representations of the Mandatory physical planning system in Palestine.

The Mandatory physical planning system in Palestine provided for several institutional arrangements which included the High Commissioner, Central Commission, District Commissions and Local Commissions.

This system also provided for several instruments such as Regional Town Planning Schemes, Town Planning Areas, Town Planning Schemes, Detailed Town Planning Schemes and bye-laws, rules and instructions.

6.1 The Mandatory physical planning system in Palestine (1921 - 1948):

As early as January 14th, 1921 (less than half a year after the beginning of the Mandate administration), the first Town Planning Ordinance was enacted (PRO, CO742/1, the Official Gazette of the Government of Palestine, 1.2.1921).

The Mandatory physical planning system in Palestine with its institutional arrangements, their powers, duties and instruments are explored using the different planning laws as they appeared in the Official Gazette of the Government of Palestine, 1920-1948 (they are kept in the British Public Record Office (PRO) under the classification CO 742/1-26).
Town Planning Ordinance, 1921 was ordained to "secure the orderly planning of towns and to control the erection of buildings and the laying out of streets within certain areas" (PRO, CO742/1, 1.2.1921). Town Planning Ordinance (TPO), 1921 was also intended to maintain proper developments in the determined areas in order to provide for public health, neighbourhood amenity and welfare of the community (ibid, p. 1).

Town Planning Ordinance, 1921 was amended twice; in 1922, and in 1929. Town Planning Amendment Ordinance (TPAO), 1922 provided few amendments to the principal ordinance with no change to its institutions or instruments (PRO, CO742/1, 1.8.1922).

The main and most important change of Town Planning Amendment Ordinance, 1929 was the introduction of new measures for Town Planning Ordinance, 1921 which was Town Planning Schemes. Several rules, bye-laws and instructions also were issued in 1923, 1925, 1927, 1929, 1930, 1932 and 1934 to supplement the Town Planning Ordinance, 1921 (Goadby & Doukhan, 1935, also see the Gazette for these amendments, rules, bye-laws and instruction).

In 1936, a new Town Planning Ordinance was enacted in order to amend and consolidate the previous system. The most important change which Town Planning Ordinance, 1936 made was the abolition of the Central Commission for Building and Town Planning. Instead, it established District Commissions for Building and Town Planning. The aim was to provide for decentralisation in the control of the previous planning system.

Town Planning Ordinance, 1936 was amended in 1937, 1938 and 1941. The main amendment of Town Planning Amendment Ordinance, 1937 was the improvement and enlargement of the provision of the Town Planning Scheme. Town Planning Amendment Ordinance, 1939 provided an important measure of decentralisation by empowering the District Commission to approve Detailed Town Planning Schemes.

In 1945, a new Town Planning Ordinance was published in the Gazette, 1945 but it was not enacted (Coon, 1991).

6.1.1 Institutional arrangements of the Mandatory physical planning system in Palestine:

The Mandatory physical planning system in Palestine established several institutional arrangements. These institutional arrangements included (figure 6.1):

6.1.1.1 The High Commissioner for Palestine:

Above all institutional arrangements, the High Commissioner for Palestine was the highest authority in the country. The Mandatory physical planning system empowered the High Commissioner with several powers which included:

(1) To put in force or to dismantle any legislation related to the physical planning system.
Change in the physical spatial structures of the Palestinian settlements during the British Mandate

abolished by TPO, 1936

(number of commissions is not actual and it is only for illustrating the diagram).

Figure (6.1): Institutional arrangements of the Mandatory physical planning system in Palestine.

Source: Author.
To order upon the application of the Central Commission (or District Commission, according to Town Planning Ordinance, 1936) any area to be a Town Planning Area (TPA) (TPO, 1921, sec. 2; TPO, 1936, sec. 10).

(3) To appoint members of the Central Commission (TP, 1921, sec. 1).

(4) To approve Town Planning Schemes (TPSs) upon the application by the Central Commission (TPO, 19, sec. 19).

(5) To directly order the Local Commission for Building and Town Planning in a Town Planning Area to prepare a Town Planning Scheme for this area (TPO, 1936, sec. 7.3).

6.1.1.2 The Central Commission for Building and Town Planning (the Central Commission):

Part one of Town Planning Ordinance, 1921 established a Central Commission for Building and Town Planning. Its main powers included:

(1) To order any district or area to be a Town Planning Area (TPO, 1921, sec. 2).

(2) To request the municipal council in a Town Planning Area to establish a Local Commission (TPO, 1921, sec 4.1).

(3) To make rules and bye-laws to regulate the application for and the granting of building permits by the Local Commission.

(4) To require the Local Commission to provide it with information about development needs of the town and the nature and direction of neighbourhood development (TPO, 1921, sec. 8).

(5) With the approval of the High Commissioner, to modify, suspend or abolish any Town Planning Scheme (TPO, 1921, sec. 31).

(6) With the approval of the High Commissioner, to appoint any body or committee for the preparation of a Town Planning Scheme, the consideration of objections to the scheme, or the supervision and execution of an approved scheme (TPO, 1921, sec. 32).

(7) To make rules for the regulation of procedures, steps or any other matters regarding Town Planning Schemes.

(8) To consider any appeal regarding the refusal of Local Commission to grant permits for developments which did not conform to current planning regulations. The decision of the Central Commission in these cases was final.

(9) To determine certain time for every Local Commission to prepare an Outline Town Planning Scheme for all lands in its Town Planning Area (TPAO, 1929, sec. 9.1).

(10) To approve with or without modification any Detailed Town Planning Schemes prepared or adopted by the Local Commissions (TPAO, 1929, sec. 10.1).
(11) To require upon the application of the District Commissioner, the Local Commission to prepare a Detailed Town Planning Scheme for any land in its Town Planning Area. (TPAO, 1929, sec. 11.1).

6.1.1.3 The District Commission for Building and Town Planning (the District Commission):

The District Commissions were established in each district following the Town Planning Ordinance, 1936 which abolished the Central Commission.

Each District Commission was chaired by the District Governor with the membership of three representatives of each of the Attorney General, the Director of Medical Services and the Director of Public Works. A fourth member was an officer of the Government of Palestine qualified in town planning and appointed by the High Commissioner (ibid.).

In a district which might have more than one Town Planning Area, the District Commission had the same previous powers of the abolished Central Commission.

Additionally, the District Commission had several powers among which are the following:

(1) To make rules concerning the common rights and obligations of people in neighbouring properties and ways of resolving any disputes over such rights and obligations.

(2) To require the Local Commission to take all steps necessary to ensure the enforcement of all the provisions of Town Planning Ordinance, 1936.

(3) To refuse or alter any Outline Town Planning Scheme or Detailed Town Planning Scheme submitted to it by the Local Commission. None of these schemes could be enforced without the approval of the District Commission (TPO, 1936, sec. 13,14).

(4) If the District Commission required the Local Commission to prepare a Detailed Town Planning Scheme and to submit it at a certain time, and the Local Commission failed to do so, the District Commission had the right to prepare this Detailed Town Planning Scheme (TPO, 1936 sec. 12,15).

(5) Whenever the District Commission announced that it was preparing an Outline Town Planning Scheme, it had the power to prescribe conditions for granting building permits in the area of the scheme (TPO, 1936, sec. 13.1).

(6) To make rules concerning the form and time of objections against parcelation schemes and to approve these schemes (TPO, 1936, sec. 20.3).

6.1.1.4 The Local Commission for Building and Town Planning (the Local Commission):

The Local Commissions were according to Town Planning Ordinance, 1921 formulated by the municipal councils in Town Planning Areas and upon the request of the Central Commission. Members of the Local Commission included the district governor or his deputy, two persons nominated by the municipal council, two persons nominated by the Central Commission in addition to the public...
health officer and the municipal engineer. The Local Commission was regarded as a municipal committee and its expenditure was regarded as a municipal expenditure.

On the other hand, Town Planning Ordinance, 1936 provided that when a Town Planning Area included a municipal corporation or a part of a municipal area, the council of this municipal corporation should be the Local Commission of this Town Planning Area (TPO, 1936, sec. 7).

In Town Planning Areas where no municipalities existed, the above powers of the Local Commission should be exercised by a Local Commission of not more than seven members nominated by the Central Commission (Town Planning Ordinance, 1936 provided that the District Commission should nominate these members). Powers of the Local Commission included:

1. To include in its members any representatives of garden city associations or any other bodies interested in the development and planning of towns (TPO, 1921, sec. 4.2).

2. The Local Commission possessed all powers and duties related to the construction of buildings and the alignments of roads, which had been given to the municipalities by the Ottoman law of provincial municipalities, 1294 AH/1876 AD (TPO, 1921, sec. 5).

3. The Local Commission was responsible for the costs of Town Planning Schemes which should be met wholly or partially by betterment tax (TPO, 1921, sec. 25).

4. In consultation with the Central Commission, to compensate people whose properties decreased in value as a result of a Town Planning Scheme (TPO, 1921, sec. 27).

5. To give permits for laying out or constructing streets, erecting, demolishing, altering or adding to buildings. All these activities should not happen without the permission of the Local Commission (TPO, 1921, sec. 35, 36.1).

6. To remove, demolish or alter any development which would not accomplish the requirements of any approved Town Planning Scheme (TPO, 1921, sec. 36.2.a).

7. To prepare a Detailed Town Planning Scheme for any land in its Town Planning Area or embrace, as it might see, any Detailed Town Planning Scheme prepared by the owner or owners of such a land (TPAO, 1929, sec. 10).

8. To exercise certain controls in its Town Planning Area even without the existence of a Town Planning Scheme. These controls included the regulation of the construction of buildings and the improvement of streets. This provision preserved the powers of the Local Commissions which might not have been able to prepare Town Planning Schemes (TPO, 1936, sec. 11).
6.1.2 Instrumental representations of the Mandatory physical planning system in Palestine:

The Mandatory physical planning system in Palestine provided for several instrumental representations to be used by its different institutional arrangements. These instruments included statutory plans and bye-laws, rules and instructions.

6.1.2.1 Statutory Plans:

The Mandatory physical planning system in Palestine provided for the designation of several kinds of schemes which could be used to illustrate and consolidate the implementation of town planning policies. These schemes included:

(1) Regional Outline Town Planning Scheme:

According to Coon (1991), regional planning was first recognised by the Mandatory physical planning system in 1941 when Regional Town Planning Areas were announced. Yet it is evident from figure (6.2) that the Mandatory planning authorities were using regional plans in 1938.

The Regional Town Planning Areas covered the whole country except municipal areas which were defined as Town Planning Areas. By 1946, several Regional Outline Town Planning Schemes were prepared and approved for all the districts of Palestine except Haifa district (figure 6.3).

From these schemes, Jerusalem District Regional Outline Town Planning Scheme (RJ5) and Samaria District Regional Outline Town Planning Scheme (S15) are of special importance since they continued to be applicable in the West Bank after 1948 (Coon, 1991).

An approved but incomplete copy of (RJ5) has been recently found and used by Israeli authorities in the West Bank (figure 6.4). No such a document exists for (S15) (Coon, 1991). Figure (6.5) illustrates an unofficial copy of (S15) provided by Kendall, 1949 as the latest version of this scheme.

In general, according to Coon (1991), the Mandatory Regional Outline Town Planning Schemes did not clearly relate to Outline Town Planning Schemes and they were ambiguous about the control of development.

With the above problems and the short period for which the Regional Outline Town Planning Schemes lived before the end of the Mandate, their actual effects on the physical spatial structures of the Palestinian settlements are difficult to assess.

(2) Town Planning Area:

Any district or area of a district could be designated by the Central Commission (or the District Commission after 1936) as a Town Planning Area after the agreement of the High Commission
Figure (6.2): A proposed drainage scheme for Khadouri school in Tulkarm in 1938 referring to the Regional Outline Town Planning Scheme of Samaria District (S15).

Source: Agricultural school, Tulkarm, proposed drainage. Public Works Department, Nablus District, Government of Palestine, 23.5.1938.
Figure (6.4): Jerusalem District Regional Outline Town Planning Scheme, 1946.

Text cut off in original
Figure (6.5): Samaria District Regional Outline Town Planning Scheme, 1946.

Commissioner. Limits of the Town Planning Area were fixed by the Central Commission (or the District Commission after 1936).

Although Town Planning Ordinance, 1921 did not specify clearly the objectives behind the designation of Town Planning Areas, it could be concluded that Town Planning Areas constituted frameworks within which the different planning policies could be implemented in order to control and direct the development. They also defined the boundaries within which Town Planning Schemes might be prepared. However, Town Planning Ordinance, 1936 indicated that one objective of declaring a Town Planning Area was to preserve its historical value and natural beauty (TPO, 1936, sec. 10.3).

Town Planning Areas sometimes lasted a very short period like Jericho Town Planning Area which was established on 15.4.1924 and cancelled on 1.11.1924 (the Gazette, no. 126, 1.11.1924). The establishment of others took a very long time. Tulkarm Town Planning Area was not established until 21.2.1929 (PRO, CO742/6, Feb. 1929).

By the end of the Mandate most cities of Palestine were announced Town Planning Areas (see figure 6.4 above).

(3) Town Planning Scheme:

According to Town Planning Ordinance, 1921, a Town Planning Scheme could be designated by the Central Commission after consultation with the Director of the Antiquities and the Local Commission, for the whole or any part of a Town Planning Area (TPO, 1921, sec. 9).

The matters which could be discussed by a Town Planning Scheme included:

(a) Contents of the Town Planning Scheme:

Town Planning Ordinance, 1921 specified that a Town Planning Scheme should contain a plan or plans for the area of the scheme in addition to a written document explaining the scheme.

(b) Provisions of the Town Planning Scheme:

Town Planning Ordinance, 1921 (sec. 10) provided a wide and comprehensive range of provisions which a Town Planning Scheme could make. The main provisions of the Town Planning Scheme included:

1- The development of road, street, and communication systems.
2- The allotment of land for private or public projects, roads, and open spaces.
3- The determination of the different zones of the scheme.
4- Provisions for water supply, drainage and lighting.
5- The preservation of sites of historical values and natural beauty.

(c) Rearrangement of plots:

Town Planning Ordinance, 1921 provided the Central Commission with powers to make proposals for altering the boundaries of the original plots or converge them together. The Central
Commission could allocate plots to owners who lost their land as a result of the scheme. The Central Commission was also empowered to redistribute land between people (TPO, 1921, sec. 11).

(d) Expropriation of land for Town Planning Schemes, compensation and betterment tax:

A Town Planning Scheme could include provisions for the expropriation of land. The expropriation should be approved by the Central Commission after consultation with the Local Commission while the municipality should execute the expropriation. There were also provisions for compensation, compulsory purchase, and the exchange of expropriated land with other land within or outside the area of the scheme.

Betterment tax was also levied on the properties which would have increased in value as a result of the scheme. This tax would be used to meet costs of the scheme (TPO, 1921, sec. 24).

(e) Financial provisions of the Town Planning Scheme:

The cost of a Town Planning Scheme should include all the amounts paid by the Local Commission or any other authority for the preparation of the scheme and the amounts expected for the execution of the scheme (TPO, 1921, sec. 24).

After the preparation of a Town Planning Scheme, it should be deposited for public inspection (TPO, 1921, sec. 13). Any objections to the Town Planning Scheme should be submitted to the Local Commission which should forward them to the Central Commission for consideration (TPO, 1921, sec. 14,15).

After two months of deposit, and upon the application by the Central Commission, the Town Planning Scheme should be approved by the High Commissioner. The approved Town Planning Schemes could come into force after 15 days of their approval (TPO, 1921, sec. 16,17).

(4) Outline Town Planning Scheme:

Outline Town Planning Schemes were ordained in Town Planning Amendment Ordinance, 1929. They should be prepared by the Local Commission upon the request of and during the time determined by the Central Commission. The aim of such schemes was to maintain proper health, sanitation, communication conditions and convenient use of the land. Outline Town Planning schemes had the same provisions of the previous Town Planning Scheme (see TPAO, 1929, sec. 9). Town Planning Ordinance, 1936 added the provisions of demarcating public and private open spaces and natural reserves (TPO, 1936, sec. 12.2.f).

Outline Town Planning Schemes were prepared during the Mandate for all the municipal areas and 8 villages of Palestine (Coon, 1991). Figure (6.6) shows the Outline Town Planning Schemes of Jenin and Ramallah-Al-Bireh. The scheme of Tulkarm is considered in detail in chapter (9).

The planning principles and presentation of all these schemes were similar and they all depended on zoning areas of the scheme into different land uses. Residential areas were divided into three zones A, B and C with building densities decreasing outwards from the core of the town. Commercial services were distributed along the main roads and several plots were allocated for public buildings. Road
networks were also aligned and their reservations and set-backs were determined. There were no provisions for industrial areas in many of these schemes.

On the other hand, some Outline Town Planning Schemes were considered Detailed Outline Town Planning Schemes with very little difference between them.

The Detailed Outline Town Planning Scheme of Salfit village provides an example of these schemes.

The area of Salfit Detailed Outline Town Planning Scheme was carefully surveyed and conditions of the existing buildings and other features of the village were studied in detail (figure 6.7). The scheme (figure 6.8) proposed a wide fringe of agricultural land around the village while the built up area was zoned into three residential A, B and 'old core' zones. Public buildings, a cemetery and a public open space also were determined. No industrial or commercial areas were designated and nothing was provided beyond the fringe of the village.

(5) Detailed Town Planning Scheme:

The Local Commission could at any time (or upon the request of the District Commission) prepare a Detailed Town Planning Scheme for any land in its Town Planning Area. It could also adopt any Detailed Town Planning Scheme prepared by the owner or owners of this land.

The Detailed Town Planning Scheme could include any of the previous provisions of the Outline Town Planning Scheme. It could also include the following provisions:

(a) The demolition and rehabilitation of overcrowded and congested areas (TPO, 1936, sec. 14.2.h).

(b) The control over the design of buildings and the preservation of trees (TPO, 1936, sec. 14.2.i.j).

Outline Town Planning Schemes and Detailed Town Planning Schemes had to be deposited and approved in the same way described above for Town Planning Schemes. Yet Town Planning Amendment Ordinance, 1939 (sec. 6) provided that the District Commission had the power to approve the Detailed Town Planning Schemes and to determine the date of their enforcement.
Figure (6.6): Outline Town Planning Schemes for the towns of Jenin and Ramallah-Al-Bireh.

Source: See figure 6.4.
Figure (6.7): Salfit village in the late 1930s and early 1940s; building survey and ideas for Ouline Town Planning Scheme.

Source: Author’s reproduction based on the plan ‘Salfit village’ and the plan ‘Salfit Ouline Town Planning Scheme’. Survey of Palestine, 1945.
Figure (6.8): Salfit village: Detailed Outline Town Planning Scheme, 1945.
Source: Author's reproduction based on the original scheme: plan no. tp/518/45. ref. no. Z/85/44. Date, 27.4.45
(6) Parcelation Scheme:

A Parcelation Scheme could be prepared by the owner of any property within the area of Outline Town Planning Scheme or Detailed Town Planning Scheme.

According to coon (1991), Detailed Town Planning Schemes and Parcelation Schemes were mainly directed by the Mandatory planning authorities towards the Jewish settlements. These schemes constituted a major tool for shaping the physical spatial structure of these settlements (figure 6.9).

6.1.2.2 Bye-laws, rules and instructions:

Bye-laws, rules and instructions were used by the above institutions (or some of them) in order to exercise additional controls or to explain and consolidate the existing controls. For example, the Central Commission announced on 1.11.1925, a long list of bye-laws in order to be used by the Local Commissions which might adopt them. These bye-laws provided the thickness of walls for the different storeys in domestic buildings, dwelling houses and other buildings. Fire resisting materials which should be used in buildings were also determined.

In another example, the Central Commission announced on 1.12.1925 a group of instructions which the Local Commissions should follow in their application for the approval of Town Planning Schemes (the Gazette, CO742/2, 1.12.1925).

Conclusion:

The previous review of the Mandatory physical planning system in Palestine has been used to illustrate elements of this system and their relationships with elements of the physical spatial structure of the Palestinian settlements.

Main conclusions of the above review include:

(1) Except the designation of Town Planning Areas and the preparation of Town Planning schemes, the physical planning system of this period concentrated on negative development controls only. There were no provisions to empower any of the planning institutions to carry out any development projects nor to arrange for other institutions to tackle this purpose.

Therefore, with the private ownership dominating the Palestinian settlements and the absence of sufficient Parcelation and Detailed Town Planning Schemes, the Mandatory physical planning system exerted little influence on the actual settings of the physical spatial structures of the Palestinian settlements.

(2) The road system was the most important element used by the Mandatory physical planning system to form the physical spatial structures of the Palestinian settlements. Even though, the Mandatory roads mainly followed existing tracks and contour lines without any concept of planning and design.

(3) Main elements of the physical spatial structure of the Palestinian settlement which the Mandatory physical planning system mentioned were:
Figure (6.9): The plan of 'Afula towns illustrating the effect of Detailed and Parcelation Schemes on the physical spatial structure of the settlement.

Source: The plan of 'Afula, the Survey of Palestine, 1939.
(a) buildings.

(b) neighbourhoods.

(c) Conservation areas.

(d) Infrastructure.

(e) open spaces.

(f) Gardens and green areas.

Although these elements are considered elements of the overall physical spatial structure of the settlement, the physical planning system of this period did not provide a framework to integrate these elements e.g. buildings into neighbourhoods, green areas and open spaces into green belts on the fringes and open land around the settlements, or the arrangements of movement system. The provisions of the central area of the settlement was not mentioned at all.

(4) The greatest concentration of the ordinances was on expropriating land and properties for Town Planning Schemes, compensation and betterment tax.

(5) The structures and powers of the different institutional arrangements of this system did not reflect the profession of planning where no planning departments were established. At the same time, this system did not provide a comprehensive national planning policy for Palestine while its regional and local planning policies were not coherent and integrated.

For example, no periods were determined for the preparation of the different planning schemes. Some areas could therefore have the opportunity to benefit from such schemes for a long time while others may not have the same opportunity. This greatly damaged the efficiency of the different town planning schemes and decreased their importance for shaping and controlling the physical spatial structures of the Palestinian settlements.

However, despite all the above observations, it is necessary to note that the physical planning system of this period was a great innovation for Palestine where for the first time, a codified and comprehensive system for the control of settlement development and growth was established.
Chapter Seven

The Jordanian physical planning system in the West Bank (1948-1967)
Introduction:

The previous two chapters have dealt with the physical planning system in Palestine from late 19th century to 1948. In 1948, Israel was established on parts of Palestine while other parts were controlled by Jordan and Egypt.

This chapter aims to inquire into the physical planning system in the West Bank during the Jordanian rule from 1948 to 1967.

By mid 1948, Palestine was emerging into a new era. The British mandate ended and Israel was established on around three quarters of the country (Saleh, 1986). The remaining parts were divided between Jordan, which controlled the West Bank, and Egypt which controlled Gaza Strip (Ibid.).

In 1950, the West Bank was announced a part of the Hashmite Kingdom of Jordan (Al-Nimr, 1975). As a result, the Jordanian physical planning system was implemented in the region.

The Jordanian physical planning system was established by two main legislations. These were the Laws of Planning Towns, Villages and Buildings, nos. 31, 1955 and 79, 1966.

The above two laws are used in this chapter to explore the Jordanian physical planning system in the West Bank. Several points are considered during this exploration:

(1) The institutional arrangements of the Jordanian physical planning system, their powers and their duties. Notwithstanding its dependence on its Mandatory predecessor, the Jordanian physical planning system established its own institutional arrangements.

(2) The instrumental representations which were designed for the above institutional arrangements in order to determine, explain and implement the required planning policies.

The above Jordanian planning laws are explored depending on their Arabic drafts as they appeared in the Official Gazette of Jordan.

7.1 The Jordanian physical planning system in the West Bank (1948 - 1967):

Until 1955, the physical planning system in the West Bank was uncertain and undefined. The Mandatory planning regulations remained unchanged while the unification of the West Bank with Jordan brought it under the effect of the Jordanian laws before 1950.

The Jordanian physical planning system depended on the Law of Planning Towns, Villages and Buildings, no. 31, 1955 (Planning Law, 1955) and the Law of Planning Towns, Villages and Buildings, no. 79, 1966 (Planning Law, 1966). Both laws established several institutional arrangements and provided for several instrumental representations which together constituted the main factors through which the Jordanian physical planning system affected the physical spatial structures of the Palestinian settlements in the West Bank.
7.1.1 Institutional arrangements of the Jordanian physical planning system in the West Bank:

The Jordanian physical planning system established several institutional arrangements which included the Minister, High Planning Council, Central Commission, Central Planning Department, District Commission, Local Commission and Joint Commission (figure 7.1).

7.1.1.1 The Minister:

Although the Minister of the Interior was responsible for the execution of Planning Law, 1955, there had not been much specification about his role in the system of this law. Nevertheless, it has been possible to identify the following main powers:

1. To supervise the Central Commission and to nominate two professionals for its membership (sec. 3.1).
2. To nominate professionals for the membership of the District Commissions (sec. 3.3).
3. To approve, upon the application of the District Commissions, Town Planning Schemes with or without modification and to set dates for their enforcement (sec. 16.1,3).
4. To approve decisions of the Local Commissions regarding the imposition of special and general planning taxes in their areas (sec. 29.1).
5. To agree upon any by-laws, rules or instructions made by the Cabinet for the implementation of Planning Law, 1955 (sec. 37).

On the other hand, the Minister of the Interior for municipal and village affairs was according to Planning Law, 1966 empowered with the following:

1. To arrange for the best use of land for the public goodwill and according to economic and social plans of the government (sec. 4).
2. To announce and cancel the Town Planning Areas upon the recommendations of the High Planning Council (Ibid.).
3. To consider the applications for compensation by the owners of the properties damaged by decisions of the High Planning Council (sec. 6.d).

7.1.1.2 Central Commission for the Planning of Towns villages and buildings (the Central Commission):

Planning Law, 1955 (sec. 3) established a Central Commission from the following members:

1. The Minister or his representative who should chair the commission.
2. The Mayor of Amman.
abolished by Planning Law no.79, 1966

Figure (7.1): Institutional arrangements of the Jordanian physical planning system in the West Bank.

Source: Author.
(3) The Attorney General.

(4) Secretary of the Ministry of Public Works.

(5) Secretary of the Ministry of Health.

(6) Two professional members nominated by the Minister.

Planning Law, 1955 did not specify who should establish the Central Commission; the Prime Minister, the Cabinet or the Minister? Nor did it specify any powers for the Central Commission in any of its sections except to consider Detailed Town Planning Schemes prepared by the Local Commissions (sec. 12.1, 13.3). After all, the Central Commission was abolished by Planning Law, 1966.

7.1.1.3 High Planning Council:

The High Planning Council was the first planning authority established by Planning Law, 1966. The High Planning Council was chaired by the Minister with the membership of the Chief of Amman Municipality, Attorney of the Ministry of Public Works, Guardian of the Jordanian Development Council, Director of the Housing Institute, Director of the Village and Town Planning, the Chief Prosecutor, President of the Engineers Syndicate and the Attorney of the Ministry of Health (sec. 5).

Main powers of the High Planning Council included:

(1) To designate Town and Village Planning Areas and to enforce Regional Outline Town Planning Schemes and Outline Town Planning Schemes (sec. 7).

(2) To cancel building permits which did not conform to the provisions of this Law (Ibid.).

(3) To consider appeals against the District Commissions for the Planning of Towns, Villages and Buildings (District Commission) (Ibid.).

(4) To approve with or without modifications Regional Outline Town Planning Schemes (sec. 18).

(5) After consultation with the concerned planning commissions, to impose general planning taxes for the Town Planning Areas or parts of Town Planning Areas in order to cover costs of Outline Town Planning Schemes and the execution of Planning Law, 1966 (sec. 52.1-2).

(6) To recover betterment tax from the owner or owners of vacant land the value of which increased after a public project started near it.

(7) To compulsory expropriate any land which an approved Outline Town Planning Scheme determined for expropriation and to compulsory expropriate any land in a Town Planning Area which the High Planning Council might consider necessary for public development (sec. 56.2-3).

(8) To expropriate without compensation any land designated by the Outline Town Planning Schemes for opening, constructing, or diverting any road, square, public garden or public space provided that the area of the expropriated land would not exceed 30% of the total area of the land (sec. 58).
To construct, divert or cancel any road and to decide as it might see suitable upon any remaining land after road development (sec. 59.2).

7.2.1.4 Central Department for the Planning of Towns, Villages and Buildings (the Central Planning Department):

The Central Planning Department was set by Planning Law, 1966 (Sec. 7) to be a department of the Ministry of the Interior and Municipal and Village affairs. The Central Planning Department should be chaired by a person with good qualifications and experience in the planning of towns, villages and buildings who should nominate experts and consultants for the department.

The main powers of the Central Planning Department included:

(1) Performing studies necessary for the achievement of Town and Village Planning goals and the preparation of Regional Outline Town Planning Schemes and Outline Town Planning Schemes.

(2) Providing supervision and advice for the Local Commissions regarding the improvement of their Outline Town Planning Schemes.

(3) Providing the Joint Planning Commissions with professional help in respect to the observation of planning and development.

(4) Preparing model by-laws for the planning of towns, villages and buildings.

7.1.1.5 District Commission for the Planning of Towns, Villages and Buildings (the District Commission):

According to Planning Law, 1955 (sec. 3.3), there should be a District Commission in each district chaired by the District Governor with the membership of:

(1) A representative of the General Prosecutor.

(2) A representative of the Ministry of Health.

(3) A representative of the Ministry of Public Works.

(4) A planning professional nominated by the Minister.

Planning Law, 1966 (sec. 8) substituted the last member with representatives of the Central Planning Department and the Local Planning Commissions (when considering local issues).

The District Commission was empowered with the following main powers:

(1) To determine boundaries of its Town Planning Area (Planning Law, 1955, sec. 8.2. This provision was abolished by Planning Law, 1966).

(2) To order the Local Commission to prepare, within a certain time, an Outline Town Planning Scheme or a Detailed Town Planning Scheme for the whole or part of its Town Planning Area. If the Local Commission failed in preparing the scheme, the District Commission was empowered to prepare it (Planning Law, 1955 sec. 10.1,4; 13.1,2; Planning Law, 1966, sec. 25.2.3 limited this provision to the
Detailed Town Planning Schemes which should be prepared through the Central Planning Department with the agreement of the Minister).

(3) To consider the appeals regarding Parcelation Schemes which were refused by the Local Commissions (sec. 19.4, this provision was abolished by Planning Law, 1966).

(4) To approve the Detailed Town Planning Schemes.

(5) To consider the objections against Regional Town Planning Schemes, Outline Town Planning Schemes or Detailed Town Planning Schemes and to forward any recommendations to the High Planning Council.

(6) To have the same powers of the High Planning Council in respect of recovering the betterment tax, the compulsory expropriation of land and the performance of road development.

7.1.1.6 Local Commission for the Planning of Towns, Villages and Buildings (the Local Commission):

When a municipal area is announced a Town Planning Area, the municipal council should be the Local Commission of this area. If the announcement was for an area of a village or a part of it, the village council should be the Local Commission for this area (Planning Law, 1955, sec. 13.1; Planning Law, 1966, sec. 9.1).

If the Minister prevented the municipal council or the village council from being the Local Commission, Planning Law, 1966 (sec. 9.1) empowered the Minister to establish a separate commission. Such a commission should be chaired by the District Governor, chairman of the municipality (or the village council), a member nominated by the municipal (or village council), a member nominated by the Central Planning Department, a representative of the Ministry of Health and the engineer of the municipality (or the village council) (Ibid.).

The main powers of the Local Commission included:


(2) The approval, modification or cancellation of Parcelation Schemes (Ibid.).

(3) The granting of building and development permits (Ibid.).

(4) The supervision of any costs paid by the committee or any payments due for it (Ibid.).

(5) With the agreement of the District Commission, to compulsory expropriate any land designated for this purpose in a Detailed Town Planning Scheme and within 7 years after approving the scheme. (Planning Law, 1966, sec. 23.5).

(6) The redivision of land in the area of a Detailed Town Planning Scheme and the reallocation of owners to the new plots (Planning Law, 1966, sec. 31).

(7) To make rules for the conservation of trees, gardens, parks, woodlands and agricultural land (sec. 40).
To preserve the beauty and tidiness of the town and village and to prevent damages, harms, pollution and noise (Planning Law, 1966, sec. 42-3,5).

To have the same powers of the High Planning Council in respect of the compulsory expropriation of land and the performance of road development.

7.1.1.7 Joint Commission for the Planning of Towns, Villages and Buildings (the Joint Commission):

The Joint Commission could be established upon a recommendation of the Director of the Central Planning Department in places where two or more local or regional planning areas existed (Planning Law, 1955, sec. 7; Planning Law, 1966, sec. 10). A Local Joint Commission could be established from at least one member of each Local Commission in the concerned area in addition to any other members nominated by the Minister. A District Joint Commission could be established on the same basis from members of the District Commissions.

7.1.2 Instrumental representations of the Jordanian physical planning system in the West Bank:

The Jordanian physical planning system in the West Bank provided for several instrumental representations in order to be used by the different institutions arranged by this system. These instrumental representations included statutory plans and bye-laws, rules and instructions which were regulated to consolidate and explain statutory plans or to be applied separately.

7.1.2.1 Statutory Plans:

Statutory plans of the Jordanian physical planning system included Regional Town Planning Scheme, Town Planning Area, Outline Town Planning Scheme, Detailed Town Planning Scheme and Parcelation Scheme. Planning Law, 1966 (sec. 14) insisted that before the start of preparing any Town Planning Scheme, a complete survey of the current situation of the area should be prepared. Such a survey should be prepared by the Central Planning Department and should include a wide range of topics such as topography, weather, history of development, land use and ownership, infrastructure, public services, demography and any other issues necessary for the scheme (Ibid.).

(1) Regional Town Planning Scheme:

Planning Law, 1955 did not provide the provision of Regional Town Planning Schemes. According to Planning Law, 1966, a Regional Town Planning Scheme could be prepared by the Central Planning Department to illustrate the development program and to provide a base for the preparation of the Local Outline Town Planning Schemes (sec. 15).

Planning Law, 1966 provided a wide range of issues which the Regional Town Planning Scheme should include without making any priorities. Yet it would be possible to conclude that the main concern of the Regional Town Planning Schemes was the location of new settlements and the development of existing settlements.
Other issues included industry, commerce, housing, public facilities, the design of buildings, public and private open spaces, historical sites, communication system and infrastructure (sec. 15).

The Regional Town Planning Schemes should be prepared within two years after declaring an area a Regional Town Planning Area, with consultation with the Local and District Commissions. After its preparation, a Regional Town Planning Scheme should be deposited for public inspection for two months. A notice of this deposit had to be published in the official and local press (sec. 16).

Any objections for a Regional Town Planning Scheme should be submitted to the District Commission which should forward its recommendations to the High Planning Council (sec. 17).

The High Planning Council should approve, with or without modifications, the Regional Town Planning Scheme which should come into force after 15 days of the date of approval (sec. 18).

However, it is very important to notice that not a single Regional Town Planning Scheme was prepared in the west Bank during the Jordanian rule (Coon, 1991).

(2) Town Planning Area:

It resembled the same Town Planning Area of the Mandatory physical planning system in Palestine with the difference that the Minister, upon the recommendation of the High Planning Council and the designation of the Director of the Central Planning Department could announce any area a Town Planning Area. Planning Law, 1966 (sec. 13) did not provide any definitions, provisions or specifications for Town Planning Areas.

Within declared Town Planning Areas, no development which needed a permit could be implemented without such a permit (Planning Law, 1955, sec. 21; Planning Law, 1966, sec. 34).

The Jordanian physical planning system maintained Town Planning Areas which were declared for cities and towns of the west Bank by the Mandatory planning authorities. In 1966, additional Town Planning Areas were announced for new municipal areas.

(3) Outline Town Planning Scheme:

Planning Law, 1955 (sec. 10.1) stated that every Local Commission should, within the period determined by the District Commission, prepare an Outline Town Planning Scheme for the whole or a part of its Town Planning Area. On the contrary, the Planning Law, 1966 did not specify which institution was responsible for the preparation of these schemes or the duration of this preparation.

In both the above laws, the main concern of Outline Town Planning Schemes was not specified. However, it could be possible to conclude that these schemes were concerned with the supervision of development, providing for better health and transport conditions, arrangements of different land uses and preservation of historical, architectural or beauty values of the area.

Planning Law, 1955 (sec. 10.2) stated that the main provisions which the Local Commission could include in its Outline Town Planning Scheme include (Planning Law, 1966, sec. 19.2 mainly provided the same provisions):

(a) The development and improvement of the road system.
(b) The isolation of different land uses.

(c) The control of the area of building plot, set backs around buildings, height and type of buildings in any area of the scheme.

(d) The allocation of land for public and private spaces, nature reserves, agriculture, woodlands, parks, cemeteries, quarries and mines.

(f) The allocation of land for airports, sea ports, railways, bus stations or any other public uses.

(g) The allocation of land for industry, commerce administration and public services and facilities.

(h) The preservation of historical and architectural sites.

According to Benvenisti & Khayat (1988) and Coon (1991), the Jordanian Outline Town Planning Schemes were prepared and approved for 15 of the 25 municipalities in the West Bank (figure 7.2 shows the Outline Town Planning Schemes for Jenin and Ramallah-Al-Bireh towns, the case of Tulkarm is considered in detail in chapter 10).

These schemes were not based on topographical maps (Coon, 1991). The result was, according to Benvenisti & Khayat (1988), the exclusion of large parts of the schemes from implementation.

Moreover, the Jordanian schemes were mainly prepared with no consideration for future needs and technological change in the West Bank (Ibid.). Some municipal areas were extended (several times in some cases like Tulkarm) with no provisions for public services or facilities resulting in dispersed and disintegrated spatial patterns.

According to Khamayseh (1989) and Coon (1991), an Outline Town Planning Scheme was prepared for only one village during this period (the village of Attaybeh, Ramallah district).

(4) Detailed Town Planning Scheme:

The Local Commission could at any time prepare a Detailed Town Planning Scheme for any land (this land could be the whole of a small town or village) in its Town Planning Area. The Local Commission could also adopt, with or without modification, any Detailed Town Planning Scheme prepared by the owner or owners of this land (sec. 23).

Like the previous Regional Town Planning Scheme and Outline Town Planning Scheme, Planning Law, 1966 did not provide the main concern of the Detailed Town Planning Scheme except that they were to provide details for the different parts of the Outline Town Planning Scheme (sec. 23.1). It could be possible to conclude that Detailed Town Planning Schemes should provide information on land use, the details of different levels of development and the economic and social circumstances of the area.

The Detailed Town Planning Scheme could include any of the provisions of the Outline Town Planning Scheme but it should particularly include the following matters (sec. 23.5):

(a) The designation of sites of public buildings, parks and communication facilities.
(b) The designation of building sites, building lines and the determination of building area and frontage of plots.

(c) The control of the design of buildings.

(d) The determination of land where development should be prohibited.

(e) The determination of land which should be compulsory expropriated.

The Detailed Town Planning Scheme should be deposited and approved through the same procedure of the Outline Town Planning Scheme but the approval in this case should be by the District Commission.

According to Coon (1991), no Detailed Town Planning Schemes were prepared in the West Bank during the Jordanian rule.

(5) Parcelation Scheme:

Planning Law, 1966 provided that no land could be divided into parcels of less than 10 donams (10,000 sq. m) nor such division could be registered in the land register without a Parcelation Scheme approved by the Local Commission (sec. 28). The Parcelation Scheme should also be in accordance with the approved Detailed Town Planning Scheme of the area and any requirements of the Local Commission (Ibid.). More importantly, the Local Commission was empowered to require the owner of any land in an approved Outline Town Planning Scheme to prepare, within certain time, a Parcelation Scheme for this land.

If the owner of the land failed to submit such a scheme in the determined time, the Local Commission was empowered to prepare or to order any person to prepare such a scheme and to claim all the costs incurred from the owner.

The Parcelation Scheme should be approved by the Local Commission which also had the power to modify or cancel any Parcelation Scheme (sec. 29, 30). On the other hand, the Local Commission was empowered, upon the agreement of the District Commission and within a Detailed Town Planning Scheme, to redivide the existing plots into new parcels. It was also empowered to reallocate owners to the new plots provided that old plots would not lose more than 30% of their area by the new parcelation (sec. 31).
Figure (7.2): Jordanian Outline Town Planning Schemes for the towns of Jenin and Ramalla-Al-Bireh

7.2.2.2 Bye-laws, rules and instructions:

Planning Law, 1966 empowered the Cabinet, upon the recommendation of the High Planning Council, to make bye-laws, rules and instructions for all or some of the Town Planning Areas in order to facilitate the execution of this law. These bye-laws, rules and instructions could include the following issues (sec. 67):

1. The application for and the granting of building permits.

2. The construction of buildings, the alignment of roads and the construction works related to them.

3. The demolition of non conforming buildings, the removal of rubble and the safety measures of all construction works.

4. The fees payable in respect of any permit.

5. The application forms for objections, claims of compensation and the declaration of any Town Planning Scheme.

6. Common rights and obligations of people in neighbouring properties concerning the construction, repair and maintenance of party and external walls and the ways of resolving any disputes over these common rights and obligations.

7. The demolition and redevelopment of the neglected and deteriorated buildings.

8. The expropriating of land and properties and planning them for the establishment of housing projects.

9. The provisions of compensation and penalties.

On the other hand, Planning Law, 1966 (sec. 27) provided that any Outline Town Planning Scheme could include bye-laws, rules and instructions which should be deemed a part of the scheme. Such bye-laws, rules and instructions should follow their counterparts mentioned above or those announced by the Central Planning Department.
Conclusion:

The previous discussions of this chapter have illustrated the different aspects of the Jordanian physical planning system and their relationship with the physical spatial structures of the Palestinian settlements in the West Bank.

The Jordanian physical planning system provided for several institutional arrangements and instrumental representations. Institutional arrangements of this system were authorised with a wide range of powers with a great deal of ambiguity and uncertainty. Nothing in the structures or the responsibilities of these institutional arrangements referred to the physical spatial structure of the settlement. The concentration was on procedural aspects of these institutional arrangements without an overall policy recognising the importance of spatial qualities of the settlements.

Although this system established a Central Planning Department, regional and local planning departments were not provided. At the same time, the relationship between the Central Planning Department and the other institutions were not well established.

The higher institutional levels of this system represented the political and administrative powers of the government rather than the profession of planning and the interest of the community. The Local institutional arrangements, on the other hand, did not have clear and formidable policies for directing the change of the physical spatial structures of the settlements. Yet with the absence of the efficient regional and national institutions, the Local institutions remained the most influential in affecting the physical spatial structures of the settlements.

At the same time, instrumental representations of the Jordanian physical planning system followed the same zoning principles of the Mandatory system without any provisions for integrating the spatial patterns of the settlements.

Moreover, these instrumental representations did not recognise any element of the physical spatial structure of the settlement. The Jordanian planning schemes suffered from difficult uncertainties. Little was provided for who should prepare the different schemes and when. With the absence of suitable national, regional and detailed planning schemes, the important instrument which continued to influence the physical spatial structure of the settlement was the Outline Town Planning Scheme. Yet the same as the institutional arrangements mentioned above, the Outline Town Planning Schemes, and all other types of Jordanian planning schemes did not recognise the importance of the physical spatial structures of the settlements and their elements.
However, it had been noted that the road system was signified in both the above institutional arrangements and instrumental representations. This significance did not result from nor produced a concern for the road system as an important element of a unified complete structure.

Finally, the ambiguity and uncertainty of the Jordanian physical planning system provided, according to Coon, (1991), the Israeli authorities with a good chance to damage the physical spatial structures of the Palestinian settlements.

Next chapter will deal with the dilemma of the Israeli physical planning system in the West Bank.
Chapter Eight

The Israeli physical planning system in the West Bank (1967-1994)
Introduction:
The previous chapters in this part have discussed the physical planning system in Palestine and its relationship with the physical spatial structures of the Palestinian settlements from late 19th century to 1967.

This chapter aims to explore the physical planning system in the West Bank since the Israeli occupation of the region in 1967 to 1994.

The Military Commander of the West Bank has since 1967 been authorised with all judicial, legal, executive and administrative powers (Kottab & Shehadeh, 1983). Since then, all legislative laws were effected by the Military Commander in the form of Military Orders (Coon, 1991). Notwithstanding the rules of international law which insist that all legislations of the occupied territories should remain in force in their original form before the occupation, the Military Orders have greatly altered the Jordanian laws in the West Bank (Khamays, 1989).

The Jordanian Planning Law, 1966 has, since 1967, been amended by several Military Orders (Rishmawi, 1986; Khamays, 1989; Coon, 1991). The Military Order for the Planning of Towns, Villages and Buildings, (Judia and Samaria), no. 418, 1971 was the main order which established the base for the Israeli physical planning system in the West Bank.

Several objectives are considered in relation to the aim of this chapter:

(1) This chapter considers the different institutional arrangements of the Israeli physical planning system in the West Bank.

(2) This chapter also considers the instrumental representations of the Israeli physical planning system in the West Bank.

This chapter also provides an account for the policy framework within which the Israeli physical planning system has been implemented in the West Bank. The main aspects of the Israeli physical planning system are explored depending on the draft of the Military Order 418 as it appears in (Coon, 1991).

8.1 The Israeli physical Planning System in the West Bank (1967-1994):
The whole Israeli planning policy in the West Bank depends on the general policy of the Israeli government and Zionist organisations especially the Jewish settlements policy in the region. It could therefore be useful to include a brief discussion of the general Israeli plans in the West Bank since 1967.

Only six weeks after the war, Yigal Allon, the Israeli labour minister submitted in July 1967 his plan for the future of the West Bank (Harris, 1980). The plan was adopted by the Israeli government in 1970 with some alteration (Khamays, 1989; Coon, 1991, figure 8.1.A). On the
Figure (8.1): Israeli settlement policy in the West Bank since 1967.

same lines of the Allon plan, the Israeli government prepared another plan aiming at intensifying the settlements activity around Jerusalem and south Qalqilya (Ibid., figure 8.1.B). Afterwards, Gush Emunim, an extremist Jewish settlement movement, prepared in 1978, a plan to settle two million Jews within 10 years in the West Bank (Ibid., figure 8.1.C).

On the other hand, the World Zionist Organisation prepared in 1978, 1980, 1983 several plans for Jewish settlements in the West Bank (Ibid., figure 8.1.D).

These plans aimed at covering the maximum area of the West Bank, settling maximum Jewish population and concentrating on land with minimum problems (e.g. state land and the land which could be easily confiscated) (Khamaysch, 1989).

8.1.1 Institutional arrangements of the Israeli physical planning system in the West Bank:

The Israeli physical planning system in the West Bank has depended on the Jordanian Planning Law, 1966 which should, according to the international law, be the planning law of the West Bank after 1967 (Rishmawi, 1986).

The Jordanian Planning Law, 1966 was amended by several military orders. The main of these orders was the Military Order for the Planning of Towns, Villages and buildings (Judea and Samaria) no. 418, 1971 which established the base of the Israeli physical planning system in the West Bank. Military Order 418 has been afterwards amended by several military orders (see Coon, 1991 for more detail on these orders).

The main institutional arrangements of the Israeli physical planning system in the West Bank (figure 8.2) included the Military Commander, Person In Charge, High Planning Council, Central Planning Department, Special Planning Committee, Village Planning Committee, Municipal Local Planning Commission and Special Regional Planning Committee.

8.1.1.1 The Military Commander of the West Bank:

The Military Commander of the West Bank represents the highest authority in the West Bank. He directly subordinates the Israeli Defence Minister and therefore is responsible for implementing policies of the Israeli government in the West Bank.

Yet it is important to notice that since November 8th, 1981, the Military Order 947 established a Civil Administration in the West Bank according to the instructions of the Military Commander. The Civil Administration was first headed by a civil person who resigned after a short period. The Civil Administration has since been headed by a military officer under the supervision of the Military Commander (see Kottab & Shehadeh, 1983 for more detail on the Military Order 947).

The main powers of the Military Commander included:
the only Local Planning Commission run independently by Palestinians

Figure (8.2): Institutional arrangements of the Israeli physical planning system in the West Bank.

Source: Author.
(1) To appoint the Person in Charge who replaced the ‘Minister’ in Planning Law, 1966 (Military Order 418, sec. 1.9).

(2) To appoint members of the High Planning Council, Village Planning Committees (Military Order 418, sec. 4.9) and Special Regional Planning Committees (Military Order 604, sec. 2, see Khamayseh, 1989).

8.1.1.2 Person In Charge:

All the powers of the Minister in Planning Law, 1966 were transferred to a Person In Charge appointed by the Military Commander (Military Order 418, sec. 2.1). The Person In Charge has usually been the Military Officer for the Interior in the West Bank (Khamayseh, 1989).

8.1.1.3 High Planning Council:

The Military Commander appoints a group of military officers to form a Council responsible for all the powers of the High Planning Council formed by the Jordanian Planning Law, 1966. The Military Commander appoints members of the High Planning Council which includes six members headed by the Military Officer for the Interior and three observers (Khamayseh 1989; Coon, 1991). Military Order 418 abolished the District Commissions in Planning Law, 1966 and transferred all their powers to the High Planning Council (Military Order 418, sec. 2.2). Furthermore, Military Order 418 empowered the High Planning Council with further new powers (Military Order 418, sec. 7) which included:

(1) To cancel, suspend and amend, for a determined time, the validity of any permit or plan.

(2) To undertake the powers given to the Special Planning Committees and Village Planning Committees which were established by the Military Order 418 (see below).

(3) To cancel, amend and grant any permit which any of the Committees mentioned in (2) above can grant.

(4) To withdraw the need for any permit which the Law may require.

(5) To appoint, from among its members, special sub-committees for specific purposes (Military Order 604, 1975, see Khamayseh, 1989).

8.1.1.4 Central Planning Department:

According to Planning Law, 1966 (sec. 7.1), the Central Planning Department should be established as a department of the Ministry of the Interior and Municipal and Village Affairs.

It would therefore be the responsibility of the Person In Charge to establish such a department and to appoint its director. The Central Planning Department was established in 1972. Its Israeli director and four Palestinian Professionals (Engineers and Architects) were appointed in 1973. These professionals were responsible for the control and supervision of the local planning offices in Nablus, Ramallah, Al-Khalil (Hebron) and Bethlehem sub-districts (see also Khamayseh, 1989).
Therefore, the Central Planning Department was transferred from an advisory department in Planning Law, 1966 to be directly responsible for the control and management of development in the Palestinian settlements.

In addition to its powers in Planning Law, 1966, the Central Planning Department has been empowered with the following:

1. The Director of the Central Planning Department is a member of the High Planning Council and of each of its sub-committees (Khamayseh, 1989).

2. The Central Planning Department under the supervision of its director, is responsible for every aspect of development in the West Bank (Ibid., also see Coon, 1991).

3. The Central Planning Department possesses all the powers of the District and Local Commissions mentioned in Planning Law, 1966.

4. In 1984, the Information Committee was established in the Central Planning Department in order to consider the Palestinian applications for building permits outside municipalities (see also Khamayseh 1989).

8.1.1.5 Special Planning Committee:

Planning Law, 1966 (sec. 9.1.d) empowered the Minister to dispense the municipal council or the village council from being the Local Commission of its area and to establish different Local Commissions for the municipal or village area. Military Order 418 (sec. 2.3) named such committees Special Planning Committees the members of which should be appointed by the High Planning Council (Military Order 418, sec. 4.6).

Military Order 418, on the other hand, did not transfer the powers of the Local Commissions mentioned above to the Special Planning Committees nor did it specify what powers should the Special Planning Committees exercise.

8.1.1.6 Village Planning Committee:

Military Order 418 averted the village councils from being the Local Commissions for their areas (according to Planning Law, 1966, sec. 9.1.C) and established Village Planning Committees instead (Military Order 418, sec. 2.4). Members of the Village Planning Committees should be appointed by the Military Commander himself (Military Order 418, sec. 4.9).

Military Order 418 did not transfer powers of the Local Commissions in Planning Law, 1966 to the Village Planning Committees and did not define the powers which should be exercised by the Village Planning Committees.

Depending on Planning Law, 1966 and Military Order 418, there exists in every one of the six local planning offices of the West Bank a Local Commission consisting of the local planning officer, deputy director of the Central Planning Department, director of the Public Works Department and director of the Health Department in the sub-district, all of whom are Palestinians. All these members
are employees of the Civil Administration e.g. they are appointed by the Military Commander. Their duties are merely to sign building permits which have been approved by the Israeli Authorities. In fact, they only have got the names of the Local Commissions but not the real powers of the control and management of the Palestinian settlements.

8.1.1.7 Local Planning Commission in municipal areas:

The only institution of Planning Law, 1966 (sec. 9. a-b), which the Military Order 418 (sec. 5) did not change, were the Local Commissions in the municipal areas.

However, it is important to notice that the Military Commander and the Person In Charge have the authority over the municipal Local Commissions and they have the power to interfere, as they might see, in the work of these commissions.

8.1.1.8 Special Regional Planning Committee:

Military Order 604, 1975 empowered the Military Commander of the West Bank to establish Special Planning Committees in areas outside villages and municipalities (Rishmawi, 1986). These committees are named here 'Regional' to differentiate them from Special Planning Committees mentioned in 8.2.1.4 above. The Special Regional Planning Committees were granted all powers of the District Commissions in Planning Law, 1966 (Khamaysah, 1989).

8.1.2 Instrumental representations of the Israeli physical planning system in the West Bank:

The Israeli physical planning system in the West Bank has had its own instrumental representations which have been implemented through the above institutional arrangements in order to fulfil objectives of the Israeli planning policy. Instruments of the Israeli physical planning system in the West Bank are statutory plans and by-laws, rules and instructions.

8.1.2.1 Statutory plans:

The main and only concern of the different Israeli statutory plans in the West Bank has been to damage and discourage the Palestinian development (Rishmawi, 1986; Khamaysch, 1989, 1990; Coon 1991; Abu Al-shukr, 1992).

These statutory plans included:

(1) Regional Town Planning Scheme:

Military Order 418 (sec. 6) provided that approved plans and permits which were issued in the West Bank before 1967 would continue to be applicable. The only regional plans prepared for the West Bank before the Israeli occupation are the Mandatory Samaria District Regional Outline Town Planning Scheme (S15) and Jerusalem District Regional Outline Town Planning Scheme (RJ5).

According to Coon (1990), these two schemes have special significance in the West Bank for two reasons:
(a) They have survived to the present time in their original form without updating or improvement.

(b) They are used by Israeli authorities as a tool for curbing the Palestinian development.

The Israeli authorities retained the above plans to provide a legal concealment against the Palestinian claims for rights (Khamayseh, 1989). Scheme RJ5 publicly appeared for the first time in 1980 while the actual situation of Scheme S15 is still ambiguous and undefined (Coon, 1991).

Notwithstanding the great change since the preparation of these schemes, the Israeli authorities have been using them to refuse permits of the Palestinian development depending on two twisted provisions of the schemes (Ibid.).

(a) They abolished the provision that houses for farmers could be permitted in agricultural zone and designated all lands outside towns and villages as agricultural zone.

(b) They prohibited the parcelation of land and insisted on the restriction that one house should only be built on each plot unless a Detailed Town Planning Scheme is prepared for such a plot. Provisions for Detailed Town Planning Schemes have not been clear and they require a complicated procedure.

The only attempts of the Israeli authority to publicise its own Regional Planning Schemes in the West Bank were the Regional Partial Planning Scheme no. 2/82 and Regional Partial Outline Plan for Roads - Order no. 50. Neither of these plans has been approved (Coon, 1991). Both the plans are discussed below.

(a) Regional Partial Planning Scheme no 1/82, 1982:

Plan 1/82 or the Centre Project (figure 8.3) was prepared as an amendment for the Outline Regional Planning Scheme RJ5. Plan 1/82 covered an actual area of around 450 sq. km (45000 dunam or 8%) of the West Bank to the east, north and south of Jerusalem. This area contains 48 Palestinian settlements including Ramallah, Al-Birch, Bethlehem, Beit Jala and Beit Sahur with a total population of around 214,000 (Khamayseh, 1989). The plan limited the Palestinian development to the boundaries of the Palestinian settlements with a total built up area around 59,000 dunams (13% of the project’s area). The plan also allocated around 77,000 dunams for Israeli settlements (17% of the project’s area, Ibid.). The plan, at the same time, identified three other areas where the Palestinian development was prevented such as reserved areas, future development zone and nature reserve without providing clear identification of these terms (Coon, 1991).

On the other hand, the road system proposed by the plan reserved large areas for roads the limits of which exceed in some cases 300 metres.

(b) Regional Partial Outline Plan for Roads - Order no. 50 (Plan 50):

Plan 50 (figure 8.4) has been deposited in February 1984. It had been prepared depending on previous Israeli plans prepared for Israel and the West Bank (Khamayseh, 1989; Coon, 1991).
Plan 50 designated a road system of 'principal' and 'regional' roads while its regulations referred to a third 'Local' category. Plan 50 provided no provisions for solving internal traffic problems of the Palestinian settlements but for Jewish settlements and military purposes (Ibid.).

On the other hand, Plan 50 provided roads with an average right of way not less than 220 metres. Moreover, Coon (1991) indicates that the right of way of roads, in the regulation of plan 50, could be widened up to 3 km, affecting more than half the area of the West Bank. This of course excluding hundreds of buildings which should be demolished or made non conforming and other damages to agriculture and economy (Ibid.).

The Israeli authorities continued to deposit and approve several detailed plans years after the construction of the roads for which they were prepared (Coon, 1991).

(2) Outline Town Planning Scheme:

The Israeli physical planning system in the West Bank has not contained any provisions for Outline Town Planning Schemes. Although the Military Order 418 provided that plans and permits approved before its enforcement would still be valid, there has not been any improvement in the provisions of the Outline Town Planning Schemes.

However, several Outline Town Planning Schemes have been prepared for Palestinian settlements in the West Bank since 1967. These schemes are discussed below in two sections; one for municipal areas and the other for villages.

(a) Outline Town Planning Schemes in municipal areas:

Theoretically, provisions of the Outline Town Planning Schemes in the Planning Law, 1966 are still applicable inside municipal areas of the West Bank. Yet since the Outline Town Planning Schemes should be approved by the High Planning Council, they would be subjected, at any time, to the interference and directions of the Israeli planning authorities.

Figure (8.3): Regional Partial Planning Scheme no. 1/82, 1982.


Figure (8.4): Regional Partial Outline Plan for Roads - Order no. 50.

Since 1982, the other 20 municipalities have began to prepare Outline Town Planning Schemes. Only two of these Outline Town Planning Schemes have been approved for Beit-Jala in 1987 and Salfit (2nd version) in 1993. Qalqilyah Outline Town Planning Scheme was deposited in 1986 but has not been approved. Other Outline Town Planning Schemes like the scheme of Anabta have been, for several years, struggling for approval.

It is important now to consider some examples of these schemes to explore their effects on the physical spatial structures of their settlements.

1- Salfit Outline Town Planning Scheme:

Since the Israeli occupation of the West Bank, two Outline Town Planning Schemes have been prepared and approved for the town of Salfit. The first scheme was approved in 1974 (figure 8.5).

Salfit Scheme 1974 widened the area of the town to allow for its development until the year 1993. This scheme divided the town into several land uses.

Salfit Scheme 1974 strongly separated the existing built up area and the proposed extension to the north by means of a wide double carriage way road. This road provided a very strong spatial element of the town and would, at the same time, serve the areas on both its sides. Moreover, the scheme provided special road treatments on both its ends emphasising its spatial significance. The widening of the built up area was proposed for a low density residential zone A. This zone was well separated from the surrounding areas by a circular ring road. The town was therefore divided into two separate but integrated entities representing the difference between the old and the new.

At the same time, the town was divided into six neighbourhoods each with an identified centre. The scheme also recognised the core of the town as a preservation and conservation area which afterwards remained easily identified (figure 8.6).

Salfit Scheme 1974 retained the existing road network (with very few changes) while the circular pattern of the new areas gave the town a unique spatial identity.

In general, Salfit Scheme 1974 recognised all elements of physical spatial structure of the town (except the open land beyond its fringe) and provided it with a special spatial character. Yet the spatial differentiation of these elements still needed a more careful consideration. The second Outline Town Planning Scheme of Salfit was approved in 1993 (figure 8.7). Within the same boundaries and depending on the same principles of Salfit Scheme 1974, Salfit Scheme 1993 reserved the previous elements of Salfit and provided another two neighbourhoods using the agricultural land on the fringe of the town. The new neighbourhoods of Salfit Scheme 1993 did not have the spatial significance of Salfit Scheme 1974.
Figure (8.6): Salfit town in 1976.

2- Qalqilyah Outline Town Planning Scheme:

Qalqilyah developed from a small village less than 1 sq. km in 1938 (figure 8.8) to a town 8 times larger in 1986 (figure 8.9).

In 1986, an Outline Town Planning Scheme was prepared for the town but not been approved (figure 8.10).

Qalqilyah Scheme 1986 divided the town into 10 planning units aiming at better distribution of the services and facilities within the whole town. These units were divided along main arterial roads and serviced with the necessary facilities and spaces. Unnecessary through traffic was avoided and the spatial requirements of each unit were carefully calculated in the programme of the scheme. Yet these calculations have not been reflected on the plan of the scheme which only showed the coloured zones of the land use. Qalqilyah Scheme 1986 did not provide a significant centre for the town.

However, this scheme represented an important attempt to recognise the physical spatial structure of Qalqilyah.

(b) Outline Town Planning Schemes in Villages:

Although the Israeli physical planning system in the West Bank has provided little power for the Palestinian municipal Local Commissions regarding their Outline Town Planning Schemes, no such powers have been provided for the villages. Outline Town Planning Schemes in the villages became the responsibility of the Village Planning Committees according to Military Order 418 (sec. 2.4). Yet since real and active Village Planning Committees have not actually existed, Outline Town Planning Schemes in the villages have been the responsibility of the Israeli authorities.

Until 1979, these authorities directed no concern to prepare Outline Town Planning Schemes for any of the 424 Palestinian villages in the West Bank.

In 1979, the High Planning Council decided to consider the preparation of Outline Town Planning Schemes for the Palestinian villages (Khamayseh, 1989). In 1981, the Central Planning Department contracted an Israeli consultant to prepare Outline Town Planning Schemes for a large number of villages. 183 Outline Town Planning Schemes were deposited in 1983 (Coon, 1991) and another 103 were, by 1985, prepared for villages in Samaria district (Khamyseh, 1989). None of these schemes have been approved (Khamayseh, 1989; Coon, 1991). These schemes (or Shamshoni schemes after the name of the Israeli consultant who prepared them) consisted of a standard set of regulations and a clumsy felt-tip marker representations on faint aerial photographs (figures 8.11.a, 8.12.a)
Figure (8.8): Qalqilyah in 1938.

Source: Public Works Department, Nablus District, Government of Palestine, 7.5.1938.

Figure (8.9): Qalqilyah in 1986

Figure (8.10): Qaliqilya Outline Town Planning Scheme, 1986.

Source: Author's reproduction based on the original plan of the scheme and the photogrammetric map of Qaliqilya, both were provided by the engineer of Qaliqilya municipality. Aerial photograph was taken in December 1983.
Reference:
boundary of the scheme
boundary of planning area
residential area class A special
residential area class A
residential area class B
residential area class C
rehabilitation area
commercial area
commercial facades
storage and services area
industrial commercial area
civic centre
public buildings
private institutions
public open space
sport and recreational area
cemetery
agricultural area
® roads (proposed)
number of road
width of road
number of planning area

Figure (8.10): Qaliqiliya Outline Town Planning Scheme, 1986.

Source: Author's reproduction based on the original plan of the scheme and the photogrammetric map of Qaliqiliya, both were provided by the engineer of Qaliqiliya municipality. Aerial photograph was taken in December 1985.
Figure (8.11. A): Alfunduq village: Shamshoni Outline Town Planning Scheme, 1980s.

Source: Public Works Department, Nablus.
Reference for Shamshouni and Central Planning schemes:

- **Residential area class A**
- **Residential area class B**
- **Residential area class C**
- **Local proposed approved road**
- Boundary of the scheme (or the survey as the plans indicated)
- Boundary of existing built up area
- Boundary of the old core of the village
- High density residential area (> 4 apartments/donam)
- Medium density residential area (2.4 apartments/donam)
- Low density residential area (> 2 apartments/donam)
- School (boys, girls)
- Nursery
- Mosque or church
- Clinic with mother and children care
- Existing cemetery
- Main road (asphalted, non asphalted)
- Non asphalted road and passageway
- Commercial area
- Agricultural area
- Antiquity area
- Railway zone
- Commercial facades
- Public buildings and public ownership property
- Industrial area
- Agricultural buildings
- Village square
- Building of village council
- Carpenter
- Electricity generator
- Electricity grid
- House of the Mukhtar
- Olive press
- Steel workshop
- Well
- Water grid
- Glass house

**Figure (8.1.1B): Alfunduq village: Local Partial Outline Town Planning Scheme of the Central Planning Department, 1991.**

**Source:** Central Planning Department.
Figure (8.11. A): Alfunduq village: Shamshoni Outline Town Planning Scheme, 1980s.

Source: Public Works Department, Nablus.
These examples clearly illustrate that Shamshoni schemes not only were badly represented, but also they did not provide any consideration for the physical spatial structures of the Palestinian settlements as important components of the identity and entity of these settlements.

Consequently, no respect was directed to elements of these structures and the overall pattern of interrelationships and interconnections between them.

After Shamshoni Outline Town Planning Schemes proved incompetent, the Israeli authorities in the West Bank decided, in 1984 to allow Palestinians to prepare their Outline Town Planning Schemes.

Several Palestinian village councils contracted Palestinian (and in some cases like Azzon village, Israeli) consultants to prepare their Outline Town Planning Schemes (see also Khamaysch, 1989; Coon, 1991). From the 55 schemes which have been prepared, none have yet been approved (Ibid.).

Outline Town Planning Scheme of Deir Al-Ghusoun village provides an example of the above schemes.

The village council of Deir Al-Ghusoun contracted the Centre for Engineering and Planning in Ramallah to prepare the Outline Town Planning Scheme of the village (figure 8.13). The scheme was prepared in 1988 but failed to obtain the approval of the Central Planning Department which prepared and approved a new scheme for the village (figure 8.14).

Deir Al-Ghusoun Scheme 1988 provided for a wide range of land uses on an area of 3277 donams (the area of Qalqilyah Scheme 1986 was 3493 donams). Deir Al-Ghusoun Scheme 1988 divided the village into 6 planning areas and provided the necessary requirements for each area. All elements of the physical spatial structure of the settlement (except the open land beyond the fringe) were represented in Deir Al-Ghusoun Scheme 1988. Yet the spatial differentiation of these elements was not well represented. However, Deir Al-Ghousoun Scheme 1988 constitutes a great development scheme for the village compared with the scheme of the Central Planning Department.

On the other hand, the Central Planning Department was, since mid 1980, secretly working on the preparation of Outline Town Planning Schemes for most of the Palestinian villages in the West Bank. The first group of the Central Planning Department schemes were deposited in May 1989 (Coon, 1991).

Table (8.1) illustrates that by 16.9.91, the Central Planning Department prepared Outline Town Planning Schemes for 176 villages of the 392 main villages of the West Bank. 166 of these schemes were, by the above date approved for deposit by the High Planning Council and Central Planning Department.
Figure 3.13: Deir Al-Ghusoun village Outline Town Planning Scheme prepared by Centre for Engineering and Planning for council of the village, 1988.

Source: Author's reproduction based on the original plan of the scheme. Courtesy the engineer of Deir Al-Ghusoun village council.
Reference:

- boundary of the project
- residential area category A.
- residential area category B.
- residential area category C.
- agricultural residential area.
- agricultural area.
- primary commercial area.
- secondary commercial area.
- industrial area.
- schools.
- green open spaces.
- play grounds.
- public buildings.
- core of the village.
- cemetery.
- proposed roads.
- road width.

Figure (3.13): Deir Al-Ghusoun village Outline Town Planning Scheme prepared by Centre for Engineering and Planning for council of the village, 1988.

Source: Author's reproduction based on the original plan of the scheme. Courtesy the engineer of Deir Al-Ghusoun village council.
TEXT BOUND INTO

THE SPINE
Figure (8.14): Deir Al-Ghusoun village Outline Town Planning Scheme, Central Planning Department, 1991.
Source: Author's reproduction based on the original plan of the scheme.
All the 166 schemes of the Central Planning Department were merely boundary plans drawn on aerial photographs. They all show boundary of the scheme, residential land use of three categories A, B and C and road network (figures 8.11.b & 8.12.b above).

All schemes of the Central Planning Department were accompanied by a standard set of regulations.

The above examples of the Outline Town Planning Schemes prepared by the Central Planning for the Palestinian villages in the West Bank do not show greater difference from Shamshoni schemes either in their general format or in the way they dealt with the physical spatial structures of these settlements.

(3) Detailed Town Planning Scheme:

The confusion and uncertainty about the Mandatory and Jordanian Detailed Town Planning Schemes not only continued in the West Bank after 1967, but also their problems increased.

The municipalities could practice some flexibility in respect of the preparation of Detailed Town Planning Schemes. On the other hand, the situation of Detailed Town Planning Schemes outside municipalities has always been complicated, ambiguous and problematic. Both the circumstances of the Detailed Town Planning Schemes within and outside municipalities are discussed below.

(a) Detailed Town Planning Schemes in municipalities:

None of the West Bank cities has a complete Detailed Town Planning Scheme covering its whole area. Any of these cities neither has a complete coverage by partial Detailed Town Planning Schemes for its area. The only city in the West Bank which has, since 1967, achieved a considerable coverage of Detailed Town Planning Schemes is Nablus (Coon, 1991). On the contrary, the city of Al-Khalil (Hebron) does not have an approved Detailed Town Planning Scheme because it has not an Outline Town Planning Scheme (except the Mandatory scheme of 1944) (Ibid). Coon (1991) also mentions that two small Detailed Town Planning Schemes were approved in Al-Bireh in early 1970s.

(b) Detailed Town Planning Schemes in Villages:

According to Planning Law, 1966, the Local Commission in the village was responsible for preparing the Detailed Town Planning Schemes for the whole or parts of its Town Planning Area. The Local Commission in the village was also empowered to adopt, with or without modification, any scheme prepared by the owner or owners of the land concerned. Since Military Order 418 abolished these Local Commissions and established Village Planning Committees, the responsibility for preparing or adopting the Detailed Town Planning Schemes was transferred to the High Planning Council and the Central Planning Department.
Figure (8.15): Detailed Town Planning Scheme for the Local road no. 557, Shofah-Far'aon, Tulkarm sub-district prepared by the Central Planning Department.

Source: Public Works department, Nablus.
Not a single Detailed Town Planning Scheme has been prepared by the Israeli planning authorities for the Palestinian villages in the West Bank since 1967. Yet a main concern of the Israeli planning authorities has been directed towards detailed schemes for parts of the Regional Road Plan no. 50 mentioned above. Some of these schemes were called Detailed Planning Schemes or Outline Detailed Planning Schemes while they only provided the location of the road on a map scale 1:20,000 (figure 8.15).

These schemes have generally damaged the open land beyond the fringe of the Palestinian settlements and cramped their development.

Extending the scope of the Detailed Town Planning Schemes, the Central Planning Department has, since the 1980s, required the preparation of Detailed Town Planning Schemes from a vast number of the Palestinian applicants for building permits outside municipalities.

A good example of this kind was a Detailed Town Planning Scheme for large residential plots in the village of Habla, Tulkarm sub-district (figure 8.16). Prepared by a Palestinian engineering office in Ramallah and submitted by Habla village council, this scheme aimed to divide five large plots at two different locations into several smaller plots (total area of the plots was around 32 donam). The purpose was to provide for new buildings or new additions to existing buildings. Any concept of planning and design was missing. Additionally, this scheme represented a small part of a complete village.

Finally, the Detailed Town Planning Schemes of this kind have no significant effect on the development of the physical spatial structures of the Palestinian villages. The Central Planning Department at the same time has required that the Detailed Town Planning Schemes of plots with more than 2 donams should allocate not less than 30% of their surface for green areas, public buildings or agriculture. This requirement would make the spatial structure of the Palestinian village more dispersed with more vacant unused spaces.

Conclusion:

The previous discussions of this chapter have been used as a vehicle to explore the different aspects of the Israeli physical planning system in the West Bank and its relationships with the physical spatial structures of the Palestinian settlements in the region.

Despite its dependence on the Mandatory and Jordanian physical planning systems, the Israeli system neither resolved the deficiencies of these systems nor provided new provisions suitable for improving the Palestinian settlements in the West Bank.

Institutional arrangements of the Israeli physical planning system in the West Bank have been unclear and undefined in both their powers and structures.

The Israeli military control in the West Bank was, through the different planning institutions, directly responsible for every aspect of the Palestinian development. The Military
Commander, Person In Charge and Central Planning Department have not been accessible by the Palestinians. The Village Planning Committees have dealt with every aspect of the local Palestinian development without any consideration for the actual needs and inspirations of the Palestinians. Although the Local Commissions in municipal areas have been more beneficent for the control and management of the Palestinian development, they have greatly suffered from the lack of suitable local and regional planning policies. On the other hand, none of these institutional arrangements neither in their powers nor structures recognised the physical spatial structure of the settlement and its elements.

At the same time, the Israeli physical planning system provided for two kinds of instrumental representations:

(1) The instrumental representations prepared by the Israeli authorities themselves. These included Regional Outline Town Planning Schemes and Outline Town Planning Schemes for most of the Palestinian villages in the West Bank. The Regional Outline Town Planning Schemes have greatly damaged the open land beyond the fringe of the Palestinian settlements and imposed new and quite different spatial patterns in the area. The Outline Town Planning Schemes of the villages on the other hand, represented a means for the siege of these villages with no provisions for the development of their physical spatial structures.

(2) The instrumental representations prepared by the Palestinian local authorities for their settlements. This kind included most Outline Town Planning Schemes of the municipalities and some Outline Town Planning Schemes of the villages. These schemes represented a significant development in the physical planning of the Palestinian settlements. All of them were based on detailed surveys and showed good presentations and detailed programmes. More importantly, all of them recognised the physical spatial structures of the Palestinian settlements and elements of these structures. Yet the spatial differentiation between these elements was not clearly identified.
Part Three

The physical planning system in Palestine and the physical spatial structure of Tulkarm city from late 19th century to 1994
Chapter Nine

The physical planning System in Palestine and the physical spatial structure of Tulkarm Town from late 19th century to 1948
Introduction:
The discussions of the previous two parts have dealt with the human settlement, its elements, the relationship between the physical spatial structure of the settlement and the physical planning system and the evolution of the physical planning system in Palestine from late 19th century to 1994.

It is important now to investigate in detail the relationship between the physical planning system in Palestine and elements of the physical spatial structure of a Palestinian settlement.

In order to fulfil this purpose, the different physical planning systems in Palestine (from late 19th century to 1994) are examined against the different elements of the physical spatial structure of Tulkarm city.

This chapter aims to investigate effects of the physical planning system in Palestine on the development of elements of the physical spatial structure of Tulkarm town from late 19th century to 1948.

The main objectives which relate to the above aim include:

(1) To investigate effects of the Ottoman physical planning in Palestine on the development of elements of the physical spatial structure of Tulkarm town from the late 19th century to 1918.

(2) To investigate effects of the Mandatory physical planning system in Palestine on the development of elements of the physical spatial structure of Tulkarm town from 1918 to 1948.

This chapter also provides a brief account of the historical development of Tulkarm and its physical setting.

It is important to note that 'Tulkarm town' is used to denote the town within its boundaries before 1964. 'Tulkarm city' is used to denote Tulkarm town and the areas which were annexed to it after 1964.

9.1 Historical background of Tulkarm:

It is believed that Tulkarm had been settled by the Canaanites (Hindawi, 1992). It was also an important Roman post called 'Birat Soreqa' (Hasan, 1988). After the Islamic conquest, it was called 'Tour Karm' (Mount of Grapes, Ibid.). In the seventeenth century, its name became 'Toul Karm' which remained in use until the British Mandate when it became Tulkarm (Hindawi, 1992).

During the Ottoman rule, Tulkarm was a small village in the nahiyah of Bani S'ab which subordinated the Qaa'immaqam of Nablus. In 1892, Tulkarm was made a municipality and a centre for the new qada' of Bani S'ab which included the two nahiyahs of Bani S'ab and Al-Haram (Al-Dabbagh, 1982, figure 9.1). According to Hindawi (1992), Tulkarm was chosen a centre for the qada' for the following reasons:

(1) Its centralised location within the qada'.

(2) Its location on the junction of important transport routes.
(3) Its capability for growth and development.

During the 1st World War, Tulkarm was a base for the eighth Turkish army. At the same time, railway lines connected Tulkarm with the east, north and south of Palestine. Tulkarm town was captured by the British forces in 20.9.1918 (Hasan, 1988).

Afterwards, Tulkarm, during the British Mandate, became the centre of Tulkarm sub-district which in 1928 subordinated Nablus division in the Northern district. In 1947, Tulkarm sub-district subordinated Samaria district (figure 9.2)

The importance of Tulkarm increased when a British railway line connected it with Haifa by the end of the 1st World War (Cotterell, 1984). Tulkarm became an important junction for the trains coming from Egypt and south Palestine to Haifa in the north west and Syria and Jordan in the east (Salhab, 1977 in Shmueli et al eds., 1977).

Yet its importance began to decrease with the development of the road system in Palestine since the 1930s (Ibid.).

Nonetheless, Tulkarm continued to develop as an important centre in Tulkarm sub-district.

The first Town Planning Scheme was approved for Tulkarm in 1945 to provide for the rapid increase in its population and built up area (Centre for Engineering and Planning, 1988).

During the Arab-Israeli war in 1948, Tulkarm sub-district lost more than half of its land where many villages were destroyed and thousands of people were deprived of their homeland. The new situation exerted great pressure on Tulkarm town which became a refuge for a large number of Palestinians (Budir, 1964).

After 1948, the Jordanian authorities separated southern parts of Tulkarm sub-district and made them the two sub districts of Qalqilyah and Salfit (figure 9.3.A).

However, an Outline Town Planning Scheme was prepared for the town in 1961. Several expansions of boundaries of the town were also approved between 1961 and 1967. After the Israeli occupation, Tulkarm regained some of its regional importance when the Israeli authorities abolished Salfit and Qalqilyah sub-districts and reannexed them to Tulkarm sub-district (figure 9.3.B).

Tulkarm also became an important connection between the West Bank and the industrial work centres of Israel. At the same time, it became an important service centre for several Palestinian villages in Israel (Hindawi, 1992).
Figure (9.2): Tulkarm sub-district during the British Mandate.

Figure (9.3): Tulkarm sub-district during the Jordanian rule and Israeli occupation.

9.2 Physical setting of Tulkarm:

There is no important significance for the physical or geographical aspects of Tulkarm. However, it is necessary to consider some geographical features of the town and its area in order to provide an idea about the environment within which the town has existed.

9.2.1 Location and site of Tulkarm:

Tulkarm is located in the middle of the eastern edge of the Palestinian coastal plains. It lies on the northern latitude 32°19' and the eastern longitude 35°1' (Budair, 1964). Using cadastral co-ordinates, it is on 153 east and 191 north (Centre for Engineering and Planning, 1988, figure 9.4).

Tulkarm with its three villages Showaikah, Dhennabah and Irtah are situated on four small hills with height from 70 to 130 metre above sea level.

The area is penetrated by two wadis; wadi Zaimer between Tulkarm and Showaikah and wadi Irtah south Irtah.

9.2.2 Population trends in Tulkarm:

Tulkarm and its three villages were small settlements during the Ottoman rule. The population of Tulkarm town was only around 2000 in 1904 (Hasan, 1988; Hindawi, 1992).

Between 1931 and 1961, Tulkarm, Showaikah, Dhennabah and Irtah maintained a natural population increase of around 2% in average. There was a leap in the population of Tulkarm town after 1948 with the settlement of the Palestinian refugees in the town (Ibid.). On the other hand, the population of Tulkarm dropped dramatically after the war of 1967 when the Israeli occupation forced thousands of Palestinians to leave for Jordan (Ibid.).

According to Centre for Engineering and Planning (1988), the population of Tulkarm city will reach 52,681 in 1995 and 79,798 in the year 2010.

9.2.3 Climate of Tulkarm:

Tulkarm area has a moderate climate with hot dry summers and cold rainy winters. Average temperature reaches 26.5°C in summer and 12.1°C in winter. Average quantity of rain ranges from 599 mm. to 639 mm. with no rain in June, July and August. Wind is usually north western in winter and dusty south eastern in April and May. In summer, pleasant breezes from the sea affect the area. Relative humidity ranges from 70% to 85% in winter and from 40% to 70% in summer (see Centre for Engineering and Planning, 1988 and Hasan, 1988 for more detail on the climate of Tulkarm).

160
**Figure (9.4):** General location of Tulkarm.

9.3 Physical planning system in Palestine and the physical spatial structure of Tulkarm:

Since the late 19th century Tulkarm began to develop rapidly from a village of population less than 2000 and 88 buildings to a city of 39,058 people and 3782 building in 1985 (table 9.1).

<table>
<thead>
<tr>
<th>Year</th>
<th>Tulkarm</th>
<th>Showalkam</th>
<th>Dhennabah</th>
<th>Irkah</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No of build</td>
<td>%</td>
<td>No of build</td>
<td>%</td>
<td>No of build</td>
</tr>
<tr>
<td>Before 1917</td>
<td>88</td>
<td>4</td>
<td>64</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>1917-1945</td>
<td>574</td>
<td>29</td>
<td>246</td>
<td>30</td>
<td>129</td>
</tr>
<tr>
<td>1946-1966</td>
<td>779</td>
<td>39</td>
<td>307</td>
<td>38</td>
<td>237</td>
</tr>
<tr>
<td>1967-1974</td>
<td>154</td>
<td>8</td>
<td>45</td>
<td>6</td>
<td>56</td>
</tr>
<tr>
<td>1975-1990</td>
<td>215</td>
<td>11</td>
<td>80</td>
<td>10</td>
<td>104</td>
</tr>
<tr>
<td>After 1950</td>
<td>189</td>
<td>9</td>
<td>64</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>Not known</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Total</td>
<td>1999</td>
<td>100</td>
<td>808</td>
<td>100</td>
<td>626</td>
</tr>
</tbody>
</table>

| % of the whole Tulkarm area | 52.9 | 21.4 | 16.5 | 9.2 | 100 |

Table (9.1): The development of buildings in Tulkarm.

Since the 1920s, the municipal area of Tulkarm increased from around 2,500 donams to 10,255 donams in 1967. This vast development of the built environment and spatial expansion of Tulkarm has been also accompanied with the implementation of several physical planning systems in Palestine. The following sections deal with effects of each physical planning system in Palestine on the physical spatial structure of Tulkarm from late 19th century to 1948.

9.4 Ottoman physical planning in Palestine and the physical spatial structure of Tulkarm:

It has been shown that a comprehensive physical planning system did not exist in Ottoman Palestine. However, the physical spatial structure of Tulkarm underwent important changes during the Ottoman rule. Effects of the Ottoman physical planning in Palestine on elements of the physical spatial structure of Tulkarm are explored below.

9.4.1 Ottoman physical planning in Palestine and the central area of Tulkarm:

Before 1892, Tulkarm constituted a typical Palestinian village with compact traditional spatial structure. It represented a very small unit with no special characteristics. Palmer and Besant eds. (1882. V. II, p. 21) described it as "a long straggling village on high ground above the plain ....... on the west is a small garden of figs besides which are the threshing floor and a well. There is a second well on the north in the valley".

The central area of this small village had a small public space in front of a little mosque (figure 9.5). It is noticeable that the mosque was in the middle of the western edge of the village providing quite strong landmark when viewed from the west. Although the village expanded from both its eastern and western sides, this expansion was wider and more homogenous to the west. The general layout of the buildings on this side also expressed a change from irregular forms to more geometrical and regular forms.

With the new expansion to the west, the public space was also defined in a more geometrical form.

The deliberation of Tulkarm a municipality and a sub-district centre in 1892 did not bring a significant change to its centre. Yet with the expansion of the town northward and westward and the increasing importance of the main Nablus-Tulkarm-Jaffa road, the public space of the town was shifted to a vacant site on its north-west corner (figure 9.6).

The centre of Tulkarm remained unchanged until the end of the Ottoman period.

9.4.2 Ottoman physical planning and the neighbourhoods of Tulkarm:

Although the Ottoman administration did not inflict any considerable change on the
Figure (9.5): The village of Tulkarm before 1892.

Source: Author's reproduction based on the map of Tulkarm. Survey of Palestine, 1926
position of the central area of Tulkarm, a greater influence affected the neighbourhoods of the town during this period.

Before 1892, Tulkarm was a single neighbourhood village with several yards, courtyards, cul-de-sacs and serviced by a small mosque.

After being a municipality, Tulkarm was affected by several changes which greatly influenced its neighbourhoods.

A Government building, post office, hospital, school and municipal offices were erected on the northern side of the town attracting considerable expansion of the town at this side (see figure 9.6 above). All such buildings were directly decided upon by the Ottoman administration represented in the Mutasarref of Al-Balqa" and the Qa" immaqam of Bani S'ab.

The smallest expansion of the town was at the east southern and southern sides of the town. The town also had four threshing floors to the south west and north and a cemetery to the west.

Within this layout, the town consisted of five neighbourhoods. These were Al-Fouqah (the upper), Al-Gharbiyah (the western), Al-Sharqiayah (the eastern), Al-Shamaliyah (the northern), and Al-Qibliyah (the southern) neighbourhoods. So far, these neighbourhoods did not constitute actual spatial units but merely names for places and directions. They merely represented a random distribution of the buildings without services or alignment of roads.

Moreover the only green open space was the municipal gardens while no such a space existed elsewhere in the town.

9.4.3 Ottoman physical planning in Palestine and the fringe of Tulkarm:

The fringe (Al Judur) of a typical Palestinian village consists of a semi-green area of orchards, vineyards and olives with threshing floors in between and beyond (Arraf, 1986). The village of Tulkarm typically represented this layout. After being a municipality, buildings of Tulkarm began to creep on these fringes especially from the west. The green areas at the fringe became therefore penetrated by the building sprawl pushing the limits of the fringe outwards.

Until the end of the Ottoman rule, nothing had been done to develop the fringes of Tulkarm and to prevent the buildings from creeping onto their green areas.

9.4.4 Ottoman physical planning in Palestine and the open land beyond the fringe of Tulkarm:

Two important projects were established in the open land beyond the fringe of Tulkarm during the Ottoman rule. The first was the Hejaz railway line 'Lydda-Tulkarm-Nablus' and the railway station. The railway line entered the land of Tulkarm from the south directly west of the municipal boundary and ran around the town eastwards. The railway station was situated directly at the southwest corner of the municipal boundary (figure 9.7). Although the railway line and railway station had no significant effect
on Tulkarm during the Ottoman rule (they were only established in 1915 towards the end of this rule), they, afterwards, had greater effects on the town.

The second project was the agriculture school which was established by the municipality by the end of the Ottoman rule (Hindawi, 1992). No information is available about the effects of this project on Tulkarm. However, it is suffice to say that it was a very advanced project for which the war and the British rule afterwards, did not provide a chance to survive.

9.4.5 Ottoman physical planning in Palestine and the road system of Tulkarm:

Tulkarm village was characterised with a very random road network. Yet it represented a focal point for several roads radiating in all directions. After 1892 and with the efforts of the municipality, roads of Tulkarm developed to a web-like grid with some concentration on the road between the government building and the municipal gardens. It is also evident that some roads were lighted with paraffin lamps (figure 9.8, see also Hindawi, 1992).

All the roads of Tulkarm followed natural tracks between agricultural land with no alignment since there were no surveys or mapping. Yet on the other hand, they provided the town with good accessibility from all directions.

9.4.6 Ottoman physical planning in Palestine and the physical spatial structure of Tulkarm; a dialogue:

Ottoman physical planning played the major and most important rule in the development of Tulkarm without which it might still a small village with very little importance. Changing the status of Tulkarm from a village to a municipality and a centre for the qada" of Bani S'ab constituted a very important factor for the development of the town. The Ottoman administration influenced the physical spatial structure of Tulkarm by several public projects, buildings and spaces. They included the railway line and station, the government building, public gardens and several other projects.

It is also important to notice that while the old traditional core of Tulkarm represented a traditional homogeneous structure, the development of the town after being a municipality did not represent such a traditional structure nor did it have a clear idea of form and layout.
Figure (9.7): Tulkarm railway station in 1918.

Figure (9.8): Existing paraffin lamps and proposed electrical lamps in Tulkarm in 1929.

Source: Public Works Department, Nablus district, Government of Palestine, 1929.
9.5 Mandatory physical planning system in Palestine and the physical spatial structure of Tulkarm (1918-1948):

The Mandatory physical planning system in Palestine established several institutional arrangements and provided for several instrumental representations which inflicted several effects on the physical spatial structure of Tulkarm.

In 1928, the town developed along two main East-West and North-South axes (figure 9.9). The intersection of these two axes represented an important point where the actual town square continued to exist.

In 21.2.1929, Tulkarm was announced a Town Planning Area (figure 9.10). Consequently, it had a local planning commission headed by the district governor of the northern district. After the enforcement of the Town planning Ordinance, 1936, Tulkarm municipal council became the local planning commission and it subordinated the District Commission of Nablus (Samaria District thereafter).

Despite the significant growth of Tulkarm after 1920 (figures 9.11 & 9.12), no change was introduced on the physical spatial structure of Tulkarm until the beginning of 1940s. By this date, the Mandatory planning authorities began to prepare an Outline Town Planning Scheme for the town.

In 1945, an Outline Town Planning Scheme was approved for Tulkarm (figure 9.13). Tulkarm Scheme 1945 represented the first attempt to prepare a comprehensive Outline Town Planning Scheme for the town.

The ways by which the Mandatory physical planning system in general, and this scheme in particular, dealt with the different elements of the physical spatial structure of Tulkarm are discussed below.

9.5.1 Mandatory physical planning system in Palestine and the central area of Tulkarm:

The first attempt of the Mandatory planning authorities to exert change on the central area of Tulkarm came in 1929 in the proposal to change the site of the public square (figure 9.10 above).

No other formal change was introduced on the central area of Tulkarm until 1945 when its Outline Town Planning Scheme was prepared.

According to Tulkarm Scheme 1945, several features of the central area of the town could be revealed:

(1) With the development of the town in all directions, commercial activities continued to develop along the main North-South and East-West axes of the town and westwards opposite to the old public square. The scheme proposed commercial zones along these roads. These zones allowed for commercial activities to develop along sides of the roads without designating a unified and integrated commercial centre.
Figure (9.10): Tulkarm Town Planning Area showing a proposed site for the public square.


Legend:
- Blue: boundary of Town Planning Area
- Red: proposed public or market place

Scale: 1:10,000
(2) A large area of the open space at the intersection of the main axes of the town was designated for public buildings which would reduce the area of this important space.

(3) Area (1) at the northern entrance of the central area included a very poor road solution. A government building, two small open spaces, a state domain land and a land for public buildings were also poorly integrated.

(4) Area (2) included the south entrance of the central area at a wide and important road connecting the government compound and the railway station. It also included a site for public buildings. No proposal was introduced to signify this important area.

(5) Like area (2) above, both area (3) and (4) at the western and eastern entrances of the central area had nothing to emphasise their special location.

(6) In addition to the absence of a specialised commercial zone, the distribution of the commercial zones along many streets greatly reduced the importance of the main axes of the central area.

9.5.2 Mandatory physical planning system in Palestine and the neighbourhoods of Tulkarm:

According to Tulkarm Scheme 1945, the town was clearly divided by the two main axes into four neighbourhoods. Each of the four neighbourhoods were divided into A, B and C residential zones with a special building density for each zone. All the four neighbourhoods met at the intersection point of the two main axes and had a good share of the commercial zones along these axes. Several remarks could be noticed on these neighbourhoods:

(1) Neighbourhood (I) (or Al-Harah Al-Gharbiyah):

Neighbourhood (I) included several facilities, services and public buildings. The layout of this neighbourhood shows that there was an intention to avoid through traffic by avoiding any entrances from the main bye-pass Tulkarm road on the north.

(2) Neighbourhood (II) (or Al-Harah Al-Shamaliyah):

This neighbourhood on the contrary to neighbourhood (I), provided for through traffic by two 20 m. wide roads (nos. 5 & 6). On the other hand, area (7) showed a poor integration between the three road junctions and the site for the public buildings. Moreover, the north eastern corner in this neighbourhood had no commercial facilities.

(3) Neighbourhood (III) (this neighbourhood included Al-Fouqa, Al-Sharqiyah and Al-Qibliyah neighbourhoods):

This neighbourhood was the only neighbourhood where the high density central area was spatially separated from other residential areas by a road 20 m. wide.
(4) Neighbourhood (IV) (this neighbourhood included the southern part of the western
neighbourhood):

This neighbourhood had the following main characteristics:

(a) Area (8) had nothing to emphasise the important south western entrance of the town nor to
 correspond to the railway station nearby.

(b) A 20 m. wide road (no. 9) cut the neighbourhood into two areas.

In addition to the previous points, all the neighbourhoods had the following common features:

(a) No spatial determinants were provided to emphasise the separation between the different
residential zones on the ground. The differentiation between these zones, by giving them different
colours on the plan, would not mean any actual spatial differentiation between them. Furthermore, these
zones would have no spatial impact on the town where the pattern of land ownership varied widely. For
example, residential zone B had some plots much larger than others in residential zone A. With no
control over the actual size, shape and development of these plots, the spatial pattern of the development
would greatly vary according to the decisions of the private land owners and developers.

(b) The neighbourhoods were not spatially well defined and separated, especially along the main
axes.

(c) Although the neighbourhoods (I) and (II) were determined by roads from all sides,
neighbourhoods (III) and (IV) were not spatially separated from the adjacent agricultural zone to the
south. Residences were also permitted for farmers in the agricultural zone. This would increase the
spatial uncertainty on the south of neighbourhoods (III) and (IV).

9.5.3 Mandatory physical planning system in Palestine and the fringe
of Tulkarm:

Since early days of the British Mandate, the fringe of Tulkarm continued to suffer from the building
sprawl. No policy was determined to control this sprawl and preserve the green fringe around the town
until 1945 when Tulkarm Scheme 1945 was prepared.

Tulkarm Scheme 1945 proposed the following main changes to the fringe of Tulkarm:

(1) The addition of the new areas to the town gave the boundaries of the fringe a more regular
shape.

(2) Although the northern agricultural zone was well defined and spatially determined by the
proposed bye-pass Tulkarm road to the south and the railway line to the north, nothing was proposed to
define the southern agricultural zone from the north and south but lines on the map.

(3) The only area which was spatially well defined from all sides by wide important roads was
Khadourri school. Its location at the western end of the East-West axis and at the west entrance of the
town, and its proximity to the railway station provided it with greater importance.
(4) The railway station and railway line continued to represent a strong spatial determinant on the western and northern ends of the fringe of Tulkarm.

At the same time, it is very important to note that the Mandatory physical planning system permitted the construction of buildings in the agricultural zone without a formidable policy for the control and management of these buildings. This also would damage the spatial character of this important zone.

9.5.4 Mandatory physical planning system in Palestine and the open land beyond the fringe of Tulkarm:

Figure (9.14) illustrates the open land beyond the fringe of Tulkarm during the British Mandate period. No major change was introduced on the open land beyond the fringe of Tulkarm in the early days of the Mandate. The only project which affected this area was the establishment of a railway line from Tulkarm to Haifa in late 1910s. Several road projects, such as Tulkarm-Netania road, were also proposed and constructed in the area since late 1920s.

Since late 1930s, provisions of Samaria District Outline Regional Planning Scheme (S15) began to affect the open land beyond the fringe of Tulkarm.

Scheme (S15) proposed Tulkarm as a regional centre for an area of radius around 2 km. The town itself was proposed a development zone (residential and industrial) within an area of radius around 1 km which would nearly coincide with the approved Tulkarm Scheme 1945. A ring around 1 km wide of agricultural zone was proposed around the development zone. Two zones of natural and amenity reserve were also proposed east Tulkarm. The lack of sufficient information and the short period for which Scheme (S15) lived before the termination of the British Mandate in 1948, provides little evidence of the actual effects of this scheme on the open land beyond the fringe of Tulkarm.

9.5.5 Mandatory physical planning system in Palestine and the road system of Tulkarm:

The development of the road system of Tulkarm went very slow during the first decade of the British Mandate. Until 1928, the main achievement was the alignment of roads to the west and north of the town. At the beginning of the 1930s, a proposal was prepared to develop Jaffa-Tulkarm-Nablus road (figure 9.11 above). The proposal aimed to prevent the above mentioned road from passing through the centre of the town. There is also a sign of an intention to improve the existing curvature of the same road at the western corner of the town. New roads were also proposed to improve the south west entrance of the town and to provide a link with Tulkarm-Netania road.

However, by the end of 1930s, most of these proposals were constructed (figure 9.12 above). Figure (9.12), on the other hand, reveals a good progress in improving the alignment of existing roads and proposing new others.
Figure (9.14): Open land beyond the fringe of Tulkarm during the British Mandate period.

Attempts to improve the road system of Tulkarm did not stop. In 1942, there was an advanced attempt towards preparing an Outline Town Planning Scheme for Tulkarm (figure 9.15). The road system of this plan did not provide for any organised spatial arrangement of the town except the routes of movement. The roads of this proposal did not define any spatial units like the centre, neighbourhoods, fringes, main axis or main entrances of the town.

Later on, Tulkarm Scheme 1945 introduced several changes to the above proposal.

The main features of the road system in Tulkarm Scheme 1945 included (figure 9.16):

(1) Bye-pass Tulkarm road (no. 1) provided an important and necessary solution to prevent the traffic from passing through the town. At the same time, this road provided a strong spatial barrier between the residential areas of the town and the agricultural fringe to the north.

(2) Tulkarm Scheme 1945 proposed a trans-Tulkarm road (no. 2) from Netania junction in the west to the east-northern corner of the old core of the town. Although this road provided an important spatial element of the town, nothing was provided to signify both its ends. The start of this road at Netania junction to the west gave greater importance to this junction as the west entrance of the town. Nothing was provided for the eastern entrance of Tulkarm at Nablus-Tulkarm road.

(3) Although the northern agricultural zone was spatially well determined, the road system provided little for the spatial determination of the southern agricultural zone.

(4) Although this road system may have provided good solutions for the traffic problems of Tulkarm in 1945, it did not have provisions for the development of a defined concept of planning and design for the town.

9.5.6 Mandatory physical planning system in Palestine and the physical spatial structure of Tulkarm; a dialogue:

The Mandatory physical planning system in Palestine preserved the spatial entities which Tulkarm inherited from the Ottoman period. At the same time, it impinged its own effects on the physical spatial structure of Tulkarm. Among these were Khadouri school, trans-Tulkarm road and the open public space to the north. At the same time, it provided several proposals like the public open space to the east, bye-pass Tulkarm road, the agricultural fringe and the road at the east bound of the town (no. 3 in figure 9.16).

The Mandatory physical planning system did not recognise elements of the spatial structure of Tulkarm as separate integrated entities of the town while it took nearly 24 years to prepare an Outline Town Planning Scheme for the town.
Figure (9.16): Road system of Tulkarm according to Tulkarm Outline Town Planning Scheme 1945.

Source: Author.
Conclusion:

The previous investigations of this chapter have provided an assessment for effects of the Ottoman physical planning and Mandatory physical planning system in Palestine on the physical spatial structure of Tulkarm from late 19th century to 1948.

The Ottoman physical planning gave Tulkarm its regional and administrative importance and provided it with several spatial characteristics.

Although elements of the physical spatial structure of Tulkarm during the above two periods could be indirectly identified, they were not recognised as separate integrated entities of the town.

Despite the importance of Tulkarm Scheme 1945 for the physical planning of Tulkarm, it did not provide a significant change in the physical spatial structure of the town. It mainly depended on the existing conditions of the town with little modernisation in its design and layout. Moreover, the zoning polices of this scheme could not help to establish the required spatial differentiation of the physical spatial structure of Tulkarm.

On the other hand, it has been noted that, within the above two periods, Tulkarm began to lose its traditional spatial character while no modern ideas and concepts were inflicted on it.

Finally, while the Mandatory physical planning system provided detailed schemes which provided Jewish settlements in the area with strong identified spatial structures and clear planning concepts, it did not provided the same for Tulkarm. It might be true that the inherited constrains of the Ottoman land system constituted major problems for such detailed schemes in Tulkarm, yet the Mandatory physical planning system had the opportunity and authority to solve these problems.
Chapter Ten

The physical planning system in the West Bank and the physical spatial structure of Tulkarm (1948-1994)
Introduction:

The previous chapter has discussed effects of the Ottoman and the Mandatory physical planning systems on the physical spatial structure of Tulkarm from late 19th century to 1948.

After 1948, Tulkarm continued to develop and change within a different planning reality.

This chapter aims to consider effects of the Jordanian and Israeli physical planning systems on the physical spatial structure of Tulkarm from 1948 to 1994.

The following objectives are considered while approaching the above aim:

(1) To explore effects of the Jordanian physical planning system on the physical spatial structure of Tulkarm from 1948 to 1967. The institutional arrangements and instrumental representations of the Jordanian physical planning system had several effects on the physical spatial structure of Tulkarm. Depending on their previous Mandatory counterparts, these institutions and representations gave the town its spatial layout which still remains the same.

(2) To consider effects of the Israeli physical planning system on the physical spatial structure of Tulkarm from 1967 to 1994. The Israeli physical planning system, on the other hand, imposed little change on the spatial identity of Tulkarm. No change has been introduced on the structure and powers of the Local Commission of Tulkarm and its Outline Town Planning Scheme is still the same since early days of the occupation.

10.1 Jordanian physical planning system in the West Bank and the physical spatial structure of Tulkarm (1948-1967):

The Jordanian physical planning system in the West Bank had several effects on the physical spatial structure of Tulkarm.

In 1961, the Local Commission of Tulkarm adopted an Outline Town Planning Scheme prepared by the Department of Municipalities in the Ministry of the Interior (figure 10.1). The scheme was officially approved in 1963.

In 1963, an area about 1.8 sq. km. to the southeast was annexed to the town (figure 10.2, see also Centre for Engineering and Planning, 1988).

In 1964, another area around 0.75 sq km (which included the village of Dhennabah to the east) was annexed to the town. In 1967, the villages of Showaikah (2.5 sq km) to the north and Irtah (1.25 sq km) to the south were also annexed to Tulkarm (Ibid., figure 10.2).

It is also believed that an attempt to prepare an Outline Town Planning Scheme for Tulkarm started in 1967 but was not completed (figure 10.2). However, figures (10.1) and (10.2) show a considerable change in the physical spatial structure of Tulkarm during the Jordanian rule.
Figure (48): Talharra town plan (with author's representation for Talharra Outline Town Planning Scheme, 1986).

Source: Author's representation based on the plan for Talharra Town Prepared by Abu Alfebsh, 1986. Representation of Talharra Outline Town Planning Scheme based upon regulations of the scheme and the actual land use in areas of the scheme.
Figure (10.2): Tulkarm city in 1967 with the three villages of Showaikah, Dannabah and Irtah.

Source: Author's reproduction based on the map "Outline town planning scheme for Tulkarm town" which bears no date or details but is believed to be prepared by the Jordanian planning authorities in 1967.
Figure (10.1) clearly shows that though the western boundary of Tulkarm was not affected by the new circumstances after 1948, the town tended to develop eastwards. This trend could be explained as a sign of the demands of Tulkarm’s people for more secure areas.

The annexation of the areas (4) and (3) (figure 10.2) came as a reaction to these demands. The annexation of Showaikah and Irtah in 1967 could be seen as an indication of a more settled situation on the Israeli-Jordanian border allowing for more development to the north and south.

The Jordanian physical planning system in the West Bank, in its institutional arrangements and instrumental representations, did not provide any provisions for the different elements of the physical spatial structure of Tulkarm as important integrated elements of a whole identity. The different effects of the Jordanian physical planning system on the physical spatial structure of Tulkarm are discussed below.

10.1.1 Jordanian physical Planning system in the West Bank and the central area of Tulkarm:

From Tulkarm Outline Town Planning Scheme 1961 (Tulkarm Scheme 1961), it could be possible to determine the following main changes in the central area of Tulkarm:

(1) A small grid of narrow streets was designed in the old core of the town. Although Tulkarm Scheme 1945 left the core without any proposals attempting to save its traditional character, Tulkarm Scheme 1961 neither preserved the traditional character of the core nor provided a modernised solution for its movement system.

(2) Land uses were also altered within the central area with the following main characteristics:

(a) The existing public open space was split into three parts. Only one of these parts (less than half the existing space) continued to function as a public garden.

(b) The proposed hotel was cancelled and the area of the bus station was reduced.

(c) Building density increased at the periphery of the central area especially to the northwest and southwest. Although this increase was in some areas more dense than parts of the old core, it did not have the traditional style of the core. Nor was this increase based on a modern planning concept.

10.1.2 Jordanian physical planning system in the West Bank and the neighbourhoods of Tulkarm:

According to Tulkarm Scheme 1961, it could be possible to suggest that Tulkarm had, by that time, four neighbourhoods (I, II, III and IV). Several remarks could be made on these neighbourhoods.

(1) The spatial alignment of these neighbourhoods emphasised the North-South and West-East axes of the town. At the same time, the scheme showed no intention to signify the importance of these axes.

(2) All the neighbourhoods are well defined by roads from all sides. Yet it is noticeable that these roads did not provide an integrated spatial system nor did they reflect any design concept.
(3) Despite the termination of any relationship of the town with its lands to the west and the closure of Tulkarm-Jaffa road, Tulkarm Scheme 1961 showed nothing to signify these changes.

By the expansion of Tulkarm boundaries in 1961 and 1964, three new neighbourhoods were added to the town (Neighbourhoods V, VI and VII).

Despite that this expansion represented a reaction to the separation of Tulkarm from its lands to the west, it did not represent a carefully planned situation. Any concept of design or planning in this expansion was also missing and there were no provisions for services or facilities.

Further change in the spatial arrangements of the neighbourhoods of Tulkarm came in 1966 when the villages of Irtah and Showaikah (neighbourhoods VIII and IX) were annexed to the town.

New areas were merely annexed by decisions of the Local Planning Commission which were approved by the Jordanian Minister of the Interior.

The closure of Tulkarm-Jaffa road to the west reduced the importance of the southern part of the North-South axis (Tulkarm Irtah road). The new change increased the importance of the road separating neighbourhoods VI and VII which became the major connection of Tulkarm with its southern villages and Qalqilyah town. This could imply the reallocation of the neighbourhoods III and IV along Tulkarm-Qalqilyah (or Tulkarm-Far'anon, as it is recently named) road.

The neighbourhoods of Irtah and Showaikah were well separated from Tulkarm and there were no planning provisions to integrate them within the structure of the town.

10.1.3 Jordanian physical planning system in the West Bank and the fringe of Tulkarm:

Tulkarm Scheme 1961 did not exert much change on the fringes of Tulkarm which were planned by the previous Tulkarm Scheme 1945. Khadouri agricultural school remained an important green space to the west of the town.

The agricultural zone on the northern fringe of the town was reduced after the cancellation of bye-pass Tulkarm road.

At the same time, the public open space on the northern fringe of the town remained the same as it was designed in Tulkarm Scheme 1945.

The agricultural zone to the south of Tulkarm was also made smaller than in Tulkarm Scheme 1945. It was also bounded by roads from all sides acquiring better spatial form.

No provisions were provided for agricultural land which was annexed in 1961 and 1964.

The annexation of Showaikah and Irtah in 1967 expanded the agricultural land to the north and south of Tulkarm yet no planning provisions were provided for these areas.
10.1.4 Jordanian physical planning system in the West Bank and the open land beyond the fringe of Tulkarm:

Tulkarm was one of the worst affected towns in the West Bank by the Arab-Israeli war in 1948.

Armistice line between Jordan and Israel cut it in 1948 from the greatest and most arable part of this land (figure 10.3).

The above expansions of Tulkarm boundaries were aimed to compensate some of these losses and respond to the increasing demands of agricultural land as a source of food and work (Owen ed., 1982).

The Jordanian physical planning system provided nothing for the open land beyond the fringe of Tulkarm.

10.1.5 Jordanian physical planning system in the West Bank and the road system of Tulkarm:

Figure (10.1) reveals that by 1959, the road system of Tulkarm developed outstanding changes. Some roads in Tulkarm Scheme 1945 were cancelled while many new others were constructed. Tulkarm Scheme 1961 recognised the existing pattern of road development in the town and proposed several new roads.

The main features of the road system in Tulkarm scheme 1961 included (figure 10.4):

1) Bye-pass Tulkarm road was cancelled.

2) Trans-Tulkarm road remained the same in Tulkarm Scheme 1945 except the section between Tulkarm-Jaffa road and Netania junction which was made 12 metres wide, and around the old core of the town was made 14 metres wide.

3) The historical Tulkarm-Nablus road remained the same in Tulkarm Scheme 1945 with few changes.

4) At the same time, the 15 m. wide road on the eastern edge of the town was widened to 20 metres.
Figure (10.3): Open land beyond the fringe of Tulkarm after 1948.

Source: Map of Tulkarm. Survey of Palestine, 1937. (armistice line has been plotted by author)
In 1967, a road network was proposed for neighbourhoods VI and VII. The most important and significant road of this network was Tulkarm-Qalqilya road which was made 20 metres wide.

Several points could be concluded from the above observations:

(1) With the new circumstances after 1948, Tulkarm became a border town. Its main relationship was with Nablus to the east. It had other relationships with villages on its north and south but they were less important.

(2) Tulkarm-Nablus and Tulkarm-Qalqilyah roads constituted the main connections of the town with other areas.

(3) Despite the considerable expansion of the town and the increase in roads designated within it, the road system of Tulkarm was not integrated during the Jordanian period. Nor did it help to identify the physical spatial structure of the town and its elements.

10.1.6 Jordanian physical planning system and the physical spatial structure of Tulkarm; a dialogue:

After 1948, Tulkarm witnessed great changes which impinged several important effects on its physical spatial structure. The most important of these effects was the separation of the town from its land beyond the Israeli-Jordanian armistice line and the establishment of Tulkarm Refugee Camp within its boundaries. The Jordanian physical planning system responded by preparing an Outline Town Planning Scheme for the town and widening its boundaries to the east, north and south.

As with the Mandatory physical planning system, the Jordanian system did not recognise the physical spatial structure of Tulkarm and its elements.

During 20 years of the Jordanian role, only one Outline Town Planning Scheme was prepared for Tulkarm while the several expansions of the town were not more than lines on the plan without any planning provisions or concepts.

However, these expansions represented an important element of Tulkarm development as without it, the Israeli authorities could have kept the town within its Mandatory boundaries.

10.2 Israeli physical planning system in the West Bank and the physical spatial structure of Tulkarm (1967-1994):

In 1967, Tulkarm witnessed its third transformation in the recent century. It was put under the Israeli occupation with all the political, economic, social and cultural implications.

According to the Israeli physical planning system, the municipal Local Commissions remained unchanged in both their powers and structures which were provided by the Jordanian physical planning system.

At the same time, instrumental representations of the previous Jordanian system remained in force.
By 1970, Tulkarm underwent its main development on its south border where it began to encroach on the agricultural zone (figure (10.5). Important developments are also observed on the agricultural land to the south of the agricultural zone making Irtah merge with Tulkarm town. Important development is also noticed to the west of Tulkarm town. The lowest level of development was constructed to the northwest of Tulkarm town. On the other hand, Showaikah remained segregated from other parts of Tulkarm.

To the northeast of Tulkarm town, Dhennabah have developed good links with Tulkarm town especially along Tulkarm-Nablus road and along the road between Dhennabah and Tulkarm Refugee Camp.

Tulkarm remained without any comprehensive Outline Town Planning Scheme until early 1970s when the Local Commission prepared an Outline Town Planning Scheme for the whole Tulkarm city (figure 10.6).

This scheme could not in fact represent a formal Outline Town Planning Scheme for Tulkarm. It rather represented an outline policy upon which Tulkarm Local Commission has depended for the control of development in the city. However, It is considered here a part of the Israeli physical planning system in the West Bank.

Tulkarm Scheme 1970s is still considered the general framework for development control in Tulkarm until the present time.

Tulkarm Scheme 1970s did not recognise the different elements of the physical spatial structure as separate and definite entities of Tulkarm. Yet it could be possible to consider the same previous framework for the identification of these elements in Tulkarm Scheme 1970s.

10.2.1 Israeli physical planning system in the West Bank and the central area of Tulkarm:

The central area of Tulkarm retained, in Tulkarm Scheme 1970s, its previous character before the occupation where no important change affected this area. All the spatial arrangements of streets and spaces remained the same. The only significant change was the reduction of the area of residential zone C within the central area. This would keep the old core of Tulkarm town and a small area on its north as the most densely built space in the town.

Tulkarm Scheme 1970s showed no intention to solve any of the problems in the previous schemes which have been discussed before.
Figure (10.6): Talkarm Outline Town Planning Scheme, early 1970s.

Source: Author reproduction based on "Outline Town Planning Plan for Talkarm Town," prepared by Derar Hashash, Engineering Department, Talkarm municipality. Courtesy of Derar Hashash, Engineer of Talkarm municipality.

Reference:
- town planning boundaries
- residential zone A
- residential zone B
- residential zone C
- agricultural zone
- industrial zone
- sites for railway station
- commercial facades
- public open spaces
- private open spaces
- existing roads
- proposed roads
- existing cemeteries
- public buildings
- government land

Scale: 1:1800
Figure (10.6): Tulkarm Outline Town Planning Scheme, early 1970s.

Source: Author reproduction based on 'Outline Town Planning Plan for Tulkarm Town', prepared by Dany Hashash, Engineering Department, Tulkarm municipality. Courtesy Mohammad Barhoob, Engineer of Tulkarm municipality.

Reference:
- town planning boundaries
- residential zone A
- residential zone B
- residential zone C
- agricultural zone
- industrial zone
- sites for railway stations
- commercial facades
- public open spaces
- existing roads
- proposed roads
- existing cemeteries
- public buildings
- government land

Scale: 1:10,000
10.2.2 Israeli physical planning system in the West Bank and the neighbourhoods of Tulkarm:

According to Tulkarm Scheme 1970s, the neighbourhoods of Tulkarm would remain the same as they were before the occupation with the following changes:

(1) The road networks were designed for the neighbourhoods (V), (VIII) and (IX). Although these networks provided for some integration of the above neighbourhoods with other parts of Tulkarm, they did not provide these neighbourhoods with any spatial identification.

(2) The residential areas were designated on the agricultural land to the west of Showeikah and between Tulkarm town and Irtah. This would provide the city with two other neighbourhoods (X and XI). The designation of these two neighbourhoods would allow for serious damages to the value of the green areas of Tulkarm and would very badly damage its fringe.

(3) The same previous problems of the road networks and spatial differentiation which have been discussed in previous schemes remained the same in Tulkarm Scheme 1970s.

10.2.3 Israeli physical planning system in the West Bank and the fringe of Tulkarm:

Although the several expansions of Tulkarm boundaries during the Jordanian period added vast areas of agricultural land on the fringes of the city, Tulkarm Scheme 1970s largely reduced the area of this land. Tulkarm Scheme 1970s allocated most of this land for residential use. Two areas which continuously preserved their character on the fringe of Tulkarm were Khadouri School and the public open space to the north of Tulkarm town. The site of the abandoned railway station remained with no use.

10.2.4 Israeli physical planning system in the West Bank and the open land beyond the fringe of Tulkarm:

The Israeli physical planning system in the West Bank has not recognised the open land beyond the fringes of the Palestinian settlements as anything belongs to these settlements. This land has been considered by the Israeli physical planning system as an important element upon which the direct Israeli control should be imposed.

It could be impossible for any Palestinian planning scheme or authority to consider this important issue within the existing Israeli physical planning system.

Until recent days, Tulkarm remained enclosed within the Jordanian boundaries despite the continuous growth of the city especially to the east. The Israeli planning authorities in the West Bank insist that this growth should not be integrated within the city. The only exception of an approved planned growth beyond the fringe of Tulkarm was the Housing Project of Government Employees to the east of the city. This project was approved by The Central Planning Department in the early 1980s but it was lacking any spatial concept or spatial integration with Tulkarm (figure 10.7). It is merely an isolated strip of houses missing the identity of a small village or a small suburb of Tulkarm.
10.2.5 Israeli physical planning system in the West Bank and the road system of Tulkarm:

Figure (10.9) illustrates the road system of the whole Tulkarm city as it recently exists according to Tulkarm Scheme 1970s. The main features of this system include:

(1) Most roads which have been included in Tulkarm Scheme 1961 have been constructed.

(2) Roads of the neighbourhoods (VI) and (VII) remained unchanged as they were proposed in 1967 before the Israeli occupation. Some of these roads have already been constructed while the majority of them have not been established yet.

(3) Tulkarm Scheme 1970s did not solve the previous problems of the road system in Tulkarm. Nor did it consider the avoidance of similar problems in its proposals.

(4) No concept for road arrangements and classification was provided.

On the other hand, any provisions for emphasising the importance of any junctions and intersections or the identification of the neighbourhoods and public spaces were not included.

10.2.6 Israeli physical planning system in the West Bank and the physical spatial structure of Tulkarm; a dialogue:

It is obvious that the Israeli physical planning system in the West Bank has done very little for Tulkarm and its physical spatial structure.

Tulkarm Scheme 1970s could not even be considered an actual component of this system since there was no direct relationship between them.

Moreover, Tulkarm Scheme 1970s has not recognised the physical spatial structure of Tulkarm and its elements.
Figure (10.7): Housing project of Government Employees, Tulkarm, 1992.

Source: Author.
10.3 Outline Town Planning Schemes and the future of the physical spatial structure of Tulkarm; the proposed Scheme of the Centre for Engineering and Planning, 1988 (Tulkarm Scheme 1988):

By mid 1980s, Tulkarm has developed mainly within the Mandatory boundaries of Tulkarm town. Yet with the closure of the western boundary of the city, a major expansion of its built area has developed to the east along Tulkarm-Nablus road. Important developments are also observed around the old cores of Showaikah and Irtah. Most of these developments has been filling-in developments without any significant change in the general physical spatial structure of the town (figure 10.9).

In the same period, the Centre for Engineering and Planning, a Palestinian office in Ramallah, was commissioned by Tulkarm municipality to prepare an Outline Town Planning Scheme for the city.

The Centre for Engineering and Planning conducted a detailed house to house survey and prepared accurate cartographic maps for the whole area of Tulkarm.

Depending on results of the survey, the Centre for Engineering and Planning completed in 1988 a proposal for Tulkarm Outline Town Planning Scheme which would provide for the development of the city until the year 2010 (figure 10.10).

It is important here to consider the way in which this proposal treated the different elements of Tulkarm physical spatial structure.

10.3.1 Tulkarm Scheme 1988 and the central area of Tulkarm:

Tulkarm Scheme 1988 was the first scheme which directed some intention to the central area.

Scheme 1988 defined the central area of Tulkarm as the 'Main Commercial, Services and Business Centre'.

The main features of this area included:

(1) No change was introduced on the general arrangements of the streets and spaces in the central area.

(2) Despite the widening of the boundary roads of the central area, its spatial identification within the whole physical spatial structure of the city remained difficult.

(3) Other means of differentiating the central area such as, for example, public squares and open spaces have not been provided. The municipal public garden remained the only green open space in the central area.
The old core of Tulkarm town was included within the Main Commercial, Services and Business Centre without giving any special considerations to its historical and spatial value.

10.3.2 Tulkarm Scheme 1988 and the neighbourhoods of Tulkarm:

In a first step of its kind for the physical spatial structure of Tulkarm, Tulkarm Scheme 1988 divided the city into five major planning areas. These areas generally referred to Tulkarm town, Irtah, Dhennabah, Showaikah and the area between Tulkarm town and Showaikah respectively. These major planning areas were divided into smaller units which would represent the neighbourhoods of Tulkarm.

1) Tulkarm town planning area (no. I):

This area was divided into 4 neighbourhoods along the main East-West and North-South axes of the town. It also included the site of Khadouri school and the site of the abandoned railway station which was proposed for future public buildings.

The proposal for neighbourhoods (nos. 1 and 2) were similar to those of Tulkarm Scheme 1970s except the change of the north agricultural zone into a residential zone. The neighbourhoods (nos. 3 and 4) were redivided along Tulkarm town-Irtah road like them in Tulkarm Scheme 1945. The general spatial layout of these neighbourhoods remained the same as in Tulkarm Scheme 1970s except the change of building densities and land use of the north agricultural zone. Other changes included the allocation of an area for secondary commercial services in neighbourhood (no. 1), an area for educational services in neighbourhood (no. 2) and an open green space in neighbourhood (no. 4).

At the same time, the central area was included within the neighbourhoods and was not isolated as an independent element.

2) Irtah planning area (no. II):

This area was divided into 3 neighbourhoods which mostly coincided with neighbourhoods (nos. VII, VIII and XI) in Tulkarm Scheme 1970s. The only change was the conversion of the southern agricultural zone into residential zone within neighbourhood (no. 3). The general spatial pattern of neighbourhoods (nos. 1 and 3) remained mainly the same as in Tulkarm Scheme 1970s. Other changes included the addition of an open green space and a secondary commercial area in neighbourhood (no. 1) and a sewage treatment station to the south of neighbourhood (no. 3).

3) Dhennabah planning area (no. III):

Dhennabah planning area was divided into three neighbourhoods. Neighbourhood (no. 3) remained the same as neighbourhood (no. VII) in Tulkarm Scheme 1970s with the addition of an industrial area, a secondary commercial area and two areas for public buildings. Neighbourhoods (nos. 1 and 2) included neighbourhood (no. V) of Tulkarm Scheme 1970s and the proposed expansion of Tulkarm Scheme 1988. They also included several areas for public buildings, educational services, secondary commercial services and green open spaces.

4) Showaikah planning area (no. IV):
This area included the northern part of the city and the proposed expansion to the Northeast. It was divided into 3 neighbourhoods. Neighbourhood (no. 1) in the far north included the old core of Showaikah which was proposed a special conservation area. It also include a cemetery, a green open space and two spaces for educational services. Neighbourhood (no. 2) on the other hand, included a small open green space and two areas for educational services. Neighbourhood (no. 3) had a secondary commercial area, two areas for educational services and two public green spaces.

(5) Planning area (no. V):

This area included the existing area between Tulkarm town and Showaikah and the proposed expansion to the east. It was divided into 4 neighbourhoods. Neighbourhood (no. 1) included most of neighbourhood (no. X) in Tulkarm Scheme 1970s except the change of the existing agricultural zone into residential zone and the addition of an industrial area. Neighbourhood (no. 2) covered a wide part of the proposed expansion of the city and included areas for secondary commercial services, educational services, and a public green space. Neighbourhoods (nos. 3 and 4) covered the remaining part of the proposed expansion. They did not include spaces for any services or facilities. Neighbourhood (no. 4) at the same time was strongly segregated from Tulkarm.

On the other hand, Tulkarm Scheme 1988 altered building densities of the residential areas where most of Tulkarm town, Dhennabah and Showaikah were proposed residential zone C. The residential zone A to the south was reduced in size providing for a wider residential zone B. Most of the proposed expansion to the north east and to the north of the northern agricultural zone was proposed residential zone A and agricultural residential zone. A residential zone B was also proposed around the residential zone C in Showaikah.

It is also noticeable that the major planning areas were divided along main roads and the neighbourhoods along secondary roads. Yet more importantly, this distribution did not provide any spatial character for Tulkarm. Any spatial character was neither provided by the pattern of public services and spaces. On the other hand, although the distribution of the residential zones followed routes of movement, it did not always provide well defined spatial zones with their own identities.

Compounded by the problems of private ownership and development, and the lack of control over the parcelation and distribution of land which were discussed earlier, these residential zones would hardly bring any spatial differentiation to the city of Tulkarm.

10.3.3 Tulkarm Scheme 1988 and the fringe of Tulkarm:

Tulkarm Scheme 1988 seriously damaged the fringe of Tulkarm reducing it to two sewage treatment stations, a site for future public buildings, an industrial area and a small narrow strip of natural green land.

The scheme completely transferred all the land of Tulkarm into residential development land. No consideration was given to agricultural and green spaces around the built up space of Tulkarm.
10.3.4 Tulkarm Scheme 1988 and the road system of Tulkarm:

Figure (10.11) illustrates the road system of Tulkarm according to Tulkarm Scheme 1988.

The main features of this system included:

(1) The road pattern within the previous boundaries of Tulkarm Scheme 1961 remained the same as the existing road pattern of Tulkarm Scheme 1970s.

(2) Tulkarm Scheme 1988 provided a 20 m. wide road (no. 1) just to the east of the existing east boundary road (no. 2). Although this road provided a good link between Tulkarm-Nablus road (no. 3) and Tulkarm-Jaffa road (no. 4), it would allow heavy traffic to pass through Dhennabah and Irtah. It could be possible to designate it on the far east boundary of the city providing it with better spatial identification and serving eastern areas beyond the boundary of Tulkarm. The same situation is also true for road (no. 5) between Tulkarm-Nablus road and Showaikah. This problem was solved in road (no. 6) on the north western boundary by providing a good spatial element on this edge of the city.

(3) In general, although Tulkarm Scheme 1988 provided good solutions for the traffic problems of Tulkarm, it did not provide for the spatial identification of the different elements of the physical spatial structure of the city.

Conclusion:

The previous investigations in this chapter have been used as a vehicle for the assessment of effects of the Jordanian and Israeli physical planning systems on the physical spatial structure of Tulkarm from 1948 to 1994. A discussion has also been provided for Tulkarm Outline Town Planning Scheme, 1988 which still awaits the approval of the Israeli planning authorities.

It has been shown that while the Jordanian physical planning system depended on its Mandatory predecessor, it did not provide for the development and improvement of the physical spatial structure of Tulkarm. Although the several boundary expansions of Tulkarm provided the town with much more space. This space remained without organisation or planning. Elements of the physical spatial structure of the town remained without identification or integrity.
After 1967, the Israeli physical planning system did not make any provision for the development of the physical spatial structure of Tulkarm. The physical spatial structure of Tulkarm continued to develop within its Jordanian boundaries depending on an Outline Town Planning Scheme prepared by the Local Commission of the city in the early 1970s. Within this climate of neglect, elements of the physical spatial structure of Tulkarm would continue to suffer from more segregation and disintegration with no identity or entity.

On the other hand, Although Tulkarm Scheme 1988 provided for better recognition of elements of the physical spatial structure of the city, it did not provide it with integrated spatial identification and determination.

All the above schemes prepared for Tulkarm in this period (1948-1994) have depended on the same zoning policies of the Mandatory scheme of the town. The city has continued to develop according to the pattern of private development with very little control or management on its physical spatial structure. Public interference in directing the change in this physical spatial structure has been minimal. Very few parcelation schemes have been conducted. The alignment of roads and the allocation of public services neither followed any concept of planning and design.

Within this perspective, the important finding of this chapter has been that the Outline Town Planning Schemes, although represented the only important instrument for the control of Tulkarm physical spatial structure, have failed to recognise the importance of this structure and its elements. There is a desperate need for a Detailed Town Planning Scheme for Tulkarm which should decide on the foreseen form of development and its contribution to the physical spatial structure of the city and its elements.
Chapter Eleven

General conclusions and recommendations of this research
11.1 Conclusions:

This research aimed to investigate effects of the physical planning system on the physical spatial structures of the human settlements in the case of Palestinian settlements from late 19th century to 1994.

This research has started by exploring the human settlement, its definitions and its elements. This exploration provided a necessary framework for understanding the nature of the general theoretical relationships between the physical spatial structure of the settlement and the physical planning system. It has been found that the human settlement is first of all a physical spatial phenomenon. It provides an important framework for other physical and non-physical spatial aspects of human life. Since early history, this relationship between the human settlement and space was the field of several theories and concepts. From Plato to the modern concepts of the fourth dimensional space, theories and concepts of space have had their effects on the physical spatial structures of the human settlements.

At the same time, several attempts have been made to study and explore the physical spatial structures of the settlements providing an important and valued account for theories and models of these structures. One of the important findings in this respect has been that a concrete and well-formalised theory of the physical spatial structure of the settlement is still missing. Most of the above attempts tried to isolate the different spatial patterns of human settlements without providing theoretical outlines or generalised models. Yet it is crucial to appreciate the different constraints for these outlines and models, like social and cultural values and natural physical settings.

From the enormous amount of elements and patterns of the physical spatial structure of the settlement, this research concluded that the physical spatial structure of the settlement is constituted from the main following elements:

(1) Central area.

(2) Neighbourhoods.

(3) Fringe.

(4) Open land beyond the fringe.

(5) Road system.

On the other hand, it is evident that through the long historical evolution of human settlements, they have been the subject of consistent direct and indirect efforts to control and manage the development of their physical spatial structures. This control and management have, since the turn of this century, been known as the physical planning of human settlements.
The physical planning of the human settlement constitutes a system for the control and management of its constituent elements. A system which controls the general use of land relates to the general system of control within society. It therefore represents the state intervention in the control and management of human settlements.

Generally, the physical planning system is constituted from two main elements:

1) Institutional arrangements which are empowered with and responsible for the means of controlling and managing the physical spatial structures of the settlements.

2) Instrumental representations which are used by the above institutional arrangements as tools for the control and management of the physical spatial structures of the settlements.

By clarifying concepts and elements of the physical spatial structure of the settlement and the physical planning system, this research has provided an important theoretical framework for exploring both of them. Moreover, this framework has provided an important tool for exploring the physical planning system and the physical spatial structures of settlements in Palestine. This framework also has proved to be a sufficient instrument for examining the relationship between the physical planning system and the physical spatial structure of the settlement.

Depending on the above general framework, this research has explored the physical planning system and its relationship with the physical spatial structures of the Palestinian settlements from late 19th century to 1994. A detailed exploration for this relationship in Tulkarm city has followed.

This research has first considered Ottoman physical planning in Palestine from late 19th century to 1918. Although a comprehensive Ottoman physical planning system did not exist in Palestine, the general systems of the Ottoman government provided for the control and management of the physical spatial structures of the Palestinian settlements. The most important of these systems were the administrative, judicial and land systems. Although these systems inflicted several effects on the physical spatial structures of the Palestinian settlements, they did not recognise these structures and their elements. During the Ottoman period, the administrative structure showed an incredible amount of uncertainty and disruption between the different administrative levels and between them and the central administration. In some cases, the administrative institutions were often overstepped by the political and social elite who had good relationships with the Sublime Porte. In other cases, the authority of the administrative institution was damaged by the powerful Muftis and Qadis. The municipalities were not excluded from such problems. The municipal regulations did not form an overall integrated system of development control. Yet it should be noted that the Ottoman administrative system contained sufficient flexibility and decentralisation which, if correctly implemented, could have had better effects for the development of the Palestinian settlements.

However, the Ottoman administrative system inflicted several effects on the physical spatial structures of the Palestinian settlements. These effects included the construction of several public
buildings, the improvement of services and infrastructure and the alignment of roads. These projects were the result of the activity of both the central government and local authorities. Large cities like Jaffa and Jerusalem were the ones which most benefited from these activities. The smaller cities and towns like Nablus and Tulkarm were also considerably affected.

In the case of Tulkarm, the achievement of the Ottoman administration were:

(1) The construction of several administrative and public buildings which represented strong spatial determinants of the town.

(2) Providing the municipality with important powers for improving the public services and the road network.

(3) The construction of the Hejas railway line and the railway station which also represented strong spatial elements of Tulkarm.

At the same time, although the Ottoman judicial system represented a powerful institution with some degree of independence from the political power, it began, during the last decades of the Empire, to lose much of its authority especially after the innovation of the Civil Courts. Although the Islamic Shari'ah, upon which the Ottoman judicial system depended, was an important factor affecting the physical spatial structures of the Palestinian settlements, it was not systematically codified until the innovation of Majallat AL-Ahkam Al-'Adliyah. The Majallah was very broad and general in dealing with the control and management of the physical spatial structures of the Palestinian settlements.

On the other hand, the Ottoman Land Code became, since late 1850s, a main factor affecting the physical spatial structures of the Palestinian settlements. Although the Land Code contained little provisions for the direct control of the development, its main policies of land ownership and distribution were the major factors of shaping the physical spatial structures of the Palestinian settlements. The effects of the Land Code included the identification of the settlements' boundaries, the increase in individual holdings, the encouragement of land parcelation and the differentiation between the settlements and the open land beyond their fringes. These effects brought more dispersion in the general layouts of the settlements, allocated more land for public services and helped the development of the institution of Waqf.

The important disadvantage of the Ottoman physical planning was the absence of maps and cadastral surveys without which the assessment of the actual developments in the physical spatial structures of the settlements is difficult. However, this research has used maps of the early British Mandate period to illustrate some of the above issues of Ottoman physical planning in Palestine.

After the termination of the Ottoman rule in Palestine and the enforcement of the British Mandate, Palestine had, for the first time, a complete comprehensive physical planning system. The early Mandatory legislation established a physical planning system with two main levels of planning.
institutions; local and central. This system was, in 1936, amended providing for more decentralisation, flexibility and efficiency. The central institution was abolished and substituted by district institutions in the different districts of Palestine. Yet it should be noted that in both types of the Mandatory planning system, the High Commissioner remained the highest planning authority who could alter, suspend and abolish any planning institutions.

At the same time, the High Commissioner had complete control over the instrumental representations of the Mandatory physical planning system. Nonetheless, planning schemes were prepared for several settlements in Palestine during the Mandate period. These schemes were the main tools for directing and controlling change in the physical spatial structures of the Palestinian settlements. Among the different planning schemes of the Mandatory physical planning system, the Outline Town planning Schemes were the most common and most effective. They mainly depended on dividing the settlement into different land uses with different building densities. Yet the zoning policies of these schemes could not provide an efficient and reliable means for shaping the actual physical spatial structures of the settlements. Nonetheless, these schemes represented main and very important tools for exploring the development and change in the physical spatial structures of the Palestinian settlements.

In the case of Tulkarm, The Mandatory Tulkarm Outline Town Planning Scheme, 1945 respected the existing pattern of the development without exerting any considerable change on the physical spatial structure of the town. The main contributions of this scheme to the town were the alignment of roads and the allocation of several sites for public buildings. Another important contribution was the determination of the agricultural zone on the fringe of the town. Yet the zoning policies of this scheme did not represent an effective tool for deciding upon the actual future spatial pattern of development in the town. The private development and land ownership played the main role in deciding upon and shaping this pattern.

The Mandatory physical planning system was implemented in Palestine for around 27 years and influenced the Palestinian settlements in several ways. The main finding, in this respect, has been that the Mandatory physical planning system failed to recognise elements of the physical spatial structure of the Palestinian settlements as definite entities within an integrated whole.

Afterwards, when the British Mandate ended in 1948, the Jordanian physical planning system was implemented in the West Bank. Based on the general rules of its predecessor, the Jordanian physical planning system was not much better for the settlements of the West Bank.

The structures and powers of the institutional arrangements of the Jordanian physical planning system did not show any interest in the elements of the physical spatial structures of the Palestinian settlements in the West Bank. Additionally, many lapses in the responsibilities and interactions of these institutional representations provided for uncertainty and confusion. This problem was increased by the absence of clear local and regional planning policies for the West Bank. Yet it is important to note that the Local Commission remained, the same as in the Mandatory system, the most effective institution.
The higher levels of the Jordanian institutional arrangements constituted a more bureaucratic system with little to provide for the physical spatial structures of the settlements.

At the same time, the instrumental representations of the Jordanian physical planning system mainly followed their Mandatory predecessors. The zoning policies of the Jordanian Outline Town Planning Schemes also failed in giving any real control over the development and change in the physical spatial structures of the Palestinian settlements. Very few planning schemes were prepared during the Jordanian period for the settlements of the West Bank. The Outline Town Planning Schemes continued as the main instruments affecting these settlements but with the same problems of the Mandatory schemes.

In the case of Tulkarm, the trends of development in the physical spatial structure of the town continued along the same lines of the previous periods. Even the alignment of roads and the allocation of land for public buildings followed the same principles of the mandatory period. The zoning policies of the Jordanian Outline Town Planning Scheme of Tulkarm also remained the same with no detailed provisions for the actual pattern of spatial development of the town.

Not only the recognition of the identity and integrity of the physical spatial structures of these settlements was not provided, but also the ambiguity and uncertainty of the Jordanian institutional arrangements and instrumental representations provided for more problems under the Israeli occupation after 1967.

Yet it has to be recognised that a major achievement of the Jordanian physical planning system was the several expansions of boundaries of some Palestinian settlements in the West Bank such as Tulkarm. Without these expansions, these settlements would have remained within their Mandatory boundaries until recent days.

After 1967, the Israeli occupation brought several changes to the physical planning system in the West Bank. These changes were not better for the Palestinian settlements and their physical spatial structures.

Not only the powers and responsibilities of the institutional arrangements were greatly reduced, but many of them were put under the direct control of the Israeli administration. Moreover, other new institutions, such as the Information Committee, were established and provided with several powers to damage and cramp the development of the physical spatial structures of the Palestinian settlements. Yet, again, the Local Commissions remained the closest and most efficient institutions for the control and management of the physical spatial structures of the Palestinian settlements. Although the municipal Local Commissions exercised some flexibility and freedom in controlling and developing the Palestinian cities, the Village Planning Committees provided little for directing and encouraging the development of the Palestinian villages.
At the same time, the higher levels of the Israeli institutional arrangements in the West Bank were mainly separated from the direct and effective relationships with the Palestinian settlements and mainly served the development of the Jewish settlements in the area.

On the other hand, the planning schemes of the Israeli physical planning system in the West Bank mainly followed the same zoning policies of the previous systems. The Outline Town Planning Schemes prepared by the Israeli authorities were not advantageous for Palestinian settlements. Compared with the Mandatory and Jordanian Outline Town Planning Schemes, the Israeli schemes showed a great neglect for the current conditions of the Palestinian settlements. Better solutions were provided by the Outline Town Planning Schemes which were prepared by the Palestinian local authorities themselves.

These solutions divided the settlement into planning areas and neighbourhoods and provided for better identification of the road system. Yet they did not recognise the integrity, coherence and identity of the physical spatial structure of the settlement.

Also, with the absence of a positive local and regional planning policies for the Palestinian settlements in the West Bank and the problems of the Detailed town Planning Schemes, the Outline Town Planning Schemes continued until the present time as the main instrument for the control and management of the Palestinian settlements. Yet it has also been shown that these schemes did not provide a satisfactory recognition of the different elements of the physical spatial structure of the city. Without this recognition, a Detailed Outline Town Planning Scheme and clear planning policies, Tulkarm would continue to suffer from the uncertainty and unsuitability of the private development and land ownership.

The most important findings of this research relate to the two main elements of the physical planning system in Palestine which are the institutional arrangements and instrumental representations.

(1) Institutional arrangements:

(a) Powers, authorities, responsibilities and structures of the institutional arrangements of all the physical planning systems which have been implemented in Palestine represented a bureaucratic system. This system has reflected and corresponded to the existing system of government. A great part of the interest has been directed to the authoritative relationship between the different levels of these arrangements while their structure was the subject of several amendments and alterations.

(b) At the same time, the structures of these arrangements neither represented the profession of planning nor the actual interests of the local population.

(c) The local planning authorities were the closest and most effective among all the institutional arrangements. The higher levels of these arrangements represented the political and administrative elite of the government with no formidable regional or national policies for the Palestinian settlements.
(d) On the other hand, while the municipal Local Commissions experienced more effective role, rural areas and villages were the worst affected by the absence of influential planning commissions.

(e) The great rift between planning authorities in municipal areas and those of villages and rural areas greatly damaged the spatial structures of both with much greater damage to the latter.

(f) The only element of the physical spatial structure of the settlement which continued to be recognised by all the above institutional arrangements was the road system. This recognition did not result from a comprehensive overview of the physical spatial structure of the settlement nor did it help to identify and integrate other elements of this structure.

(2) Instrumental representations:

(a) Instrumental representations of all the above physical planning systems did not directly recognise elements of the physical spatial structures of Palestinian settlements, nor provided any indirect means for such recognition.

(b) Mandatory Regional Outline Town Planning Schemes were ambiguous and uncertain. Compatible Detailed Town Planning Schemes did not exist. The important representations which continuously affected the physical spatial structures of Palestinian settlements were Outline Town Planning Schemes.

It has been found that Outline Town Planning Schemes divided Palestinian settlements into three main zones:

1- Public buildings, services and facilities.

2- Residential areas.

3- Fringes.

(c) The only means of differentiation between the above zones was limited to the following:

1- The different colours of these zones on the plan of the planning scheme.

2- The different categories of land use, building densities and building lines in the regulation of the scheme.

The most important finding in this respect has been that these zoning policies have failed since the 1940s to bring any spatial differentiation into the physical spatial structures of the Palestinian settlements.

This research has argued that the main factors behind this failure included the following:

1- The greatly varied pattern of private land ownership in Palestinian settlements with very limited public ownership of land.
2- The greatest part of the development in Palestinian settlements has been carried out by private developers.

3- The complicated procedure of land parcelation and land division, specially outside municipalities, and the absence of sufficient Detailed Town Planning Schemes.

(d) The result was more fragmented, dispersed and segregated spatial patterns of the Palestinian settlements with no character or identity.

Within the consequences of these crucial findings, the credibility and value of Outline Town Planning Schemes is greatly doubted.

11.2 Recommendations:

Considering the previous findings and conclusions, it is important to provide some general guidelines and recommendations for improving and developing the physical planning system in the West Bank. Such a physical planning system would be more suitable for the development of the physical spatial structures of the Palestinian settlements and the integration and identification of their elements. These recommendations relate to both elements of the physical planning system.

(1) Institutional arrangements:

(a) The Local planning authorities always represent the most important, influential and direct institutions for the control and management of the physical spatial structures of the Palestinian settlements. As a preliminary requisite, each of these institutions should have its planning department. Such planning department should be staffed with the necessary planning professionals who should be qualified to understand, survey, analyse and resolve problems of the physical spatial structures of Palestinian settlements. Those planning professionals should have the power and opportunity to serve the population without being affected by the political agenda of the government nor interests of the political elite of the community.

(b) The Local planning authorities should be empowered to prepare and implement their Detailed Outline Town Planning Schemes which should determine the final pattern of land use. Their powers should also insist on the recognition of the importance of the physical spatial structures of the settlements and the different elements of these structures.

(c) The separation between the municipal and village planning authorities should be terminated to provide for more integrated planning departments and policies. For such a purpose, Town Planning Areas could be reintroduced so that each of them includes a major planning centre serving the surrounding smaller settlements. This would provide for more control over the open land beyond the fringes of the settlements.
(d) These expanded Town Planning Areas should be integrated into higher regional or sub-regional levels of planning authorities according to the capability of the districts and sub-districts of the West Bank.

(2) Instrumental representations:

(a) The importance of the Outline Town Planning Scheme should be preserved as the main influential instrument affecting the physical spatial structure of the settlement.

(b) The separation between Outline Town Planning Schemes and Detailed Town Planning Schemes proved impractical and unhelpful for creating the desired physical spatial structures. They should be compacted into one instrument which should principally decide on the pattern of future development and the overall identity of the physical spatial structure of the settlement.

(c) Detailed Outline Town Planning Schemes should depend on clear concepts of town planning and town design. These concepts should reflect the identity of the physical spatial structure of the settlement. These schemes should also depend on land divisions and land parcelations but not zoning polices.

(d) Road systems in these Detailed Outline Town Planning Schemes should reflect the planning ideas and design concepts of the settlements. They also should provide for the spatial differentiation of the elements of these settlements.

Depending on the above recommendations, an alternative proposal for the city of Tulkarm would include the following (this proposal mainly depends on the existing conditions of Tulkarm in mid 1980s and Tulkarm Scheme 1988, see figures 10.9 and 10.10):

(1) Planning idea and design concept:

The planning idea and design concept of Tulkarm (figure 11.1) divides the city into four main planning areas; Tulkarm town, Irtah, Dhennabah and Showaikah. Showaikah, Tulkarm town and Irtah are connected by a main North-South axis (road no. 1). Irtah, Dhennabah and Showaikah are connected by a middle-ring road (no. 2) which links them with the existing main road on the west (roads nos. 3 and 4). Bye-pass Tulkarm road, at the same time, should remain a main route but it should not be allowed to distort the relationship between lands on both its sides. Junctions on this road within the area of the city should be maintained at a minimum.

On the other hand, an outer-ring road (no. 5) exists at the eastern boundary of the city and connects with roads (nos. 3 and 4). The existing trans-Tulkarm road (no. 6) is extended to form an inner-ring road around the central area of the city. This provides extension and strong spatial differentiation for the central area. The North-South axis does not penetrate through the central area but links with the inner-ring road. At the same time, the Tulkarm-Far’aon road is maintained as an important link for the city with the southeast.
Several agricultural spaces (no. 7) surround the city in order to provide the missing green fringe. An industrial space (no. 8) is also located at the eastern entrance to the city.

(2) The application of the above planning ideas and design concept on the existing situation of Tulkarm would produce the physical spatial structure which appears in figure (11.2).

(3) Neighbourhoods of the city are categorised according to building densities and divisions of land which should be determined depending on the surveys, analysis, demands of people and requirements of the area. An example of these divisions appears in figure (11.3).

It is important to notice that the above recommendations and abstract example aim to highlight the importance of the physical planning for the physical spatial structure of the settlement. Actual powers and structures of the proposed Local Planning Commissions and the Detailed Outline Town Planning Schemes need careful considerations and deeper efforts of future research.
Figure (11.1): Planning idea and design concept for the city of Tulkarm.

Source: Author.
Figure (11.3): Neighbourhood no. VI in figure 11.2 illustrates how planned land division and parcelation constitute the main tool for determining the final spatial identity of the neighbourhood.

Source: Author.
REFERENCES AND BIBLIOGRAPHY

(1) Published works:

(a) Arabic:


Al-Hoot, B. N. *Political institutions and leaderships in Palestine (1917-1948)*. Beirut, Institute for Palestinian Studies, 1981.


Atallah, Y. I. *Land laws in the West Bank*. (no date or publisher).


Khamayseh, R. *The demolition of unpermitted buildings in the West Bank during the Intifadah*. Nazareth, Centre for Planning and Studies, 1990.


(b) English:


Akhundov, Murad D. *Conceptions of space and time: sources establishing directions.* Translated by Charles Royle. Massachusetts, MIT, 1986.


Batty, M. *Cities, planning, design, computation and evolution.* Environment and planning B: planning and design, 22, 1995, pp. 379-382.


Bethell, Nicholas. *The Palestinian Triangle; the struggle between the British, the Jews and the Arabs.* London, Andre Deutsch Ltd., 1979.


Cattan, H. *To whom does Palestine belong?*. Beirut, Dar Al-Ahad, 1967.


Evans, B. *Why we no longer need a town planning profession*. Planning, 8, 1, 1993., pp. 9-15.


Hyamson, A. *Palestine under the Mandate (1920-1948)*. 1950.


227


Manna'a, A. *The sijill as a source for the study of Palestine during the Ottoman period with reference to the French invasion.* (In Kushner, D. ed., 1986, op. cit.).


Ullman, E. L. Space and/or time opportunity for substitution and prediction. Transactions of the Institute of the British Geographers, 63, 1974, pp. 125-139.


(2) Government publications:


Gazette of the Government of the Hashmite Kingdom of Jordan:


(c) Hebrew:

(3) Unpublished reports and projects:


(4) Unpublished researches:


