DEPARTMENT OF ARCHITECTURE AND BUILDING SCIENCE
UNIVERSITY OF STRATHCLYDE, GLASGOW, UK

THE ARCHITECTURAL DEVELOPMENT

Of

AL-AQSA MOSQUE IN ISLAMIC JERUSALEM

IN THE EARLY ISLAMIC PERIOD

SACRED ARCHITECTURE IN THE SHAPE OF "THE HOLY"

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DEDICATION



His Highness Shaikh Hamdan Bin Rashid Al-Maktoum

This thesis is dedicated to His Highness Shaikh Hamdan Bin Rashid Al-Maktoum, to my parents Khitam and Fathi, to my sisters and to beloved Jerusalem.

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No word can express the deepest gratitude of the researcher to His Highness Shaikh Hamdan Bin Rashid Al-Maktoum and the Islamic Research Academy in United Kingdom for their generous sponsorship of the research.

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ABSTRACT

The aim of the research is 1) to introduce a definition of the concept of al-Aqsa Mosque and 2) to understand its architectural development and evolution in the early Islamic period within the cultural context of the site. The initial cause of the study was that almost nothing is known about the Muslim building activities at the enclave and there is very little information about it. The existing interpretations of the early development of al-Aqsa Mosque have been generated either from a typological and formal-aesthetic point of view or are based on interpretation constant with biblical texts. This thesis attempts to expand these interpretations with contributions by additional historical, archaeological and architectural investigations of the early Muslim architecture of the enclave within the Islamic cultural context.

In order to achieve these main objectives, a systematic survey of the different parts of al-Aqsa was carried out and archaeological excavations of the site were studied and both helped determine the significance of the site of al-Aqsa Mosque in each period of development. The thesis also investigated the urban context of al-Aqsa enclave and concluded that the earliest ancient traces in the foundation are mainly Roman and were destroyed in the 1st century AD when the site lost its significance and was situated outside the urban form of *Aelia*.

Muslims reaffirm al-Aqsa Mosque for its religious significance in Islam after their conquest of Jerusalem. The Muslim had complete sovereignty over al-Aqsa Mosque in 638 AD and its initial revitalisation encompassed some building activities including the delineation of a house of prayer.

Significant construction activities at al-Aqsa enclave were initiated a few decades after the Muslim conquest of Jerusalem. The surviving early Muslim building types, styles, decorative features and construction type provide evidence to show that they date back to the early Islamic period. Even this time could be narrowed down to the time of the Umayyad caliph 'Abd al-Malik. 'Abd al-Malik saw Jerusalem as a place where he could best proclaim his power and therefore he developed a fully three-dimensional Muslim image of Jerusalem.

The architecture of the enclave and its syntax presents considered and precise planning, a high quality of building skills and careful attention to the structural problems of its parts. Certain buildings are produced from relics in response to particular functional demands practised at the enclave. In relating the early Muslim buildings of the enclave to its given topography, neither their places nor forms, functions nor meanings are accidental. Each fits into its place within an overall architectural formula of al-Aqsa Mosque.

From a comparison and evaluation of building types and architectural configurations, the study concludes that the early Muslim monuments have been built in response to Muslims' religious and cultural requirements. Annular centralised buildings have been constructed to fulfil cultural and functional requirements and reflect religious values. As for the broad house type of the Congregation Mosque, it was also created to meet the same purpose of the Muslims' religious functions, and its origin can be found in the plan of the Prophet Mosque in Madīnah.

The thesis concludes with a set of recommendations for further research that would attract public awareness towards the cultural heritage of Islamic Jerusalem.

TABLE OF CONTENTS

DEDICATION III
ACKNOWLEDGMENT IV
ABSTRACT V
TABLE OF CONTENTS VII
LIST OF TABLES XI
LIST OF FIGURES XIII
ABBREVIATIONS XXXII
SYSTEM OF REFERENCING AND TRANSLATION XXXIII
CHRONOLOGY OF THE EARLY ISLAMIC PERIOD XXXIV
CHRONOLOGY OF EARTHQUAKES IN JERUSALEM SINCE THE EARLY ISLAMIC PERIOD XXXV

INTRODUCTION

0.1. PROBLEM STATEMENT 2
0.2. DEVOLOPMENT OF THE RESEARCH HYPOTHESIS 5
0.3. PURPOSE OF THE RESEARCH 6
0.4. RESEARCH LIMITATIONS 8
0.5. RESEARCH METHOD 9
0.6. STRUCTURAL PLAN OF THE THESIS 10

PART ONE: THE STUDY BACKGROUND

CHAPTER ONE: **EXPLORATIONS OF AL-AQSA MOSQUE:** *SOURCES OF INFORMATION*

1. 1. INTRODUCTION 17
1. 2. PRIMARY SOURCES 17
1.2.1. PRACTICAL WORK 18
1.2.2. EARLY SOURCES OF LITERATURE 18
1.2.3. 19TH AND 20TH CENTURY SOURCES 23
1.2.4. THE STRATIGRAPHICAL EXCAVATIONS 31
1. 3. SECONDARY SOURCES 33
1.3.1. MAIN SECONDARY SOURCES 33
1.3.2. CONTEMPORARY PUBLICATIONS 35
1. 4. SUMMARY AND DISCUSSION 36

CHAPTER TWO: **JERUSALEM AND AL-AQSA MOSQUE**

2. 1. GEOGRAPHICAL SETTING AND CLIMATE OF THE CITY 40
2.1.1. LOCATION 40
2.1.2. CLIMATE 40
2. 2. TOPOGRAPHY OF THE OLD CITY 43
2. 3. HISTORICAL SIGNIFICANCE OF THE CITY 46
2. 4. URBAN FORM OF THE OLD CITY 49

PART TWO: THE CONCEPT OF AL-AQSA MOSQUE

CHAPTER THREE: **THE URBAN CONTEXT OF THE Al-AQSA MOSQUE:** *HISTORICAL AND ARCHAEOLOGICAL PERSPECTIVES*

3. 1. INTRODUCTION 61
3. 2. THE SITE OF AL-AQSA BEFORE *AELIA CAPITOLINA* 61
3.2.1. THE SITE OF AL-AQSA MOSQUE BETWEEN 1000 BC AND 37 BC 62
3.2.2. THE SITE OF AL-AQSA MOSQUE BETWEEN 37BC AND 70AD 68
3. 3. THE SITE OF AL-AQSA IN THE HADRIAN ROMAN *AELIA* 78
3.3.1. CONSTRUCTION OF ROMAN *AELIA CAPITOLINA* 83
3.3.2. THE SITE OF AL-AQSA IN ROMAN *AELIA CAPITOLINA* 84
3. 4. THE SITE OF AL-AQSA IN THE BYZANTINE *AELIA* 94
3.4.1. EARLY HISTORICAL ACCOUNTS ON THE SITE OF AL-AQSA ENCLAVE 95
3.4.2. ARCHAEOLOGICAL OBSERVATIONS ON THE SITE OF AL-AQSA ENCLAVE 98
3.4.3. THE SITE AT THE TIME OF LATE BYZANTINE AND MADABA MOSAIC FLOOR 105
3. 5. SUMMARY 114

CHAPTER FOUR: **AL-AQSA MOSQUE:** *THEORETICAL FRAMEWORK*

4. 1. INTRODUCTION 117
4. 2. DEFINITIONS: RELIGIOUS TERMS 117
4.2.1. INTRODUCTION 117
4.2.2. WHAT IS *AL-MASJID* (THE MOSQUE)? 118
4.2.3. *BAYT* (HOUSE) –OF PRAYER– 127
4.2.4. *MUSALLÃ* (PLACE OF PRAYER) 129
4.2.5. *AL-JAMI'* (THE CONGREGATION MOSQUE) 132
4. 3. AL-AQSA MOSQUE IN THE ISLAMIC SOURCES 134
4.3.1. AL-AQSA MOSQUE IN QURÃN AND *HADĪTH* 134
4.3.2. EARLY ESTABLISHED ELEMENTS OF AL-AQSA MOSQUE 141
4.3.3. AL-AQSA MOSQUE AND SYMBOLIC MESSAGE IN THE ISLAMIC TEACHINGS 147
4.3.4. AL-AQSA MOSQUE IN HISTORICAL AND TRAVELERS' ACCOUNTS 151
4. 4. SUMMARY AND CONCLUSION 159

CHAPTER FIVE: **MUSLIM REAFFIRMATION OF AL-AQSA MOSQUE:** *AN EARLY ISLAMIC EPOCH FOR AL-MASJID AL-AQSA*

5. 1. INTRODUCTION 164
5. 2. AL-AQSA MOSQUE AND 'UMAR'S CONQUEST OF JERUSALEM 165
5.2.1. AL-AQSA MOSQUE AND 'UMAR'S ASSURANCE 165
5.2.2. MUSLIMS' REVITALIZATION OF AL-AQSA MOSQUE IN JERUSALEM 167

5. 3. EARLY MUSLIM ACTIVITIES ON THE SITE OF AL-AQSA MOSQUE IN JERUSALEM 171
5.3.1. MUSLIM BUILDING ACTIVITIES INSIDE AL-AQSA MOSQUE 171
5.3.2. MUSLIM BUILDING ACTIVITIES OUTSIDE AL-AQSA MOSQUE 173
5.3.3. AL-AQSA MOSQUE AND ADDITIONAL GATES FOR JERUSALEM.. 180
5. 4. SUMMARY AND CONCLUSION 184

PART THREE: THE BUILDING OF AL-AQSA MOSQUE

CHAPTER SIX: **PHYSICAL DEVELOPMENT OF THE AL-AQSA MOSQUE**

6. 1. INTRODUCTION 188
6. 2. TOPOGRAPHY OF AL-AQSA MOSQUE 189
6. 3. AL-AQSA MOSQUE ENCLOSURE 189
6.3.1. THE EASTERN WALL 189
6.3.2. THE WESTERN WALL 193
6.3.3. THE NORTHERN WALL 194
6.3.4. THE SOUTHERN WALL 194
6.3.5. APPRAISAL OF THE AL-AQSA MOSQUE ENCLOSURE 196
6. 4. ACCESS TO AL-AQSA MOSQUE 201
6.4.1. GATES OF AL-MASJID AL-AQSA IN THE EARLY ISLAMIC PERIOD 201
6.4.2. THE SOUTH-EASTERN BASEMENT OF AL-AQSA MOSQUE 315
6.4.3. WILSON'S ARCH 332
6. 5. SUMMARY AND CONCLUSION 337

CHAPTER SEVEN: **ARCHITECTURE AND MEANING OF THE EARLY ISLAMIC MONUMENTS OF AL-AQSA MOSQUE**

7. 1. INTRODUCTION 343
7. 2. THE MUSLIM HOUSE OF PRAYER OF AL-AQSA MOSQUE 344
7.2.1. THE LOCATION OF 'UMAR'S MOSQUE 344
7.2.2. THE ARCHITECTURE OF 'UMAR'S MOSQUE 346
7. 3. *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN) 350
7. 4. *QUBBET AL-SAKHRAH* (THE DOME OF THE ROCK) 369
7.4.1. THE SIGNIFICANCE OF THE ROCK IN ISLAM 373
7.4.2. WHY DID 'ABD AL-MALIK BUILD *QUBBET AL-SAKHRA*? 373
7.4.3. ARCHITECTURE OF *QUBBET AL-SAKHRA* 379
7.4.4. ARCHITECTURAL ARCHETYPE OF *QUBBET AL-SAKHRA* 410
7.4.5. THE MEANING OF *QUBBET AL-SAKHRA* 412
7. 5. *AL-JĀMI' AL-AQSA* (AL-AQSA CONGREGATION MOSQUE) 421
7.5.1. THE HISTORY OF THE BUILDING OF *AL-JAMI' AL-AQSA* 422
7.5.2. ARCHITECTURE OF *AL-JAMI' AL-AQSA* 424
7. 6. SUMMARY AND CONCLUSION 441

CHAPTER EIGHT: **THE ARCHITECTURAL ORIGINS OF AL-AQSA MOSQUE**

8. 1. INTRODUCTION 448
8. 2. THE CULTURAL CONTEXT IN THE REGION 448
8.2.1. THE BYZANTINE ARCHITECTURE 449
8.2.2. SASSANIAN OR SASANID ARCHITECTURE 456
8. 3. CONSTRUCTION SKILLS 458
8.3.1. ARCHES 458
8.3.2. WOODEN TIE-BEAM 462
8.3.3. ROOFING SYSTEM 464
8. 4. THE ORIGIN OF *QUBBET AL-SILSILAH* 479
8. 5. THE ORIGIN OF *QUBBET AL-SAKHRAH* 485
8.5.1. THE PLAN OF *QUBBET AL-SAKHRAH* 486
8.5.2. THE CROSS-SECTION OF *QUBBET AL-SAKHRAH* 495
8. 6. THE ORIGIN AND TYPOLOGY OF *AL-JĀMI'* AL-AQSA 498
8. 7. SUMMARY AND CONCLUSION 510

CONCLUSIONS

CHAPTER NINE: **CONCLUSIONS AND RECOMMENDATIONS**

9. 1. CONCLUSIONS 515
9. 2. CHRONOLOGY OF AL-AQSA MOSQUE 524
9. 3. RECOMMENDATIONS FOR FURTHER RESEARCH 526

APPENDIX A: DATA ON AL-AQSA MOSQUE

A.1. WARREN'S EXCAVATION (1867-1870 AD) 531
A.2. ELEVATIONS ON AL-AQSA MOSQUE 533

APPENDIX B: SOME ILLUSTRATIONS OF AL-AQSA MOSQUE

BIBLIOGRAPHY 537

LIST OF TABLES

TABLE 4.1 THE MAIN DISTINCTION BETWEEN SOME TERMS USED TO REFER TO THE PLACES OF WORSHIP 133

TABLE 4.2 THE NATURE OF THE SACRED MOSQUE AND AL-AQSA MOSQUE AS REFERRED TO IN THE QURĀN AND *HADĪTH* 150

TABLE 4.3 THE MAIN DIMENSION OF AL-AQSA MOSQUE AS MENTIONED IN SOME HISTORICAL AND TRAVELER'S SOURCES 155

TABLE 6.1 GATES OF AL-AQSA MOSQUE IN THE EARLY ISLAMIC PERIOD 314

TABLE 6.2 DIMENSIONS OF GATES OF AL-AQSA MOSQUE IN THE EARLY ISLAMIC PERIOD 314

TABLE 6.3 TYPE OF ARCHITECTURE OF THE GATES OF AL-AQSA MOSQUE IN THE EARLY ISLAMIC PERIOD 315

TABLE 6.4 STRUCTURAL ANALYSIS OF THE ARCHES IN AL-AQSA ENCLAVE 339

TABLE 7.1 ESTIMATED AREAS OF SOME EARLY MUSLIM MONUMENTS 348

TABLE 7.2 MEASUREMENTS IN THE PLAN OF THE PRESENT *QUBBET AL-SILSILAH* ... 360

TABLE 7.3 MEASUREMENTS OF THE ELEVATION OF THE PRESENT *QUBBET AL-SILSILAH* 360

TABLE 8.1 EXAMPLES OF BUILDINGS WHERE THE SLIGHTLY POINTED ARCH EXISTS 462

TABLE 8.2 OPEN STRUCTURE OF CONCENTRIC BUILDINGS ERECTED IN THE EARLY ISLAMIC PERIOD 482

TABLE 8.3 OCTAGONAL BUILDINGS OF THE ROMAN AND CHRISTIAN PERIODS OUTSIDE HISTORICAL SYRIA 489

TABLE 8.4 OCTAGONAL BUILDINGS IN HISTORICAL SYRIA PRIOR TO THE 8TH CENTURY 491

TABLE 8.5 TWO EXAMPLES OF ROTUNDAS THAT REST ON PIERS AND COLUMNS FREQUENTLY COMPARED WITH *QUBBET AL-SAKHRAH* 493

TABLE 8.6 THE AREA OF THE EXTERIOR OCTAGON OF *QUBBET AL-SAKHRAH* IN COMPARISON WITH THAT OF ROMAN AND CHRISTIAN OCTAGONAL BUILDINGS 496

TABLE 8.7 A CROSS-SECTION OF EXAMPLES OF PRECEDENT ANNULAR OCTAGONAL BUILDINGS AND *QUBBET AL-SAKHRAH* 497

TABLE 8.8 EXAMPLES OF RECONSTRUCTED PLANS OF THE MAJOR EARLY MUSLIM MOSQUES INITIATED BEFORE AND CONTEMPORARY TO AL-AQSA MOSQUE IN JERUSALEM 506

TABLE 8.9 PRINCIPAL MEASUREMENTS AND ESTIMATED AREAS OF RECONSTRUCTED PLANS OF THE MAJOR EARLY MUSLIM MOSQUES INITIATED BEFORE AND CONTEMPORARY TO AL-AQSA MOSQUE IN JERUSALEM 508

TABLE 8.10 GRAPHIC AREA REPRESENTATION OF SOME RECONSTRUCTED PLANS FOR THE MAJOR EARLY MUSLIM MOSQUES INITIATED BEFORE AND CONTEMPORARIES TO AL-AQSA MOSQUE IN JERUSALEM 508

TABLE A.1 THE HEIGHT OF STONE COURSES OF THE WALLS OF AL-AQSA ENCLAVE AS EXPOSED BY WARREN ON SITE AND IN SEVERAL EXCAVATION SHAFTS 532

TABLE A.2 LEVELS OF AL-AQSA ENCLAVE (ABOVE THE MEDITERRANEAN SEA LEVEL) 533

LIST OF FIGURES

FIGURE 0.1 THE FLOW DIAGRAM OF THE RESEARCH PROCESS 14

FIGURE 2.1 JERUSALEM: GEOGRAPHICAL SITING OF PALESTINE IN THE REGION 41

FIGURE 2.2 JERUSALEM: MAP OF PALESTINE AS DEPICTED BY AL-ISTAKHRĪ (D. 340 AH/ 951 AD) 42

FIGURE 2.3 JERUSALEM: FIRST GEODESIC MAP FOR THE CITY BY THE CZECH DOCTOR, F. W. SIEBER, 1818 AD (LAOR COLLECTION, 61x 47 CM.) 43

FIGURE 2.4 JERUSALEM: TOPOGRAPHICAL MAP 44

FIGURE 2.5 JERUSALEM: SOME SECTIONS IN THE CITY 45

FIGURE 2.6 JERUSALEM: CHRONOLOGICAL STRUCTURAL DEVELOPMENT FOR THE PRESENT AREA OF AL-AQSA MOSQUE IN BRONZE AND IRON AGE (3300-586 BC). THIS MAP IS BASED ON ARCHAEOLOGICAL EXCAVATIONS CARRIED OUT IN THE CITY 50

FIGURE 2.7 JERUSALEM: CHRONOLOGICAL STRUCTURAL DEVELOPMENT FOR THE PRESENT AREA OF AL-AQSA MOSQUE IN GREEK AND ROMAN PERIOD (332 BC–70 AD). THIS MAP IS BASED ON ARCHAEOLOGICAL EXCAVATIONS CARRIED OUT IN THE CITY 51

FIGURE 2.8 JERUSALEM: CHRONOLOGICAL STRUCTURAL DEVELOPMENT FOR THE PRESENT AREA OF AL-AQSA MOSQUE IN THE TIME OF ROMAN *AELIA CAPITOLINA* (135–313 AD.). THIS MAP IS BASED ON ARCHAEOLOGICAL EXCAVATIONS CARRIED OUT IN THE CITY 52

FIGURE 2.9 JERUSALEM: CHRONOLOGICAL STRUCTURAL DEVELOPMENT FOR THE PRESENT AREA OF AL-AQSA ENCLAVE IN THE BYZANTINE PERIOD (313–637 AD.). THE ARCHAEOLOGICAL INFORMATION REVEALED CANNOT YET CONFIRM WHETHER THE COLOUR HATCHED AREA WAS INCLUDED OR NOT IN THE LATE BYZANTINE PERIOD 53

FIGURE 2.10 JERUSALEM: CHRONOLOGICAL STRUCTURAL DEVELOPMENT FOR THE PRESENT AREA OF AL-AQSA MOSQUE IN THE EARLY ISLAMIC PERIOD (AFTER 637 AD.). THIS MAP IS BASED ON ARCHAEOLOGICAL EXCAVATIONS CARRIED OUT IN THE CITY 54

FIGURE 2.11 JERUSALEM: THE MAIN CITY GATES FOR THE PRESENT JERUSALEM..... 55

FIGURE 2.12 JERUSALEM: CRUSADER MAP FOR THE CITY, EARLY 12TH CENTURY..... 56

FIGURE 2.13 JERUSALEM IN MADABA MOSAIC FLOOR OF GREEK ORTHODOX CHURCH OF ST. GEORGE 57

FIGURE 3.1 AL-AQSA MOSQUE: A SEAM HAS BEEN REVEALED IN THE EASTERN WALL OF AL-AQSA ENCLAVE. ON THE RIGHT, THE MASONRY OF THE

WALL CAN PROBABLY BE ATTRIBUTED TO THE HELLENISTIC PERIOD WHILE ON THE LEFT THE MASONRY IS ROMAN 63

FIGURE 3.2 ELECTRONIC EXAMANATION: THE HIGHLIGHTED AREAS OF THE WALL SHOW WHERE THE GROUND PENETRATING RADAR EXAMINATIONS HAVE BEEN MADE 65

FIGURE 3.3 RADAR EXAMANATION: A GRAPHIC DRAWING SHOWING THE RESULTS OF THE RADAR EXAMINATION IN THE SOUTHER AREA OF AL-AQSA MOSQUE. UNDER THE LEVEL OF *BĀB AL-NABĪ* (THE DOUBLE GATE) ARE EMPTY VOIDS AND ABOVE THESE VOIDS THERE ARE MOUNDS OF RUBBLE 66

FIGURE 3.4 JEWISH TEMPLE: SOME DIFFERENT PLANS SUGGESTED FOR THE TEMPLE WHICH ISRAELI SCHOLARS CLAIM EXISTED IN THE AREA OF AL-AQSA 67

FIGURE 3.5 INFRARED IMAGES OF *QUBBET AL-SAKHRA* (THE DOME OF THE ROCK).. 69

FIGURE 3.6 ROBINSON'S ARCH AT THE SOUTH-EASTERN CORNER OF THE PRESENT AL-AQSA ENCLAVE AS IT LOOKED IN 1846 AD 70

FIGURE 3.7 ROMAN PAVEMENT ADJACENT TO THE WESTERN WALL OF AL-AQSA ENCLAVE 71

FIGURE 3.8 SCHEMATIC DRAWING SHOWS THE LOCATION OF A PIER FOUND BY MAZAR TO THE WEST OF ROBINSON'S ARCH. 72

FIGURE 3.9 SUGGESTED RECONSTRUCTION TO THE FORM OF ROBINSON'S ARCH AND ITS FUNCTION AS A BRIDGE TO THE HERODIAN TEMPLE. 73

FIGURE 3.10 A PIER FOUND TO THE WEST OF ROBINSON'S ARCH. TO THE LEFT, ROMAN-BYZANTINE BUILDING; LOOKING NORTHWEST 74

FIGURE 3.11 SCHEMATIC DIAGRAM SHOWS THAT THERE IS NO JOINT IN THE ROMAN MASONRY AT THE NORTH-EAST CORNER OF AL-AQSA ENCLAVE AS EXPECTED BY SOME BIBLICAL ARCHAEOLOGISTS 76

FIGURE 3.12 SOME EXAMPLES OF HEROD TEMPLE AS MENTIONED BY DIFFERENT SCHOLARS 79

FIGURE 3.13 JERUSALEM: SOUTH-EAST CORNER OF AL-AQSA MOSQUE ENCLOSURE WHICH IS QUITE SIMILAR TO THE TYPE OF DEFENSIVE WALLS OF CITIES IN PALESTINE, SUCH AS MEGIDDO, JERICHO AND TROIE 80

FIGURE 3.14 JERUSALEM: PROPOSED RECONSTRUCTION OF NEW RESEARCH BY ERNEST MARTIN BASED ON A DESCRIPTION OF THE BIBLE AND FLAVIUS JOSEPHUS, WHICH SHOWS THAT THE JEWISH TEMPLE IS NOT LOCATED AT ALL WITHIN AL-AQSA ENCLAVE 81

FIGURE 3.15 ROMAN *AELIA CAPITOLINA* 82

FIGURE 3.16 JERUSALEM: LOCATIONS OF EXCAVATIONS CARRIED OUT BY VARIOUS SCHOLARS AT THE EASTERN PART OF PRESENT CITY OF JERUSALEM 87

FIGURE 3.17 ARCHAEOLOGICAL OBSERVATIONS AND COMPARISONS MADE BY THE RESEARCHER BETWEEN THE HADRIANIC STONE MASONRY IN THE *ECCE HOMO* ARCH ON THE RIGHT AND THE STONE MASONRY IN THE EASTERN ENCLOUSURE OF AL-AQSA ENCLAVE ON THE LEFT..... 89

FIGURE 3.18 *ECCE HOMO* ARCH AT THE NORTH-WEST CORNER OF THE PRESENT AL-AQSA ENCLAVE 90

FIGURE 3.19 *ECCE HOMO* ARCH AT THE NORTH-WEST CORNER OF THE PRESENT AL-AQSA ENCLAVE 91

FIGURE 3.20 JORDAN AND SYRIA: THE TOP PICTURE SHOWS THE HADRIANIC TRIUMPHAL ARCH OF GERASA IN JORDAN. THE BOTTOM PICTURE SHOWS THE ROMAN CITY GATE OF BOSRA IN SYRIA, LOCATED AT THE WEST OF THE CITY 92

FIGURE 3.21 ROMAN *AELIA CAPITOLINA*: LOCATIONS OF DAMASCUS GATE AND *ECCE HOMO* ARCH IN THE PRESENT CITY OF JERUSALEM 93

FIGURE 3.22 JERUSALEM: THE MAP SHOWS THE SUGGESTED ROUTE FOLLOWED BY "BORDEAUX" ON THE EASTERN SIDE OF THE CITY IN CORRESPONDENCE WITH THE LOCATIONS OF SOME PLACES DESCRIBED BY "BORDEAUX" IN 333 AD 97

FIGURE 3.23 JERUSALEM: SOUTH-EAST CORNER OF AL-AQSA ENCLAVE WHICH IS MENTIONED BY SOME PILGRIMS AS THE PINNACLE OF THE TEMPLE 99

FIGURE 3.24 JERUSALEM: THE EARLY ISLAMIC STONE MASONRY AS SUGGESTED BY BEN-DOV OVER THE ROMAN STONE MASONERY AT THE WESTERN WALL OF AL-AQSA ENCLAVE 101

FIGURE 3.25 JERUSALEM: THE LOWER COURSES INDICATE UMAYYAD STONE MASONRY AT THE SOUTHERN WALL OF AL-AQSA ENCLAVE (UP-TO 9 COURSES FROM THE GROUND) 102

FIGURE 3.26 JERUSALEM: NORTHERN END OF THE WESTERN WALL OF AL-AQSA ENCLAVE SHOWS THAT IT CONTAINS EARLY BYZANTINE MASONRY RESEMBLING THAT FOUND AT THE CHURCH OF THE HOLY SEPULCHRE 104

FIGURE 3.27 JERUSALEM: THE EXPANSION OF THE CITY TO THE SOUTH IN THE TIME OF BYZANTINE, AS SUGGESTED BY ARCHAEOLOGISTS..... 107

FIGURE 3.28 JERUSALEM IN MADABA MOSAIC FLOOR OF GREEK ORTHODOX CHURCH OF ST. GEORGE 107

FIGURE 3.29 SCHEMATIC DIAGRAM SHOWS THE MAIN ELEMENTS OF THE URBAN MORPHOLOGY OF JERUSALEM IN THE BYZANTINE PERIOD, WHICH ARE DEPICTED IN THE MADABA MOSAIC FLOOR 109

FIGURE 3.30 MADABA MOSAIC FLOOR: PLANNING OF JERUSALEM IN THE LATE BYZANTINE PERIOD AS PORTRAYED ON THE MADABA MOSAIC FLOOR AND THE URBAN FORM OF THE OLD CITY OF JERUSALEM..... 111

FIGURE 3.31 JERUSALEM: THE EXPANSION OF THE CITY IN RELATION TO THE ARCHAEOLOGICAL EXCAVATIONS AND HISTORICAL DESCRIPTIONS AVAILABLE. THE ARCHAEOLOGICAL INFORMATION SO FAR

REVEALED CANNOT CONFIRM WHETHER THE COLOUR-HATCHED AREA WAS ABANDONED OR NOT IN THE LATE BYZANTINE PERIOD ... 112

FIGURE 3.32 SCHEMATIC DIAGRAM SHOWS THE DEVELOPMENT OF THE URBAN MORPHOLOGY OF JERUSALEM IN CONNECTION WITH THE NEW CITY CORE IN THE BYZANTINE PERIOD 113

FIGURE 3.33 SCHEMATIC DIAGRAM SHOWS THE MAIN CARDINAL LINES AND THE URBAN FORM OF ROMAN *AELIA CAPITOLINA* 115

FIGURE 3.34 SCHEMATIC DIAGRAM SHOWS THE DEVELOPMENT OF *AELIA* IN THE BYZANTINE PERIOD 115

FIGURE 4.1 SCHEMATIC DRAWING OF THE MAIN THREE ELEMENTS THAT PLAY THE MAIN ROLE IN CREATING THE MOSQUE 123

FIGURE 4.2 THE SACRED MOSQUE IN MAKKAH: THE FIRST MOSQUE ON EARTH WHICH INDICATES THE MAIN THREE ELEMENTS EMPLOYED IN CREATING THE MOSQUE: LOCATION, *QIBLAH* AND BOUNDARIES 124

FIGURE 4.3 SCHEMATIC DRAWING SHOWS THE CONCEPT OF THE EARLY MOSQUES AND THEIR RELATIONSHIP 126

FIGURE 4.4 SCHEMATIC DRAWING FOR THE MAIN ELEMENTS ON WHICH THE IDEA OF THE MOSQUE IS BASED 127

FIGURE 4.5 THE KA'BAH IN MAKKAH: THE FIRST MUSLIM HOUSE OF PRAYER..... 130

FIGURE 4.6 STATION OF ABRAHAM IN MAKKAH. THIS IS WHERE ABRAHAM'S *MUSALLĀ* WAS ESTABLISHED 131

FIGURE 4.7 GEOGRAPHICAL MAP SHOWS THE LOCATION OF JERUSALEM, MAKKAH AND MADĪNAH 143

FIGURE 4.8 COMPUTER MODEL OF AL-AQSA MOSQUE: THE TOP PICTURE LOOKING FROM THE SOUTH-EAST ANGLE TO THE NORTH-WEST, WHILE THE LOWER IS LOOKING FROM THE SOUTH-WEST ANGLE TO THE NORTH-EAST. THIS ILLUSTRATES THE MAIN THREE ELEMENTS THAT PLAY THE MAIN ROLE IN CREATING AL-AQSA MOSQUE 145

FIGURE 4.9 COMPUTER MODEL OF AL-AQSA MOSQUE: THE TOP PICTURE LOOKING FROM THE NORTH-EAST ANGLE TO THE SOUTH-WEST, WHILE THE LOWER IS LOOKING FROM THE NORTH-WEST ANGLE TO THE SOUTH-EAST. THIS ILLUSTRATES THE MAIN THREE ELEMENTS THAT PLAY THE MAIN ROLE IN CREATING AL-AQSA MOSQUE 146

FIGURE 4.10 SCHEMATIC DRAWING SHOWING THE INNER MEASUREMENTS OF AL-AQSA ENCLAVE 156

FIGURE 5.1 SCHEMATIC DRAWING SHOWS PROPOSED EARLY CHRISTIAN URBAN BLOCK THAT EXISTED IN THE QUARTER WHICH IS LOCATED TO THE SOUTH OF AL-AQSA ENCLAVE. THIS DRAWING IS BASED ON THE ARCHAEOLOGICAL EVIDENCE REVEALED BY BEN-DOV'S EXCAVATION SOUTH OF AL-AQSA ENCLAVE 180

FIGURE 5.2 JERUSALEM: THE LOCATION OF THE CITY GATES AS DESCRIBED BY ARCULF IN 670 AD. THE ARROWS SHOW THAT THE LOCATION OF THE GATES CANNOT BE DETERMINED BY EXISTING INFORMATION..... 183

FIGURE 5.3 SCHEMATIC DRAWING SHOWS THE DEVELOPMENT OF THE URBAN FORM OF JERUSALEM IN THE EARLY ISLAMIC PERIOD 185

FIGURE 6.1 COMPUTER MODEL SHOWS THE TOPOGRAPHY OF AL-AQSA ENCLAVE; THE PICTURE LOOKING FROM THE SOUTH-EAST TO THE NORTH-WEST ANGLE 190

FIGURE 6.2 COMPUTER MODEL SHOWS AL-AQSA ENCLAVE BEFORE THE EARLY ISLAMIC PERIOD; THE UPPER AND LOWER PICTURES ARE DEVELOPED ON THE BASIS OF ARCHAEOLOGICAL REMAINS THAT DATE PRIOR TO THE EARLY ISLAMIC PERIOD 191

FIGURE 6.3 JERUSALEM: THE EASTERN WALL OF AL-AQSA ENCLAVE 192

FIGURE 6.4 JERUSALEM: THE NORTHERN WALL OF AL-AQSA ENCLAVE SHOWS THE ROCK SCRAPE AND THE MINARET OF *AL-GHAWĀNIMAH* 195

FIGURE 6.5 JERUSALEM: THE SOUTHERN WALL OF AL-AQSA ENCLAVE SHOWS THE NATURAL LEVEL OF THE BEDROCK 197

FIGURE 6.6 JERUSALEM: SCHEMATIC DRAWING SHOWS THE DIFFERENT PHASES OF AL-AQSA ENCLAVE 198

FIGURE 6.7 JERUSALEM: SCHEMATIC DRAWING SHOWS THE RELATION BETWEEN THE TOP OF THE HILLOCK OF THE ENCLAVE AND THE OVERALL PLAN OF IT..... 200

FIGURE 6.8 JERUSALEM: ACCESS TO AL-AQSA MOSQUE IN THE EARLY ISLAMIC PERIOD 202

FIGURE 6.9 JERUSALEM: THE EASTERN FAÇADE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS IT LOOKS TODAY FROM OUTSIDE 205

FIGURE 6.10 JERUSALEM: TOP PLAN AND SECTION OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) IN THE EARLY ISLAMIC PERIOD 206

FIGURE 6.11 JERUSALEM: TOP PLAN AND SECTION OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS IT LOOKS TODAY 207

FIGURE 6.12 JERUSALEM: A DRAWING SHOWING THE ARCHITECTURAL ARRANGEMENT AND THE BUILDING TECHNOLOGY OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 208

FIGURE 6.13 JERUSALEM: THE DOORWAYS OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE); THE PICTURE REPRESENTS THE BUILDING TECHNOLOGY THAT IS EMPLOYED IN CONSTRUCTING THE ARCH INCLUDING THE PROPORTION OF THE DOORWAY IN THE EARLY ISLAMIC PERIOD 209

FIGURE 6.14 JERUSALEM: *BĀB AL-RAHMAH* (OR THE GOLDEN GATE); MATHEMATICAL ANALYSIS OF THE PROPORTION OF THE DOORWAYS IN THE EARLY ISLAMIC PERIOD..... 210

FIGURE 6.15 SOME ANALOGIES TO THE DECORATION OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE). A- THE DECORATION OF THE MAIN FAÇADE OF *BĀB AL-RAHMAH* DATES FROM THE EARLY ISLAMIC PERIOD B- DECORATION FROM PYRAMIDICAL TOMB OF *AL-BĀRA* IN SYRIA DATES FROM BYZANTINE PERIOD C- DECORATION OF A DOOR LINTEL AT *MIJLAYYĀ* IN SYRIA DATES FROM BYZANTINE PERIOD 211

FIGURE 6.16 JERUSALEM: THE DOORWAYS OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE); THE PICTURE REPRESENTS THE BUILDING TECHNOLOGY THAT IS EMPLOYED IN CONSTRUCTION OF THE VAULT OF THE THRESHOLD OF THE DOORWAY INCLUDING THE PROPORTION OF THE VAULT IN THE EARLY ISLAMIC PERIOD..... 212

FIGURE 6.17 JERUSALEM: *BĀB AL-RAHMAH* (OR THE GOLDEN GATE); MATHEMATICAL ANALYSIS OF THE PROPORTION OF THE VAULT SPANNING THE THRESHOLD OF THE DOORWAYS IN THE EARLY ISLAMIC PERIOD. B AND R ARE CENTRES OF CIRCLES THAT FORM THE ELLIPTICAL ARCH 213

FIGURE 6.18 JERUSALEM: INTERIOR PERSPECTIVES OF THE VESTIBULE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS THEY LOOKED IN THE EARLY ISLAMIC PERIOD. THE UPPER PICTURE LOOKS TOWARDS THE SOUTH-WESTERN CORNER OF THE BUILDING AND THE LOWER ONE LOOKS TOWARDS THE SOUTH-EASTERN CORNER OF IT..... 214

FIGURE 6.19 JERUSALEM: THE VESTIBULE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS IT LOOKS TODAY..... 215

FIGURE 6.20 JERUSALEM: ARCHITECTURAL ELEMENTS SUPPORT THE ARCHES WHICH CARRYING THE DOMES OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) TODAY. TOP PICTURE: AN INTERIOR PILASTER. BOTTOM PICTURE: AN INTERIOR CENTRAL COLUMN 217

FIGURE 6.21 JERUSALEM: THE CAPITAL OF THE INTERIOR CENTRAL PILLAR THAT SUPPORTS THE ARCHES WHICH CARRY THE DOMES OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) TODAY. THE CAPITAL IS A REUSED ARCHITECTURAL ELEMENT, IT IS OF IONIC STYLE WHICH BELONGS TO AN ANCIENT ROMAN RUIN WHOSE REMAINS HAD BEEN REUSED .. 218

FIGURE 6.22 JERUSALEM: THE VESTIBULE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE); THE PICTURE REPRESENTS THE BUILDING TECHNOLOGY THAT IS EMPLOYED IN CONSTRUCTING THE DOMES OF THE VESTIBULE INCLUDING THEIR PROPORTION IN THE EARLY ISLAMIC PERIOD 219

FIGURE 6.23 JERUSALEM: ONE OF THE SHALLOW DOMES OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) WHICH DATES BACK TO THE EARLY ISLAMIC PERIOD, AS IT LOOKS TODAY 220

FIGURE 6.24 THE MATHEMATICAL CONSTRUCTION OF AN ELLIPTICAL ARCH USED IN THE ARCHITECTURE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) IN THE EARLY ISLAMIC PERIOD..... 221

FIGURE 6.25 GEOMETRICAL ANALYSIS OF HOW THE ELLIPTICAL DOMES OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) HAVE BEEN CONSTRUCTED 222

FIGURE 6.26 THE CONSTRUCTION PROCEDURE OF THE DOMES OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS SUGGESTED BY CORBETT 223

FIGURE 6.27 EXTERIOR PERSPECTIVES OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD. THE UPPER PICTURE IS THE EASTERN FAÇADE VIEWED FROM OUTSIDE THE ENCLAVE AND THE LOWER ONE IS THE WESTERN FAÇADE FROM THE INSIDE 225

FIGURE 6.28 JERUSALEM: TOP PICTURE IS FOR THE EASTERN FACADE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AND THE BOTTOM IS THE WESTERN ONE AS THEY LOOK TODAY 226

FIGURE 6.29 JERUSALEM: INTERIOR PERSPECTIVE LOOKING TOWARDS THE EASTERN FACADE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS IT APPEARS TODAY. IT SHOWS THAT THE BUILDER OF THE GATE HAS CREATED A RECESS ON EACH OUTER SIDE OF THE EASTERN FAÇADE IN ORDER TO REDUCE THE SPAN OF THE THRESHOLD OF ITS OPENINGS. THEREFORE, THE ARCHES OF THE OPENINGS HAD TO TAKE A SMALLER SPAN COMPARED TO THE SPAN OF THE ARCHES THAT CARRY THE DOMES OF THE VESTIBULE. 227

FIGURE 6.30 JERUSALEM: THE SOUTHERN FAÇADE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) IN THE END OF THE 19TH CENTURY. 228

FIGURE 6.31 JERUSALEM: A DOOR WITH A SEMICIRCULAR ARCH THAT PIERCES THE EASTERN SIDE OF THE SOUTHERN FAÇADE OF *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) AS IT LOOKS TODAY 229

FIGURE 6.32 JERUSALEM: *BĀB AL-RAHMAH* AND THE "MASSIVE WALL" TO ITS EAST, PART OF GENERAL MAP OF JERUSALEM FROM WARREN'S EXCAVATION. 230

FIGURE 6.33 JERUSALEM: *BĀB AL-RAHMAH* (OR THE GOLDEN GATE) TODAY FROM DIFFERENT POSITIONS 233

FIGURE 6.34 JERUSALEM: PLAN AND SECTION OF *ABWĀB MIHR*ĀB MARIAM (OR THE TRIPLE GATE) AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD 235

FIGURE 6.35 JERUSALEM: PLAN AND SECTION OF *ABWĀB MIHR*ĀB MARIAM (OR THE TRIPLE GATE) AS IT APPEARS TODAY 236

FIGURE 6.36 JERUSALEM: SECTION OF *ABWĀB MIHR*ĀB MARIAM (OR THE TRIPLE GATE) AS IT APPEARS TODAY 237

FIGURE 6.37 JERUSALEM: PLAN AND SECTION OF *ABWĀB MIHR*ĀB MARIAM (OR THE TRIPLE GATE) AS IT APPEARS TODAY 238

FIGURE 6.38 JERUSALEM: A DRAWING SHOWING THE VAULTING ARRANGEMENT AND THE BUILDING TECHNOLOGY OF *ABWĀB MIHR*ĀB *MARIAM* (OR THE TRIPLE GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 239

FIGURE 6.39 JERUSALEM: *ABWĀB MIHR*ĀB *MARIAM* (OR THE TRIPLE GATE); THE UPPER PICTURE REPRESENTS THE GATE AS IT LOOKED IN THE EARLY ISLAMIC PERIOD AND THE LOWER PICTURE THE GATE AS IT APPEARS TODAY 240

FIGURE 6.40 JERUSALEM: THE MIDDLE DOORWAY OF A*BWĀB MIHRĀB MARIAM* (OR THE TRIPLE GATE); THE PICTURE REPRESENTS THE BUILDING TECHNOLOGY THAT IS EMPLOYED IN CONSTRUCTING THE ARCH INCLUDING THE PROPORTION OF THE DOORWAY IN THE EARLY ISLAMIC PERIOD 241

FIGURE 6.41 JERUSALEM: A*BWĀB MIHRĀB MARIAM* (OR THE TRIPLE GATE); THE PICTURE REPRESENTS THE BUILDING TECHNOLOGY THAT IS EMPLOYED IN CONSTRUCTING THE ELLIPTICAL ARCH THAT COVERING THE THRESHOLD OF THE DOORWAYS IN THE EARLY ISLAMIC PERIOD 242

FIGURE 6.42 JERUSALEM: A*BWĀB MIHRĀB MARIAM* (OR THE TRIPLE GATE); MATHEMATICAL ANALYSIS OF THE PROPORTION AND CONSTRUCTING PROCEDURE OF THE ELLIPTICAL ARCH COVERING THE THRESHOLD OF THE DOORWAYS IN THE EARLY ISLAMIC PERIOD. 243

FIGURE 6.43 AL-AQSA MOSQUE: ONE OF THE TUNNEL VAULTS OF A*BWĀB MIHRĀB MARIAM* (OR THE TRIPLE GATE); THE PICTURE REPRESENTS THE BUILDING CONSTRUCTION TECHNOLOGY AND MATHEMATICAL ANALYSIS OF CONSTRUCTING THE VAULT INCLUDING ITS PROPORTION IN THE EARLY ISLAMIC PERIOD. ((R) IS THE CENTRE OF THE CIRCLE THAT FORMS THE ARCH OF THE VAULT) 245

FIGURE 6.44 AL-AQSA MOSQUE: INTERIOR PERSPECTIVES OF THE VESTIBULE OF A*BWĀB MIHRĀB MARIAM* (OR THE TRIPLE GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD. AS IT IS LESS CERTAIN THAT THE ROOF OF THE VESTIBULE CONSISTS OF DOMES, IT WAS DISPLAYED IN A BARREL FORM AS IT LOOKS TODAY 246

FIGURE 6.45 AL-AQSA MOSQUE: INTERIOR TUNNEL OF A*BWĀB MIHR*ĀB MARIAM (OR THE TRIPLE GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD. THE PICTURE LOOKS INSIDE THE PASSAGE FROM NORTH TO SOUTH 247

FIGURE 6.46 AL-AQSA MOSQUE: *BĀB AL-NAB*Ī (OR THE DOUBLE GATE) AS IT LOOKS TODAY FROM OUTSIDE 250

FIGURE 6.47 AL-AQSA MOSQUE: PLAN OF *BĀB AL-NAB*Ī (OR THE DOUBLE GATE) AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD 251

FIGURE 6.48 AL-AQSA MOSQUE: PLAN OF *BĀB AL-NAB*Ī (OR THE DOUBLE GATE) IN THE PRESENT 252

FIGURE 6.49 AL-AQSA MOSQUE: A DRAWING SHOWING THE ARCHITECTURAL ARRANGEMENT AND THE BUILDING TECHNOLOGY EMPLOYED IN *BĀB AL-NAB*Ī (OR THE DOUBLE GATE) IN THE EARLY ISLAMIC PERIOD 253

FIGURE 6.50 AL-AQSA MOSQUE: THE MAIN FAÇADE OF *BĀB AL-NAB*Ī (OR THE DOUBLE GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD..... 254

FIGURE 6.51 AL-AQSA MOSQUE: THE SOUTHERN FAÇADE OF *BĀB AL-NAB*Ī (OR THE DOUBLE GATE) AT PRESENT. THE PICTURE LOOKS FROM INSIDE THE BUILDING THAT BLOCKS THE GATE..... 255

FIGURE 6.52 AL-AQSA MOSQUE: SOUTHERN FAÇADE OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE) AS IT LOOKED IN THE MIDDLE OF THE 19TH CENTURY AD 257

FIGURE 6.53 AL-AQSA MOSQUE: THE UPPER AND LOWER PICTURES REPRESENT SOME OF THE FLORAL MOTIFS THAT EXIST ON THE DECORATED LINTEL OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE) SINCE THE EARLY ISLAMIC PERIOD 258

FIGURE 6.54 AL-AQSA MOSQUE: THE MAIN FAÇADE OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE); THE UPPER PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE DOORWAYS AND THE LOWER PICTURE ANALYSES THE PROPORTION OF THE DOORWAY AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 259

FIGURE 6.55 AL-AQSA MOSQUE: INTERIOR PERSPECTIVES OF THE VESTIBULE OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE) AS THEY MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD. THE UPPER PICTURE LOOKS TOWARS THE NORTH-EASTERN CORNER OF THE BUILDING AND THE LOWER ONE LOOKS TOWARDS THE SOUTH-WESTERN CORNER OF IT . 260

FIGURE 6.56 AL-AQSA MOSQUE: THE VESTIBULE AND PASSAGE BEHIND OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE) AS IT LOOKED IN THE MIDDLE OF 19TH CENTURY AD 261

FIGURE 6.57 AL-AQSA MOSQUE: DETAIL OF ONE OF THE DECORATED DOMES OVER THE VESTIBULE OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 262

FIGURE 6.58 AL-AQSA MOSQUE: THE VESTIBULE OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE); THE PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE DOMES AND VAULTS INCLUDING THE PROPORTION OF THEIR HEIGHTS IN THE EARLY ISLAMIC POERIOD 263

FIGURE 6.59 AL-AQSA MOSQUE: THE EASTERN PASSAGE OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE) LEADING UP TO THE LEVEL OF THE ENCLAVE GATE AS IT LOOKED IN THE EARLY ISLAMIC PERIOD. THE PICTURE LOOKS FROM INSIDE THE TUNNEL TOWARDS THE SOUTH 265

FIGURE 6.60 AL-AQSA MOSQUE: THE EASTERN PASSAGE TUNNEL OF *BĀB AL-NABĪ* (OR THE DOUBLE GATE) LEADING UP TO THE LEVEL OF THE ENCLAVE AS IT LOOKS TODAY. THE UPPER PICTURE LOOKS FROM THE INSIDE TUNNEL TOWARDS THE SOUTH AND THE LOWER ONE LOOKS FROM INSIDE IT TOWARDS THE NORTH 266

FIGURE 6.61 AL-AQSA MOSQUE: THE FIRST CURVING STONES –STILL SURVIVING TODAY– OF THE SUPPORTED ARCH OF THE GATE THAT LED TO AL-*JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) DIRECTLY FROM OUTSIDE THE ENCLAVE DURING THE UMAYYAD PERIOD..... 270

FIGURE 6.62 AL-AQSA MOSQUE: THE LOCATION OF THE FIRST CURVING STONES – STILL SURVIVING TODAY– OF THE SYPPORTED ARCH OF THE GATE THAT IN THE UMAYYAD PERIOD LED TO *JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) DIRECTLY FROM OUTSIDE THE ENCLAVE. 271

FIGURE 6.63 AL-AQSA MOSQUE: RECONSTRUCTION OF THE GATE THAT LED DIRECTLY TO *JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) AND LINKED AN UMAYYAD BUILDING LOCATED OUTSIDE THE ENCLAVE WITH THE MOSQUE DURING THE UMAYYAD PERIOD 272

FIGURE 6.64 AL-AQSA MOSQUE: *BĀB HITTAH* (OR BARCLAY'S GATE) FROM INSIDE WHICH IT IS KNOWN TODAY AS *AL-BURĀQ* MOAQUE 274

FIGURE 6.65 AL-AQSA MOSQUE: PLAN OF *BĀB HITTAH* (OR BARCLAY'S GATE) AND ITS PASSAGEWAY AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 275

FIGURE 6.66 AL-AQSA MOSQUE: PLAN AND SECTION OF *BĀB HITTAH* (OR BARCLAY'S GATE) AND ITS PASSAGEWAY AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 276

FIGURE 6.67 AL-AQSA MOSQUE: PLAN OF *BĀB HITTAH* (OR BARCLAY'S GATE) AND ITS PASSAGEWAY AS IT LOOKS TODAY 277

FIGURE 6.68 AL-AQSA MOSQUE: SECTIONS IN *BĀB HITTAH* (OR BARCLAY'S GATE) AND ITS PASSAGEWAY AS IT LOOKS AT PRESENT 278

FIGURE 6.69 AL-AQSA MOSQUE: A DRAWING SHOWING THE ARCHITECTURAL ARRANGEMENT AND THE BUILDING TECHNOLOGY EMPLOYED IN *BĀB HITTAH* (OR BARCLAY'S GATE) IN THE EARLY ISLAMIC PERIOD ... 279

FIGURE 6.70 AL-AQSA MOSQUE: *BĀB HITTAH* (OR BARCLAY'S GATE) IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE IS FOR THE MAIN FAÇADE OF THE GATE LOOKING FROM THE WEST TOWARDS THE EAST; THE LOWER PICTURE IS AN INTERIOR PERSPECTIVE INSIDE THE GATE LOOKING FROM EAST TO WEST 280

FIGURE 6.71 AL-AQSA MOSQUE: THE MAIN FAÇADE OF *BĀB HITTAH* (OR BARCLAY'S GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE DOORWAY AND THE LOWER PICTURE ANALYSES THE PROPORTION OF THE DOORWAY 281

FIGURE 6.72 AL-AQSA MOSQUE: THE MAIN FAÇADE OF *BĀB HITTAH* (OR BARCLAY'S GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE ILLUSTRATES THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE FIRST VAULT ADJACENT TO THE DOORWAY AND THE LOWER PICTURE ANALYSES THE PROPORTION OF THE VAULT 283

FIGURE 6.73 AL-AQSA MOSQUE: *BĀB HITTAH* (OR BARCLAY'S GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE BARREL VAULT OF THE GATE AND THE LOWER PICTURE ANALYSES THE PROPORTION OF THE VAULT 284

FIGURE 6.74 AL-AQSA MOSQUE: *BĀB HITTAH* (OR BARCLAY'S GATE) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE DOME AND ITS ARCHES OF THE GATE AND THE LOWER PICTURE ANALYSES THE PROPORTION OF THEM 285

FIGURE 6.75 AL-AQSA MOSQUE: PLAN AND ELEVATION OF *BĀB DĀŪD* (GATE OF DAVID) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 287

FIGURE 6.76 AL-AQSA MOSQUE: *BĀB DĀŪD* (GATE OF DAVID) AS IT LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE MAIN FAÇADE OF THE GATE LOOKING FROM THE WEST TOWARDS THE EAST; THE LOWER PICTURE REPRESENTS THE GATE FROM INSIDE THE ENCLAVE, LOOKING FROM EAST TO WEST 288

FIGURE 6.77 AL-AQSA MOSQUE: PLAN AND ELEVATION OF *BĀB DĀŪD* (GATE OF DAVID) AS IT APPEARS TODAY. THE REDUCTION IN THE WIDTH OF THE GATE AND THE FINDING OF THE TWISTED COLUMNS, AS IT IS SEEN IN THE ELEVATION, IS DATED TO THE MAMLŪK PERIOD 289

FIGURE 6.78 AL-AQSA MOSQUE: *BĀB DĀŪD* (GATE OF DAVID) IN THE EARLY ISLAMIC PERIOD; A DRAWING SHOWING THE ARCHITECTURAL ARRANGEMENT, THE BUILDING TECHNOLOGY AND THE PROPORTIONAL SYSTEM EMPLOYED IN THE GATE 290

FIGURE 6.79 AL-AQSA MOSQUE: PLAN, SECTION AND ELEVATION OF *BĀB DĀR UMM KHĀLĪD* (OR WARREN'S GATE) AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD 292

FIGURE 6.80 AL-AQSA MOSQUE: EXTERIOR AND INTERIOR PERSPECTIVES OF *BĀB DĀR UMM KHĀLĪD* (OR WARREN'S GATE) AS THEY MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD. THE UPPER PICTURE LOOKS TOWARDS THE EAST AND THE LOWER ONE LOOKS TOWARDS THE WEST 293

FIGURE 6.81 AL-AQSA MOSQUE: THE SURVIVING ARCH OF THE FAÇADE OF *BĀB DĀR UMM KHĀLĪD* (OR WARREN'S GATE) AS IT LOOKS TODAY 294

FIGURE 6.82 AL-AQSA MOSQUE: PLAN OF *BĀB DĀR UMM KHĀLĪD* (OR WARREN'S GATE) AND ITS PASSAGEWAY AS IT LOOKS TODAY 295

FIGURE 6.83 AL-AQSA MOSQUE: *BĀB DĀR UMM KHĀLĪD* (OR WARREN'S GATE) IN THE EARLY ISLAMIC PERIOD; A DRAWING SHOWING THE ARCHITECTURAL ARRANGEMENT AND THE BUILDING TECHNOLOGY EMPLOYED IN THE GATE 296

FIGURE 6.84 AL-AQSA MOSQUE: (GATE OF) *MAGHĀRAT IBRĀHĪM* (GATE OF ABRAHAM'S CAVE) FROM OUTSIDE THE ENCLAVE AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD 299

FIGURE 6.85 AL-AQSA MOSQUE: (GATE OF) *MAGHĀRAT IBRĀHĪM* (GATE OF ABRAHAM'S CAVE) AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE DOORWAY AND THE LOWER PICTURE REPRESENTS THE PLAN AND ELEVATION OF THE DOORWAY AND ANALYSES ITS PROPORTION 300

FIGURE 6.86 AL-AQSA MOSQUE: (GATE OF) *MAGHĀRAT IBRĀHĪM* (GATE OF ABRAHAM'S CAVE) AS IT LOOKS TODAY; THE UPPER PICTURE REPRESENTS A VERTICAL SECTION IN THE GATE AND THE LOWER PICTURE REPRESENTS THE PLAN OF THE GATE 301

FIGURE 6.87 AL-AQSA MOSQUE: PLAN OF *BĀB AL-HĀSHMĪ* (GATE OF AL-HASHMI) – PRESENT *BĀB AL-'ATM–* AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD..... 303

FIGURE 6.88 AL-AQSA MOSQUE: PLAN OF *BĀB AL-HĀSHMĪ* (GATE OF AL-HASIIMI) – PRESENT *BĀB AL-'ATM–* AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE NORTHERN FAÇADE OF THE GATE AND THE LOWER PICTURE REPRESENTS THE SOUTHERN FAÇADE OF THE GATE FROM INSIDE THE ENCLAVE 304

FIGURE 6.89 AL-AQSA MOSQUE: PLAN OF *BĀB AL-HĀSHMĪ* (GATE OF AL-HASHMI) – PRESENT *BĀB AL-'ATM–* AS IT LOOKS TODAY 305

FIGURE 6.90 AL-AQSA MOSQUE: *BĀB AL-HĀSHMĪ* (GATE OF AL-HASHMI) – PRESENT *BĀB AL-'ATM–* AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE DOORWAY AND THE LOWER PICTURE REPRESENTS AN ELEVATION OF THE GATE AND ANALYSES ITS PROPORTION..... 306

FIGURE 6.91 AL-AQSA MOSQUE: PLAN AND ELEVATION OF *BĀB AL-ASBĀT* (GATE OF THE TRIBES) –PRESENT *BĀB HITTAH–* AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD 308

FIGURE 6.92 AL-AQSA MOSQUE: PLAN AND ELEVATION OF *BĀB AL-ASBĀT* (GATE OF THE TRIBES) –PRESENT *BĀB HITTAH–* AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE NORTHERN FAÇADE OF THE GATE AND THE LOWER PICTURE REPRESENTS THE SOUTHERN FAÇADE OF THE GATE FROM INSIDE THE ENCLAVE..... 309

FIGURE 6.93 AL-AQSA MOSQUE: PLAN AND ELEVATION OF *BĀB AL-ASBĀT* (GATE OF THE TRIBES) –PRESENT *BĀB HITTAH–* AS IT LOOKS TODAY 310

FIGURE 6.94 AL-AQSA MOSQUE: *BĀB AL-ASBĀT* (GATE OF THE TRIBES) –PRESENT *BĀB HITTAH–* AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD; THE UPPER PICTURE REPRESENTS THE BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE DOORWAY AND THE LOWER PICTURE REPRESENTS THE ELEVATION OF THE GATE AND ANALYSES ITS PROPORTION 311

FIGURE 6.95 AL-AQSA MOSQUE: PLAN OF THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE. THE TOP PICTURE REPRESENTS THE PLAN AS IT LOOKED IN THE EARLY ISLAMIC PERIOD WHILE THE BOTTOM ONE REPRESENTS THE PRESENT PLAN..... 317

FIGURE 6.96 AL-AQSA MOSQUE: PLAN AND SECTIONS OF THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE AS IT LOOKED IN THE EARLY ISLAMIC PERIOD..... 318

FIGURE 6.97 AL-AQSA MOSQUE: INTERIOR PERSPECTIVES INSIDE THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE AS THEY LOOKED IN THE EARLY ISLAMIC PERIOD –THE UPPER PICTURE LOOKING TOWARDS THE NORTH AND THE LOWER ONE LOOKING TOWARDS THE NORTH-WEST..... 319

FIGURE 6.98 AL-AQSA MOSQUE: INTERIOR PERSPECTIVES INSIDE THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE AS THEY LOOKED IN THE EARLY ISLAMIC PERIOD –THE UPPER PICTURE LOOKING TOWARDS THE SOUTH AND THE LOWER ONE LOOKING TOWARDS THE WEST 320

FIGURE 6.99 AL-AQSA MOSQUE: INTERIOR PERSPECTIVES INSIDE THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE AS IT LOOKS TODAY – THE UPPER PICTURE LOOKING TOWARDS THE EAST AND THE LOWER ONE LOOKING TOWARDS THE NORTH–EAST 321

FIGURE 6.100 AL-AQSA MOSQUE: THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE IN THE EARLY ISLAMIC PERIOD. THE TOP PICTURE REPRESENTS THE ARCHITECTURAL ARRANGEMENT AND BUILDING TECHNOLOGY EMPLOYED IN THE BASEMENT WHILE THE BOTTOM ONE REPRESENTS A PLAN AND SECTION THAT CLARIFY THE VARIETY OF SPACES THAT SEPARATED THE ARCHES INSIDE THE BASEMENT 322

FIGURE 6.101 AL-AQSA MOSQUE: THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE TODAY. THE TOP PICTURE –LOOKING SOUTH– REPRESENTS THE NORTHERN SIDE OF THE BASEMENT AFTER REVEALING THE FILL BLOCKING IT, WHILE THE BOTTOM –LOOKING SOUTH-EAST– REPRESENTS PART OF ANCIENT TRACES OF THE EASTERN SIDE OF THE LOGGIA THAT HAVE BEEN REVEALED SO FAR 324

FIGURE 6.102 AL-AQSA MOSQUE: THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE TODAY. THE TOP PICTURE –LOOKING SOUTH-EAST– SHOWS REMAINS OF AN ARCH IMPOST PROJECTING OUT OF THE EASTERN VAULT OF THE BASEMENT –AT THE RIGHT CORNER OF THE PICTURE; IT WAS DISCOVERED RECENTLY BY *AL-WAQF* AUTHORITY IN JERUSALEM WHICH LINKS THE BASEMENT WITH A LOGGIA. THE BOTTOM PICTURE –LOOKING NORTH– SHOWS A SLIGHTLY POINTED TRANSVERSAL ARCH OF THE LOGGIA ADJACENT TO THE EASTERN WALL OF THE ENCLAVE AT THE TIME OF DISCOVERY, WHICH UNFORTUNATELY COLLAPSED SOME TIME AFTER THE DISCOVERY AND NO LONGER EXISTS 325

FIGURE 6.103 AL-AQSA MOSQUE: THE MATHEMATICAL CONSTRUCTION OF THE SLIGHTLY POINTED ARCH AT THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE AS IT LOOKS TODAY 328

FIGURE 6.104 AL-AQSA MOSQUE: THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE AS IT LOOKS TODAY. THE PICTURE –LOOKING NORTH– REPRESENTS THE SURVIVING TRACES OF AN ANCIENT ROMAN IMPOST OF AN ARCH, WHICH HAS TOTALLY DIFFERENT SCALE, AND SITING THAN THOSE FORMING THE BASEMENT 330

FIGURE 6.105 AL-AQSA MOSQUE: THE SOUTH-EASTERN BASEMENT OF AL-AQSA ENCLAVE AS IT LOOKS TODAY. THE PICTURE –LOOKING NORTH-WEST– REPRESENTS THE SURVIVING TRACES OF AN ANCIENT ROMAN IMPOST OF AN ARCH, WHICH HAS A TOTALLY DIFFERENT SCALE, AND SITING THAN THOSE FORMING THE BASEMENT 331

FIGURE 6.106 AL-AQSA MOSQUE: TOP: WILSON'S ARCH AS IT LOOKS TODAY; BOTTOM: PLAN OF THE ARCH AND ITS ADJACENT SUCCESSIVE SERIES OF VAULTS AS IT LOOKS TODAY, THE BLACK SHADED AREAS IN THE PLAN ARE THE SURVIVING EARLY MUSLIM REMAINS 333

FIGURE 6.107 AL-AQSA MOSQUE: WILSON'S ARCH, THE BRIDGE THAT LEADS TO AL-AQSA ENCLAVE IN THE EARLY ISLAMIC PERIOD. THE PICTURE REPRESENTS THE ARCHITECTURAL ARRANGEMENT AND BUILDING TECHNOLOGY EMPLOYED IN CONSTRUCTING THE BRIDGE OF THE ENCLAVE 335

FIGURE 6.108 AL-AQSA MOSQUE: WILSON'S ARCH, THE SOUTH ELEVATION OF THE BRIDGE THAT LEADS TO AL-AQSA ENCLAVE IN THE EARLY ISLAMIC PERIOD. THE PICTURE ILLUSTRATES THE DOUBLE OVERLAPPING AND THE VARIATIONS IN THE HEIGHT OF THE VAULTS THAT CREATE A RHYTHM IN THE ARCHITECTURE OF THE BRIDGE 336

FIGURE 7.1 THE PROPHET'S MOSQUE IN MADĪNAH AT THE TIME OF THE MUSLIMS' CONQUEST OF JERUSALEM 347

FIGURE 7.2 SKETCH INDICATING THE SPACE REQUIREMENTS FOR PRAYING IN THE MOSQUE 349

FIGURE 7.3 AL-AQSA MOSQUE: PLAN OF *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN) AS IT LOOKS TODAY 351

FIGURE 7.4 AL-AQSA MOSQUE: CROSS SECTION OF *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN) AS IT LOOKS TODAY 352

FIGURE 7.5 AL-AQSA MOSQUE: A THREE-DIMENSIONAL COMPUTER MODEL OF *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN) SHOWS THE TWO CONCENTRIC ENCLOSURES OF THE BUILDING 353

FIGURE 7.6 AL-AQSA MOSQUE: EXTERIOR PERSPECTIVES OF *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN). THE TOP PICTURE REPRESENTS THE BUILDING AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD LOOKING TOWARDS THE NORTH AND THE BOTTOM ONE SHOWS THE BUILDING AS IT IS TODAY LOOKING TOWARDS THE SOUTH-WEST 355

FIGURE 7.7 AL-AQSA MOSQUE: INTERIOR PERSPECTIVES OF *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN). THE TOP PICTURE REPRESENTS THE BUILDING AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD LOOKING TOWARDS THE NORTH WHILE THE BOTTOM ONE SHOWS THE BUILDING AS IT IS TODAY LOOKING TOWARDS THE NORTH-WEST 356

FIGURE 7.8 AL-AQSA MOSQUE: PERSPECTIVE OF *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN) AS ILLUSTRATED BY CROYANKER IN 1993 AD BEFORE THE RESTORATION OF THE BUILDING IN 2000 AD 357

FIGURE 7.9 AL-AQSA MOSQUE: WEST ELEVATION OF *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN) AFTER RESTORATION 358

FIGURE 7.10 AL-AQSA MOSQUE: *QUBBET AL-SILSILAH* (THE DOME OF THE CHAIN) AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD. THE DRAWING SHOWS THE ARCHITECTURAL ARRANGEMENT AND CONSTRUCTION METHOD EMPLOYED IN THE BUILDING 359

FIGURE 7.11 AL-AQSA MOSQUE: THE RELATION BETWEEN THE LAYOUT OF AL-AQSA ENCLAVE AND *QUBBET AL-SILSILAH*. THE AXIS CD IS PARALLEL TO THE *QIBLAH* WALL AND THE AXIS CE PENETRATES THE MIDPOINT

OF THE EAST AND WEST WALL OF THE ENCLAVE. (A= CENTRE THAT IS GENERATED BY LINKING THE MIDPOINTS OF EACH OPPOSITE SIDE (C-E AND F-G)) 365

FIGURE 7.12 DAMASCUS: THE TREASURY OF THE UMAYYAD GREAT MOSQUE IN DAMASCUS AS IT LOOKS TODAY 367

FIGURE 7.13 AL-AQSA MOSQUE: *QUBBET AL-SAKHRAH* IN JERUSALEM. THE TOP PICTURE WAS TAKEN IN 1859 AD, LOOKING SOUTH-WEST, THE BOTTOM ONE IS A RECENT PICTURE LOOKING NORTH-WEST 371

FIGURE 7.14 AL-AQSA MOSQUE: THREE-DIMENTIONAL COMPUTER MODEL OF *QUBBET AL-SAKHRAH* IN JERUSALEM AS IT LOOKED IN THE EARLY ISLAMIC PERIOD. TOP PICTURE LOOKING NORTH, THE BOTTOM ONE PICTURE LOOKING NORTH-WEST 372

FIGURE 7.15 AL-AQSA MOSQUE: TOP: PLAN OF THE CIRCULAR ENCLOSURE SURROUNDING THE ROCK OF *QUBBET AL-SAKHRAH* IN JERUSALEM. BOTTOM: INTERIOR PERSPECTIVE OF THE ROCK AS IT LOOKS TODAY 376

FIGURE 7.16 AL-AQSA MOSQUE: TOP: PLAN OF *QUBBET AL-SAKHRAH* IN JERUSALEM. BOTTOM: THREE-DIMENSIONAL MODEL OF THE ANNULAR ENCLOSURES OF THE BUILDING WITHOUT A ROOF AS THEY LOOKED AT THE TIME OF CONSTRUCTION 380

FIGURE 7.17 AL-AQSA MOSQUE: CROSS SECTION OF *QUBBET AL-SAKHRAH* SHOWS THE THREE CONCENTRIC ENCLOSURES OF THE BUILDING AS THEY LOOK TODAY 381

FIGURE 7.18 AL-AQSA MOSQUE: ISOMETRIC OF *QUBBET AL-SAKHRAH* SHOWS THE BOUNDARY WALL OF THE BUILDING AS IT LOOKED IN THE EARLY ISLAMIC PERIOD 382

FIGURE 7.19 AL-AQSA MOSQUE: WEST AND SOUTH–WEST ELEVATIONS OF *QUBBET AL-SAKHRAH* DURING THE EARLY MUSLIM CONSTRUCTION AND BEFORE THE UPPER SURFACES WERE COVERED WITH MOSAIC... 384

FIGURE 7.20 AL-AQSA MOSQUE: *QUBBET AL-SAKHRAH* IN THE EARLY ISLAMIC PERIOD; THE PICTURE DETAILS THE BUILDING METHOD EMPLOYED IN CONSTRUCTING THE WINDOWS AND THE ARCHED PARAPET OF THE BOUNDARY WALL OF THE BUILDING 385

FIGURE 7.21 AL-AQSA MOSQUE: THE OUTER AMBULATORY OF *QUBBET AL-SAKHRAH* AS IT LOOKS TODAY 386

FIGURE 7.22 AL-AQSA MOSQUE: THE INNER AMBULATORY OF *QUBBET AL-SAKHRAH* AS IT LOOKS TODAY 387

FIGURE 7.23 AL-AQSA MOSQUE: *QUBBET AL-SAKHRAH* IN THE EARLY ISLAMIC PERIOD; THE PICTURE DETAILS THE BUILDING METHOD EMPLOYED IN CONSTRUCTING THE INTERMEDIATE ENCLOSURE OF THE BUILDING BEFORE COVERING IT WITH MARBLE AND MOSAIC 389

FIGURE 7.24 AL-AQSA MOSQUE: SECTION AND ELEVATION OF THE OUTER (NORTH) FACE OF THE INTERMEDIATE OCTAGON OF *QUBBET AL-SAKHRAH* (THE DOME OF THE ROCK). THE DETAIL ILLUSTRATES THE

METHOD OF CONSTRUCTION OF THE TIE-BEAMS AND ITS RELATION WITH THE ARCHES AND CAPITALS 390

FIGURE 7.25 AL-AQSA MOSQUE: TYPES OF THE ROOFING SYSTEM IN *QUBBET AL-SAKHRAH* (THE DOME OF THE ROCK) WHICH DETAIL THE CONSTRUCTION METHOD EMPLOYED IN THE COVERING BUILDING. THE DETAILS ARE FOR THE PRESENT COVERING OF THE BUILDING WHICH FOLLOWS THE ORIGINAL TECHNIQUES USED AT THE TIME OF CONSTRUCTING THE BUILDING 392

FIGURE 7.26 AL-AQSA MOSQUE: SECTION OF *QUBBET AL-SAKHRAH* IN JERUSALEM. (THE INNER ARCHES OF THE INNER ENCLOSURE ARE ORIGINALLY SEMICURCULAR BUT THEY ARE NOW SLIGHTLY POINTED AS A RESULT OF THEIR MARBLE COVER DATING FROM THE BEGINNING OF 14TH CENTURY AD) 394

FIGURE 7.27 AL-AQSA MOSQUE: MAUSS'S THEORY OF THE PLANNING OF *QUBBET AL-SAKHRAH* IN JERUSALEM 395

FIGURE 7.28 AL-AQSA MOSQUE: FIKRI'S THEORY OF THE PLANNING OF *QUBBET AL-SAKHRAH* IN JERUSALEM 396

FIGURE 7.29 AL-AQSA MOSQUE: OTHMÄN'S THEORY OF THE PLANNING OF *QUBBET AL-SAKHRAH* IN JERUSALEM 398

FIGURE 7.30 AL-AQSA MOSQUE: CHEN'S THEORY OF THE PLANNING OF *QUBBET AL-SAKHRAH* IN JERUSALEM 399

FIGURE 7.31 AL-AQSA MOSQUE: WILKINSON'S THEORY OF THE PLANNING OF *QUBBET AL-SAKHRAH* IN JERUSALEM 400

FIGURE 7.32 AL-AQSA MOSQUE: AL-RATROUT'S THEORY OF THE PLANNING OF *QUBBET AL-SAKHRAH* IN JERUSALEM 402

FIGURE 7.33 AL-AQSA MOSQUE: THE PROPORTIONAL SYSTEM OF THE CROSS–SECTION OF *QUBBET AL-SAKHRAH* IN JERUSALEM 406

FIGURE 7.34 AL-AQSA MOSQUE: THE PROPORTIONAL SYSTEM OF THE FAÇADE OF *QUBBET AL-SAKHRAH* IN JERUSALEM 407

FIGURE 7.35 AL-AQSA MOSQUE: THE PROPORTIONAL SYSTEM OF THE DOORWAYS OF *QUBBET AL-SAKHRAH* IN JERUSALEM (THE DRAWING SHOWS THE MASONRY WITHOUT MOSAIC COVER) 408

FIGURE 7.36 AL-AQSA MOSQUE: THE ARCHETYPE OF *QUBBET AL-SAKHRAH* IN JERUSALEM 411

FIGURE 7.37 TWO CHRISTIAN MINIATURES WHICH SHOW THE INTEREPRETATION OF THE HEAVENLY JERUSALEM IN AN APOCALYPTIC VISION. BOTH OF THEM PORTRAY PARADISE AS A CIRCLE. ON THE RIGHT MANUSCRIPT DATES TO THE 9TH CENTURY AD (IN THE MUNICIPAL LIBRARY, VELENCIENNES), ON THE LEFT THE MANUSCRIPT DATES TO THE 1ST QUARTER OF THE 11TH CENTURY AD (IN THE STADTBIBLIOTHEK, BAMBERG) 418

FIGURE 7.38 AL-AQSA MOSQUE: CORNUCOPIAE, DETAIL OF MOSAICS; THE UPPER PICTURE IS AT THE CIRCULAR ARCADE OF *QUBBET AL-SAKHRAH*, AND THE LOWER ONE IS AT ITS NORTHERN INTRADOS 419

FIGURE 7.39 AL-AQSA MOSQUE: PLAN OF *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IN JERUSALEM AS IT LOOKS TODAY. THE BLACK COLOUR ILLUSTRATES THE EARLY MUSLIM SURVIVING TRACES IN PRESENT *AL-JĀMI'* AL-AQSA 425

FIGURE 7.40 AL-AQSA MOSQUE: *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IN JERUSALEM TODAY LOOKING NORTH–WEST 426

FIGURE 7.41 AL-AQSA MOSQUE: THE INTERIOR OF *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IN JERUSALEM TODAY LOOKING NORTH–WEST 427

FIGURE 7.42 AL-AQSA MOSQUE: THE SURVIVNG EARLY MUSLIM TRACES OF *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IN JERUSALEM. THE PLAN IS BASED ON THE ARCHAEOLOGICAL EXCAVATION OF HAMILTON 431

FIGURE 7.43 AL-AQSA MOSQUE: RECONSTRUCTION OF *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IN JERUSALEM AS IT MAY WELL HAVE LOOKED IN THE EARLY ISLAMIC PERIOD. THE TOP PICTURE (LOOKING NORTH-EAST) REPRESENTS THE ARCHITECTURAL ARRANGEMENT OF 'AB AL-MALIK'S BUILDING WHILE THE BOTTOM REPRESENTS A SUGGESTED COMPUTER IMAGE OF THE BUILDING AT THAT TIME BASED ON ARCHAEOLOGICAL EVIDENCE AND AL-MUQDISĪ'S DESCRIPTION OF *AL-JĀMI'* AL-AQSA (LOOKING SOUTH-WEST) 432

FIGURE 7.44 AL-AQSA MOSQUE: *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IN JERUSALEM AS IT MAY WELL HAVE LOOKED IN THE 'ABBĀSID PERIOD. THE PLAN BASED ON THE ARCHAEOLOGICAL EXCAVATION OF HAMILTON AND ON THE HISTORICAL DESCRIPTION OF AL-MAQDISĪ, AN IMPORTANT SOURCE OF INFORMATION ABOUT THE STRUCTURE OF THE MOSQUE PRIOR TO THE GREAT EARTHQUAKE IN JERUSALEM IN 425 AH/ 1033 AD. IT IS ALSO BASED ON OTHER ACCOUNTS FROM THAT PERIOD 433

FIGURE 7.45 AL-AQSA MOSQUE: RECONSTRUCTION OF *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IN JERUSALEM AS IT MAY WELL HAVE LOOKED IN THE 'ABBĀSID PERIOD. THE TOP PICTURE REPRESENTS THE ARCHITECTURAL ARRANGEMENT OF AL-MAHDĪ'S BUILDING WHILE THE BOTTOM REPRESENTS A SUGGESTED COMPUTER IMAGE OF THE BUILDING AT THAT TIME (LOOKING SOUTH-WEST) 434

FIGURE 7.46 AL-AQSA MOSQUE: THE EARLY STRUCTURAL DEVELOPMENT OF *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE). THE PICTURE REPRESENTS THE 'ABBĀSID BUILDING OF AL-MAHDĪ'S IMPOSED ON A RECONSTRUCTION OF *AL-JĀMI'* AL-AQSA AS IT MAY WELL HAVE LOOKED IN THE UMAYYAD PERIOD 436

FIGURE 7.47 AL-AQSA MOSQUE: THE ARCHITECTURAL ARRANGEMENT OF *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) AND ITS STRUCTURAL RELATIONSHIP WITH THE SOUTHERN PART OF AL-

AQSA ENCLAVE AND ITS SUBTERRANEAN PASSAGEWAY AS IT MAY WELL HAVE LOOKED IN THE UMAYYAD PERIOD 437

FIGURE 7.48 AL-AQSA MOSQUE: *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) AND *QUBBET AL-SAKHRAH* (THE DOME OF THE ROCK) IN JERUSALEM AS THEY LOOK TODAY. THE PICTURE REFLECTS THE RELATIONSHIP BETWEEN THE TWO MONUMENTS IN ITS ISLAMIC CONTEXT AS MENTIONED BY AL-MAQDISĪ'S INTERPRETATION FOR THE LOCATION OF *AL-JĀMI'* AL-AQSA 439

FIGURE 8.1 THREE MAJOR AREAS ARE CONQUERED BY MUSLIMS IN THE EARLY ISLAMIC PERIOD 450

FIGURE 8.2 THE BYZANTINE EMPIRE 450

FIGURE 8.3 ROME: BASILICA OF TRAJAN (98-112 AD) 451

FIGURE 8.4 ROME: THE PANTHEON (120-124 AD) 452

FIGURE 8.5 ROME: THE MINERVA MEDICA (C. 260 AD) 452

FIGURE 8.6 HISTORICAL SYRIA: THE ROMAN CITY OF PHILIPPOPOLIS 455

FIGURE 8.7 EGYPT: PLAN OF THE COPTIC CHURCH OF EL ADRA AT HARIT ZUWILA AT OLD CAIRO AS IT LOOKS TODAY 457

FIGURE 8.8 THE SASSANIAN EMPIRE 457

FIGURE 8.9 DIAGRAM OF SEMICIRCULAR AND FLAT ARCH 459

FIGURE 8.10 TOP: BĀB AL-RAHMAH (OR THE GOLDEN GATE) AS IT LOOKS TODAY. BOTTOM: POMPEII. HOUSE OF MELEAGER, REMAINS OF OPEN COLONNADE WITH ARCHES 461

FIGURE 8.11 THE EVOLUTION OF THE POINTED ARCH AS THE SEPARATION OF ITS TWO CENTRES INCREASES 463

FIGURE 8.12 TOP: SECTION THROUGH THE TIE-BEAM INSIDE *QUBBET AL-SAKHRAH* (THE DOME OF THE ROCK). BOTTOM: TIE-BEAMS OF ARCHES IN THE UPPER GALLERY IN SANCTA SOPHIA IN CONSTANTINOPLE 465

FIGURE 8.13 TOP: DIAGRAM OF THE BARREL VAULT, BOTTOM: *QUSAYR 'AMRAH* IN JORDAN AS IT LOOKS TODAY 467

FIGURE 8.14 EARLY EXAMPLES OF PRIMITIVE PENDENTIVES 470

FIGURE 8.15 EARLY EXAMPLES OF PRIMITIVE PENDENTIVES 471

FIGURE 8.16 EARLY EXAMPLES OF PRIMITIVE PENDENTIVES 472

FIGURE 8.17 EARLY EXAMPLES OF PRIMITIVE PENDENTIVES 474

FIGURE 8.18 EARLY EXAMPLES OF PRIMITIVE PENDENTIVES 475

FIGURE 8.19 EXAMPLES OF SPHERICAL PENDENTIVES 477

FIGURE 8.20 EXAMPLES OF SPHERICAL PENDENTIVES 478

FIGURE 8.21 SPHERICAL PENDENTIVES IN AL-AQSA ENCLAVE 480

FIGURE 8.22 LEPTIS MAGNA IN NORTHERN AFRICA: FOUNTAIN BUILDING (MONUMENTAL *NYMPHAEUM*) DATES TO 8 B.C FROM OPOSITE SIDES . 481

FIGURE 8.23 THE TOP PICTURE REPRESENTS THE TREASURY OF THE UMAYYAD GREAT MOSQUE IN DAMASCUS AS IT LOOKS TODAY, THE BOTTOM PICTURE REPRESENTS A THREE-DIMENSIONAL MODEL FOR THE INNER ENCLOSURE OF *QUBBET AL-SILSILAH* 484

FIGURE 8.24 HISTORICAL SYRIA: A RECONSTRUCTION OF THE PLAN OF THE CATHEDRAL OF BUSRĀ BASED ON THE PLAN OF *QUBBET AL-SAKHRAH* 487

FIGURE 8.25 HISTORICAL SYRIA: TWO CHRISTIAN CHURCHES IN JERUSALEM THAT MAY WELL EXEMPLIFY THE GENERAL PLANNING OF THE CHRISTIAN CHURCH IN SYRIA 501

FIGURE 8.26 SCHEMATIC INTERIOR REPRESENTATION OF A CHRISTIAN BASILICA AND CHURCH ORIENTATION IN HISTORICAL SYRIA 502

FIGURE 8.27 THE KA'BA IN MAKKAH AS IT LOOKS TODAY 504

FIGURE A.1 AL-AQSA MOSQUE: WARREN'S DRAWING OF AL-AQSA MOSQUE AS RESULTED FROM HIS EXCAVATIONS. THE PICTURE ON THE LEFT–HAND SIDE SHOWS THE COURSES OF MASONRY OF THE SOUTH–EASTERN CORNER OF THE ENCLAVE AS NUMBERED BY WARREN AND THE PICTURE ON THE RIGHT–HAND SIDE SHOWS THE PLAN OF THE SOUTH-EASTERN CORNER OF AL-AQSA ENCLAVE 531

FIGURE B.1 AL-AQSA MOSQUE: SECTIONS ALONG THE WALLS OF AL-AQSA ENCLAVE AS THEY LOOK TODAY (*AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) IS NOT SHOWN IN THE PICTURE). TOP: NORTH–SOUTH SECTION AT THE WESTERN WALL. BOTTOM: NORTH–SOUTH SECTION AT THE EASTERN WALL 534

FIGURE B.2 AL-AQSA MOSQUE: SECTION AND ELEVATION AT *BĀB HITTAH* (OR BARCLAY GATE) AS THEY LOOK TODAY 535

FIGURE B.3 AL-AQSA MOSQUE: NORTH–SOUTH SECTION THROGH *AL-JĀMI'* AL-AQSA (AL-AQSA CONGREGATION MOSQUE) AND *BĀB AL-NABĪ* (OR THE DOUBLE GATE) BELOW IT AS IT LOOKED IN THE MIDDLE OF THE 19TH CENTURY AD 536

ABBREVIATIONS

For the abbreviations used in the thesis are:

ASOR	*Annual of the American School of Oriental Research*
BAR	*Biblical Archaeology Review*
BASOR	*Bulletin of the American School of Oriental Research*
IEJ	*Israel Exploration Journal*
IES	*Israel Exploration Society*
PEF	*Palestine Exploration Fund*
PEFQSt	*Palestine Exploration Fund Quarterly Statement*
PEQ	*Palestine Exploration Quarterly*
QDAP	*Quarterly of the Department of Antiquities of Palestine*
ZPDV	*Zeitschrift des Deutschen Palästina-Vereins*
AD	In the year of the Christian era (Latin *Anno Domini*)
AH	*Hijrī* (the Arabic Calendar)
BC	Before Christ
C	Centigrade
c.	Circa (Latin *circa*) (approximately)
cm.	Centimetre
d.	Died
ed.	Editor
m.	Metre
p	Page
RMS	Richter Magnitude Scale
St.	Saint
Vol.	Volume

SYSTEM OF REFERENCING AND TRANSLATION

The Harvard system is used in the thesis. It makes references to particular authors within the main body of the text. A generally chronological arrangement has been followed in the arguments, citing the earliest historical authority first. Whenever there is a need to comment on sentences or authors or expand sentences for extra information, footnotes are used.

For the older historical manuscripts an attempt is made in the thesis to state the date of death of the most important early writers (such as al-Ya'qūbī (d. 292 AH/ 905 AD)). Whenever the date of the author's death is unknown or the manuscript's bibliographical reference needs to be mentioned in the context of the argument, the date of writing is stated between brackets (as al-Ya'qūbī (290 AH/ 902 AD)). If the manuscript has been republished several times, the time of writing the manuscript is stated inside the reference (such as [al-Ya'qūbī, 1999 (902), 2: p182]). For the most significant ancient buildings mentioned in the thesis, a date is given, (as St. Constanza in Rome (c. 330 AD).

System of Translation:

The following system has been adopted for the translation of Arabic words:

Consonants

أ '	خ kh	ض ḍ	ل l
ب b	د d	ط ṭ	م m
? p	ذ dh	ظ ẓ	ن n
ت t	ر r	ع '	هـ h
ث th	ز z	غ gh	و w
ج j	س s	ف f	ي y
چ ch	ش sh	ق q	
ح ḥ	ص ṣ	ك k	

Vowels

ـَ a	ا ā	ـَىْ aw
ـُ u	و ū	ـِي ay
ـِ I	ى ī	

CHRONOLOGY OF THE EARLY ISLAMIC PERIOD

1 AH/ **622** AD	*Al-Hijrah* (the migration) of Muhammad from Makkah to Madīnah, establishment in Madīnah of the first Muslim state; beginning of Islamic period.
11 AH/ **632** AD	Death of the Prophet Muhammad.

The Conquest

12–19 AH/ **633–640** AD	Conquest of Syria and Palestine.
19 AH/ **640** AD	Conquest of Iraq.
22 AH/ **642** AD	Alexandria abandoned by Byzantine army, lower Egypt conquered.
31 AH/ **651** AD	Death of the last Sassanian king, conquest of western Iran.
93 AH/ **711** AD	Beginning of conquest of Spain.

The Caliphate

11–41 AH/ **632–661** AD	Period of the so-called Orthodox caliphs.
41–132 AH/ **661–649** AD	Period of the Umayyad caliphs, among whom the most important ones for their building achievements in art and architecture were:
41– 61 AH/ **661–680** AD	Mu'āwyah Ibn Abu Sufyān.
66–86 AH/ **685–705** AD	'Abd al-Malik Ibn Marwān.
86–96 AH/ **705–714** AD	Al-Walīd Ibn 'Abd al-Malik (or al-Walīd I).
99–101 AH/ **717–720** AD	'Umar Ibn 'Abd al-'Azīz.
105–125 AH/ **724–743** AD	Hishām Ibn 'Abd al-Malik.
125 AH/ **743** AD	Al-Walīd Ibn Yazīd (or Al-Walīd II).
132 AH/ **649** AD	End of the Umayyad rule over Syria and Palestine and starting of the 'Abbāsid rule.

CHRONOLOGY OF EARTHQUAKES IN JERUSALEM SINCE THE EARLY ISLAMIC PERIOD

Palestine has a documented record of destructive earthquakes since the early Islamic Period. Major earthquakes have destroyed all of the major cities. The most recent shock of 6.2 on RMS on 11 July 1927 AD killed more than 300 people and destroyed over 1,000 buildings in Jericho, Nablus, Jerusalem, Nazareth, Tiberias, Lod and Ramlah.

The following earthquakes are among the most significant earthquakes to occur in Jerusalem since the beginning of the early Islamic period[1]:

— **130** AH/ **747** AD — Earthquake. It destroyed *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) (built by 'Abd al-Malik and completed by his son al-Walīd) and the Umayyad palaces to the south of it. It also may well have damaged other monuments of the enclave. (The destroyed *al-Jāmi'* al-Aqsa was restored by Abu Ja'far al-Mansūr (about 155 AH/ 771 AD) while the Umayyad palaces were left in ruins).

— **163** AH/ **779** AD — Earthquake. Al-Aqsa Congregational Mosque was badly damaged. It was restored by the 'Abbāsid caliph al-Mahdī (in 164 AH/ 780 AD).

— **425** AH/ **1033** AD — Earthquake. It damaged the restored al-Aqsa Congregation Mosque and may well have affected other monuments of the enclave. Al-Aqsa Congregation Mosque was restored by the Fātimid caliph al-Żāhir in 426 AH/ 1034 AD)

— **461** AH/ March 18, **1068** AD — This major earthquake occurred in *al-Hijāz* and affected northwest Arabia, with damage

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[1] For more information see: http:// pangea.stanford.edu/ GP50/leah.pdf; Burgoyne, 1987, p41; http://vadumiacob.huji.ac.il/seismology.html

extending to Jerusalem where about 100 people were killed. Some of the monuments of the enclave were also reported to be affected such as the roof of the Dome of the Rock which was reported to have been displaced and returned to its original position.

— **599** AH/ May 20, **1202** AD Earthquake.

— **703** AH/ **1303** AD Earthquake.

— **863** AH/ November 12, **1458** AD Earthquake. A series of shocks were reported from the southern part of Palestine that significantly affected Jerusalem. The Patriarch of Jerusalem reported this earthquake which lasted a short while and damaged or fissured most of the tall buildings in Jerusalem.

— **953** AH/ January 14, **1546** AD Earthquake. (It was estimated to be 6 on RMS).

— **1173** AH/ October 30 and November 25, **1759** AD Earthquakes. (They were estimated to be 6.6 and 7.4 on RMS).

— **1250** AH/ **1834** AD Earthquake.

— **1253** AH/ January 1, **1837** AD Earthquake. (It was estimated to be 6.3 on RMS).

— **1264** AH/ August 7, **1847** AD Earthquake. Distinctly felt in Jerusalem.

— **1346** AH/ July 11, **1927** AD Earthquake. Some of the people living in Jerusalem today still remember this devastating earthquake that hit the city. (It was estimated to be 6.2 on RMS).

INTRODUCTION

Jerusalem came under Islamic rule in 637 AD. Very little is known about the Muslim building activities in the city during the early Islamic period and a great deal of information on the history of this time is doubtful. Although much has been written on the Islamic architecture of al-Aqsa Mosque, major thematic questions regarding Muslim architecture of the early Islamic period have remained unanswered. What is the nature of al-Aqsa Mosque as mentioned in the Qurān? What is its significance for Muslims? Was it part of the early Muslim architecture in Jerusalem or of another period? What about its chronology? Why was this location chosen? Who determined its boundaries and limitations? What is the relationship between the project parts? What kind of evidence do scholars put forward in support of their claims? What is the architectural typology, and was it adapted or newly generated? What precedents, if any, exist for those early architectural Islamic concepts? And so on …

It seems that these queries can be embraced in a single main question, namely what was the nature of the architectural development of al-Aqsa Mosque in Jerusalem during the early Islamic period, specifically with regard to sacred architecture and the shaping of 'the Holy'?

0.1 PROBLEM STATEMENT

It is clear that the history and nature of al-Aqsa Mosque is circumscribed by the competing claims of Jews, Christians and Muslims. For example, Muslims claim that the present Mosque in Jerusalem is the very al-Aqsa Mosque that is mentioned in the Qurān and that its foundation goes back to the time of Ādam. Furthermore, they claim that this view does not necessarily contradict the view that David or Solomon built a temple in Jerusalem. Christians, on the other hand, do not argue much over this issue, though the site has significance for them too in so far as it figures in the history and mythology of the Jewish people as mentioned in the Old Testament. The Jews, however, claim that the present site of al-Aqsa Mosque is the location of the temple of Solomon, although the latter appears to have been much smaller than al-Aqsa enclave (if biblical dimensions are to be believed). Furthermore, they claim that Herod (37 BC), during the time of the Roman occupation, shaped all of the present area of al-Aqsa Mosque as a second Jewish temple. On the other hand, another group

of Jews, the so-called al-Samarā (Conservatives), believe that the Jewish temple was built on a different site altogether, namely, on the top of mount Jerzīm in Samaria [Baedeker, 1912, p223]. Irrespective of the differences in opinions, one may conclude that both Muslims and Jews connect the site and its buildings with the concept of "the holy"[1].

The physical development of al-Aqsa Mosque remains unclear; the identity of those responsible for giving al-Aqsa Mosque its present outline and building the boundaries of the sacred space is disputed. Current claims –some of which are influenced by politics– are generally confused and confusing. Why is the Western Wall sacred to the Jews while the Eastern Wall is not? Why do Muslims say that the present buildings are part of the very al-Aqsa Mosque mentioned in the Qurān while at the time of Muhammad there was no building there? What then is al-Aqsa Mosque?

Claims and counter claims represent the main problem concerning this thesis: on the one hand, there is the task of dating the parts of the enclave, such as *Bāb al-Rahmah* (or the Golden Gate) and *Bāb al-Nabī* (or the Double Gate) which are attributed by some scholars to a period preceding the Muslim conquest of Jerusalem; on the other hand, the nature and extent of Muslim building activities in the early Islamic period needs to be defined. The Questions to be answered are: what did Muslims build? what had already existed at the site of the enclave at that time? and who created the buildings of the early Muslim period?

In modern scholarly research very little significant attention has been given to the early Muslim building activity in the enclave. Few detailed plans have been published and little is known of the monuments' individual histories. The scarcity and unreliability of information is certainly an important factor that confuses any researcher seeking to determine the significance of this period.

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[1] For more information about how Jews, Christians and Muslims referred to "the holy" of Jerusalem in general and of the present area of al-Aqsa Mosque in particular, see, Armstrong, K. 1996.

Another important issue that compounds the problem is the fact that the existing architectural interpretations of the early Islamic period are based on archaeology intent on interpretation consonant with biblical texts. This was specifically the case during the 19th and early 20th centuries, before the significant introduction of stratigraphy in the archaeology of Jerusalem in 1961 AD. Then, in 1968 AD, new archaeological information regarding the early Islamic period was made available as a result of the excavation of Mazar which paved the way to the discovery by Ben-Dov of six huge Umayyad buildings adjacent to the south-eastern corner of the enclave[2]. Fresh archaeological information has been provided in 2000 AD after excavation of some parts of the south-western corner of the enclave during maintenance work. All of this information needs to be co-ordinated and interpreted and will make an important contribution to the understanding of early Muslim building activities in the enclave.

A further factor that causes controversy in the interpretation of the early Muslim architecture of al-Aqsa Mosque is that the vast majority of the subject's scholars are non-architects and non-Muslims. Consequently the vast majority of them have generated one-sided interpretations either from a typological and formal-aesthetic or a historical point of view, most of them disregarding Islamic culture and the needs of Muslims. The interpretation of historical Muslim architecture calls for contributions by other disciplines in order to fill the information gaps regarding the history, archaeology and architecture of the enclave. The interpretation also calls for the consideration of the different contextual circumstances, i.e. political, historical and religious, that conditioned the architectural generation of the enclave in the early Islamic period.

The controversy concerning the interpretation of al-Aqsa Mosque is mainly related to the architectural archetypes and the detailing of the enclave's buildings. Many 19th and 20th century scholars[3], including Mauss [Mauss, 1888, pp.18-47] and Van Berchem and Ory [Van Berchem, 1969, 1: p214], argue that early Muslim

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[2] See section 3.4.3 and 5.3.2 in this thesis.
[3] See section 1.2.3 in this thesis.

architecture was inspired by previous civilisations that had determined the distinctive qualities of the early Islamic buildings at al-Aqsa Mosque. Some scholars, specifically Creswell [Creswell, 1969, 1: p123], even doubt that this architecture was essentially Islamic. However, Rosen-Ayalon [Rosen-Ayalon, 1989, pp.70-73] argues that it *is* an Islamic architecture that carries Muslim identity. This controversy merits further investigation, especially in regard to the planning and the overall design formula of the enclave and the relationship of architectural forms and building functions with Islamic culture.

0.2 DEVOLOPMENT OF THE RESEARCH HYPOTHESIS

Although there is much research on Jerusalem and al-Aqsa enclave, most of it is interpreted from a purely historical or architectural typology point of view, disregarding the religious and cultural Islamic context. As a result many different explanations and dates such as early Islamic, Byzantine, Roman, and even earlier are suggested for the buildings in the enclave. The key issue of the vast majority of biblical researchers' arguments is that al-Aqsa Mosque is located on the site either of the previous Roman city, or the Herodian Temple that is claimed to have been constructed on the site, or on the remains of Solomon's Temple equally believed to have been located there.

The controversy surrounding the interpretation of the architecture of al-Aqsa Mosque raises another important question regarding the relation of this building scheme with the actual urban form of Jerusalem, especially in the eastern part of the city as it existed at the time of the enclave's development.

Most of the literary references on the enclave indicate that it had been completely destroyed by the Romans in 70 AD and was entirely abandoned by the Roman and their Byzantine successors. The question why a huge, derelict and utterly insignificant area would be included in a new Roman city (*Aelia Capitolina*) requires answer. If the enclave was not included in that new Roman city, all constructed parts of al-Aqsa Mosque would have to be attributed to a later period, i.e. the site would have been developed either by the Byzantines (and we know that they did not

develop it)[4] or the Muslims. And with the Byzantines ruled out, no single part of any building in the enclave could be dated earlier than the early Islamic period.

Another important point, also related to the monuments of al-Aqsa Mosque in the early Islamic period, is whether there are any true precedents for the architecture of the enclave and/or whether it is shaped, beyond shared construction techniques, by specific functional needs and by the culture of the people that created it.

This research is based on the conviction that interpretations of the early Muslim architecture of al-Aqsa Mosque should not be one-sided but should be based on a contribution of as many disciplines as possible within the Muslim cultural context. It is the hypothesis that all buildings in the enclave (*al-Jami'* al-Aqsa (al-Aqsa Congregation Mosque), *Qubbet al-Sakhrah* (Dome of the Rock), *Qubbet al-Silsilah* (Dome of the Chain), gates, bridge and the basement) date back not earlier than the early Islamic period. This architectural development of the enclave (recognised as holy place since Adam) started after the Islamic conquest of Jerusalem and the commemorations of the site by the Muslim caliph 'Umar and flourished in the time of the Umayyad caliph 'Abd al-Malik. Moreover, this sacred architecture has been generated to meet Muslims' religious needs, cultural requirements and values, rather than merely in response to the architectural form of precedent buildings, and has therefore generated new architectural concepts. The thesis will set out to search for evidence that will either prove or disprove this hypothesis.

0.3 PURPOSE OF THE RESEARCH

The primary objective of this thesis is to define al-Aqsa Mosque and to investigate the process of development of its architecture in the early Islamic period within its cultural context. The researcher's master thesis, *A New Theory to Explain the Architectural Design and Planning of the Dome of the Rock*, (2002 AD) paved the way for investigating and examining this subject.

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[4] See chapter three in this thesis.

The thesis tries to identify the components and design principles that synthesises the early Muslim architecture of al-Aqsa Mosque. It also seeks to discuss, analyse and verify the meaning of the Mosque and explores the political, religious and cultural context affecting the building of al-Aqsa Mosque.

The key objectives of the thesis can be rehearsed as follows: -

1- Establish the meaning of the "mosque" in general and al-Aqsa Mosque in particular and identify the dating of all early buildings in al-Aqsa enclave such as *Qubbet al-Silsilah* (the Dome of the Chain), *Qubbet al-Sakhrah* (the Dome of the Rock) and *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque).

2- Verify the primary function of each of these buildings.

3- Substantiate the architectural meaning of two of the key buildings in the enclave; *Qubbet al-Sakhrah* (the Dome of the Rock) and Bāb al-Rahmah (or the Golden Gate) which are regarded to be its most beautiful buildings. The restriction of the investigation in this thesis is due to the complexity of the tasks; further expansion is therefore required in subsequent research.

4- Examine the precedent building types that might have influenced the conceptual and detailed design of the key buildings of al-Aqsa enclave.

To achieve these objectives there is a need for carrying out a close search of literature and religious sources and compare this information with detailed investigation of historical, archaeological and architectural and even constructional and decorative details of the buildings.

Hence, the thesis aims to develope a new understanding of the significance of the architectural development of al-Aqsa Mosque in the early Islamic period. It is hoped that the outcome of this research will generate information on early Muslim building activities in the enclave and put forward an appropriate interpretation for its architecture.

0.4 RESEARCH LIMITATIONS

Many questions arise concerning al-Aqsa Mosque and not all of them can be answered within the context of this thesis. The investigation will be limited to the early Islamic period of al-Aqsa Mosque, namely, the Orthodox caliphs (1-41AH/ 632-661AD) and Umayyad period (41-132 AH/ 661-750 AD). The main reason for dealing with this period is that it represents the starting point of the physical evolution of the religious Muslim architecture in Jerusalem after the Muslim conquest of the city. Moreover, architectural information on this period of time is as yet, in the main, apocryphal with very few arguments based on solid evidence.

The study surveys the early Umayyad Islamic project in Jerusalem, namely, al-Aqsa Mosque, and also refers to the early Muslim palaces in Jerusalem. It is the deliberate intention of the thesis to highlight the religious concept of the sacred architecture of buildings in the early Islamic period. Thus, the thesis is divided into three parts:

PART ONE: STUDY BACKGROUND

(1) Sources of information and exploration of al-Aqsa enclave;

(2) The location of the site in relation to the city of Jerusalem.

PART TWO: THE CONCEPT OF AL-AQSA MOSQUE

(3) Al-Aqsa Mosque before Muslim architectural development;

(4) The cultural and religious context and significance of the site of al-Aqsa Mosque;

(5) Social and political circumstances.

PART THREE: THE BUILDING OF AL-AQSA MOSQUE

(1) Architectural description and discussion;

(2) Analysis of the different parts of the enclave;

(3) The meaning and philosophical interpretation of these parts and of the enclave as a whole and of its key buildings;

(4) Architectural origins of and inspirations behind the buildings.

0.5 RESEARCH METHODS

The methodological difficulty of the research results from the particular nature and scope of the inquiry. The variety of the literature dealing with al-Aqsa Mosque necessitates the consideration of both primary and secondary data generated by several disciplines. This study will explore a number of different issues, namely historical and archaeological evidence, architectural characteristics and proportional relationships.

Information on history and archaeology, architecture and Muslim culture will generate the basis of the framework of the research of al-Aqsa Mosque. To explore such data, there is the need to consider historical, topographical and archaeological sources of information as well as the physical architectural forms and patterns. The thesis will employ **inductive and deductive** ways of investigating and critically analyse these different issues within the context of Islamic culture.

A number of different investigations included in the thesis are classified below:

Theoretical and Exegetical Framework: It is very important for the researcher to discuss and define **the concept of al-Aqsa Mosque** before the early Muslim architectural development of the enclave. This forms the first part of the thesis. This is followed by an investigation of the meaning of al-Aqsa Mosque as introduced by its primary sources, the Qurān and the Muhammad Tradition in particular. This part of the research generates a clear theoretical foundation for this thesis and prepares the ground for the next part of investigation into the early Muslim architectural development of the enclave. The research will be based on historical and archaeological information in order to discuss the chronology, reflect the socio-political environment and generate solid evidence. This investigation will establish a reliable platform for further research.

Practical framework: The second part of this thesis is concerned with **the building of al-Aqsa Mosque**; in other words, the physically identifiable elements of the early Muslim project at al-Aqsa. This requires surveys, excavations and a literature review.

On-site fieldwork deals with the physical reality. It contains a survey of archaeological traces of the different parts of the early Muslim scheme supported by some interviews of archaeologists who excavated in or near the site. Measurements and photographs were taken and an advanced visual analysis was carried out to trace architectural forms and styles and their relationships. Discussion of the formation of al-Aqsa Mosque will relate literary sources with existing architectural forms and types. With the help of CAAD, Form-Z and PhotoShop computer software, an attempt is made to project as accurately as possible plans and elevations of the early Muslim parts of al-Aqsa enclave based on the survey.

Analytical framework: The analytical framework is based on comparisons of historical information and architectural issues such as geometry, building types and architectural styles. This analytical framework is an ideal way for tackling the data introduced in the earlier theoretical exegetical and practical frameworks. It has been chosen in order to explore the significance of the different early Muslim architectural components, detect the type of the architectural parts and buildings of al-Aqsa enclave. This leads to an appropriate conclusion on the nature of the architecture and its origins and cultural references.

0.6 STRUCTURAL PLAN OF THE THESIS

The thesis is divided into three parts: the study background, the concept of al-Aqsa Mosque, and the building of al-Aqsa Mosque. The thesis terminates with conclusions and recommendations with regard to further research. There are nine chapters (see Fig. 0.1).

PART ONE: STUDY BACKGROUND

Part One includes chapter one and two.

The first chapter reviews the different sources of information and explorations that relate to al-Aqsa Mosque and on which the thesis is based. The investigation tries to introduce the different kinds of information and briefly explores the different backgrounds and approaches of the writers, their references and their interpretations, within the context of the argument of the thesis.

The second chapter develops a general view of Jerusalem and al-Aqsa Mosque as an introduction to the thesis. It gives a brief portrayal of the geographical setting of the city, its topography, its historical significance, and the urban form of the city. The chapter briefly presents the structural development of eastern Jerusalem up to the early Islamic period.

PART TWO: THE CONCEPT OF AL-AQSA MOSQUE

Part Two investigates and defines the concept of al-Aqsa Mosque; it is concerned with the development of al-Aqsa Mosque from a theoretical point of view (chapters three, four and five of this thesis). In doing so, a historical and archaeological approach will mainly be used in the arguments as a means of reconstituting the different circumstances in which al-Aqsa Mosque emerged.

The third chapter elaborates on the urban context of al-Aqsa Mosque. It investigates the development of the site before the building of Hadrian's Roman city of Jerusalem (*Aelia Capitolina*) and during the time of Roman and Byzantine rule. The third chapter also explores the literary sources on al-Aqsa site. The conclusion illustrates the most significant changes of the enclave in relation to the prosperous epochs of Jerusalem's early history and describes the real state of the site before Muslim building activities commence.

The fourth chapter places the al-Aqsa Mosque in a theoretical and theological framework. This section is dedicated to stating the meaning of the al-Aqsa Mosque by exegesis as presented by the Islamic main sources, namely the Qurān and Prophet Traditions. It also traces the significance of this mosque as illustrated by Islamic geographers and historians. By searching for an identification of al-Aqsa Mosque, it may indeed be possible to discover the essential inspiration of religious values in any given artistic part of this project and to explain what al-Aqsa Mosque mentioned in the Qurān, actually is.

In methodological terms, what is important here, is the choice of researching the principal Islamic sources, especially, the Qurān and the Muhammad Tradition and not merely secondary sources of interpretation. The **deductive** method is considered

to be appropriate to discover the exact meaning of al-Aqsa Mosque as introduced by the Qurān.

The fifth chapter sets out to explore the historical circumstances of the al-Aqsa Mosque at the time of the conquest in relation to archaeological evidence. It examines the Muslims' reaffirmation of al-Aqsa Mosque and the chronology of the structural development of building activity on the site (in the present area of al-Aqsa Mosque) during the early Islamic period, discussing the various points of views as to how the Muslims revitalised the site at that time. This chapter also attempts to trace early Islamic structural activity up to the time of the establishment of the large scale Muslim building activities on the enclave. It develops well founded arguments as to why the early Muslims chose this site to implement their projects and how this site affected the city. The methodology uses both historical and archaeological data.

PART THREE: THE BUILDING OF AL-AQSA MOSQUE

Part Three is concerned with the formation of al-Aqsa Mosque in the architectural context. Since this thesis deals with the historical architecture of al-Aqsa Mosque, it will deal with the form, function and design concept within the cultural context of the enclave (chapters six, seven and eight). Part Three also focuses on the discussion of the architectural elements and design principles of the early Muslim architecture. The conclusion of this investigation draws upon the essential philosophical inspiration that affected both the form and function of the early Muslim buildings of al-Aqsa Mosque.

The sixth chapter is devoted to the architecture of different installations for al-Aqsa Mosque –gates, bridges, basement, and subterranean passageways– starting from the nature of the topography and the boundaries of the enclave. It investigates the construction of early Muslim projects of al-Aqsa Mosque such as gates, basement and bridge and describes their architectural forms and functions. Researching these projects leads to the clarification of their identity and the conclusive definition of the nature and the scale of this Muslim project. The methodological process here uses historical, archaeological and architectural investigations of these monuments, supported by fieldwork survey.

The seventh chapter illustrates the architecture of the early Muslim monuments of al-Aqsa Mosque. It discusses their location, the reasons behind the construction, space, form and order of these monuments within the cultural context and in response to religious needs, and it documents the dimension of the projects. This generates an understanding of the physical limitation and religious values that shaped this project and its architecture as well as precedents for these buildings.

The methodology here depends on fieldwork survey data and historical surveys of names and dates within an archaeological context and the religious interpretation of the key buildings of *Qubbet al-Sakhrah* (the Dome of the Rock) and *Bāb al-Rahmah* (or the Golden Gate).

The eighth chapter is devoted to the architectural origins of al-Aqsa Mosque. It investigates the architectural precedents and the cultural context that existed at the site. It also explores the traditional construction skills employed in the project. Furthermore, it analyses the typology of the early Islamic monuments of al-Aqsa Mosque. By discussing, analysing and comparing the geometrical configurations of the different components of forms with other comparable examples that existed during the early Islamic period as well as elsewhere in the wider cultural/ worlds of the eastern Mediterranean and Middle East, it becomes possible to define more fully the significance of these early Islamic buildings types and styles.

The methodological approach here uses historical, archaeological, architectural and geometrical analyses. The value of this **deductive** approach is that it suggests comprehensive ways and instruments, which can be employed to detect the nature of the early Muslim architecture.

The conclusion of the thesis summarises the finding of Part One, Part Two and Part Three and puts forward recommendations for further research (chapter nine).

The nature of al-Aqsa Mosque in correspondence with the early Muslim building scheme in Jerusalem is explained. A final view of morphology and chronology is presented and attributions made. Recommendations are then put forward to help other researchers carry out further studies and investigations.

The following diagram illustrates the flow of the research process of this thesis in relation to the frameworks of investigation (see Fig. 0.1).

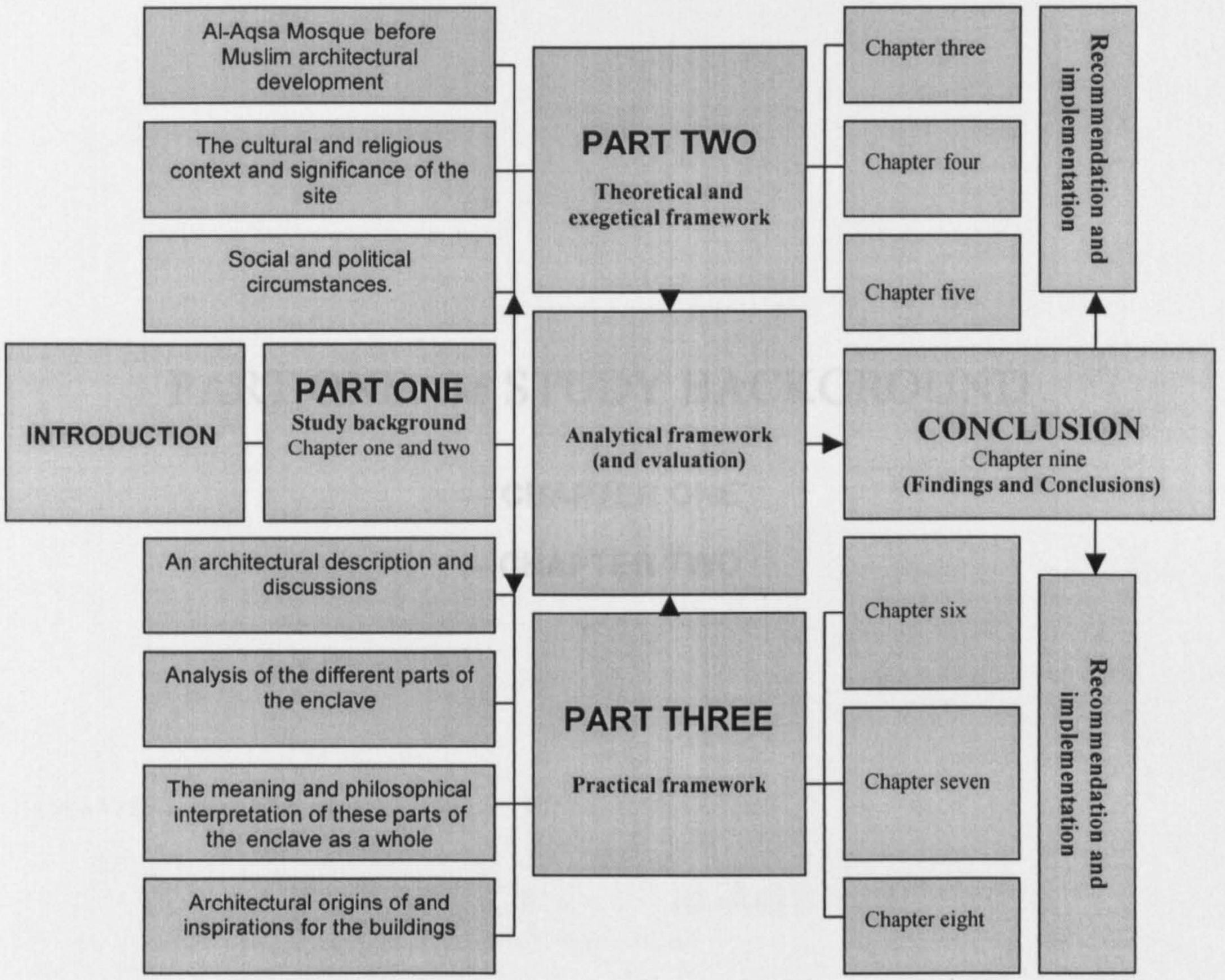


Fig. 0. 1 **The flow diagram of the research process.**
Source The researcher.

PART ONE: THE STUDY BACKGROUND

— CHAPTER ONE

— CHAPTER TWO

CHAPTER ONE

EXPLORATIONS OF AI-AQSA MOSQUE:
SOURCES OF INFORMATION

This chapter reviews the most important sources of information on which this thesis is based.

This chapter reviews the most important sources of information and explorations that relate to al-Aqsa Mosque and on which the thesis is based.

1.1 INTRODUCTION

The relatively large number of sources and books on Jerusalem is expected to be more than enough to carry out research on this city. However, these sources do not solve every single detail regarding the history, archaeology and architecture of the city in general and al-Aqsa Mosque in particular. Instead, various contradictions have emerged. Additionally, some historical, archaeological and architectural information may well have been confused as a result of political or religious attitudes. The scarcity of sources contemporary with the early Islamic period, i.e., the Orthodox caliphs period (11-41 AH/ 632-661 AD) and Umayyad period (41-130 AH/ 661-749 AD) made the vast majority of scholars of Jerusalem pay little attention to the physical presence of this early Islamic period in Jerusalem. Instead, scholars have been attracted by the abundant measure of data in sources, for instance, the Mamlūk period (648–923 AH/ 1250–1517 AD) and the Ottoman period (923–1323 AH/ 1517–1917 AD[1]. On the other hand, the type and style of the literature presented on Jerusalem and other key views of the Islamic architecture of al-Aqsa Mosque as introduced by the main sources would perplex any scholar researching the early Muslim architecture.

The wide range of data sources makes it impossible for this thesis to list every single source or book. In the context of this research there is not enough space to enumerate them all. So, this study classifies the principal sources into primary and secondary ones, while describing and trying to determine the approaches of the most significant authorities.

1.2 PRIMARY SOURCES

The primary sources of information are here considered to be the outcome of fieldwork, and early historical research as well as 19th and 20th century

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[1] See Michael, B., *Mamlūk Jerusalem*, 1987; and Auld, S. & Hillenbrand, R. (eds.), *Ottoman Jerusalem*, 2000.

archaeological and architectural sources of literature. The reports of stratigraphical scientific excavations, that have been carried out since 1961AD, in or around al-Aqsa Mosque also form an important source of information for this thesis.

1.2.1. Practical Work

Important sources of information are those obtained from practical work, namely, fieldwork. This provides reliable data based on a site investigation of the early Muslim buildings in the enclave. The significance of this work is attributed to the fact that it reveals the scope and dimensions of the different parts of the Umayyad projects. Significant artistic features of the site are introduced and commented upon. This thesis does not only rely on the literature –which, in most cases, does not provide such data– but also on fieldwork.

1.2.2. Early Sources Of Literature

The religious associations of the present site of al-Aqsa have for centuries attracted Muslim, Christian and Jewish pilgrims to explore the enclave, mainly since the 4th century AD. With few exceptions, however, their descriptions of the site are no more than sight-seeing accounts commenting on the different parts of the holy place.

With the exception of the Bible and the Qurān, the earliest sources of literature that mention al-Aqsa Mosque area and its precinct, after the Roman destruction of the city in the 2nd half of the 1st century, are written by Jews, Christians, Muslims, historians and travellers. By introducing the holy aspects of this site, these sources are coloured by religious emotions; so, particular political, social, cultural and especially religious attitudes influence the sources. This religious impact can be traced to the descriptions of the site in the old literature, for instance: the works of Flavius Josephus in the 1st century AD in his works *Jewish Antiquities*, and *Jewish War*. Josephus was a Jew, renegade to Rome in the early stage of the Jews' revolution against the Romans (67-70 AD). He was interested in recording the daily life and the history of the Jews. The value of his description is that it presents a contemporary reference to Jerusalem in the 1st century AD. According to the British archaeologist Kenyon, however, "the difficulty of using his evidence is that it refers

to landmarks well known in his time, which we (Kenyon and her colleagues) cannot today identify" [Kenyon, 1974, p6].

The reports of Christian pilgrims followed the Jewish tradition, e.g. those of Bordeaux (333 AD), Eusebius (400 AD), Eucherius (427-440 AD), and Theodorus (530 AD). They described the ruined area of al-Aqsa enclave as they saw it, and their references to the enclave were based on personal experience. The great value of these references is due to their contemporary description of Jerusalem in the Byzantine period. However, their biblical identification of several places in and around al-Aqsa enclave may well have been subjected to erroneous identification, due to misunderstanding or conjectures. In the ancient sources, scholars can find "two Zions, two Temple areas, two Bethanys, two Gethsemanes, two or more Calvarys, three Holy Sepulchres, several Bethesdas" [Conder, 1909, p3].

Significantly, a Christian pilgrim was the first to make a reference to the early Muslim physical presence in al-Aqsa enclave. Arculf, a Christian bishop from Gaul (France), who went to Jerusalem in 670 AD, gives a general architectural description of the Muslims' house of prayer built in the enclave during the time of the Umayyad Muslim Caliph, Mu'āwyah Ibn Abu Sufyān (41-61 AH/ 661-680 AD). Although al-Wāqidī (d.207 AH/ 823 AD) and Abū 'Ubaid (d. 224 AH/ 838 AD) mention that the Muslims' caliph, 'Umar, demarcated a mosque in al-Aqsa enclave [al-Wāqidī, no date, 1: p314; Abū 'Ubaid, 1986, p168], the other historical sources simply remained silent. The value of Arculf's reference is due to the fact that he is an eye-witness, and his comments were made during the Umayyad period.

The manuscript of Tārīkh al-Ya'qūbī (History of al-Ya'qūbī) for the Muslim historian al-Ya'qūbī (d. 292 AH/ 905 AD) is important to mention because it refers to the reason for the erection of *Qubbet al-Sakhrah* (the Dome of the Rock). He mentions that 'Ab al-Malik built *Qubbet al-Sakhrah* so as to divert the *hajj* (pilgrimage) from Makkah to Jerusalem during his struggle with 'Abdullah Ibn al-Zubair, his intention being to prevent him obtaining the Muslims' allegiance during their pilgrimage [al-Ya'qūbī, 1999 (902), 2: p182]. This is in contrast to Muqdisī's reference, as will be mentioned later, when a totally different reason for the construction of the building will be put forward. Al-Ya'qūbī lived in Baghdad in Iraq

and he was a loyalist to the 'Abbāsids (132-334 AH/ 749-945 AH) who were engaged in a long-term struggle with the Umayyads. In historical methodology, the allegiance of such a scholar tends to weaken the authenticity of his reference.

It seems important to note that the large body of Jewish literature influenced the early Islamic literature. It coloured many works of Islamic literature, especially those sources talking about the history and holiness of al-Aqsa enclave. For example, the early Islamic reports of Ibn al-Faqīh, known as *Kitāb al-Buldān* (The Book of Countries) (in about (290 AH/ 902 AD) [Ibn al-Faqīh, 1996, p147], narrate several texts of the 7th century commentators Ka'b al-Ahbār and Wahab Ibn Munabbih that are of Jewish origin. Furthermore, in his book *Ahsan al-Taqāsīm fi ma'rifat al-Aqālīm*[2] al-Maqdisī claims that David established the basis of al-Aqsa Mosque. However, the Qurān had clearly mentioned al-Aqsa Mosque and the Sacred Mosque (*al-Masjid al-Harām*) earlier in sūrat Bani Isrī-īl [17: 1] and also mentioned Abraham as a restorer of the Ka'bah. Secondly, the Prophet Tradition introduced the view that the first mosque on earth is *al-Masjid al-Harām* (the Sacred Mosque), followed by *al-Masjid al-Aqsa* (al-Aqsa Mosque) with a 40 years gap between their construction. Both the Qurān and Prophet Tradition disagree with the story mentioned above that draws on Jewish traditions. This reference as mentioned in historical Islamic sources, generally had been taken for granted since the difference in the chronology of the time between Abraham, who reconstructed the Ka'bah, and David is a matter of centuries, not a few decades. Furthermore, these legends mentioned in historical sources are also not supported by the excavation results in that area. The chronological disagreement makes this issue weak, and therefore, it requires a convincing explanation and clarification. It seems that both Ka'b al-Ahbār and Wahab Ibn Munabbih, who were Jews and became Muslims, would be the main figures in establishing these mythological narratives which spread into the Islamic sources.

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[2] Al-Maqdisī is from Jerusalem; he knows the place well. In addition, he is a descendant of a master builder; he is known as the builder's son [al-Maqdisī, 1987 (985), p8].

Since the beginning of the ninth century there was a growing interest in the geography of the Muslim countries. Among the reasons for this interest is the fact that there was a need for Muslims to know the pilgrimage routes and their stations. For the assessment of taxes, Muslims were also required to know those cities and countries conquered by them. Furthermore, the religious and political significance of these cities and countries stimulated the interest of geographers or travellers who collected information and some of whom will be mentioned next [al-Maqdisī, 1987 (985), p6]. But the time when the first technical details on al-Aqsa enclave appear in Muslim literature was the early part of the 10th century. There accounts included the first architectural descriptions and surveys of the buildings of the enclave.

In 290 AH/ 902 AD, Abu 'Abdullah Ibn al-Faqīh (d. 293 AH/ 905 AD), a Muslim geographer from *Hamadhān* in Persia, published an important contribution to the study of al-Aqsa enclave. He described the complex of al-Aqsa enclave in some detail. This account is part of a historico-topographical study that is included in his manuscript known as *Kitāb al-Buldān*. He also listed in his account the principal dimensions of the enclave and made references to the religious beliefs associated with its buildings. The value of his account is due to his personal description as an eye-witness and his earliest reference to measurements of the enclave. Consequently, Ibn al-Faqīh's text gives some indications of the urban form of the enclave as it was in 290AH/ 902AD. A similar account was, in fact, provided by another author, Ibn 'Abd Rabbih in 300 AH/ 912 AD in his book *Al-'Iqd al-Farīd* (The Unique Necklace). A comparison between Ibn 'Abd Rabbih's description and that made by Ibn al-Faqīh shows that the measurements of both reports are not identical because both of them used different units of measurement. It is important to note that Ibn 'Abd Rabbih was a contemporary of Ibn al-Faqīh, but he lived far away in Umayyad *Andalus* (Spain).

Of paramount importance is an accurate and detailed survey of several parts of al-Aqsa enclave provided by Abu 'Abdullah al-Maqdisī in his book *Ahsan al-Taqāsīm fi ma'rifat al-Aqālīm* (375 AH/ 985 AD). He was born in 335 AH/ 946 AD in Jerusalem; his grandfather was a famous master builder in Palestine, a fact that tends to validate his references [al-Asalī, 1992, p24]. Among the significant aspects of his

work is that it includes the earliest mention of *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque) as having twenty six doors, fifteen on the northern wall and eleven on its eastern wall [al-Maqdisī, 1987 (985), p145]. It also contains references to the building materials, lists measurements of various features, and reasons for the construction of some buildings, especially *Qubbet al-Sakhrah* (the Dome of the Rock). Al-Maqdisī's measurements coincide completely with those of Ibn al-Faqīh. Significantly, he mentions that the reason for building *Qubbet al-Sakhrah* by 'Abd al-Malik is to challenge the Christian architecture and the Church of the Holy Sepulchre [al-Maqdisī, 1987 (985), p139]. This reason is totally different from what had been mentioned earlier by al-Ya'qūbī.

Further attempts to describe al-Aqsa Mosque and its subordinate monuments are made by other travellers, pilgrims, and explorers. The Persian pilgrim, Khusrū, in his book *Sifrnāmah* (The Travel) (438AH/ 1047AD) looked at al-Aqsa enclave himself and produced a description of it. His account coincides with what had been mentioned by al-Maqdisī. However, the distinctive difference between his reference and al-Maqdsī's mention is regarding of *al-Jāmi'* al-Aqsa where he states that it has seven doors at the northern wall and ten at its eastern wall. If both reports were to be accurate there would have been a change in this building that must have taken place during the time between the two descriptions. Al-Idrīsī in his book *Nuzhat al-Mushtāq fi Ikhtirāq al-'Āfāq* (548AH/ 1154 AD), Ibn Batūtah (756AH/ 1355AD) in *Tuhfat al-Nazzār fi Ghara'ib al-Amsār*, al-'Ulaimī in *Al-Uns al-Jalīl bi-Tārīkh al-Quds wa-al-khalīl* (901AH/ 1496AD) and the 19th century French scholar Clermont-Ganneau in *Archaeological Researches in Palestine During the Years 1873-1874 AD* (1899 AD), all carried out almost the same work. However, their measurements are totally different. This is attributed to the kind of measurement units they use, which vary in the different periods of the history of Jerusalem.

It should be pointed out that in Islamic sources the description of the construction and reconstruction of these religious monuments of al-Aqsa enclave are heavily laden with spiritual values. This manifests itself clearly in most Islamic sources, including those by al-Ya'qūbi, Ibn al-Faqīh al-Maqdisī, Ibn 'Abd al-Rabbih, Khusrū, Ibn Batūtah and others already mentioned.

In short, accounts of the early history of Jerusalem and al-Aqsa enclave are important sources of information and are coloured by Jewish, Christian and Muslim traditions. They need, therefore, to be examined carefully and compared with archaeological and architectural evidence.

1.2.3. 19th and 20th Century Sources.

The second half of the 19th century was a time of intensive exploration. Mapping expeditions, orientalists, and travellers went to Jerusalem. The general scholastic interest of their explorations was to uncover the religious historical roots of Jerusalem's monuments, of which the al-Aqsa enclave is one. The nineteenth century missions are very often based on biblical texts. Religious interests and archaeology overlapped because they stimulate different interests regarding exploration and geographical investigations.

Edward Robinson is one of the great pioneers of biblical archaeology. Robinson was an American citizen, born in 1794 AD, who in 1837 AD became Professor of Biblical Literature at the Union Theological Seminary, New York. Robinson made two visits to Jerusalem, in 1838 and 1852 where he studied the physical and historical geography of the Holy Land. He also paid particular attention to a huge Roman arch at the southern end of the Western Wall of al-Aqsa enclave, from then on known as Robinson's Arch. The results of his studies were puplished in *Later Biblical Researches in Palestine and Adjacent Regions* (1841 AD and 1856 AD). Robinson's work was to influence the thought of nineteenth and many twentieth-century Protestant scholars. He died in 1863 AD, his last work, *Physical Geography of the Holy Land*, appearing in1865 AD [Moscrop, 2000, p19].

Fredrick Catherwood, a British architect, mapped Jerusalem and al-Aqsa enclave. He was engaged in repair work in 1833 AD during which he obtained free access to all parts of the enclave. As a result, Catherwood produced some maps and sketches of the enclave in 1835 AD and 1838 AD.

Since 1840 AD, the British became increasingly prominent in mapping and recording Palestine. In 1840 AD, the British military undertook a survey as part of an

endeavour to restore the Ottoman rule over the Holy Land. A team under Major Scott, sent to Palestine, used a theodolite to survey the area between Jaffa, Jerusalem and the Dead Sea [Moscrop, 2000, p22].

James Thomas Barclay, a doctor and missionary from Virginia in the United States, carried out another exploration of the enclave. From 1850 AD on he resided in Jerusalem with his family for almost seven years. His contribution to the study of al-Aqsa enclave was made after the Turkish Sultan appointed him to be involved as observer and advisor in restoration work to *Qubbet al-Sakhrah* (the Dome of the Rock). Consequently, in 1854 AD Barclay obtained free entry to every ancient part of al-Aqsa enclave for several weeks [Bartlett, 1855, p159]. Barclay's major interest was in the subterranean passages and cistern of the enclave, so he managed to visit and take measurements at a number of places, among them the cave under the *Sakhrah* (the Rock), the eastern basement of the enclave, the subterranean passageway of the Triple Gate, various cisterns of the enclave. He also visited and examined the blocked gateway (ancient *Bāb Hittah*) in the Western Wall of the enclave, which was later named after him [Barclay, 1858, pp.489-490]. The results of his investigations were published under the title *The City of the Great King* (1858 AD).

In 1864 AD, Ermete Pierotti conducted another important investigation to al-Aqsa enclave. Pierotti was born in Italy in 1821 AD, and became a Captain in the Royal Piedmontese Corps of Military Engineers. In 1854 AD, the Franciscans employed him as an advisor to their building project in Jerusalem. Although Pierotti had practical archaeological experience in the Holy Land, his contribution to the study of the enclave was made in the middle of the nineteenth century after the Turkish authorities in Jerusalem appointed him as their architect and engineer. This position gave him unrestricted access to al-Aqsa enclave which he entered, sketched, excavated, and photographed [Gibson and Jacobson, 1996, p11]. His descriptive work in Jerusalem was published in two volumes, *Jerusalem Explored* (1864 AD). In contrast to his site-seeing descriptions however, some of his plans, such as those of the cisterns, are extremely unreliable, particularly the subterranean rooms or chambers of the enclave, as he drew out his plans from memory [Gibson and

Jacobson, 1996, p11]. It is probable that Pierotti took cursory measurements on the spot and later drew out the plans. In the same year, Marquis Melchior de Vogüé, a French archaeologist and diplomat, carried out an important study of the architecture of al-Aqsa enclave which was published in 1864 AD. Melchior de Vogüé was born in Paris in 1829 AD. He excavated many ruined Roman and Byzantine cities in Hauran in Syria and his investigations were enhanced by an extraordinarily keen eye. Melchior de Vogüé visited Jerusalem twice, in 1853 and 1862 AD in order to carry out his study on the enclave [Gibson and Jacobson, 1996, p11]. His research produced detailed drawings and plans for different parts of al-Aqsa enclave as well as *Bāb al-Nabī* (or the Double Gate) and *Bāb al-Rahmah* (or Golden Gate). His work was published in a monograph, entitled *Le Temple de Jérusalem* (1864 AD). A comparison of Melchior de Vogüé's map [Melchior de Vogüé, 1864, pl.XVII] of the enclave with Pierotti's map [Pierotti, 1864, 2: pl.XI], indicates that Melchior de Vogüé used Pierotti's data for his own map, although he corrected several inaccuracies, which reflected his own observations.

The mapping of Jerusalem by British expeditions continued. Britain may well have envisaged the colonization of Palestine [Moscrop, 2000, p.64]. Between 1864-1865 AD Captain Charles Wilson, a Royal Engineer in the British army, was appointed by the War Office to lead Ordnance Survey of Jerusalem. Wilson was born in 1836 AD in Liverpool, and became a Captain when he was only 28 years old. He started his mapping operation of Jerusalem by cutting in various places bench-marks for surveying: some have remained up until today. During his work he entered the huge vaulted subterranean arch carrying the modern Street of the Chain which links the City of Jerusalem with al-Aqsa enclave. The arch bears his name to this day [Warren, 1970, p195]. The result of his work was published in 1866 AD under the name *Ordnance Survey of Jerusalem made in the Years 1864-1865* [Wilson, 1866, p1]. The Ordnance Survey of Jerusalem included an accurate map of the Old City and al-Aqsa enclave as well as plans of individual buildings. The plans of the Old City are at scales of 1:10,000 and 1:2,500 and those plans for al-Aqsa Mosque with its cisterns, vaults and contours are at a scale of 1:500.

Charles Wilson was a member of the committee of the newly-established Palestine Exploration Fund (PEF) in 1867 AD and 1868 AD. This institution was initiated in 1865 AD, and made a major contribution to the exploration of Jerusalem and al-Aqsa enclave since that time. Shortly after the establishment of PEF, the institution sent an exploratory expedition to Jerusalem and al-Aqsa Mosque. The fund was wisely allocated to officers of the Royal Engineers, well-trained surveyors capable of making an accurate ordnance survey. The PEF's surveyor Captain Wilson and the excavator Lieutenant Warren, who were sent to Jerusalem in 1865-1867 AD, focused on a biblical point of view in their work and interpretations, since the Bible and the description of the Jewish historian Flavius Josephus was their only textual background [Kenyon, 1974, p6]. The first task of exploration work of the PEF needed an accurate map. This is the reason why Warren continued the survey work begun by Wilson. So a map for Jerusalem was presented on the basis of the British Ordnance Survey. Although Wilson was appointed Director of the British Ordnance Survey of Palestine, from 1886 to 1892, he maintained links with PEF [Gibson & Jacobson, 1996, p14].

Warren excavated trial shafts to bedrock around walls of al-Aqsa enclave between 1867-1870 AD. Indeed, this was a tremendous contribution to the study of al-Aqsa enclave. He examined the base of the pier of Robinson's arch, investigated Wilson's arch (with Wilson) and the eastern basement of the enclave. He dated the Wilson's arch and the eastern basement to the Byzantine period [Warren, 1970, pp.163, 188]. Warren carried out further investigations of many parts of the enclave, among them *Bāb al-Rahmah* (or the Golden Gate), *Abāb Mihrāb Mariam* (or the Triple Gate), *Bāb al-Nabī* (or the Double Gate) and *Bāb Hittah* (or Barclay's Gate). He ascribed *Abāb Mihrāb Mariam* to the Byzantine Emperor Justinian [Warren, 1970 (1884), pp.164, 167]. In contrast, this date was later rejected by Rosen-Ayalon who argued on the basis of historical and archaeological evidence that these two gates "could not have been built in the Byzantine times", but are "undoubtedly to be associated with the early Islamic building activities" in Jerusalem [Rosen-Ayalon, 1989, p41]. Furthermore, Warren gave an indication as to what might be discovered within the enclosure: "There yet remains a considerable amount of work to be done in the

Sanctuary alone" [Warren, 1970, p224]. Warren's exploration generated immensely valuable information for all scholars of Jerusalem.

More information on al-Aqsa enclave was presented by the German architect Conrad Schick. Schick was a skilful model-maker, so PEF asked him to produce a model in wood for al-Aqsa enclave in order to present it in the Great Exhibition to be held in Vienna in 1873 AD. This necessitated his carrying out a detailed investigation of al-Aqsa enclave started in 1872 AD. The outcome of Schick's work was a model of significance to students of history and topography of the enclave. Indeed, his drawings benefited considerably from his architectural knowledge. Meanwhile, Schick had another opportunity to observe digging operations and the clearance in the enclave carried out by the Turkish authorities [Gibson & Jacobson, 1996, p20]. He frequently published his finds in various journals, including *Palestine Exploration Fund* (in 1873, 1891 and 1892 AD) and *Zeitschrift des Deutscher Palastina-Verein* (German Palestine Association) (1887 AD).

The British Military Royal Engineer, Colonel Claude Reignier Conder, engaged in further exploration work of the enclave. Conder was born in Cheltenham in England; following his education at the University College in London, he entered the Royal Military Academy, Woolwich. In July 1872 AD the PEF sent him to Jerusalem so as to assume direction of the survey team from Captain R.W. Stewart who was forced to return to England after an illness [Conder, 1909, p1; Gibson & Jacobson, 1996, p23]. Conder was interested in establishing the rock topography; during his engagement in the *Survey of Western Palestine* between 1872-1876 he, therefore, visited several cisterns below al-Aqsa enclave. He also entered *Qubbet al-Sakhrah* (the Dome of the Rock) and was able to ascend the scaffolding to examine the ancient mosaic of the seventh century [Conder, 1909, p2]. Conder studied Wilson and Warren's works and his description in the volume of Jerusalem of *The Survey of Western Palestine* was, in fact, almost a synthesis of the descriptions of Wilson and the results of Warren's work. The survey was published in 1880-84 AD in seven volumes, of which the volume on Jerusalem is of great importance.

The significance of *The Survey of Western Palestine* is related to its collection which contains a complete account of the investigation of Warren, who had been initiated

on the behalf of Palestine Exploration Fund between 1867-1870 AD, and other important discoveries made by Wilson, Captain Conder, M. Clermount-Ganneau, Dr. Chaplin, Conrad Schick, Herr Guthe and others. *The City of Jerusalem* (1909 AD) is among Conder's publications, which are mainly based on Wilson and Warren's investigations and also demonstrates that some advantages were taken from the research of Melchior de Vogüé.

Like Warren, in 1882 AD Conder participated in the British campaign against Turkish Arabi Pasha in Egypt. In the following year, Conder was infected by typhoid which caused him to return to Britain where he published the results of his work on eastern Palestine.

Another major contribution to the study of al-Aqsa Mosque was made by the French archaeologist Clermont-Ganneau in his *Archaeological Researches in Palestine during the years 1873-1874* (1899 AD). During repair work of the building in 1873-1874 AD, he had a chance to generate a full recording of the layers of *Qubbet al-Sakhrah* (the Dome of the Rock), hidden under the Ottoman ceramic tiles. Clermont-Ganneau presented a full detailed survey of *Qubbet al-Sakhrah* and different parts of al-Aqsa Mosque, including dimensions. He, too, was inclined towards a biblical approach[3]: there are always several biblical stories associated with his work. Nevertheless, his investigation indicates an immense knowledge and awareness of the literature of the former studies on the enclave.

A geographer named Karl Baedeker, whose name is associated with an early series of travel guides, showed interests in the enclave in his book *Palestine and Syria* (1912 AD). He described several parts of the enclave, such as *Qubbet al-Sakhrah* (the Dome of the Rock), *Qubbet al-Silsilah* (the Dome of the Chain) and *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque). Baedeker's book was mainly intended as reading for tourist travellers. Like Baedeker, Olaf Matson's published book, entitled

[3] The early Jerusalem excavators interpreted the archaeological findings in Jerusalem very much in relation to what is mentioned in the Bible. This approach is mainly employed at the time when there was no systematic stratigraphical method used in excavations.

Jerusalem and Environs (1925 AD), is intended basically as reading for tourists visiting Palestine.

An exploration contribution was published in L.-H. Vincent and F.-M. Able's *Jérusalem Nouvelle* (1920 AD). There two great scholars advanced some theories on the enclave; e.g. they rejected the location of the Church of St. Mary as the location of *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque) and they suggested that it should be outside the enclave. The archaeological excavation of N. Avigad in which he discovered this Church in the present Jewish quarter later confirms their theories [Avigad, 1983, pp.229-246].

The works mentioned above have great importance since some of their authors had a chance to see and report on several parts hidden today, or to describe the nature of the enclave at their time. Most of them have based their interpretations on work presented by the early biblical scholars or Christian pilgrims. Consequently, with few exceptions, their archaeological discoveries can be expected to be coloured by biblical reference.

In 1922 AD, an important study was published by the Swiss archaeologist Max van Berchem in *Matériaux pour un Corpus Inscriptionum Arabicarum*. His study was carried out during his several visits to Jerusalem in 1888 AD, 1892 AD, 1893 AD and 1894 AD. The significance of his work is due to his records which include a full survey and description of the Islamic inscriptions, especially those of *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque) and *Qubbet al-Sakhrah* (the Dome of the Rock). It is important to note that such inscriptions have great importance since they often give an indication as to what was the purpose of the building, who built it, and when it was completed.

Further important detailed work is that of Ernest Tatham Richmond, carried out in 1918 AD. Richmond made his study after the Military Governor of Jerusalem, Brigadier-General Storrs, invited him "to report on the Dome of the Rock with a view to providing a basis for carrying out, as soon as conditions might permit, the works of preservation that had long been needed" [Richmond, 1924, p1]. To generate exact knowledge of the actual condition of the structure was the first essential task of

his study. Information on the decoration was also required; he therefore obtained permission to explore and fully record the Ottoman ceramic tiles of *Qubbet al-Sakhra* (the Dome of the Rock). In addition to his valuable references on the present state of the architecture of the building and its construction methods, Richmond produced a plan and section and some technical details for the building associated with description and analysis. Furthermore, he attached a number of photographs of the ceramic tiles covering the outer faces of this monument. The results of his work were published in a book under the title of *The Dome of the Rock in Jerusalem* (1924 AD).

Another major source of information to the study of al-Aqsa enclave, particularly on al-Aqsa congregational mosque, is the report of the British scholar R. W. Hamilton (1949 AD). The report was compiled from a collection of the recorded notes of the structure and archaeological observations for *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque) "gathered by different members of the Department of Antiquities in Palestine who were able to watch the work (restorations and repairs) as it proceeded intermittently between the years 1938 and 1942" [Hamilton, 1949, piii]. The repair work comprised the demolition to the foundation for the major parts of *al-Jāmi'* al-Aqsa and their reconstruction. His work, also, contains several photographs of the different structural and artistic features uncovered during the restoration work and includes maps, sections and dimensions. Hamilton published his work in 1949 AD under the name *The Structural History of the Aqsa Mosque*.

Having reviewed the major 19th and 20th century exploration studies on al-Aqsa enclave, three comments regarding these studies can be made: -

First, a vast majority of the early 19th and 20th century researchers employed a biblical approach. Most linked their discoveries in the enclave including the Islamic buildings with the biblical tradition regardless of any certainty regarding their historical origins.

Secondly, many of these works were produced by non-architects, and, with few exceptions, are dominated by the view of historians and archaeologists. Their work

listed the various buildings of al-Aqsa enclave without specific regard to the Islamic cultural context and its intellectual disciplines.

Thirdly, the early explorational studies of Jerusalem were carried out using older methods of excavating. The stratigraphical scientific method was not employed in these early excavations because it had not reached Palestine at that time.

In the light of their discoveries, it is, therefore, necessary to discuss the enclave after the employment of the stratigraphical method of excavations and determine what this may contribute to a reconstruction of the image of al-Aqsa enclave as it may well have looked in the early Islamic period. To ensure thorough appraisal, the early interpretations of archaeological discoveries will be discussed in the thesis but the investigation of al-Aqsa enclave will be approached from different backgrounds, particularly in terms of an investigation of historical, archaeological and architectural evidence in order to generate reliable evidence.

1.2.4. The Stratigraphical Excavations.

The employment of the stratigraphical scientific approach in excavating Jerusalem marked a significant development in the study of the city and al-Aqsa enclave. Excavations are, indeed, an important source of information to be considered when examining the early Muslim architectural development of the enclave, especially, after the employment of this new scientific methodology in archaeology. In addition, the new discoveries in Jerusalem such as the Umayyad palaces and the Umayyad street adjacent to the southern wall of al-Aqsa enclave change the image of the Early Muslim presence in Jerusalem. Moreover, some recent researches carried out by Ben-Dov, Rosen-Ayalon and Bahat put forward new arguments regarding some parts of the enclave such as *Bāb al-Nabī* (or the Double Gate) and *Bāb Dār Umm Khālid* (or Warren's Gate) which challenge the old interpretations that had formerly been accepted. Hence, such discoveries are of great significance in strengthening or weakening the early interpretations regarding al-Aqsa enclave. Consequently, they produce a strong basis from which the arguments of the thesis can be developed.

Certainly, for the first time in the exploration of Jerusalem, the stratigraphical methods were employed in 1961 [Kenyon, 1974, p56]. The British archaeologist, Kathleen Kenyon was the first scholar who employed the stratigraphical method during her excavation in Jerusalem in partnership with of the French scholar Pere de Vaux. Their excavation was carried out to the south of al-Aqsa enclave where remains of a splendid public building were revealed. De Vaux simply ascribed the building to the Romans or Byzantines [Kenyon, 1974, p276]. This is the building that is identified by the archeologist B. Mazar in his excavation carried out on the same spot in 1967 as an eighth-century Umayyad palace [Mazar, 1969, p17]. It is the excavation of B. Mazar that uncovered further important information associated with the enclave such as the huge Umayyad palaces and the main Umayyad streets adjacent to the western and southern wall of the enclave.

Some years later, the entire length of the Western Wall of al-Aqsa enclave was excavated under the supervision of Ben-Dov and later Dan Bahat. Important valuable information was also revealed concerning the structural development of the enclave in the first century [Bahat, 1994, p189; Geva, 1994, p15]. Meanwhile, Ben-Dov investigated the huge subterranean arch (Wilson's arch) that carries the causeway of the modern street of the Chain, and he suggested the Umayyad period for the arch. The same arch had been previously ascribed by Warren to the 5th or 6th century AD [Warren, 1970, p195]. Bahat, too, investigated the arch and the subterranean vaults next to it and suggested an Umayyad date for the complex. However, Abu-Riya's archaeological excavation above these vaults carried out in 1991 AD suggested a Roman period dating for the street pavement above the vaults [Abu-Riya, 1991, pp.134-136]. This prompts Bahat to reject Abu-Riya's suggestion and to stress the Umayyad dating of the complex of vaults "not only because in my view the archaeological data (by Abu-Riya's) are indecisive in this case, but also because it fits with the historical evidence" [Bahat, 1994, p178].

In short, although the archeological evidence is reliable as decisive evidence, sometimes it can be misinterpreted by untrained scholars or because of the political environment.

1.3 SECONDARY SOURCES

This thesis relies not only on primary sources but is also concerned with secondary sources. The following sources are to be regarded as important. A very brief indication of content and approach is given for each.

1.3.1. Main Secondary Sources

Among the most important secondary sources for al-Aqsa Mosque are those written by Briggs in 1922 AD entitled, *Muhammadan Architecture in Egypt and Palestine*, and by Creswell in his book *Early Muslim Architecture* (1932-40 AD).

Briggs claimed that his study was "the first in English to describe the Muhamadan architecture (the early Muslim architecture)" in Egypt and Palestine [Briggs, no date, pi]. This study was carried out after Lane-Poole's *Saracenic Art* (1886AD) and M. Saladin's *L'Art Musulman* (1907 AD) publications that briefly touched upon the Muslim architecture in these two countries. Briggs produced some references on the early Muslim architecture of the enclave in the context of his study. However, the scope of his inquiry that covers the whole Islamic period is very wide and results, therefore, in only a very brief coverage of the early Muslim architecture of Jerusalem. Furthermore, he disregarded the architectural origin which is not in his opinion "a vital matter" in the discussion. Nevertheless, the value of Briggs' work is due to his approach where he was concerned with the Islamic culture and context.

In 1932 AD the first volume of Creswell's study was published which was followed by the second volume in 1940 AD. Unlike Briggs' endeavour, Creswells' attempt narrowed the scope of the study of Islamic architecture on the early Islamic period. This limitation enables him to study the architecture of Jerusalem in great detail. Several dimensions and plans contributed to his arguments on Islamic buildings of the enclave such as *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque) and *Qubbet al-Sakhrah* (the Dome of the Rock). However, in dealing with the Arabic manuscripts, he referred to many of them without making appropriate use or analysing them as a source of architectural information, except by citing historical dates [Al-Abed, 1992, p5]. Creswell relied on the research of Western scholars such as Caetani, Herzfeld, and Bulter, perhaps more than on Islamic main sources of

information such as manuscripts. Nevertheless, this should not be understood as an attempt to undermine Creswell's study as a whole, in fact, he referred to Islamic sources of culture in his study, although they seem not to be used appropriately. A similar approach is also manifest in the work of the American art historian Oleg Grabar in his work published under the titled *The Formation of Islamic Art* (1973 AD) in which he examined the historical development of the Mosque and the religious art.

In 1985 Ben-Dov published the English version of his book entitles *In the Shadow of the Temple* (originally published in Hebrew in 1982). Ben-Dov is an Israeli archaeologist, and his study is dedicated to the field of archaeology. This may well explain why he was not concerned, for example, in architectural interpretations and spatial organizations and coordination of the early Muslim buildings of the enclave. Indeed, his works on the early Muslim period of the enclave mainly highlight the significance of the results of the excavation of Mazar in which Ben-Dov was involved.

In 1989 AD the Israeli archaeologist, Miriam Rosen-Ayalon, published an important study on the iconography of the early Islamic buildings of the enclave under the title *The Early Islamic Monuments of al-Haram al-Sharīf* (1989 AD). Rosen-Ayalon put forward important arguments regarding the early Islamic date of *Bāb al-Rahmah* (the Golden Gate) and *Bāb al-Nabī* (the Double Gate), and she drew on the biblical approach employed by the early explorers of Jerusalem.

It seems that the ad hoc biblical approach of the early studies still dominates the work of John Wilkinson (1981 AD) and Dan Bahat (1996 AD) regarding the Golden Gate and the Double Gate [Wilkinson, 1981, pp. 156-172; Bahat, 1996, pp. 47, 79]. They presented dating claims that fluctuate between the Herodian and Byzantine periods. However, another recent scholar, Tsafrir "believes that the Golden Gate is one of the Umayyad foundation of the end of the 7th century or early 8th century AD" [Tsafrir, 1999, p162]. This dating was already suggested by the vast majority of the documentary material by some scholars such as Watzinger (1935 AD), Ben-Dov (1985 AD), Rosen-Ayalon (1989 AD). This disagreement invites contention

regarding the architectural development of al-Aqsa enclave in the early Islamic period.

The German art historian Robert Hillenbrand in his book *Islamic architecture: Form, function and meaning* (1994 AD) briefly touched on al-Aqsa enclave in his historical introduction on Islamic architecture including the Dome of the Rock and al-Aqsa Congregational Mosque; his arguments were influenced by Creswell and Grabar and other historical scholars.

1.3.2. Contemporary Publications.

In the last few decades several contemporary books have been published about al-Aqsa enclave or its monuments. Examples are *The Noble Sanctuary* (1972 AD) by Alistair Duncan, *The Dome of the Rock in Jerusalem* (1996 AD) by Oleg Grabar, and *The Islamic Art* (1998 AD) by Marwān Abu Khalaf. All of these include coloured photographs, and a brief description on various parts and monuments at the present area of al-Aqsa enclave, though these are not necessarily intended as scientific documentary material. These publications tended to offer an introductory presentation of the enclave. This is perhaps also the case in the book *al-Taswiyah al-Sharqiyyah li al-Masjid al-Aqsa* (The Eastern Basement of al-Aqsa Mosque) (1997 AD) by al-Fany in which there is mention of numerous historical texts.

One should also consider some general works on Islamic architecture, published by contemporary Arabic scholars, which mention the architecture of al-Aqsa enclave or its monuments. For example, the work of the Egyptian art historian and archaeologist ‘Afīf Bahnasī, *al-'Imārah 'Abr al-Tārīkh* (Architecture through History) (1983 AD) and Su‘ād Māhir, *al-Funūn al-Islāmiyyah* (Islamic Arts) (1986 AD). They do consider Islamic architecture in terms of the historical textual descriptions. This approach can be also seen in Abu Sālih al-’Alfī in *al-Fan al-Islāmī* (Islamic Art) (no date) and Sālih lam‘ī Mustafā *al-Qibāb fi al-'Imārah al-Islāmiyyah* (The Domes in Islamic Architecture) (No date). These works give a very brief description of architecture during the Islamic period, generally approaching the architecture as a historical phenomenon.

1.4 SUMMARY AND DISCUSSION

Although the main and secondary sources briefly introduced above will be analysed in greater detail later, some conclusions can be drawn already now. The question of *what* and *why,* regarding the history and architecture of al-Aqsa Mosque in the early Islamic period, remains quite complicated. The criteria relating to site selection and the locations of the main elements of the early Islamic building projects, the precedent for the architectural concepts of this project and the way of planning it are all in dispute. Not only do these problems arise from contemporary difficulties for the scholars, such as the credibility of the present data, accessibility to the information and the current political situation for the city of Jerusalem, but the same issues appear in the traditional literary sources which themselves open to controversy during past times.

It is all the more important, therefore, to undertake a critical analysis of the arguments generated by past and present scholars on the early Muslim architecture of the enclave. For the interpretation of the origin and meaning of this architecture it is essential to apply an approach that includes as wide spectrum of investigation as possible including archaeological, cultural and religious-functional issues.

It seems that the scope of this thesis vindicates dealing comprehensively with the questions raised instead of adopting a piecemeal approach. For instance, Dan Bahat (1996 AD) argues that parts of al-Aqsa scheme were not Umayyad buildings, e.g. *Bāb al-Rahmah* (the Golden Gate) and *Bāb al-Nabī* (the Double Gate) [Bahat, 1996, pp. 47, 79]. The French architect Mauss (1888 AD), the historian Creswell (1969 AD), the Israeli architect Doron Chen (1980 AD), and the archaeologist David Jacobson (1983 AD), claim that *Qubbet al-Sakhra* (the Dome of the Rock) is non-Islamic architecture. Creswell describes it as a mixture of Byzantine, Syrian, Roman and Greek architecture [Creswell, 1969, 1: p89]. Other scholars, e.g. Clermont-Ganneau (1899 AD) and Marguerite van Berchem (1982 AD) argue on the contrary, that it is Islamic.

In general, it is worth stressing here that the contemporary political, social, cultural and religious environment may well have impacted upon many sources chosen and

the interpretations made. This can be seen, for example, in the writings of Yigael Yadin, *Jerusalem Revealed* (1976 AD), Mier Ben-Dov, *In the shadow of the Temple* (1985 AD), Dan Bahat, *Illustrating Atlas of Jerusalem* (1996 AD) and Simon Gipson & David Jacobson, *Below the Temple Mount in Jerusalem* (1996 AD). Arguments in these works were developed, in some parts, on political or religious identifications rather than archaeological evidence. Their attempts are, perhaps, aiming to provide corroborating evidence for the achievements of David and Solomon [see for example, Gibson & Jacobson, 1996, pVII]. They list large numbers of plans and sections and arguments, which are in most cases without any representative evidence. Therefore, they need to be treated cautiously.

On the other hand, the works of some historian scholars are not so far away from this approach either. Some of them introduce a distorted view fluctuating between biblical information and questionable data. This is especially so when they are talking about the early dates of the present area of al-Aqsa enclave, i.e. before the Islamic conquest. They echo texts primarily generated from biblical records or secondary sources in the writings of the orientalists and disregard archaeological evidence. They do not seem to use a historical methodology or archaeological approach to differentiate between the Islamic and Jewish texts or to examine their data sources. This can, for example, be seen in the work of ʻĀrif al-ʻĀrif in *Tārīkh Qubbet al-Sakhrah wal-Masjid al-Aqsa al-Mubārak* (The history of the Dome of the Rock and al-Aqsa Mosque) (1955 AD). He claimed that the "archaeological traces at the basement of al-Aqsa Mosque are Solomonic" [al-ʻĀrif, 1955, p19] but he did not produce any evidence on which to base his claim. Most archaeologists, however, will confirm that these traces are in fact Roman. Moreover, the same erroneous information can be found in another work by the same author in *al-Mufassal fi Tārīkh al-Quds* (The clarification of the history of Jerusalem) (1961 AD) and the work of K. J. al-ʻAsalī, *Jerusalem in the History* (1989 AD). These are only two of the scholars who simply accepted, on the one hand, the Jewish notion regarding the architectural history of the enclave without assuring its authenticity, or on the other hand, the biblical interpretations formerly presented by the early pioneers of Jerusalem.

The problem is a complicated one for certain issues are always in dispute. There is distortion and incompatible information in the sources dealing with the early Islamic period of al-Aqsa enclave and it physical development.

The vast majority of the architectural research of al-Aqsa enclave has been led by orientalists. Biblical archaeologists and their institutions have initiated these studies. This presents numerous hindrances and barriers to any clear statement about the early Muslim architecture of al-Aqsa enclave. Controversy still exists among scholars attempting to define the early Islamic architecture at al-Aqsa enclave. This controversy may be related to the schools of thought on early Muslim architecture, namely, those of the formalists and functionalists. A formalist approach is understood here as the approach of those who see early Muslim architecture in Jerusalem as an independent physical product, as a form separated from the function and the context of their contemporary cultural environment. On the other hand, a functionalist approach is the more subjective way to approach the early Muslim architecture, especially in discussing buildings that have a religious function. They highlight the architecture mainly as a function, and undermine the importance of the form. As will be seen in the following chapters of this thesis, no approach may on its own provide a satisfactory resolution of the problem.

CHAPTER TWO

JERUSALEM AND Al-AQSA MOSQUE

This chapter develops a general point of view on Jerusalem and al-Aqsa Mosque as an introduction to the thesis.

The issue that will be discussed in the coming chapters concerns the status of al-Aqsa Mosque in Jerusalem's early Muslim Architecture. The aim of this chapter is to introduce a general picture of Jerusalem as a site and as a sequence of historical episodes. Indeed, it will prove a useful basis for discussion in the coming chapters.

2.1 GEOGRAPHICAL SETTING AND CLIMATE OF THE CITY

2.1.1 Location

Jerusalem (Canaanites *Uru-Salim*, Hebrew *Yerushalayim*, Latin and Greek *Hierosolyma*, Arabic *Bayt al-Maqdis*) occupies an important historical locus in the early Middle Eastern civilisations. Its religious status, which cradled the three monotheistic religions, and its strategic location, that linked several different trade routes, gave Jerusalem great significance. The present city of Jerusalem lies in 31°46′N. lat. and 35°13′ E. long. It is located in Palestine (see Fig. 2. 1) (presently occupied by Israel) which is surrounded by Jordan from the west, the Mediterranean Sea from the east, Lebanon from the north and Egypt from the south. Jerusalem occupies an important strategic locus in Palestine since ancient times (see Fig. 2. 2). It is nearly located in the middle of the country, possesses important natural features. It connects east with west and north with south, the Tiberias (Keneret) lake and the Dead sea east of the city, The Mediterranean sea shore to the west, the Highland of Palestine to the north and the desert including Sinai to the south.

2.1.2 Climate

Jerusalem's climate is moderate (average 17° C). There are practically two seasons, namely, the summer, or the hot and dry, and the winter, or the cold and wet. Rainfall occurs in winter months with a peak in January/February when the average is about 120mm /month. The hottest month is August (average 28.8° C) while January is the coldest (average 8.8° C). The prevailing winds are north-west and north-east, making the summer cool and refreshing when they blow. Occasional violent storms occur in winter. The Old City has experienced shortages of water throughout history. The only natural source of water is a spring in the village of Silwan to the south-east of the present Old City. Therefore, other means of providing water had to be relied

on. Aqueducts were constructed and many reservoirs and cisterns were dug. In addition, each building usually had its own cistern filled with rainwater.

The relative severity of weather –hot, cold, wind, rain– and scarcity of water determine several architectural features in the ancient buildings in Jerusalem, such as the type of ceilings, the number and the location of windows.



Fig. 2. 1 **Jerusalem: Geographical siting of Palestine in the region.**
Source After Sharon, 1973, p10.

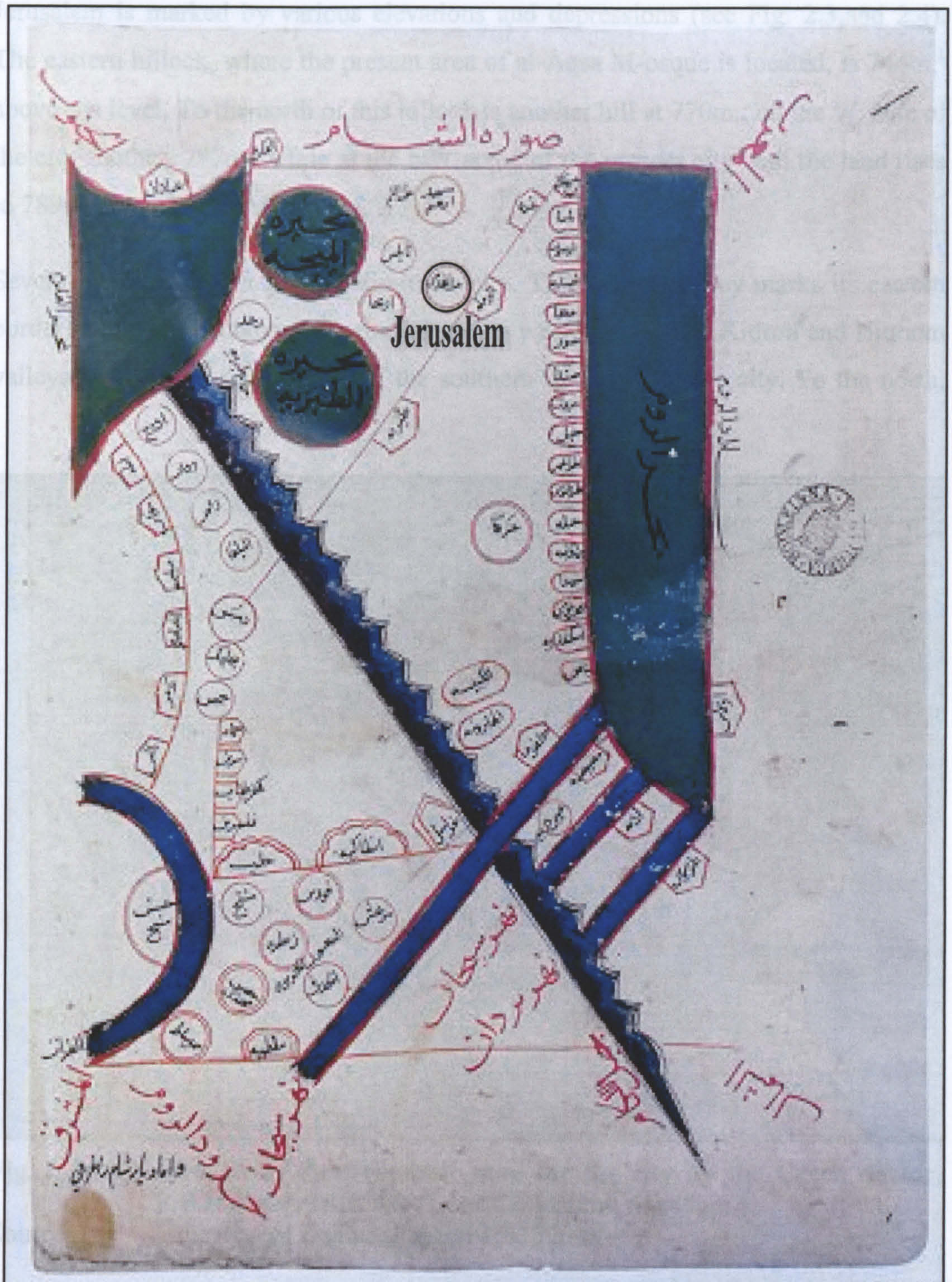


Fig. 2. 2 **Jerusalem: Map of Palestine as depicted by al-Istakhrī (d. 340AH/ 951AD) (The map depicted up-side-down).**

Source http://www.israel-mfa.gov.it/mfa/go.asp?MFAH021n0

2.2 TOPOGRAPHY OF THE OLD CITY

Jerusalem is marked by various elevations and depressions (see Fig. 2.3,and 2.4). The eastern hillock, where the present area of al-Aqsa M-osque is located, is 744m.[1] above sea level. To the north of this hillock is another hill at 770m.; on the W. side of the city another, 777m., while at the NW angle of the present city wall the land rises to 789m. above sea level (see Fig. 2.5).

Several geographical features delimit the city. The Kedron valley marks its eastern border, while the Hinnom valley delineates its western one. The Kidron and Hinnom valleys meet at the south, forming the southern boundary of the city. To the north,

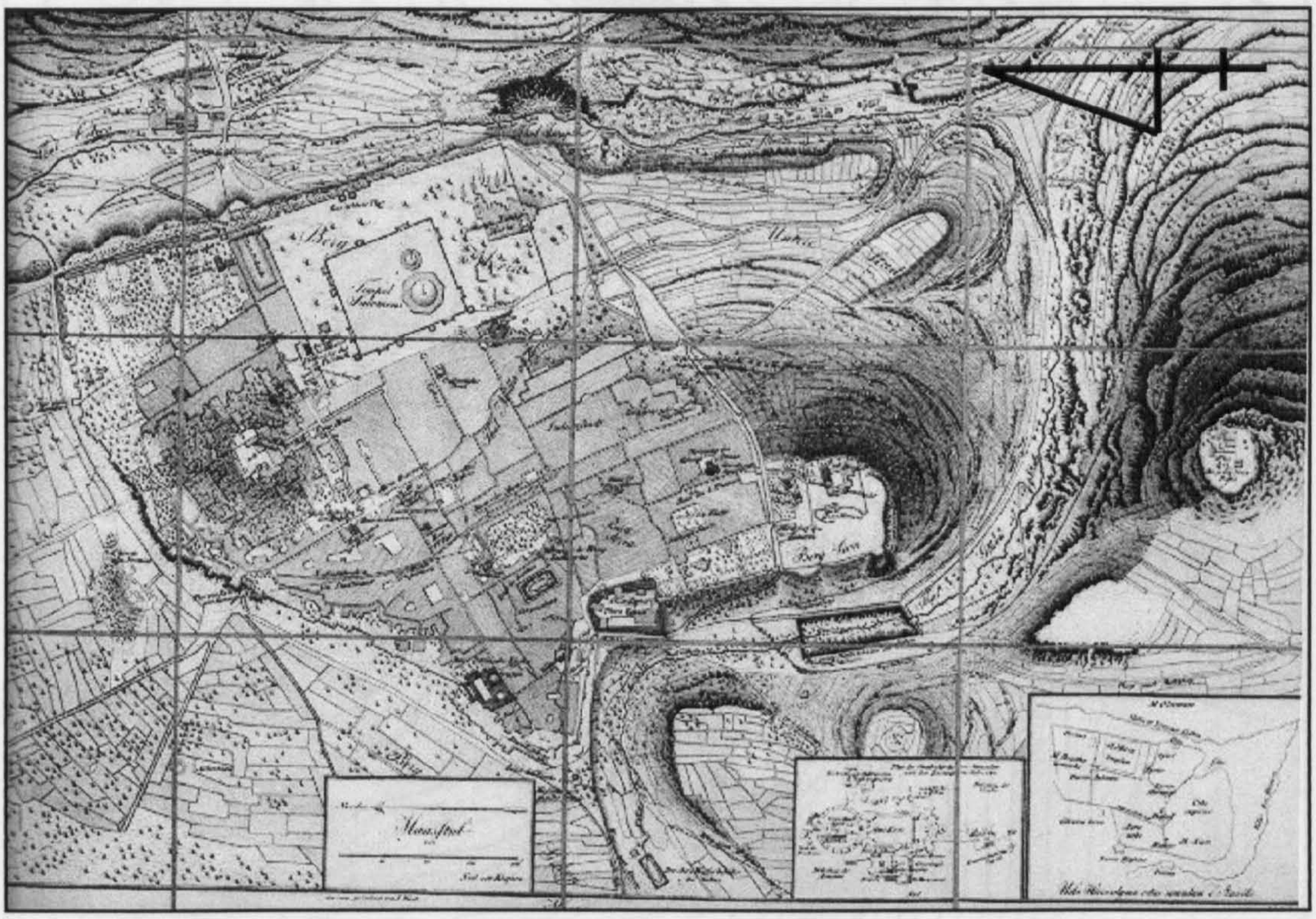


Fig. 2. 3 **Jerusalem: First geodesic map for the city by the Czech doctor, F.W. Sieber, 1818 AD (Laor Collection, 61x47cm.).**

Source http://www1.huji.ac.il/jeru/maps15.html

[1] All of the levels have been taken from the measurements of Beadeker. [Beadeker, 1912, p.23].

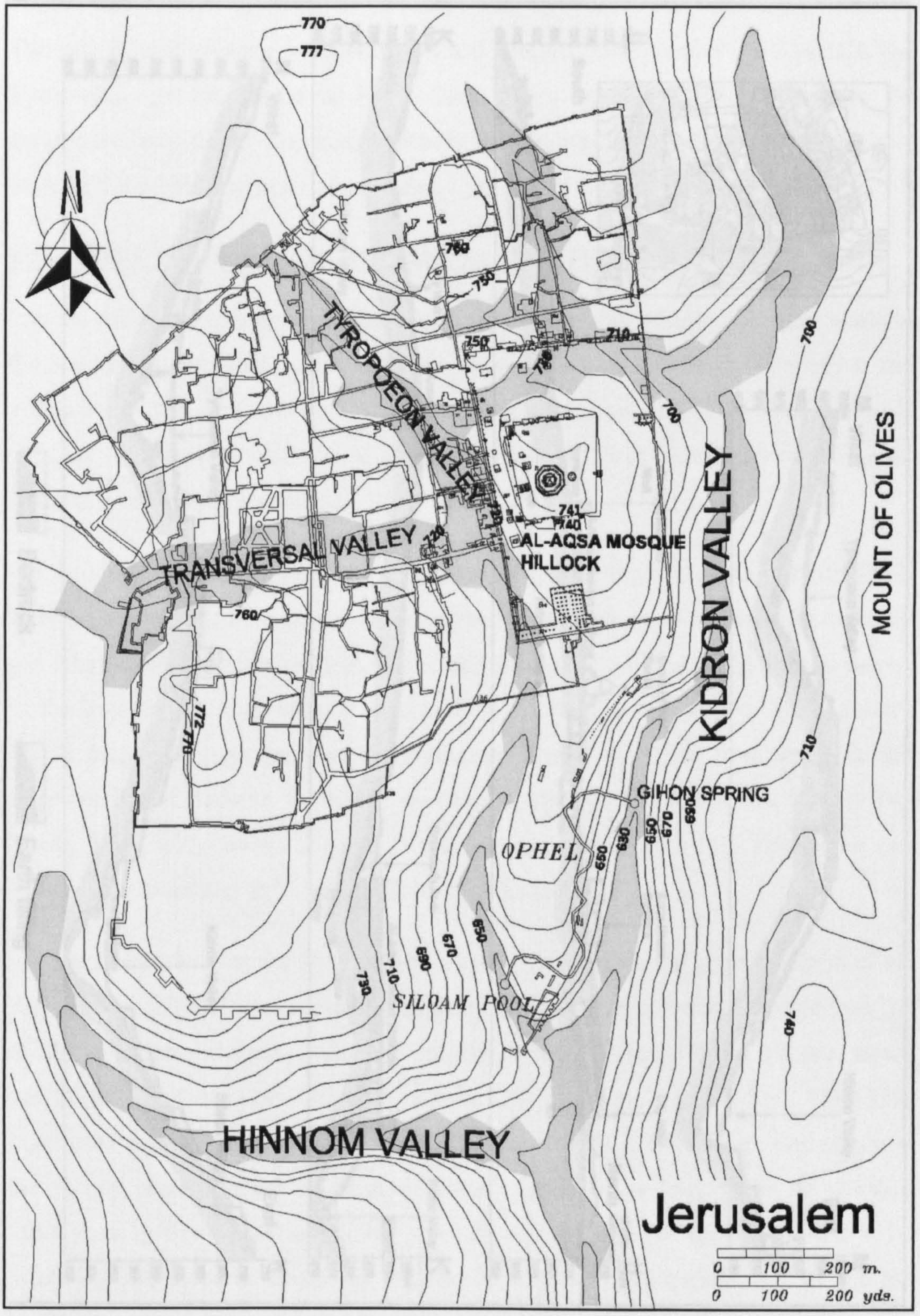


Fig. 2. 4 **Jerusalem: Topographical map.**
Source The researcher.

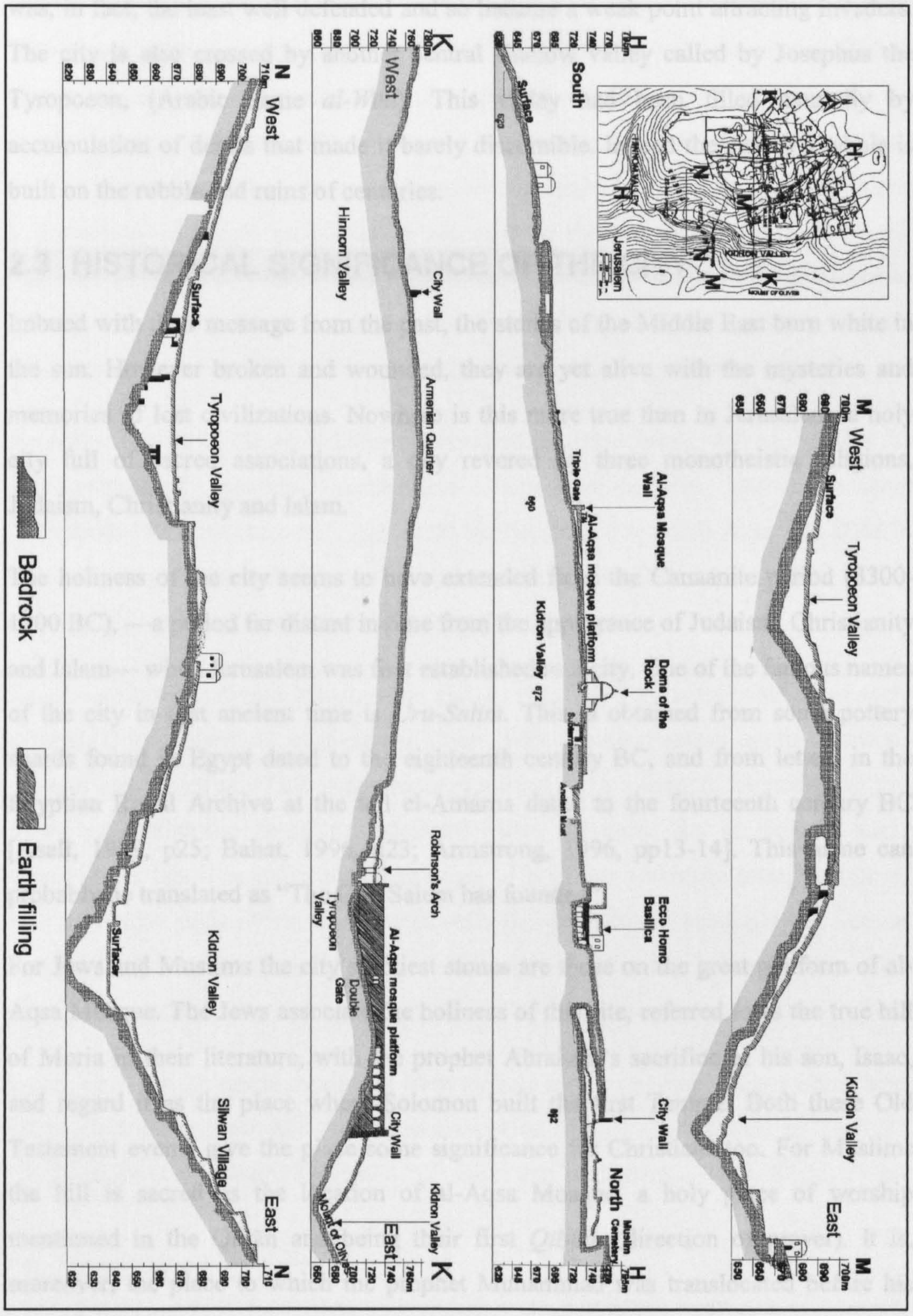


Fig. 2. 5 **Jerusalem: Some sections in the city.**
Source After Vincent and Abel, 1920, plate II.

various hills and ridges bound the city. This topographical demarcation on the north was, in fact, the least well defended and so became a weak point attracting invaders. The city is also crossed by another central shallow valley called by Josephus the Tyropoeon, (Arabic name *al-Wād*). This valley had been filled naturally by accumulation of debris that made it barely discernible. Indeed the city as a whole is built on the rubble and ruins of centuries.

2.3 HISTORICAL SIGNIFICANCE OF THE CITY

Imbued with their message from the past, the stones of the Middle East burn white in the sun. However broken and wounded, they are yet alive with the mysteries and memories of lost civilizations. Nowhere is this more true than in Jerusalem, a holy city full of sacred associations, a city revered by three monotheistic religions, Judaism, Christianity and Islam.

The holiness of the city seems to have extended from the Canaanite period (3300-1200 BC), —a period far distant in time from the appearance of Judaism, Christianity and Islam— when Jerusalem was first established as a city. One of the famous names of the city in that ancient time is *Uru-Salim.* This is obtained from some pottery shards found in Egypt dated to the eighteenth century BC, and from letters in the Egyptian Royal Archive at the tell el-Amarna dated to the fourteenth century BC [Asalī, 1989, p25; Bahat, 1996, p23; Armstrong, 1996, pp13-14]. This name can probably be translated as "The God Salem has founded".

For Jews and Muslims the city's holiest stones are those on the great platform of al-Aqsa Mosque. The Jews associate the holiness of this site, referred to as the true hill of Moria in their literature, with the prophet Abraham's sacrifice of his son, Isaac, and regard it as the place where Solomon built the first Temple. Both these Old Testament events give the place some significance for Christians too. For Muslims the hill is sacred as the location of al-Aqsa Mosque, a holy place of worship mentioned in the Qurān and being their first *Qiblah* (direction of prayer). It is, moreover, the place to which the prophet Muhammad was translocated before his ascension to heaven.

The acknowledged holiness of the site has attracted Jews, Christians and Muslims alike to explore the historical and geographical roots of their respective religions. Such investigations were probably initiated by Helena, mother of the Roman Emperor Constantine, who sanctified the supposed site of the Holy Sepulchre in the fourth Century AD. Some fifteen centuries later, at the beginning of the second half of the nineteenth century, several western archaeological authorities and institutions in Jerusalem embarked on biblical exploration of the site. Among them were the Palestine Exploration Fund (PEF) 1865, Ecole Biblique et Archeologique de Saint-Etienne, the German Protestant Institute of Archaeology 1900, the American Institute for Oriental Research 1900, the British School of Archaeology 1919.

Recently, interest in the early Islamic Jerusalem has been raised, especially after the employment of scientific excavations. Encouragement by Islamic research institutions has been increased, pioneered by the Islamic research Academy *ISRA* in UK 1994 who focus their interest on research on Islamic Jerusalem from a critical and scientific point of view [el-Awaisi, 2000, pp.77-94].

Despite a century of such investigation and, in particular, the establishment of more systematic and scientific excavations since 1961, strong disputes continue among western archaeologists. This is due in large measure to a variety of literature-derived views and cultural-political backgrounds which dominate the outlook of many western and Israeli scholars at the expense of a proper scientific interpretation of archaeological finds. Writing in 1974 AD, the British archaeologist K. Kenyon notes[2] that the impact of such scientific challenge on previously held views has often based on tradition rather than on sound archaeological support.

It can, however, be safely concluded from the archaeological excavations which have taken place since 1867 AD –by many authorities such as Ch. W. Warren 1867-70, Ch. Clermount-Ganneau 1873-1874, F.J. Bliss and A.C. Dickie 1894-97, M. Parker

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[2] "An intriguing possibility has been introduced by Israeli excavations in the area of the Jewish Quarter on the eastern slope of the western ridge" of Jerusalem. Some of Israeli excavators, such as Avigad, said that the limitation of the original City in the 8th century BC as far as this point, but according to Kenyon's excavation "the evidence was firm that there was no occupation here until the first century AD". See [Kenyon, 1974, p148].

and L.H. Vincent 1909-11, R. Weill 1913-14 and 1923-24, R.A.S. Macalister and J.G. Duncan 1923-25, K. M. Kenyon 1961-67, B. Mazar 1968-1973, and E. Mazar 1987-88– that human settlement had occurred in the Jerusalem area by the end of the fourth millennium BC. Archaeologists also confirm that there was a "Jerusalem" on the eastern ridge south of the eastern hill of the present al-Aqsa Mosque area. Finds confirm the continuity of use of this site until at least the 8th century BC when expansion northward began (see Fig. 2.6). Excavations and scientific analysis on the area of the present al-Aqsa Mosque do not reveal any structural activity in the Iron Age, i.e. from 12th century BC until 6th century BC.

From 333 BC until the 1st century BC, Jerusalem was part of the Hellenistic Empire. Archaeological traces suggest that some parts of the present area of al-Aqsa Mosque would then have been within the city limits (see Fig. 2.7). From the 2nd century BC the Maccabees ruled over the city. In 63 BC Roman rule began. The city decayed but by the time of Herod's reign, 37 BC, building had been resumed. There was expansion northward and some activity in al-Aqsa Mosque area. Archaeological evidence also confirms the destruction and near-obliteration of the city by Titus in AD 70.

A new city named *Aelia Capitolina* was then established along the familiar Roman castrum lines (see Fig. 2.8). Good evidence of its layout is given by the 6th century mosaic floor map discovered in the Byzantine church of St. George at Madaba in Jordan in 1884. This shows, for example, the characteristic Roman planning features of *cardines* and suggests that colonnaded main streets still existed in the 6th century city. Excavations also provide impressive evidence of the scale and extent of the urban structure of *Aelia Capitolina*.

With the triumph of Christianity over Roman paganism in 313 AD, Jerusalem flourished, becoming the new religious centre of the Empire. Meanwhile, the site later to be occupied by the present building of al-Aqsa Mosque was abandoned (see Fig. 2.9).

After the Muslim conquest of Jerusalem in 637 AD/ 16AH, a further rebirth began. Due to its significant religious role in Islam, the city became the religious centre of

the Umayyad caliphs [Ben-Dov, 1985, p278] (see Fig. 2.10). A new infrastructure was created as the city expanded eastwards. The presence of al-Aqsa Mosque including the Dome of the Rock, together with archaeological evidence of other large buildings with networks of streets and drainage services, affirm the extent of the building boom carried out under the Islamic Umayyad caliphs Abdul-Malik Ibin Marwan (685-705 AD) and his son Al-Walid I (705-715 AD). This was the last period of large-scale construction in the city until modern times.

2.4 URBAN FORM OF THE OLD CITY

The present Old Town of Jerusalem is enclosed by a wall with ten gates penetrating it (see Fig. 2.11, and 2.12); three of them, namely, the Golden Gate, Triple Gate and Double Gate are no longer in use.

The principal gate of the city lies to the north. It is the Damascus Gate (Arabic, *Babel-'amoud*). Two other gates lie on the north, the New Gate and the Herod Gate, though these are of less significance than the Damascus Gate. On the east, there is the Lions'Gate, while on the south, the Dung Gate and Zion Gate. On the west, is the Jaffa Gate. The historical urban development of the Old Town of the present city has been much influenced in its main outlines by such features- and not only by gates but by ancient street lines, important buildings and religious monuments. These seem to dominate the planning development of the Old Town.

The present urban structure of the Old Town of Jerusalem still preserves some features from the old traditional delineation. As mentioned, evidence of this historic town planning has been discovered on a mosaic floor in the Greek Orthodox Church of St. George in Madaba in Jordan (1884 AD) (see Fig. 2.13). This evidence is considered to be the oldest documented plan for Jerusalem yet discovered. The map illustrates the physical state of Byzantine Jerusalem in the 6th century AD. At this time, features of Roman planning still existed in the city. These the Roman Emperor Hadrian had established in his delineation of the city then called *Aelia Capitolina* in 135 AD. The planning of *Aelia* was not strictly symmetrical; its form was roughly quadrilateral.

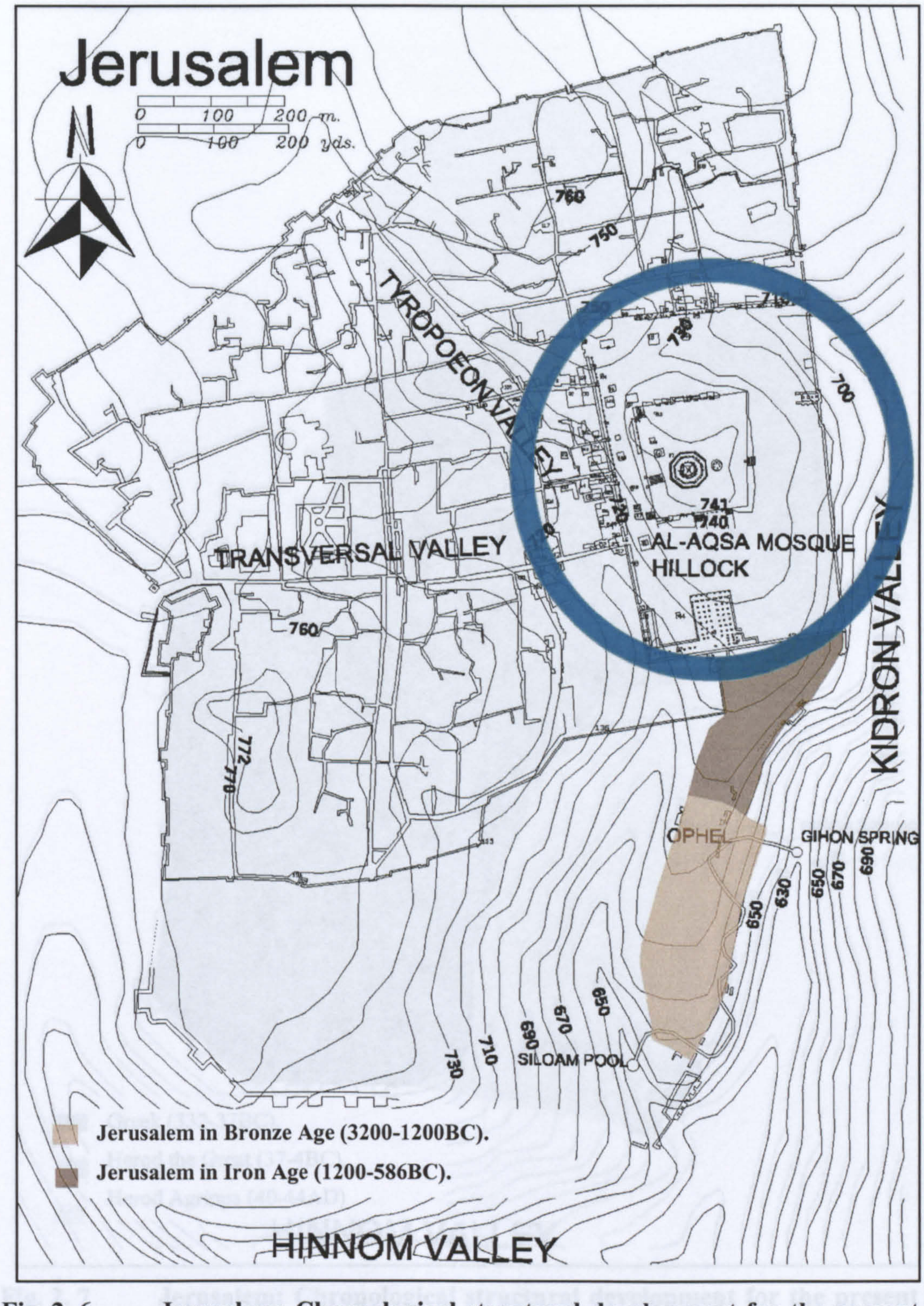


Fig. 2. 6 **Jerusalem: Chronological structural development for the present area of al-Aqsa Mosque in Bronze and Iron Age (3300-586 BC). This map is based on archaeological excavations carried out in the city.**

Source The researcher.

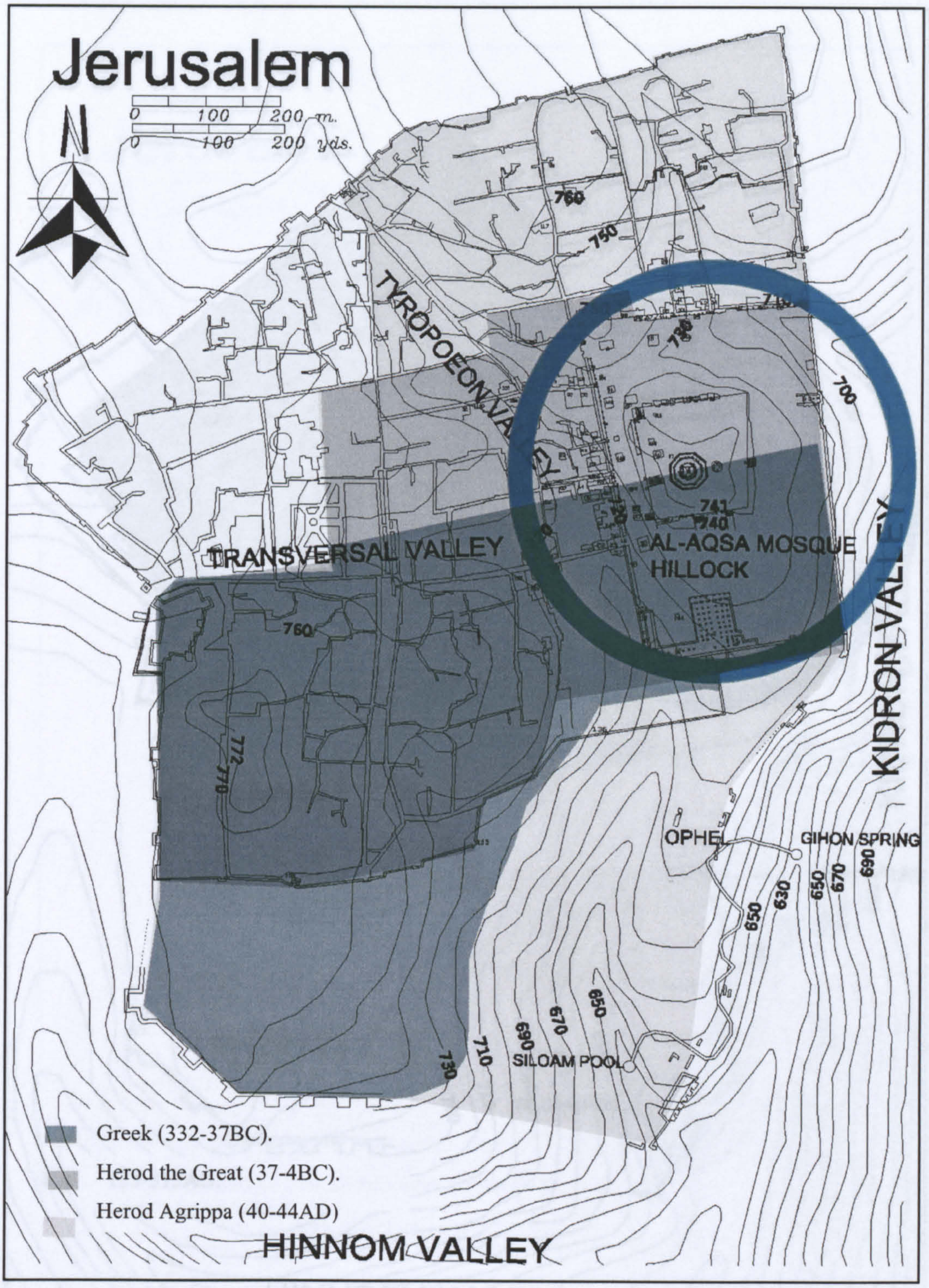


Fig. 2. 7 **Jerusalem: Chronological structural development for the present area of al-Aqsa Mosque in Greek and Roman Period (332BC – 70AD). This map is based on archaeological excavations carried out in the city.**

Source The researcher.

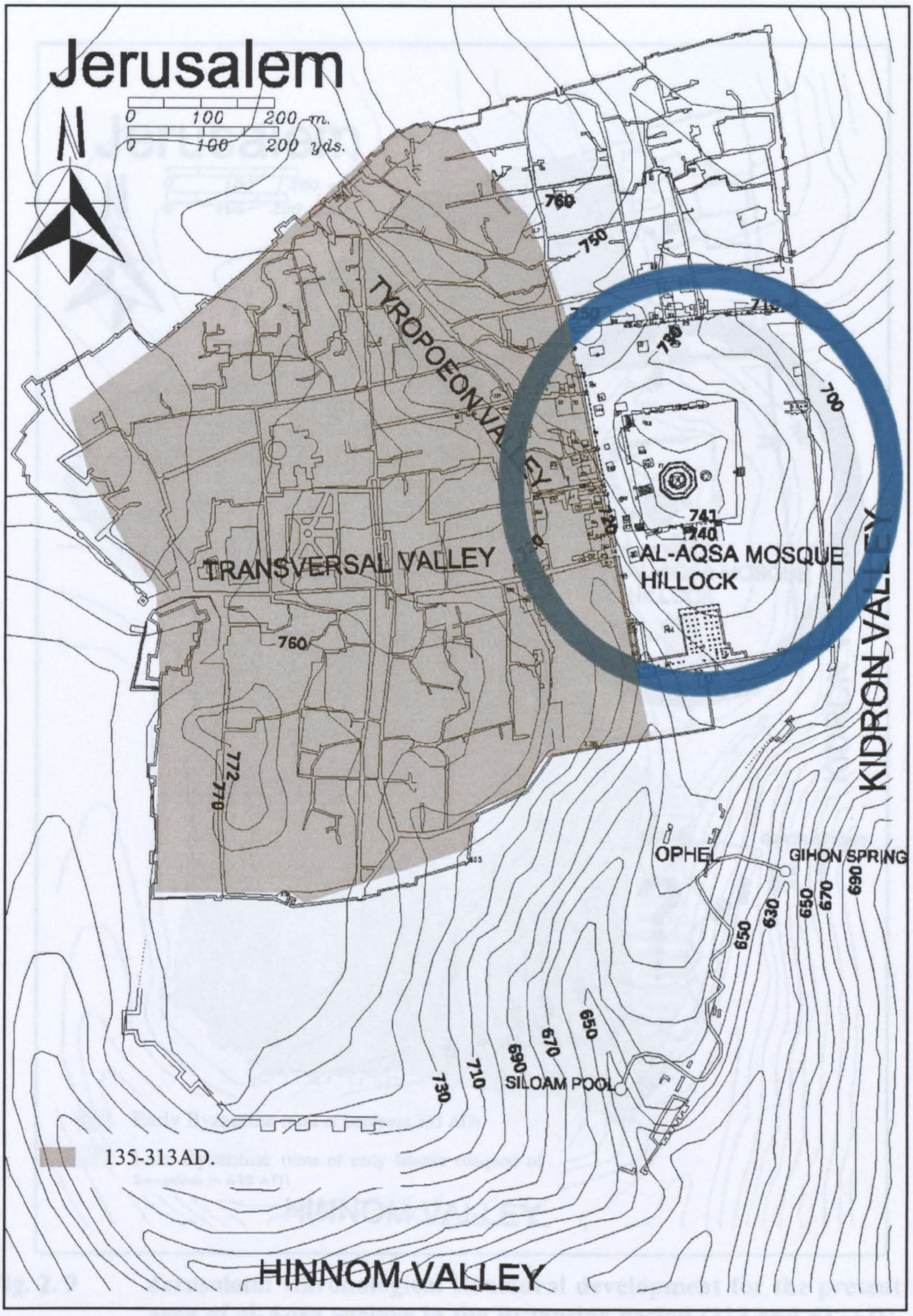


Fig. 2. 8 **Jerusalem: Chronological structural development for the present area of al-Aqsa Mosque in time of Roman *Aelia Capitolina* (135-313AD). This map is based on archaeological excavations carried out in the city.**

Source The researcher.

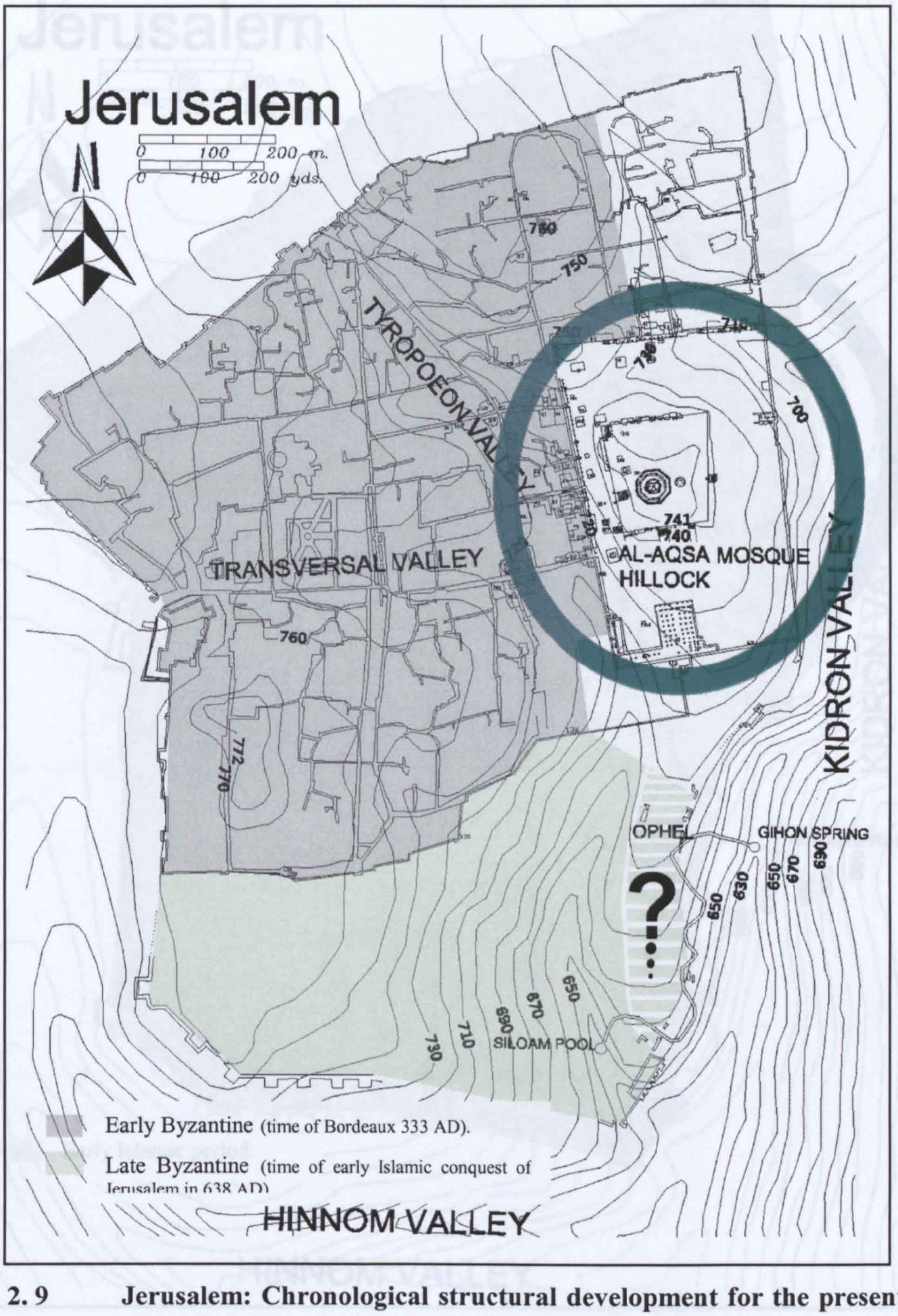


Fig. 2. 9 **Jerusalem: Chronological structural development for the present area of al-Aqsa enclave in the Byzantine period (313 and 637AD). This map is drawn in relation to the archaeological excavations and historical descriptions available. The archaeological information revealed cannot yet confirm whether the colour hatched area was included or not in the late Byzantine period.**

Source The researcher.

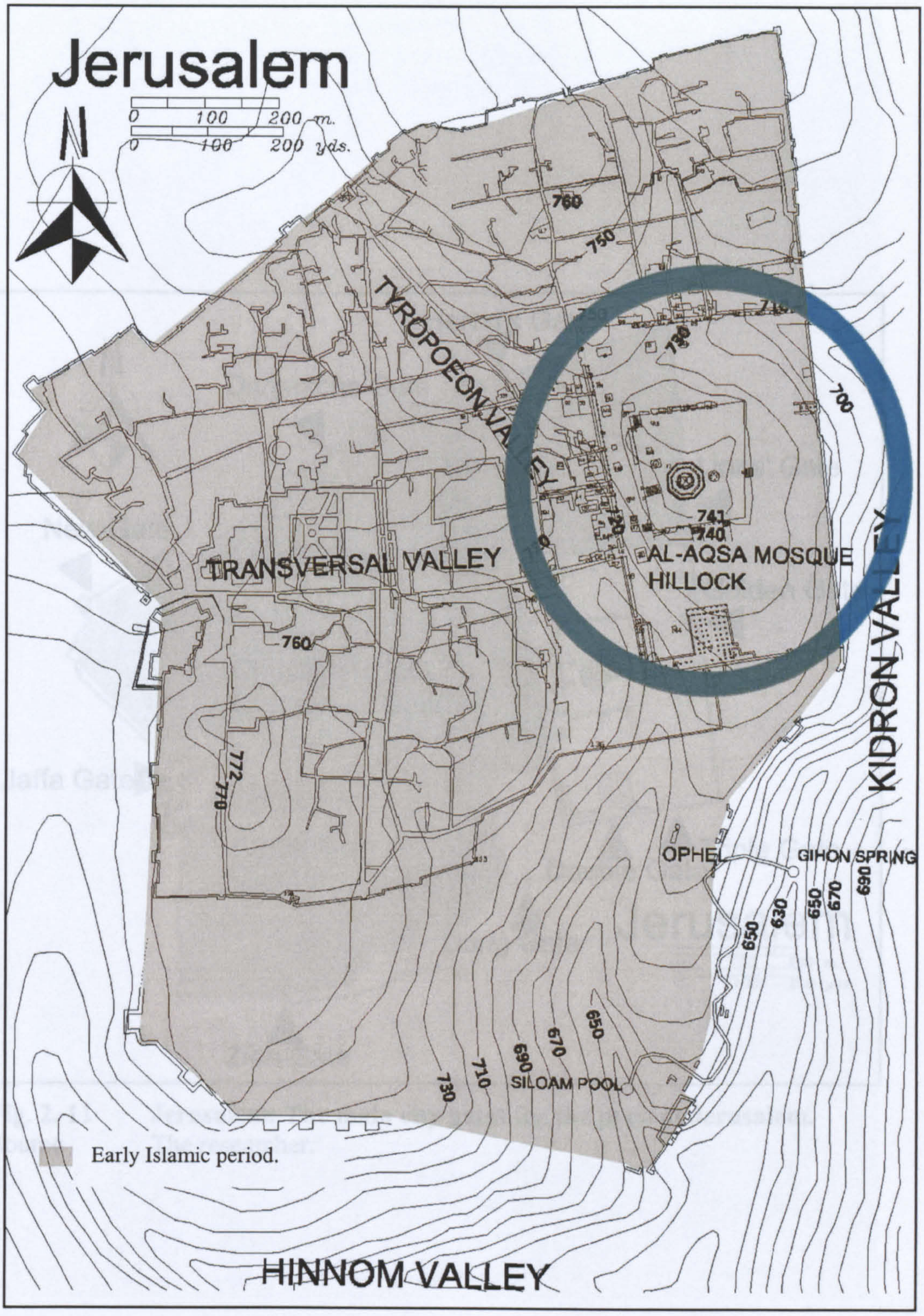


Fig. 2. 10 **Jerusalem: Chronological structural development for the present area of al-Aqsa Mosque in Early Islamic period (after 637AD). This map is based on archaeological excavations carried out in the city.**

Source The researcher.

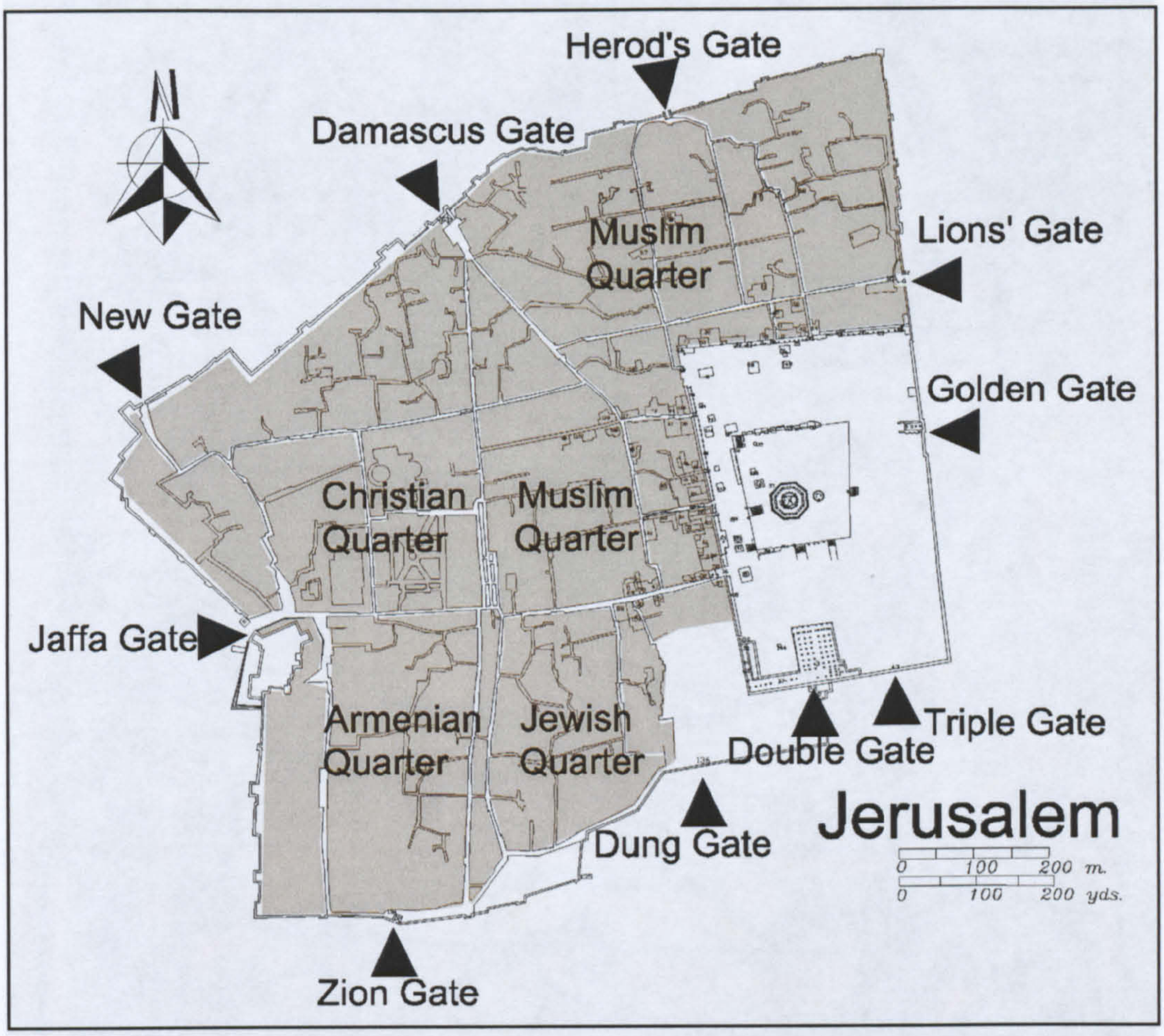


Fig. 2. 11 **Jerusalem: The main city gates for the present Jerusalem.**
Source The researcher.

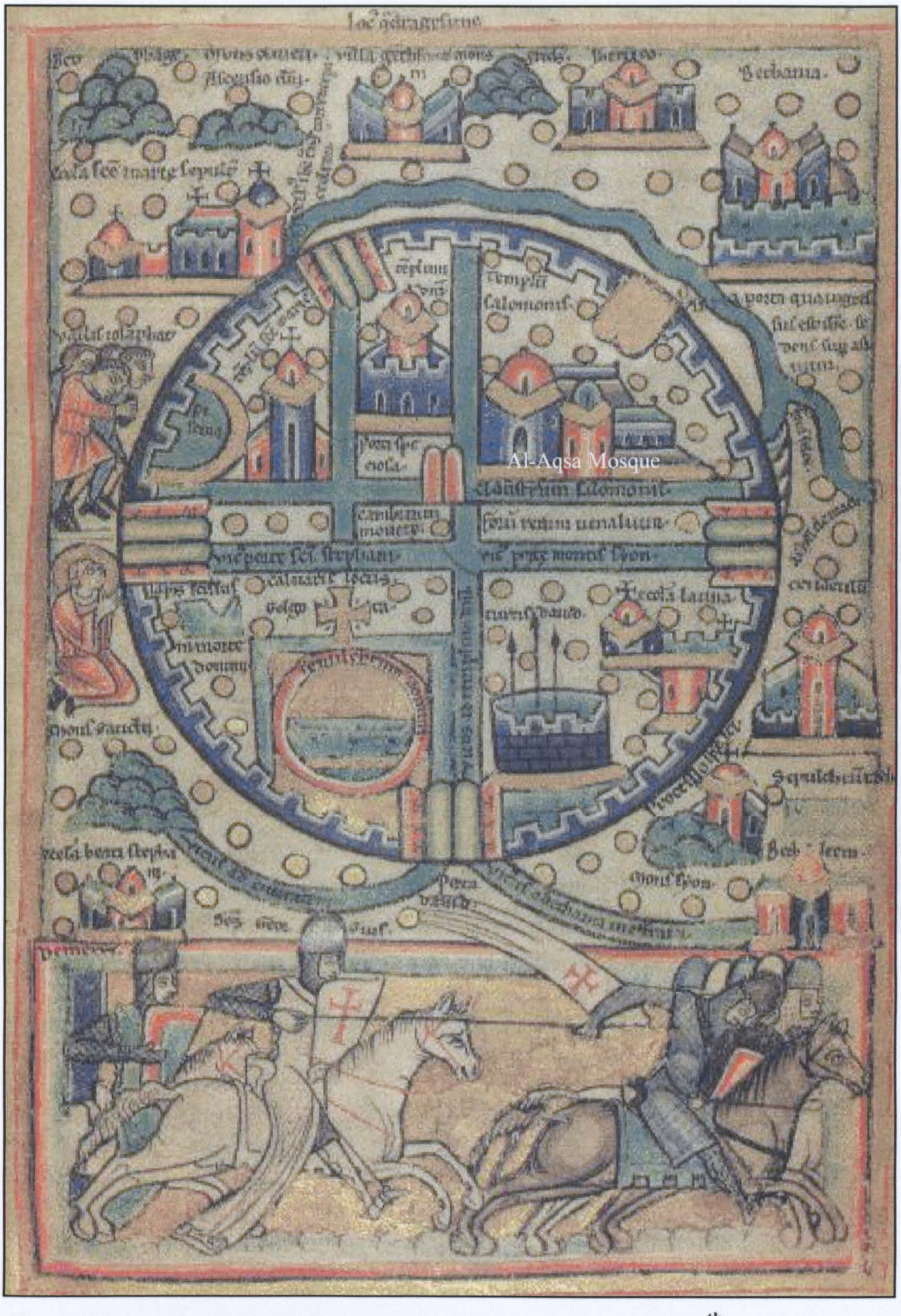


Fig. 2. 12 **Jerusalem: Crusader map for the city, early 12th century.**
Source http://www1.huji.ac.il/jeru/maps_index.html



Fig. 2. 13 **Jerusalem in Madaba Mosaic floor of Greek Orthodox Church of St. George.**

Source http://www.christusrex.org/www1/ofm/fai/FAImpjer.html

The evidence of the mosaic floor confirms the fact that a defensive wall with many towers surrounded the city. The planning of the city, as shown in the map, was marked by two colonnaded streets, the main one, with its colonnade and portico on each side, starting from the Damascus Gate in the north where there is an open plaza in which stands a commemorative column. This northern gate is still known in its Arabic name as *Bāb al-'Āmūd* (the gate of the column). From the same plaza a second street diverts to the south-east. There are two other short secondary streets associated with the other main gates of the city that appear in the map, one to the east of the city and the other to the west. The depiction of the map affirms a high density of residences in the western and central parts of the city. This concentration resulted from the existence of the church of the Holy Sepulchre, which is shown on the map as the dominant monument. Not only does the mosaic map provide significant evidence for the urban form of the city in the pre-Islamic period but several archaeological excavations done in various places in the city have corroborated this, e.g. the uncovering of the Damascus Gate in the north, the existence of a colonnaded street in the present Jewish quarter, the *Nea* (New)-Church near the southern present city wall and, of course, the location of the Church of the Holy Sepulchre and the David Tower. Despite such archaeological evidence, there are, however, many arguments among scholars regarding the nature of the urban form at that time, especially in the eastern part of the city, where the present al-Aqsa Mosque is located. This location still invites contentious views. A fresh attempt will be made here, in the coming chapters, to illustrate how this area developed during the early Islamic period.

PART TWO: THE CONCEPT OF AL-AQSA MOSQUE

— CHAPTER THREE

— CHAPTER FOUR

— CHAPTER FIVE

CHAPTER THREE

THE URBAN CONTEXT OF Al-AQSA MOSQUE:
HISTORICAL AND ARCHAEOLOGICAL PERSPECTIVES

This chapter investigates the physical form of al-Aqsa enclave before the early Muslim architectural development.

Al-Aqsa Mosque was built at the eastern side of the present Jerusalem over a huge area, which is nearly 1/6 of the area of the present city, there are a number of questions that need to be answered.

- What is the structural development of this area before the Islamic conquest of Jerusalem?
- What is the relation between this area and the city of Jerusalem?
- Why was this large area available at the time of the Muslims' conquest of Jerusalem?
- Does this wide area continue to be part of the urban structure of Jerusalem in all-historical epoches of the city? or did Muslims extend the city to include this area?
- Was any destruction needed in order to provide a large area at the time of Muslims conquest?

In order to trace the history of this site, this chapter deals with the urban context prior the early Islamic conquest of Jerusalem on the present area of al-Aqsa enclave. The attempt is limited mainly to the urban context of the site of the present al-Aqsa enclave forming the eastern part of Jerusalem so as to find out how this site developed before the early Islamic period. The methodological approach in this chapter is based on history and archaeology.

3.1 INTRODUCTION

Little reliable information can be obtained regarding the development of the site of the present al-Aqsa enclave before the establishment of Hadrian's *Aelia Capitolina* in 135AD. So far scholars have propounded many confusing theories and hypotheses based on a variety of interpretations. In the case of al-Aqsa Mosque, it is the (political) considerations that often restrict archaeologists; objectivity is not often compromised in their interpretations.

3.2 THE SITE OF AL-AQSA BEFORE *AELIA CAPITOLINA*

The aim in this section is not to discuss the urban development of the original site of Jerusalem nor to describe the David & Solomon or the Herodian Temple in detail as

mentioned in literary sources, e.g. Flavius Josephus and Jewish Mishnah, because this is outwith this study's domain. The endeavour is limited to augment the questions regarding the early development of the present site of al-Aqsa Mosque. It is also necessary to draw objective attention to what archaeology has so far recovered from the ancient topography of the site. Moreover, it seeks to show how research is often confused by sacred myth, when there is a distinct lack of reliable evidence.

3.2.1 The site of al-Aqsa Mosque between 1000 BC and 37 BC

Since the beginning of the nineteenth century, many biblical scholars such as Wilson (1867-68), Warren (1867-70), Conder (1872-80), Clermont-Ganneau (1873-1874), Mauss (1863-76, 1888-1900) and Schick (1886-1901) have been attracted by al-Aqsa enclave. Their interest is based on the notion that it is the location of the first and second Jewish Temple, while Israeli scholars are much more interested basically in the first i.e. Solomon's Temple. The results of excavations show, however, that the earliest tangible archaeological traces revealed in the present area of al-Aqsa Mosque cannot be dated prior to the Hellenistic period [Kenyon, 1974, p111]. This does not suggest that the area in its present shape followed its structural delineation from a very ancient time.

Archaeological Evidence

Early observation of these ancient traces was made by Warren who noted that there is a "seam" in the ancient masonry of the eastern wall of al-Aqsa enclave (see Fig.3.1).

In 1966 the Jordanian Department of Antiquities exposed a joint between Herodian masonry and an earlier wall. Durant considered this earlier wall as a Temple wall built by Zerubbabel in the 6th century BC. Kenyon, however, believed that this wall did not belong to Zerubbabel [Kenyon, 1974, p111]. She and others ascribed it instead to the Hellenistic period. This view resulted from a comparison between the masonry in this wall with other ancient masonry. According to Tsafrir, the closest

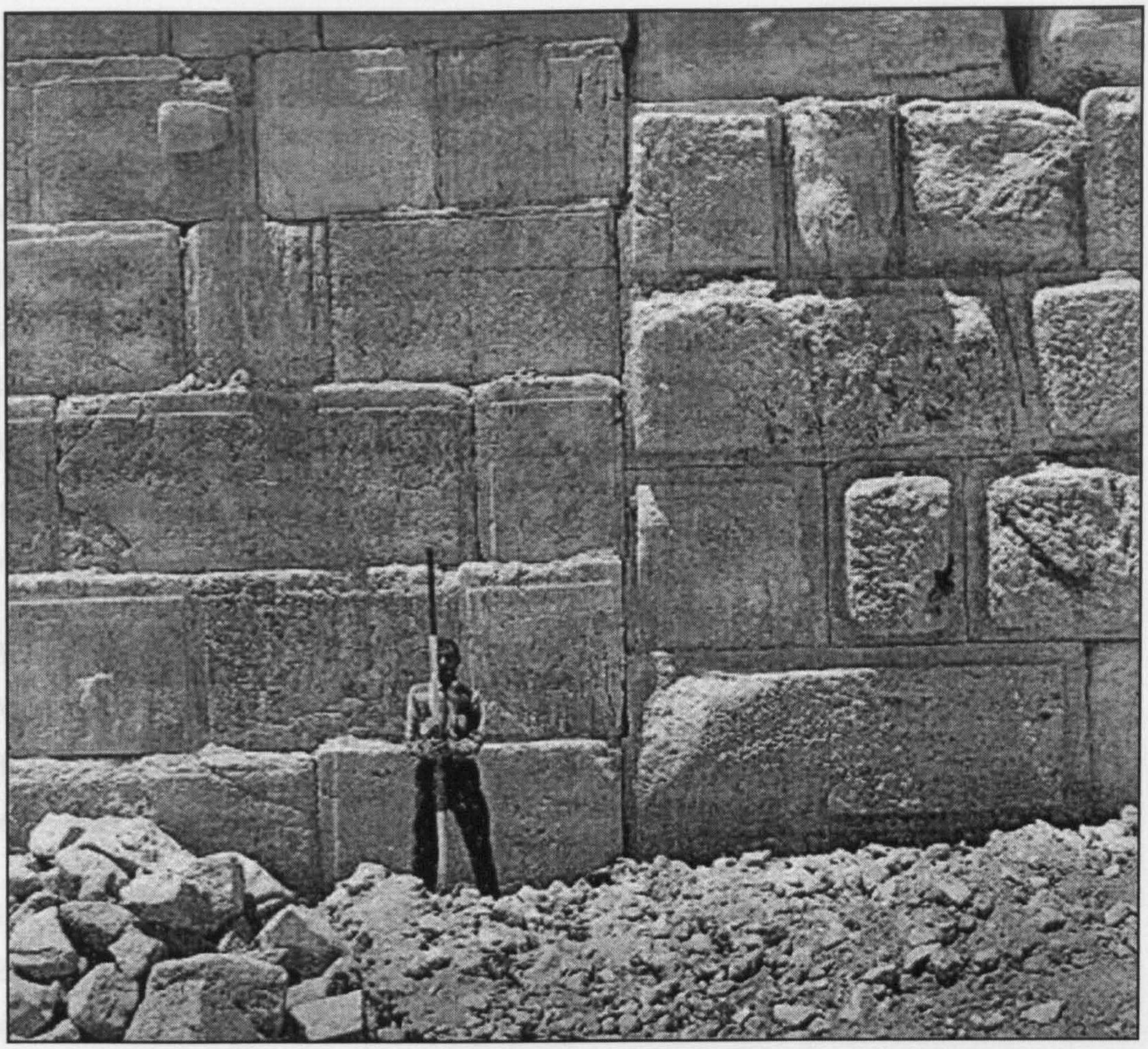


Fig. 3. 1 **Al-Aqsa Mosque: A seam has been revealed in the eastern wall of al-Aqsa enclave. On the right, the masonry of the wall can probably be attributed to the Hellenistic period while on the left the masonry is Roman.**

Source: Kenyon, 1973, p128/ picture36.

parallel is the masonry of the Hellenistic fortifications in Greece and Asia Minor [Tsafrir, 1976, p86, see also Bahat, 1996, p43]. The vast majority of researchers has tended to support this second view. In fact, however since stratigraphical evidence is lacking this view must remain entirely hypothetical.

Other Scientific Researches

In 1983 AD new scientific investigations were carried out by Israelis in the area of the present al-Aqsa. By using ground penetrating radar (GPR), the earth layers below the ground of al-Aqsa compound were penetrated, especially at the east and west corners, *Bāb al-Nabī* and *Abwāb Mihrāb Mariam* (Double and Triple Gates) and the Western wall of al-Aqsa enclave. The results of this experiment prove that beneath the levels of the Double and Triple Gates there are large empty voids below the southern enclosure of al-Aqsa Mosque [http://www.templemount.org/tempmt.html] (see Fig. 3.2 and 3.3).

According to Sagiv, these may be great arches supporting the present platform of al-Aqsa enclave at its southern end. Alternatively, they may be natural voids in the rock [http://www.templemount.org/tempmt.html]. This experiment did not reveal any indication of structural traces that might be related to the first Jewish Temple.

The matter of the first and second Jewish Temple seems more related to mythology than archaeology. For example, the size, the shape and location of the Jewish Temple in relation to the present area of al-Aqsa are disputed among the biblical and Israeli scholars alike (see Fig. 3.4). According to an archaeologist from Bar-Illan University, Aren Maeir says on the issue of the Jewish Temple, "if you ask 100 scholars, you will get 101 opinions" [http://www.virtual.co.il/news/news/j_report/98nov23/books.htm, p2]. Many theories have been, indeed, established by some biblical scholars and Israelis who have not yet given up hope that such hypotheses could some day somehow be proved to their absolute satisfaction.

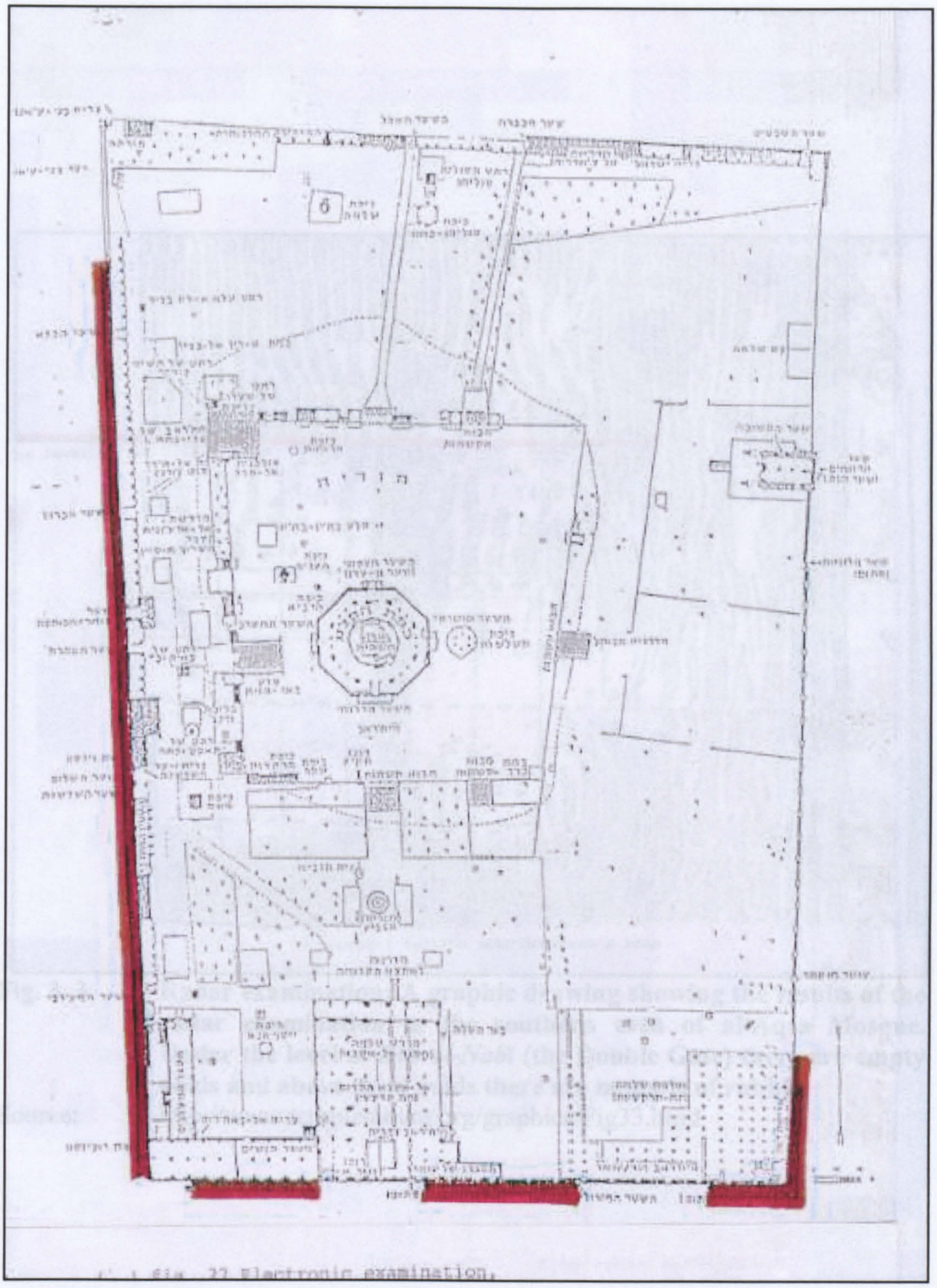


Fig. 3. 2 **Electronic examination: The highlighted areas of the wall show where the ground penetrating radar examinations have been made.**

Source: http://www.templemount.org/graphics/Fig32.html

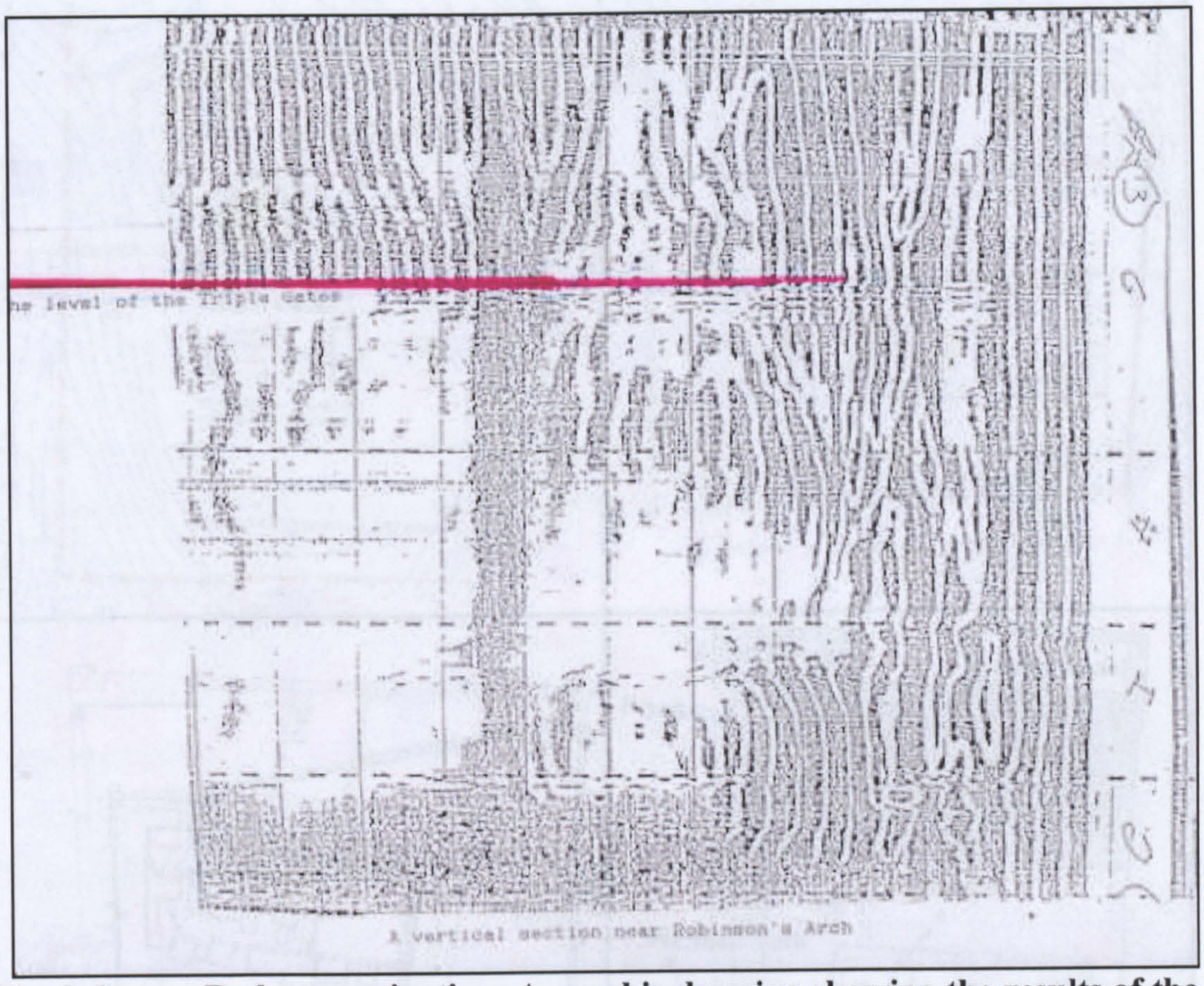


Fig. 3. 3 **Radar examination: A graphic drawing showing the results of the radar examination in the southern area of al-Aqsa Mosque. Under the level of *Bāb al-Nabī* (the Double Gate) there are empty voids and above these voids there are mounds of rubble.**

Source: http://www.templemount.org/graphics/Fig33.html

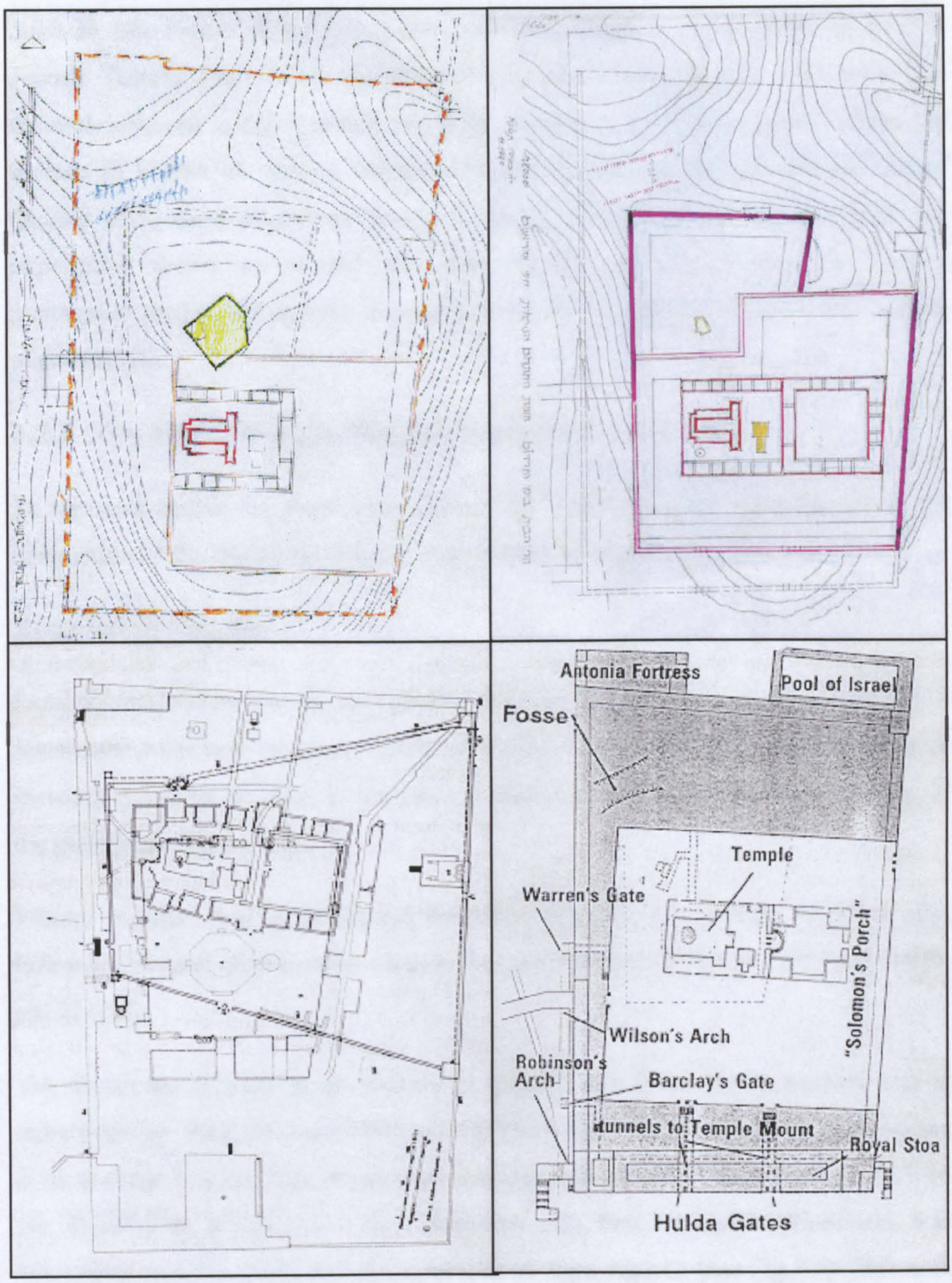


Fig. 3. 4 **Jewish Temple: Some different plans suggested for the Temple which Israeli scholars claim existed in the area of al-Aqsa.**

Source: http://www.templemount.org/theories.html, http://templemount.org/graphics/Fig26.html

Tuvia Sagiv carried out another scientific experiment on the site of *Qubbet al-Sakhrah* (the Dome of the Rock) conventionally, claimed as the place of the first Jewish Temple [http://www.templemount.org/radarir.html, pp1-5]. He relied on thermal infra-red imagery which registers changes in thermal radiation above the surface of bodies of varying thermal capacity. Sagiv took images for the site of *Qubbet al-Sakhrah* at various hours of the day (see Fig.3.5). The result of this experiment shows the natural rock under *Qubbet al-Sakhrah* seems to have a pentagonal shape. No ancient structural evidence has been revealed to be hidden under the site.

3.2.2 The site of al-Aqsa Mosque between 37 BC-70 AD

This period covers the time when Herod the Great ruled in Jerusalem up to the destruction of the city by the Roman army under the leadership of Titus in 70 AD.

Excavation Results

Excavations confirm that the present area of al-Aqsa Mosque was a part of the city of Jerusalem at the time of Herod the Great's region in Jerusalem in 37 BC. Herodian masonry has been revealed in the western wall, and at the east and west corners of the present al- Aqsa enclave.

Warren reported that great drafted Herodian masonry traces were found *in situ*, following several shafts sunk around al-Aqsa Mosque enclosure [Warren, 1970, pp122-216].

The stones are of huge sizes of different lengths; one found in the western wall is more than 7m. long [Warren, 1970, p127]. The height of the Herodian stone courses is on average 1–1.2m. The stones have a margin around their faces, average 11.5-14 cm. In addition, at this site, a huge Herodian arch, first reported by Robinson, was discovered near the south end of the west of al-Aqsa enclave (see Fig.3.6). This arch spans 12.8m on a Herodian pavement revealed by Mazar in 1967AD [Mazar, 1976, p12] (see Fig. 3.7). Mazar interpreted this arch as a bridge.

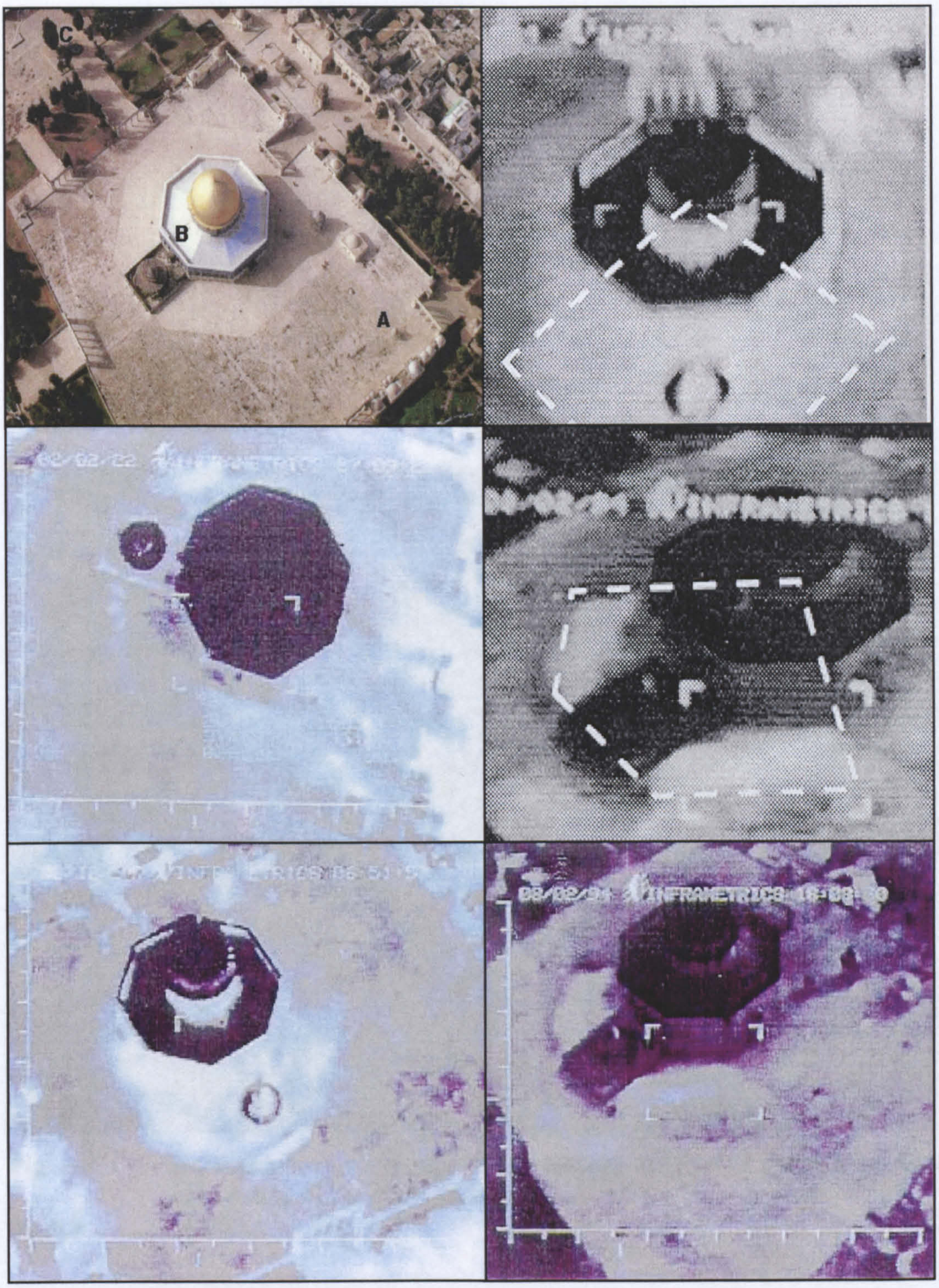
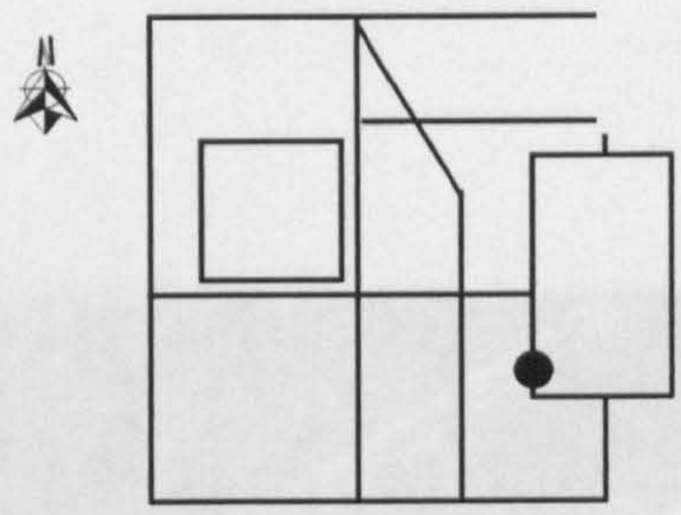


Fig. 3.5 **Infrared images of *Qubbet al-Sakhrah* (the Dome of the Rock).**
Source: http://www.templemount.org/graphics3/Fig2-3.html



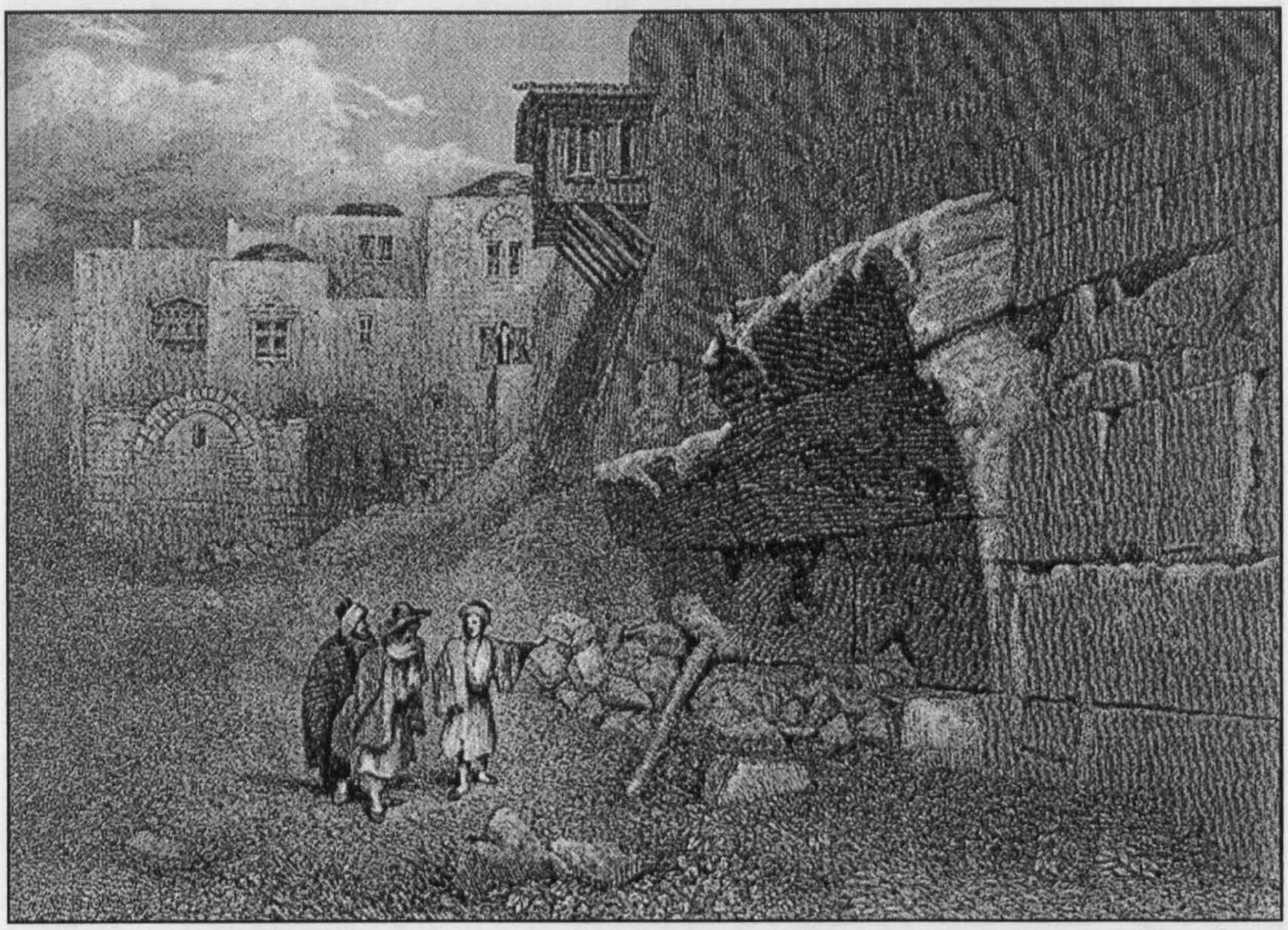


Fig. 3.6 **Robinson's Arch at the south-eastern corner of present al-Aqsa enclave as it looked in 1846 AD.**

Source: Schiller, no date, p173.

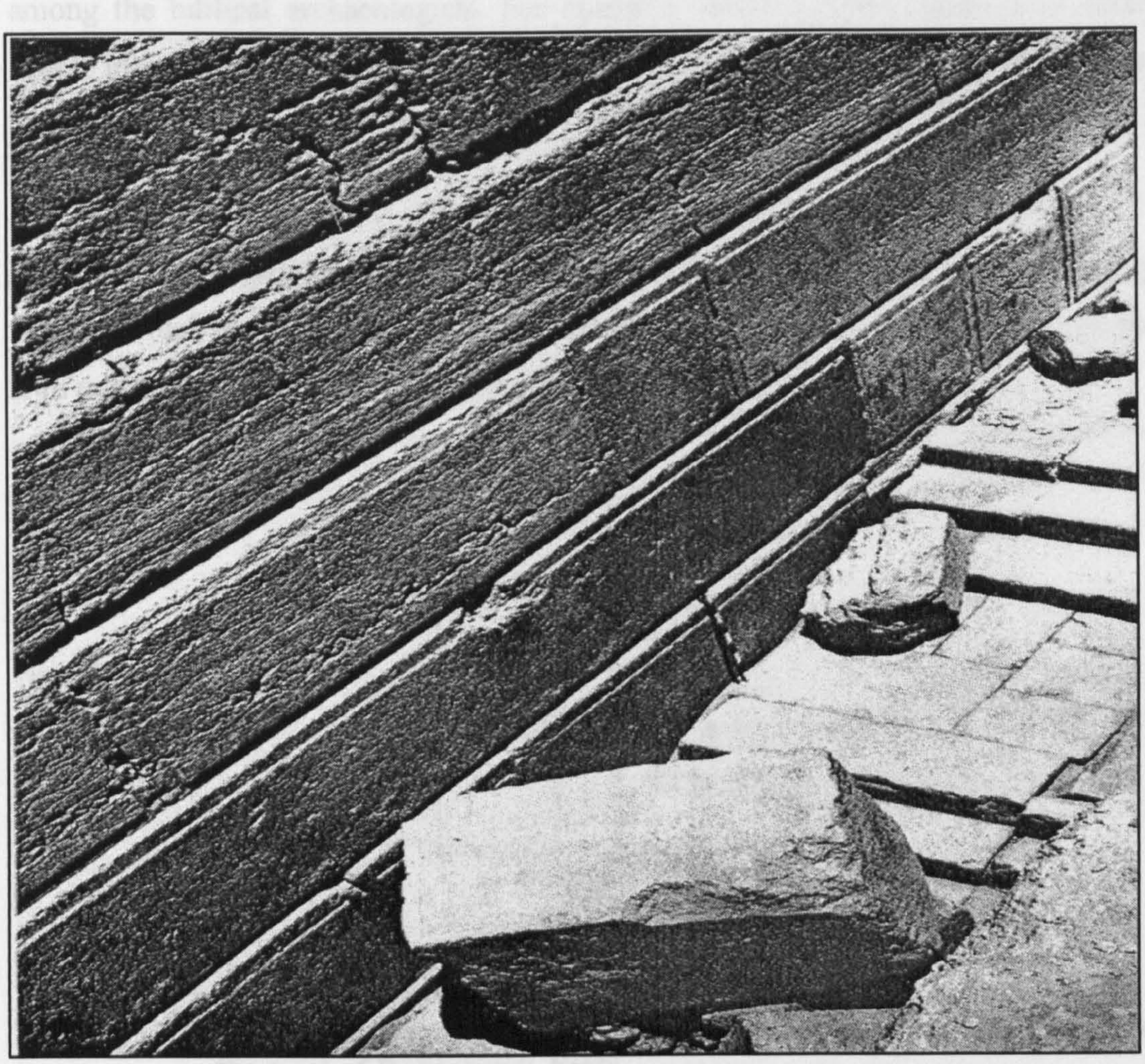


Fig. 3.7 **Roman pavement adjacent to the western wall of al-Aqsa enclave.**
Source: Mazar, 1969, plate VIII.

Another eastern arch has been discovered near the south end of the eastern wall of the enclave; though it is smaller than Robinson's arch.

Under Mazar's supervision Israeli scholars conducted large-scale excavations along the west and south walls of the present al-Aqsa[1]. The results of these excavations did not identify Solomon's Temple. Some of his developed interpretations were disputed among the biblical archaeologists. For example, although some scholars accepted Mazar interpretation of the function of Robinson's Arch as a bridge to the Herodian Temple where al-Aqsa is now situated, this is unlikely to be accepted for two reasons: -

First, the pier, which supports this arch revealed by Mazar probably indicates a city wall on which the arch stands as a symmetrical supporting structure or monumental arch rather than an arched bridge (see Fig. 3.8).

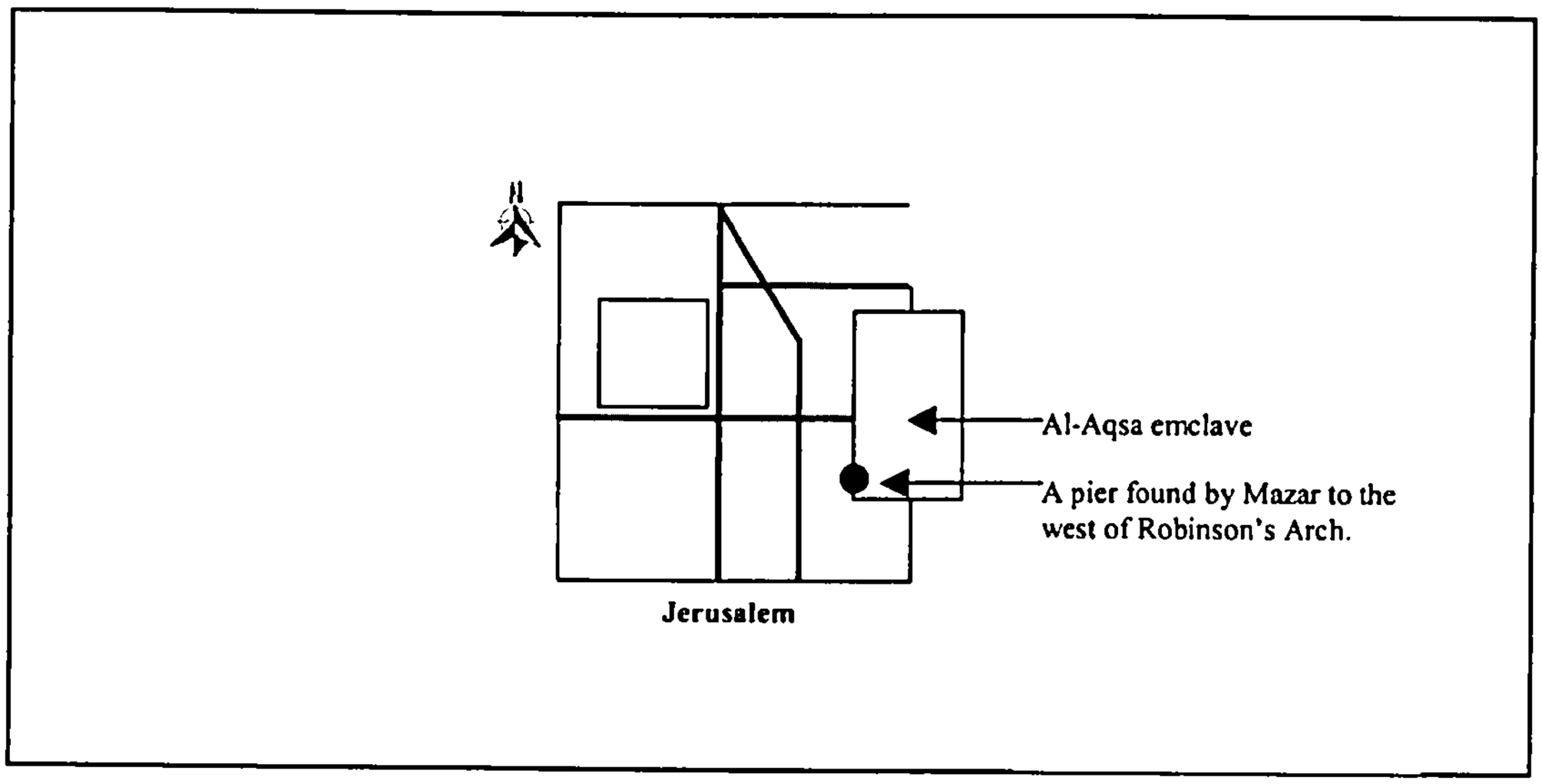


Fig. 3.8 **Schematic drawing shows the location of a pier found by Mazar to the west of Robinson's Arch.**

Source: The researcher.

If this is the case, the other piers have never been found by archaeologists (see Fig. 3. 10).

[1] This excavation was conducted by Israeli archaeologists under the supervision of B. Mazar. This excavation introduced an interpretation of some elements, which made the British archaeologist Kenyon express doubts concerning Mazar's interpretation. "Excavation in such terribly complicated areas requires a detailed and very patient excavation technique that he did not employ" [Kenyon, 1974, p218].

Secondly, the Roman-Byzantine building exposed by Mazar stands very near to this pier. Between this building and the pier there is little space in which to move around. The building is directed in a way to be parallel with the pier. In this case, a building would hardly be found in such a situation if this arch represents a bridge, because such a bridge needs a fill between its piers or sequence of arches in order to structure its ascended stairs. In any case, the expected existence of such traces would make it difficult to build over them and to take the arch's revealed pier in a later building consideration on the site (see Fig. 3. 10). Otherwise, why not use this pier as a house foundation that can be more economical and stronger rather than establishing a new one. Therefore, this line might continue to be used in the time of Roman Aelia or maybe later. This remains hypothetical until archeologists can re-examine these interpretations unfettered by the political situation or religious myths.

Kenyon was not only one to have reservations about this interpretation [Kenyon, 1974, p217] Lalor also found it difficult to accept a two-or three-sided stepped ramp as a solution to both Robinson's Arch and the eastern arch [Lalor, 1997, p207], which had never been found in any other ancient architecture example.

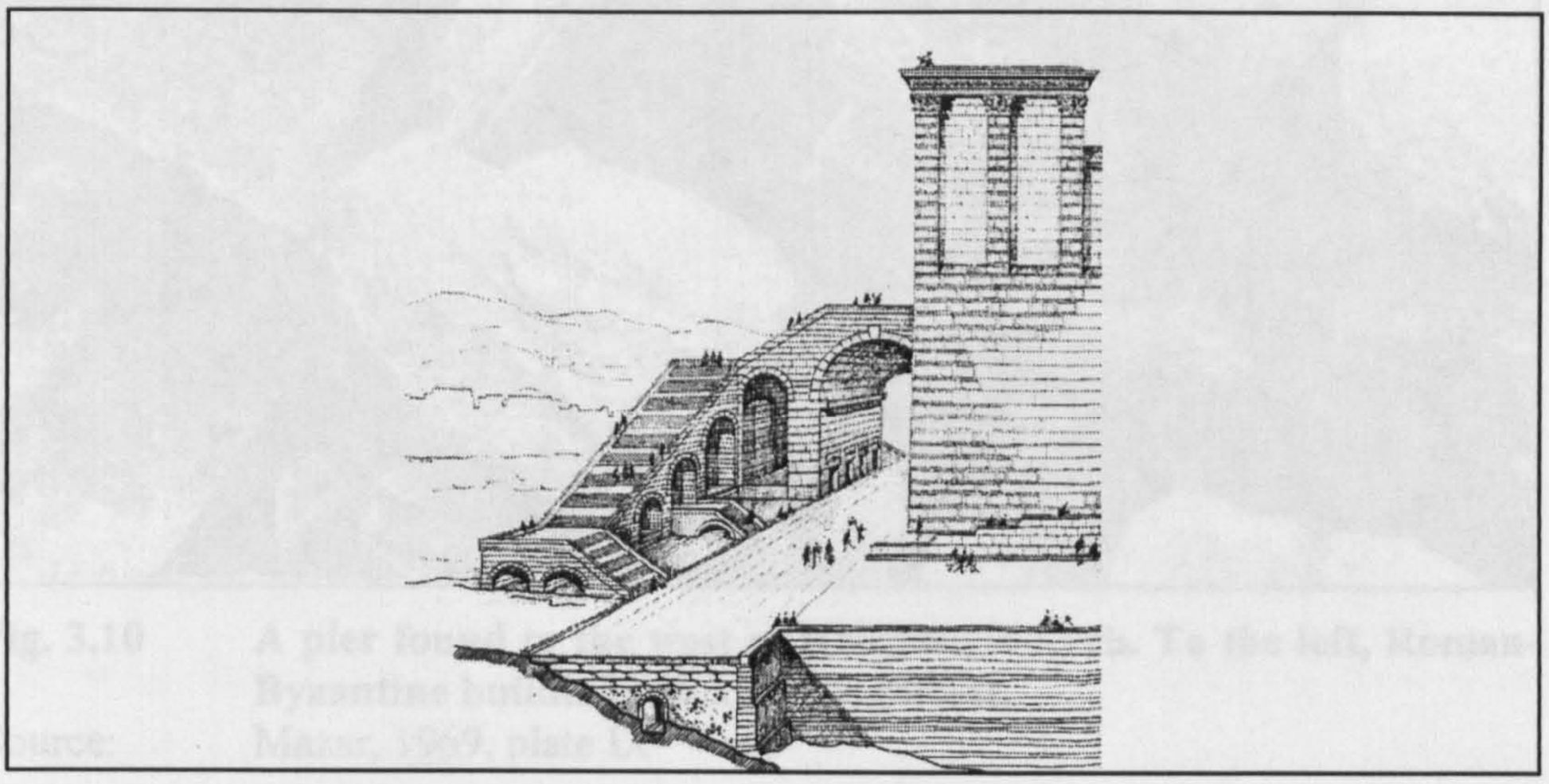


Fig. 3.9 **Suggested reconstruction to the form of Robinson's Arch and its function as a bridge to the Herodian Temple.**

Source: Ben-Dov, 1985, p128.

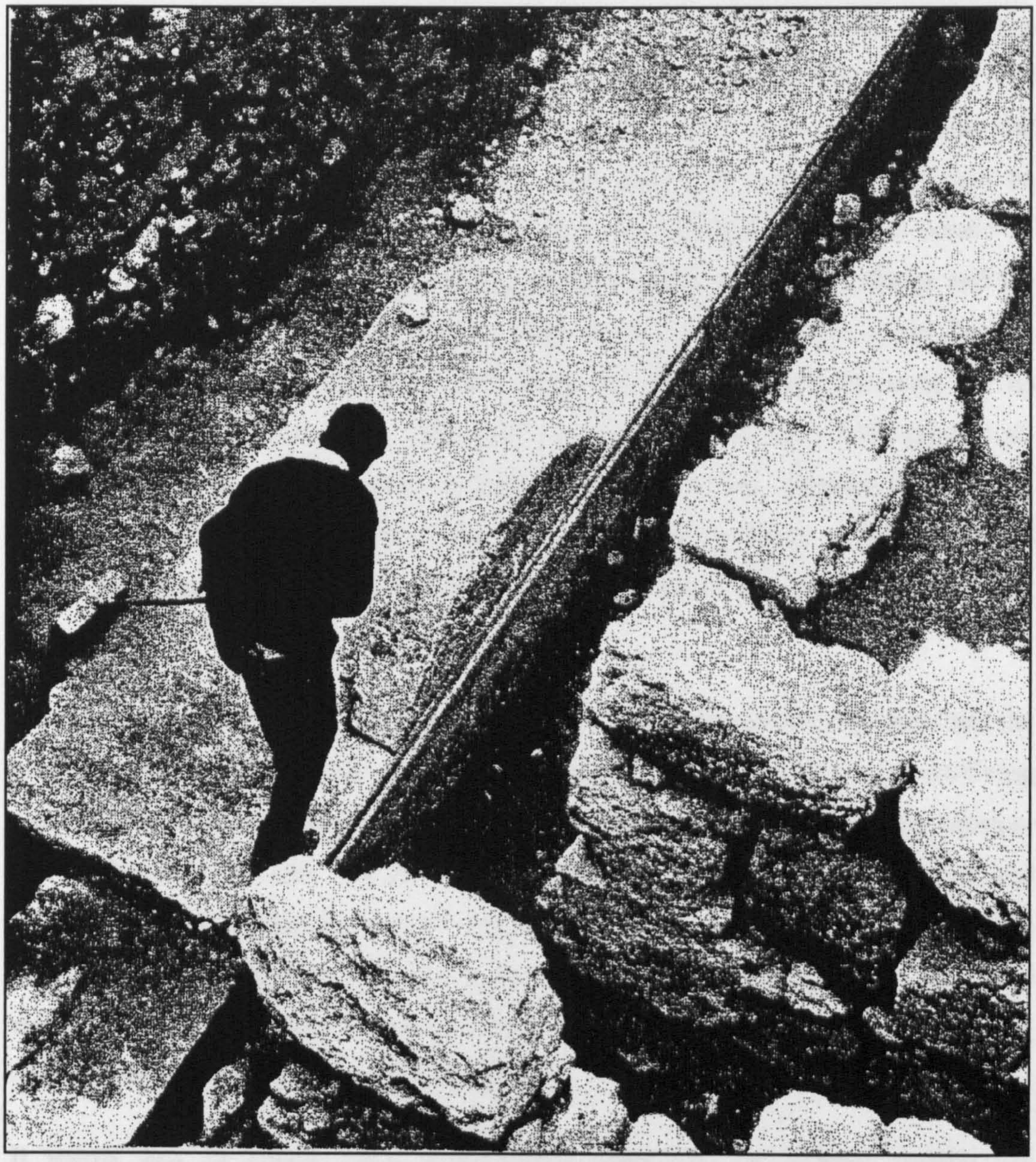


Fig. 3.10 **A pier found to the west of Robinson's Arch. To the left, Roman-Byzantine building; looking northwest.**

Source: Mazar, 1969, plate IX

The matter of the Temple of Herod is no less complicated than that of the Temple of Solomon. Archaeologists, relying on Josephus, regarded the Herodian traces as a Temple of Herod. Herod would have built a Temple in such Roman style. The Temple, mentioned by Josephus and Mishnah, is a structure with various rooms and courtyards built on top of Mount Moria, surrounded by a platform that can be reached through several Gates, e.g. Tadi Gate and Huldah Gate. The nature of Herod's Temple is still in dispute among scholars. Both Josephus' writings and the Jewish Mishnah contradict each other to some degree – the dimension of the Temple given by Josephus is nearly183m. (400 cubit) for the length and the same for its width while in Mishnah 229m. (500 cubit) is reported. The size of the present al-Aqsa enclave is much bigger than the area described by either Josephus or Mishnah. Moreover, the level of the Jewish Temple is approximately 749m. while the level of the present area of al-Aqsa is approximately 737m. above sea level [Warren, 1970, p63].

Questions about the boundaries and the relationship between Herod's Temple and the present area of al-Aqsa have greatly perplexed scholars. The lack of any surviving clear evidence led scholars to dispute the area relationship between al-Aqsa Mosque and the Herodian Temple. For example, Robinson, Melchior de Vogüé, Warren, and Conder all suppose that the present area of al-Aqsa Mosque equates broadly to the single building of Herod's Temple. On the other hand, Fergusson, Lewin, and others restrict the Temple area to a square of about 182m. each side in the south-west angle of the same enclosure [Warren, 1970, p97].

It seems that in recent years controversies regarding the Jewish Temple are increasing (see Fig.3.12). For example, more than three locations have been introduced for the same Temple at the same time, each followed by extensive documentation. Several locations are claimed for this Temple. First, Leen Ritmeyer claims that the Jewish Temple had stood at the present site of *Qubbet al-Sakhrah* (The Dome of the Rock). Dan Bahat vigorously defends this claim. Secondly, Asher Kaufman claims that the Jewish Temple had stood north of *Qubbet al-Sakhrah*; thirdly, Tovia Sagiv, a Tel-Aviv architect claims that the Jewish Temple had stood to the south of *Qubbet al-Sakhrah*.

Controversially, at the north-east corner of the present al-Aqsa enclave, Warren revealed some original Herodian masonry covered by the natural level of the ground. He reported that no clear joint was found to exist which could point out the claimed boundaries, but "the wall runs without a break of any kind and there is no projection" [Warren, 1970, p130]. This means that the northern limit of the claimed Temple does not exist nor coincides with the present northern wall of al-Aqsa enclave. (see Fig. 3.11)

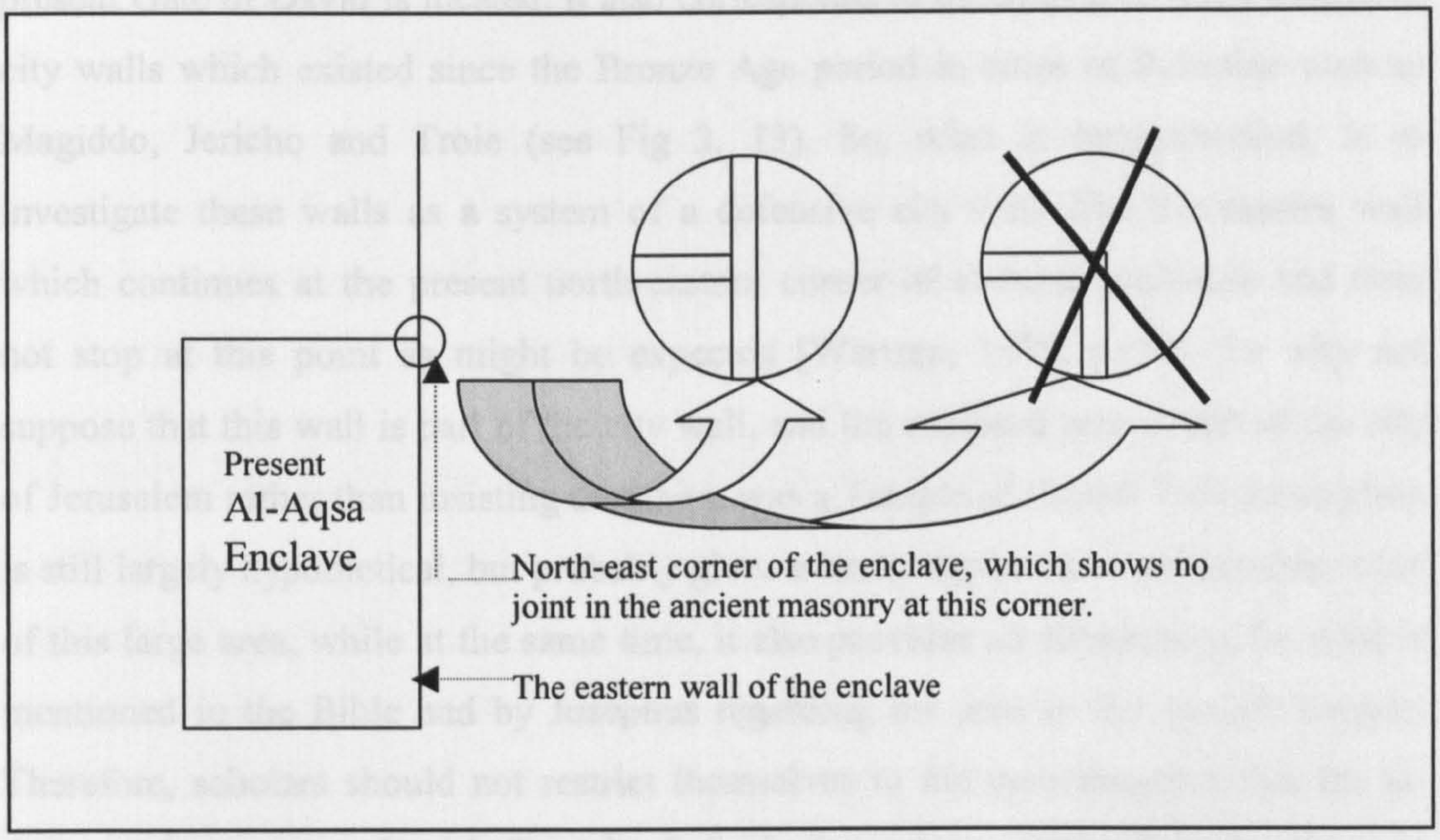


Fig. 3. 11 **Schematic diagram shows that there is no joint in The Roman masonry at the north-east corner of al-Aqsa enclave as expected by some biblical archaeologists.**

Source The researcher.

In all cases, these controversies bring to the fore and call in to question the holiness of the western wall of the present area of al-Aqsa enclave for the Jews which the Israelis at present name the "Wailing Wall" and ignores the eastern wall which is more ancient. Is this large area of 35 acres to be credited to King Herod? If so, it would be the largest Temple ever built in the Roman world.

These archaeological questions need further research. The absence of any clear evidence and the abundance of unreliable mythological stories created both impediments and challenges the archaeological desire to make an objective reconstruction of the present area of al-Aqsa before the establishment of Roman

Aelia Capitolina in 135 AD. In the absence of a clearer picture of what was built in the area of the present al-Aqsa at the time of Herod, the existence of this area within the limits of Herod's city of Jerusalem and its precise use are difficult to determine.

The traces, which exist in the foundation of al-Aqsa enclosure, are more likely to be those of defensive city walls rather than those of public or private buildings. A similar system of the structuring of city walls can be found at the citadel where the present Gate of David is located. It also corresponds to the system of other defensive city walls which existed since the Bronze Age period in cities of Palestine such as Magiddo, Jericho and Troie (see Fig 3. 13). So, what is recommended, is to investigate these walls as a system of a defensive city wall, like the eastern wall which continues at the present north-eastern corner of al-Aqsa enclosure and does not stop at this point as might be expected [Warrren, 1970, p130]. So why not suppose that this wall is part of the city wall, and the enclosed area is part of the city of Jerusalem rather than insisting that there was a Temple of Herod. This assumption is still largely hypothetical, but probably gives a better explanation and interpretation of this large area, while at the same time, it also provides an explanation for what is mentioned in the Bible and by Josephus regarding the area of the Jewish Temple. Therefore, scholars should not restrict themselves to the preconception that the al-Aqsa enclave was a Jewish Temple. Indeed, the nature of this Temple which is mentioned in the Bible and its area reported by Flavius Josephus and in the Mishnah book would not fit in size to the present al-Aqsa enclave, and this requires scholars to search for other possible locations for the Jewish Temple. This proposal agrees with the new research by Ernest Martin regarding the Jewish Temple [Martin, 2000, pp407-421]. The same scholar, who attempted to re-evaluate what is mentioned in the ancient literature and in the texts of Jesus, was led to conclude that the Jewish Temple could not have been located in the present area of al-Aqsa enclave (see Fig. 3. 14) [Martin, 2000, p406].

Unfortunately, not only did Titus' destruction of Jerusalem in 70 AD bring about these controversies regarding al-Aqsa enclosure, it also removed any clear traces which might have unlocked several puzzles concerning the appearance of Jerusalem at that time, i.e. the location of the Jewish Temple, the function of the present area of

al-Aqsa enclave in the time of Herod, the place of Jesus' crucifixion, and so on.... Paradoxically, all of these seem to acquire a deeper significance in the absence of archaeological traces and the abundance of controversial and unproved hypotheses.

Christians and Muslims do not reject the existence of Solomon's Temple in the past. According to the Bible and to the Muhammad Tradition, Solomon's Temple would have existed somewhere in Jerusalem. No tangible evidence has yet been provided to support the notion that the site of al-Aqsa enclave is the very place on which Solomon built his Temple. No archaeological traces for this Temple have yet been discovered in the area of al-Aqsa enclave. Why not then search somewhere else! But the archaeological results seem not to satisfy Israelis' scholars who continue to believe in their preconception that mythological stories confirm that this is the site and the only site of Solomon's Temple.

3.3 THE SITE OF AL-AQSA IN THE HADRIAN ROMAN *AELIA*

This section focuses on the discussion of the ancient morphology of the site of al-Aqsa enclave at the time of *Aelia Capitolina*. The researcher will not rely on those hypothetical drawings prepared by some contemporary scholars such as Dan Bahat [Bahat, 1996, p59], which seem to have been made without any evidence, but will instead adopt a historical and archaeological approach. A series of witnesses to the site will be cited in chronological order to show that the present area of al-Aqsa enclave remained desolate in the Roman period. On the other hand, several archaeological observations will be discussed in order to check the structural activities credited to Hadrian by some scholars, and the possibility that the Roman Emperor, Hadrian, had delineated the area of al-Aqsa enclave in its present shape in 135 AD.

After the severe destruction of Jerusalem including the present area of the al-Aqsa Mosque by Titus in 70AD, the Tenth Roman Legion was left to secure and stabilise the ruins. The legion settled in a camp on the western ridge, in the south-west quadrant of the present city (see Fig. 3.15). Excavations have not yet produced much

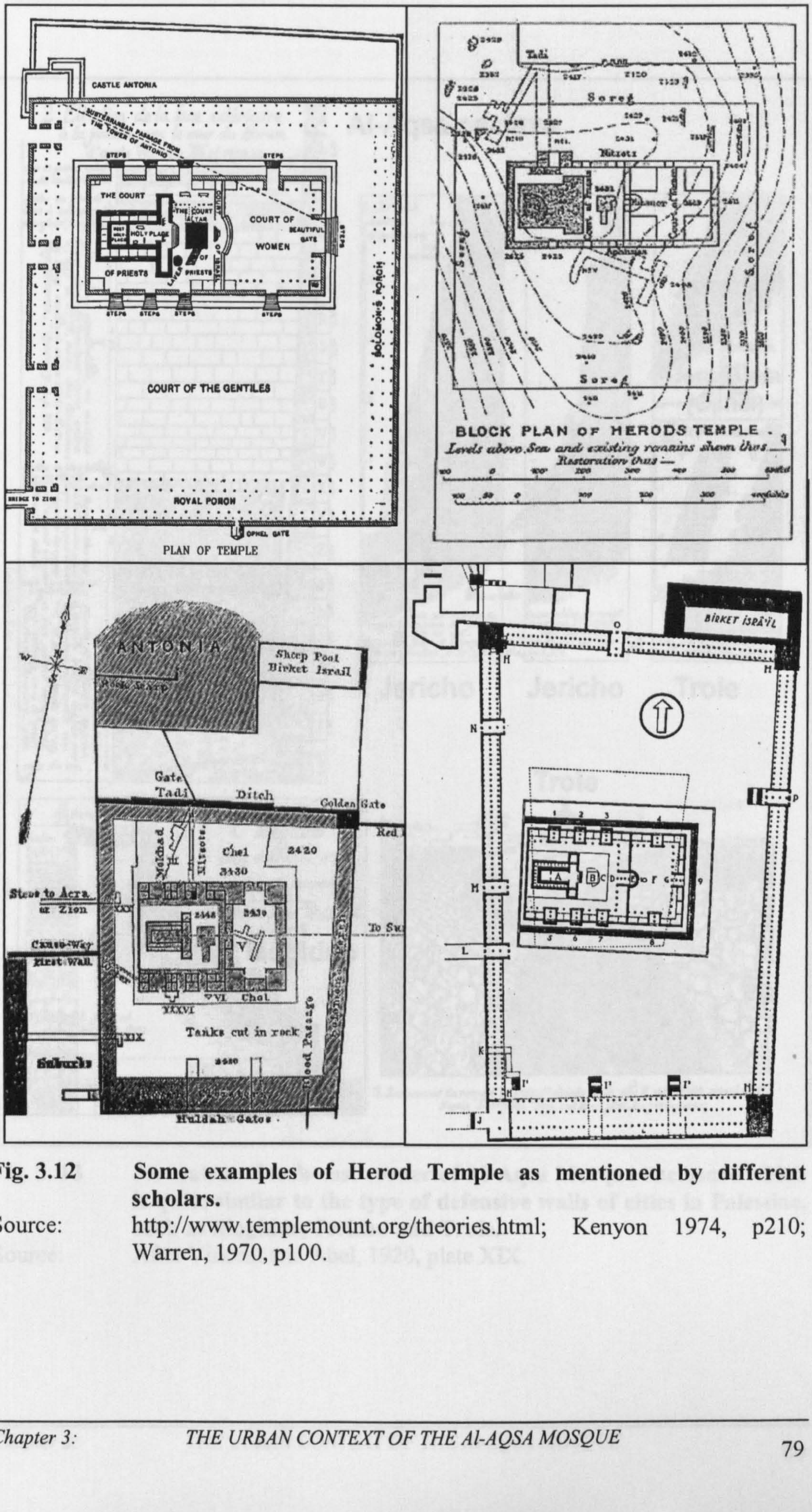


Fig. 3.12 **Some examples of Herod Temple as mentioned by different scholars.**

Source: http://www.templemount.org/theories.html; Kenyon 1974, p210; Warren, 1970, p100.

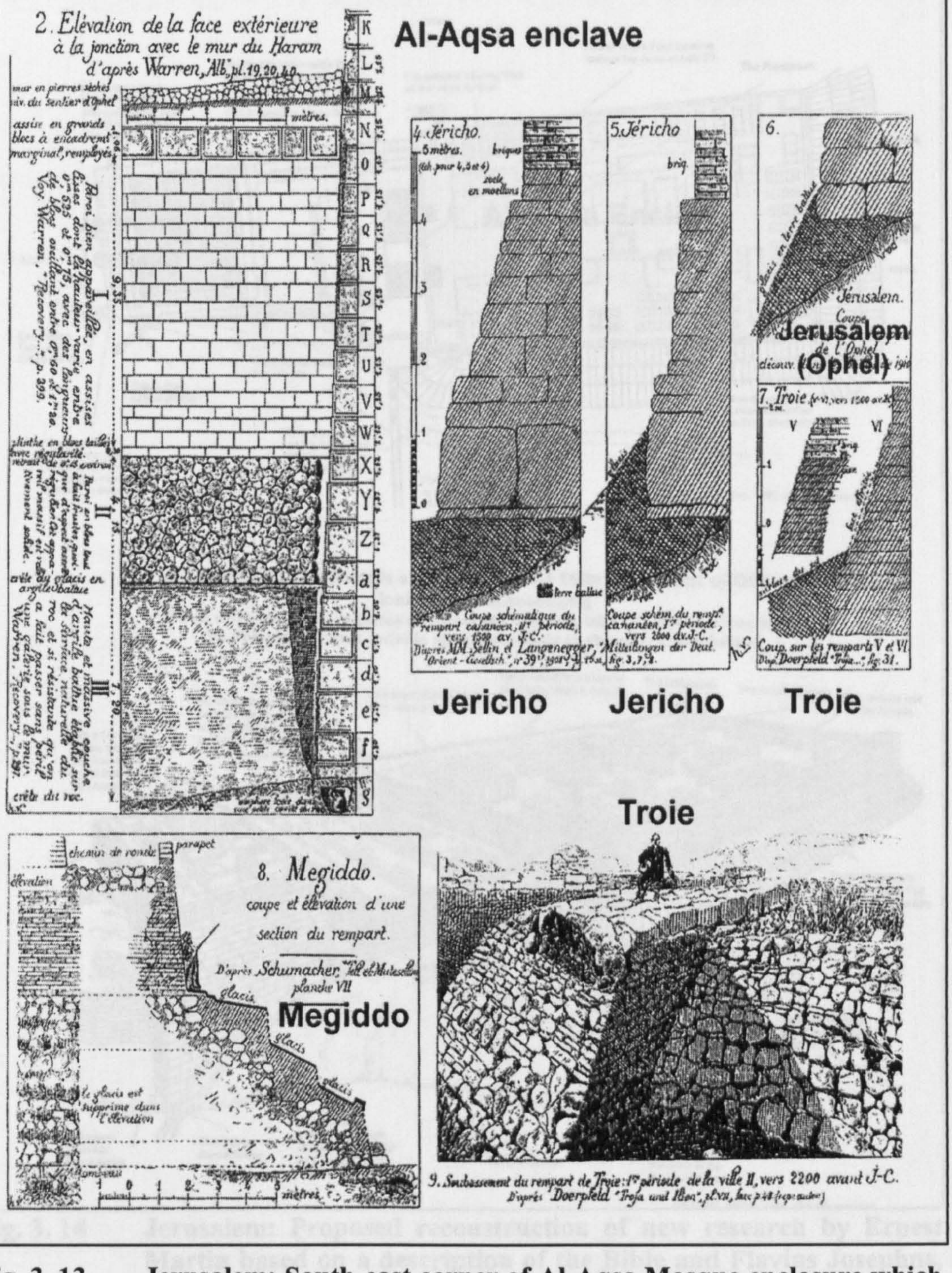
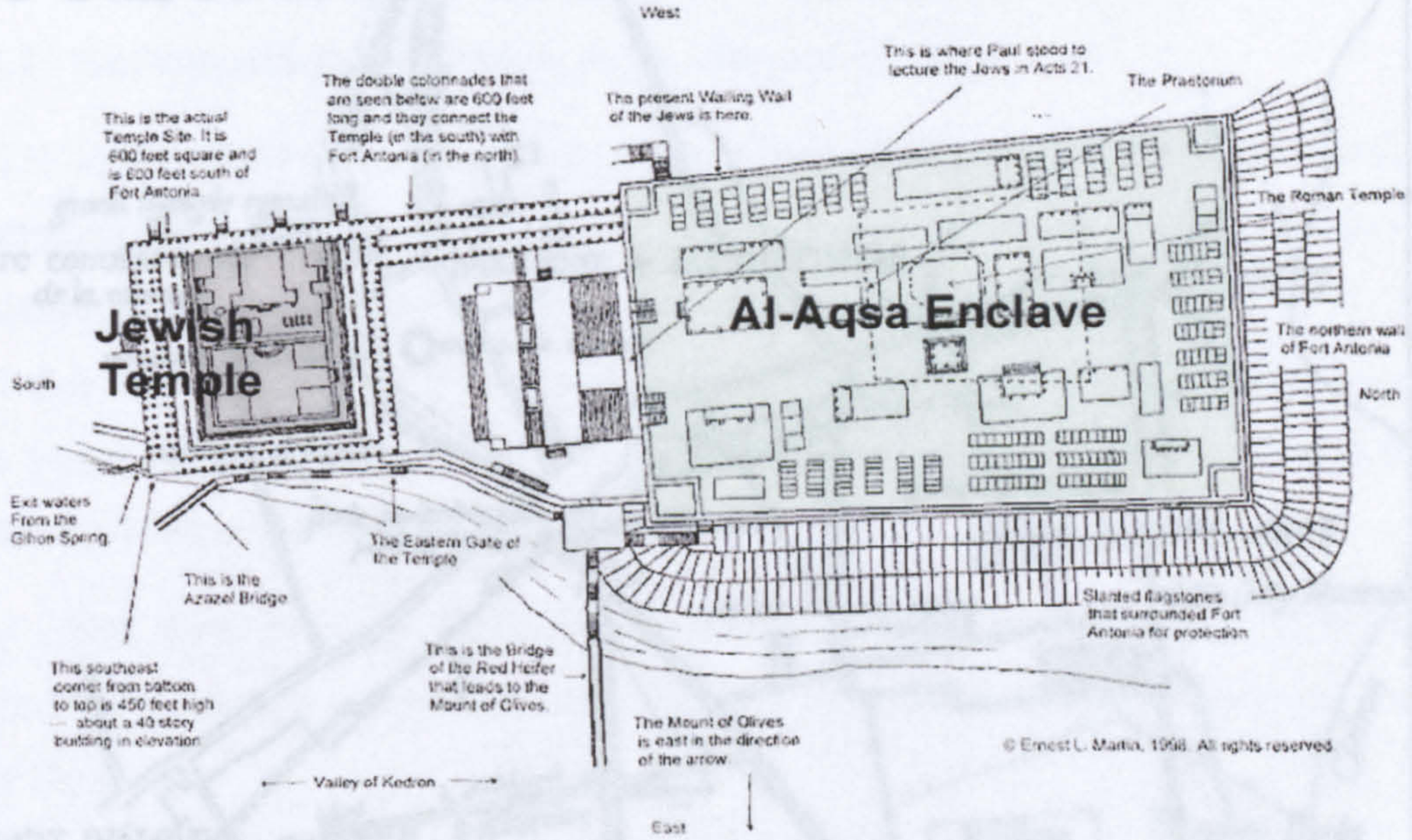


Fig. 3. 13 **Jerusalem: South-east corner of Al-Aqsa Mosque enclosure which is quite similar to the type of defensive walls of cities in Palestine, such as Megiddo, Jericho and Troie.**

Source: After Vincent and Abel, 1920, plate XIX.

A Birdseye View (looking downward) on the Temple and Fort Antonia [The dotted line in Fort Antonia represents the platform of the Dome of the Rock, and the Dome itself is shown with its octagonal shape.]



A Prospect of the Temple and Fort Antonia from the Mount of Offense (looking northwestward)
[If one will read the eyewitness accounts of Josephus, without preconceived ideas, the Temple and Fort Antonia appear precisely as they are drawn below.]

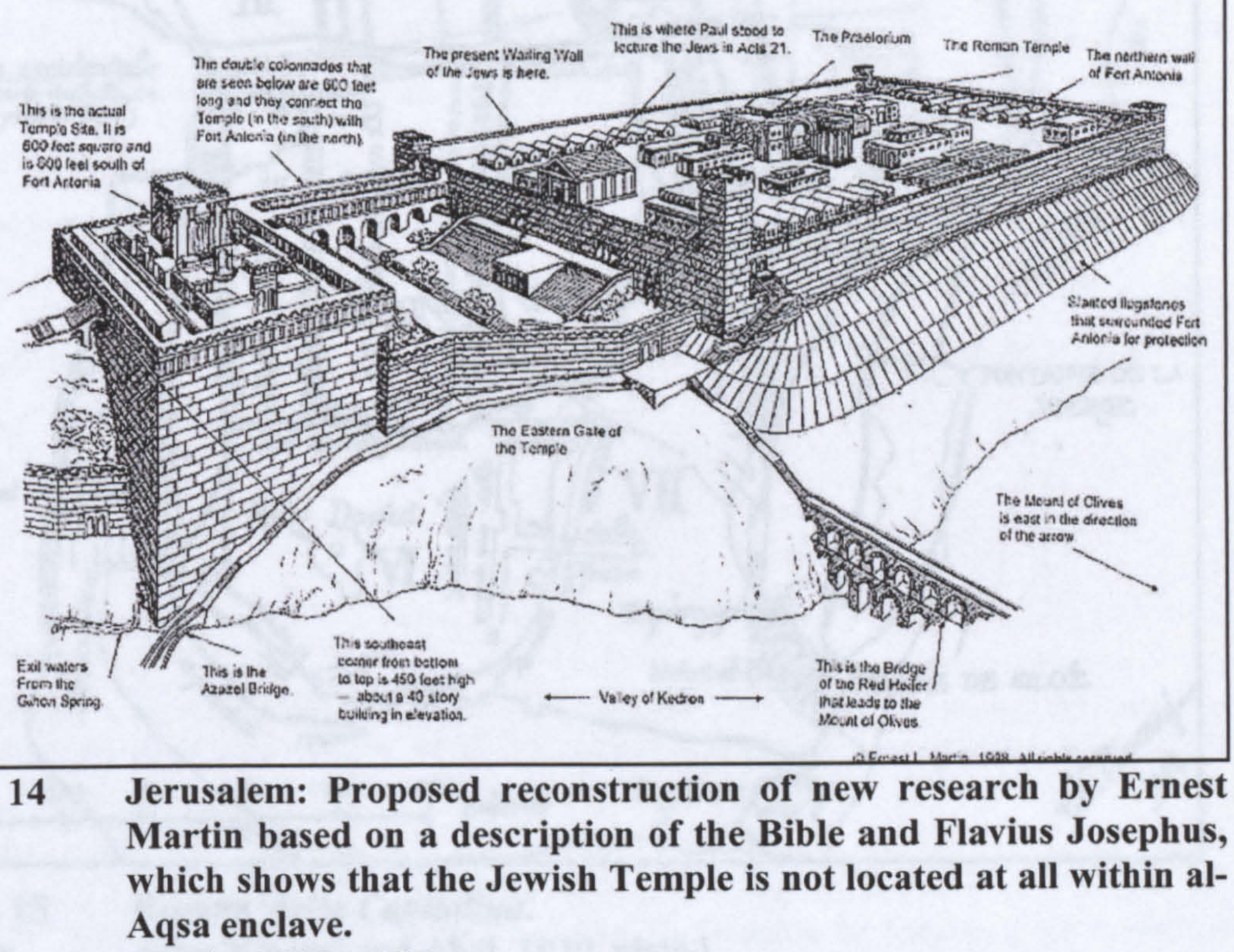


Fig. 3. 14 **Jerusalem: Proposed reconstruction of new research by Ernest Martin based on a description of the Bible and Flavius Josephus, which shows that the Jewish Temple is not located at all within al-Aqsa enclave.**

Source: Martin, 2000, p407.

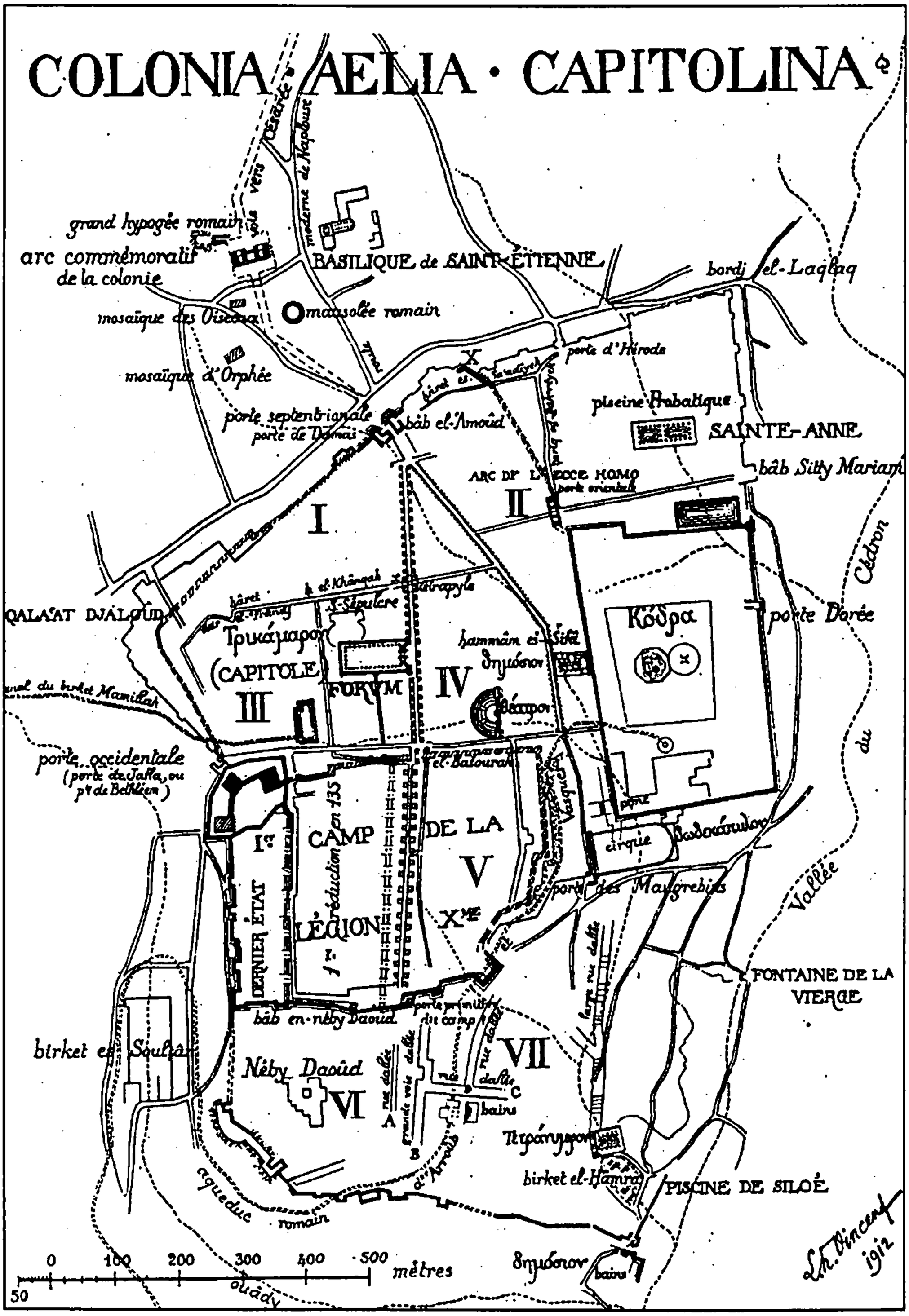


Fig. 3. 15 **Roman *Aelia Capitolina*.**
Source: After Vincent and Abel, 1920, plate I.

information about this camp other than a few bricks and roof-tiles bearing the legion's stamp [Mazar, 1976, p33].

3.3.1 Construction of Roman *Aelia Capitolina*

In 135 AD and after the Jewish rebellion of Bar Cochba was crushed, the Roman Emperor Hadrian defeated the Jews and re-conquered Jerusalem. He then made the decision to rebuild the city of Jerusalem from scratch [Ben-Dov, 1985, p33]. He called it *Aelia Capitolina*[2]. An inscription including the name of *Aelia Capitolina* was found on a stone at the northern main entrance of the city [Kenyon, 1974, p258] under the present Damascus Gate.

The urban form of *Aelia Capitolina* followed the regular standards of a Roman colonial city, and the system of streets followed the geometry of the Roman cardines (see Fig.3.15).

These are still obvious in the plan of the present-day Jerusalem. Two main streets intersect at right angles, to divide the city into four quadrants. The main street extends from the northern city gate some 6.00m. below the present Damascus Gate toward the south, while another street runs from the David Gate to the east following what is called the Transversal Valley. The city was delineated around a new religious and administrative centre on which Hadrian would construct a temple for one of the Roman *Capitoline* gods, at the location of Church of the Holy Sepulchre [Bahat, 1996, p60]. To the south of it is the Roman forum where the present Moristan[3] was founded.

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[2] *Capitulinium* is the name of one of the highest hills in Rome, and *Capitolinus* refers to the statue that was worshiped in *Aelia Capitolina*. Aelia is a name that was taken from the name of Hadrian's family (*Aelius*). See [Clermont-Ganneau, 1899, p139]; [al-'Ārif, 1961, p68]; [Wilkinson, 1989, p106]; [Bahat, 1996, p60].

[3] Originally, this is the name of the region S. and S.E. of the church of the Holy Sepulchre, a tract covering 21,328 sqr. metre. 11th and 12th century AD buildings occupied the area. Saladin, the Muslims' commander, granted this property as endowment (Waqf) to the Mosque of 'Umar which is located south of the Church of the Holy Sepulchre. In 1216, Shihāb al-Dīn, nephew of Salāh al-Dīn al-Ayyūbī, converted a Church in this area into a hospital under the name of Muristan [Baedeker, 1912, p46; Matson, 1925, p112].

3.3.2 The Site of al-Aqsa in Roman *Aelia Capitolina*

Certainly, the ancient morphology of Roman *Aelia Capitolina* at the time of Hadrian is still a perplexing question, and the development of the eastern part of the present city including al-Aqsa enclave is again a complicated matter.

Although the vast majority of scholars believe that Hadrian's *Aelia Capitolina* reached the eastern wall of the present city, no satisfactory evidence is available to confirm that Hadrian did in fact include this area. Some scholars, such as Vincent and Dan Bahat, who confused the early historical accounts, believe that Hadrian built a temple on the site of the present al-Aqsa enclave [Vincent and Abel, 1920, plate1; Bahat, 1996,59].

Historical Evidence

The so-called *Paschal Chronicle* reports in 130 AD, that Hadrian defeated the Jews in Jerusalem and "destroyed the Jewish temple" [cited in Creswell, 1969, p29]. Certainly, there is no Jewish temple constructed after Titus' destruction of Jerusalem in 70 AD. According to Josephus, this destruction was followed by the leveling of every building in the temple area [Josephus, *War* VI, http://wesley.nnu.edu/josephus/war-6.htm]. So what does the *Paschal Chronicle* mean when he reports the destruction of the Jewish Temple? According to Creswell this means the destruction of, "presumably some improvised structure due to Bar Cochba" [Creswell, 1969, 1: p29] or maybe Bar Cochba's house.

Although *Dion Casio* reported at the beginning of the third century that Hadrian "erected in the place of the Temple of God another temple to Zeus" [cited in Creswell, 1969, 1: p29], there is nothing to support a hypothesis that this was in the present area of al-Aqsa enclave. No other historian or visitor to Jerusalem before or after *Dion Casio* mentions it. According to Wilkinson, *Dion Casio* was wrong if he believed that a Roman temple was constructed in the present al-Aqsa enclave. It is more likely that *Dion Casio* was referring to the temple of Aphrodite, half way up the western colonnaded street, adjacent to the temple of Jupiter [Wilkinson, 1989, p92]. Unfortunately, archaeology has not yet succeeded in giving a clear account of these temples.

An unknown pilgrim from Bordeaux usually simply referred to as "Bordeaux" who visited Jerusalem in 333AD, described some places in Aelia. Bordeaux reported that "there are the two statues of Hadrian" on the site of the temple which was interpreted by some scholars such as Dan Bahat as the temple that Hadrian built on the site of al-Aqsa. This account causes some surprise, since a visitor and a pilgrim who went to the area of al-Aqsa enclave about a century before and after Bordeaux reported nothing about a Roman temple or statues constructed on this site [Wilkinson, 1989, 92; cited in Warren, 1970, 17]. There are two possibe reasons for this lack of correlation. A first reason is that, Bordeaux did not visit the site but continued his journey along the western wall of the present al-Aqsa enclave. He may simply have relied on a description based on stories told by local guides because he used in his account "they say" [Warren, 1970, p14]. Or, on the other hand, he may be confused in his account, referring to a temple built at another site or regarding a heap of ruins as statues. *Eucherius* reported in 440 AD when he visited the present enclosure of al-Aqsa that "a certain pinnacle of one of these ruined walls stands above the rest, which are demolished even to their foundation" [Warren, 1970, p18]. He did not report any surviving structure or statue on this site. It seems, therefore, possible to conclude that the present area of al-Aqsa enclave remained derelict during the Roman period.

Archaeological Evidence

Yet, the question of the limits of the Hadrianic Jerusalem is still unanswered. Numerous excavations in the city of Jerusalem have revealed scant archaeological findings belonging to this period. Moreover, these excavations have not succeeded in revealing any traces of the defensive wall of *Aelia Capitolina*. The tendency to suppose that *Aelia* is an unwalled city at the time of Hadrian is strong among archaeologists [Wightmam, 1993, p199]. Their hypothesis is substantiated by the existence of another unwalled city in the region, namely, *Philadelphia* (Amman) during the Roman period.

Observations made by Warren in 1867-1869 at various points along the eastern and the southern wall of the present al-Aqsa enclave [Warren, 1970, pp.122-171] (see Fig. 3.16) reveal no references to Hadrianic traces on the site.

In 1873 AD Clermont-Ganneau made some observations through a shaft located inside the eastern wall of the present al-Aqsa enclave (see Fig. 3.16). He probed some 133 or 160 metres north of the south-eastern angle of al-Aqsa enclave, down to a depth of 10 metre below the present level. " The soil was entirely composed of made earth, mixed with a quantity of broken pottery, cubes of mosaics, fragments of marble and other rubbish" [Clermont-Ganneau, 1899, p135]. His results did not show any Hadrianic traces.

But this is not all; an excavation by Hamilton in 1937 at the eastern part of the present north city wall, near the Herod Gate, and another by Amos Kloner on behalf of the Israeli Department of Antiquities and Museums at the same site, did not show any stratified accumulation for Hadrian's *Aelia Capitolina* (see Fig.3.14). These results indicate that no expansion of Hadrian's *Aelia* occurred at this spot.

Mazar carried out an excavation in 1968 AD to the south and west of the present al-Aqsa Mosque, where he noted that "till now stone foundations of buildings of the period of *Aelia Capitolina* have been found only in the areas opened to the west of western wall". In this excavation he exposed a Roman structure to the west of the pier of Robinson Arch [Mazar, 1969, p9; see plate ix]. Even after the extension of the excavated area by Ben-Dov to include all of the southern part of al-Aqsa enclosure, no Roman structure was revealed in the southern part of al-Aqsa enclave. According to Ben-Dov "we would not have had any direct archaeological evidence from the second and third centuries in the area of the Temple Mount" [Ben-Dov, 1985, p198]. This indicated that the Romans did not establish a neighbourhood to the south of the site of al-Aqsa.

Moreover, the observations made by this researcher at the eastern wall of the city where al-Aqsa enclave is located, reinforce the argument that there was no Hadrian city wall constructed at the present east wall of the site. The researcher compared those courses that sit over the Herodian courses with Hadrianic Roman courses found in *situ* in the so called the "*Ecce Homo*" Arch located at the north-west corner of the al-Aqsa enclave. These observations noted the size and shape and chisel cutting of

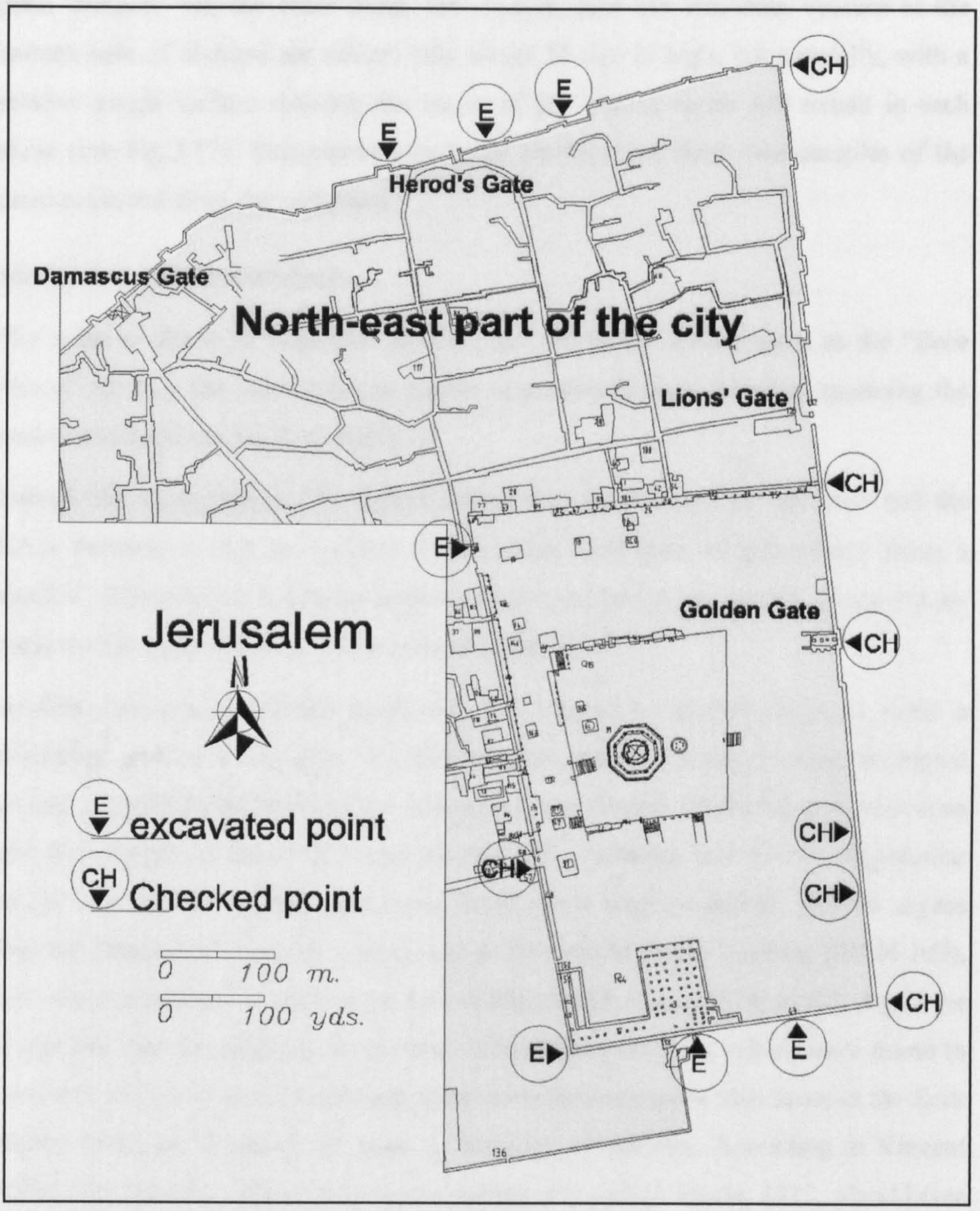


Fig. 3. 16 **Jerusalem: Locations of excavations carried out by various scholars at the eastern part of present city of Jerusalem.**

Source: The researcher.

masonry. The Roman Hadrianic courses range between 45-60 cm in height, with plain surfaces. On the other hand, the courses over the Herodian courses at the eastern side of al-Aqsa are ashlar, only about 30 cm. in high, cut carefully, with a relative rough surface showing the traces of the tooling comb still extant in each stone (see Fig.3.17). This observation must confirm that these two samples of the courses are not from the same date.

Hadrian's Triumphal Arch

The main evidence of Hadrianic *Aelia* is the Triumphal Arch known as the "*Ecce Homo*" Arch at the north-western corner of present al-Aqsa Mosque, spanning the east-west street (see Fig 3.18 and 3.19).

Indeed, the topography of Jerusalem determined the location of this arch and the street between it and the present Lion's Gate. This gate is approached along a shallow valley which is located between two hills, one at the corner of present al-Aqsa enclave, and the other to the north of the arch.

At first glance it is difficult to classify this arch in its present shape as either a triumphal arch or a city gate. The arch contains features found in other triumphal arches and city gates found in the region, e.g. the Gerasa triumphal arch in Jordan and the city gate of Bosra in Syria (see Fig.3.20). Although this arch is very similar to the Damascus Gate, this gate is not dated to the Hadrian period. Kenyon argues that the Damascus Gate was constructed at the time of Herod Agrippa (40-44 AD), and was restored and re-used at the time of Hadrian [Kenyon, 1974, p242]. Again the researcher also investigated the courses of the Damascus Gate, which were found to be totally different, much larger and much more homogeneous than those at the *Ecce Homo* Arch. So, it cannot be dated to the time of Hadrian. According to Vincent (1914 AD) the *Ecce Homo* Arch is the eastern city gate [Vincent, 1912, plate1] (see Fig. 3.21). This point of view corresponds with Wightman who argues that this "Arch is more like a city gate" [Wightman, 1993, p199].

Consequently, judging by these views, it is hard to resist the conclusion that the *Ecce Homo* Arch represents the eastern gate of Roman *Aelia Capitolina*. This also corresponds with Wilkinson's point of view based on new research [cited in Wilkinson, 1989, p82], that this would be the eastern city gate. Moreover, he claims, on the basis of historical evidence, that the western wall of al-Aqsa enclave represents the limit of the Roman city -*Aelia Capitolina*- [Wilkinson, 1989, p90]. In any case, these points of view support the contention that the *Aelia* of Hadrian cannot have extended beyond the Damascus Gate in the north and *Ecce Homo* Arch in the east[4] (see Fig. 3.21). Therefore, the city of *Aelia Capitolina,* would be smaller that it customarily regarded to be since most researchers think that it follows the present city wall of Jerusalem.



Fig. 3. 17 **Archaeological observations and comparisons made by the researcher between the Hadrianic stone masonry in *Ecce Homo* Arch on the right and the stone masonry in the eastern enclosure of al-Aqsa enclave on the left.**

Source: The researcher.

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[4] The Triumphal Arch of Gerasa (Gerash) in Jordan, constructed in the year 129-139 AD in honour of the Emperor Hadrian, marking an approach to the city from the outside. See [Segal, 1988, p24].



Fig. 3. 18 ***Ecce Homo*** **Arch at the north-west corner of the present al-Aqsa enclave.**

Source: The researcher.



Fig. 3. 19 ***Ecce Homo*** **Arch at the north-west corner of the present al-Aqsa enclave.**

Source: The researcher.



Fig. 3. 20 **Jordan and Syria: The top picture shows the Hadrianic triumphal arch at Gerasa in Jordan. The bottom picture shows the Roman city gate of Bosra in Syria, located at the west of the city.**

Source: Segal, 1988, p127/ Fig. 62 and Fig. 117.

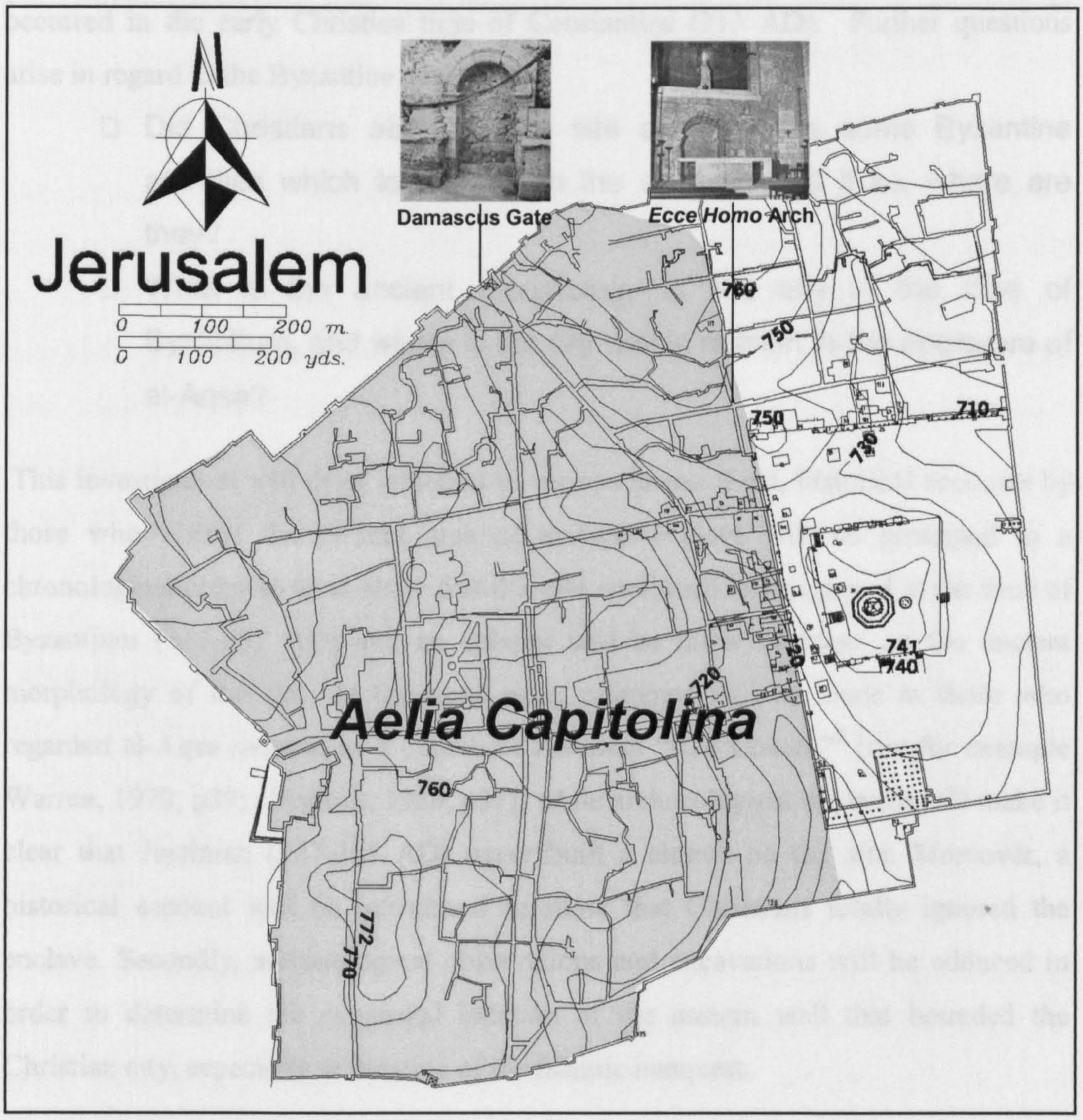


Fig. 3. 21 **Roman *Aelia Capitolina*: Locations of the Damascus Gate and *Ecce Homo* Arch in the present city of Jerusalem.**

Source: The researcher.

3.4 THE SITE OF AL-AQSA IN BYZANTINE *AELIA*

As shown in the previous section it seems probable that there was no Hadrianic wall on the eastern side of the present al-Aqsa enclave, and there are even arguments that *Aelia* might not have been a walled town at all or that establishment of the wall occurred in the early Christian time of Constantine (313 AD). Further questions arise in regard to the Byzantine period: -

- Did Christians abandon the site or are there some Byzantine activities which took place in the enclave, and if so, where are they?
- What is the ancient morphology of the site in the time of Byzantium, and where is the city wall in relation to the enclosure of al-Aqsa?

This investigation will draw attention to various issues. First, historical accounts by those who visited the present area of al-Aqsa enclave will be presented in a chronological order so as to show that this site continued to be ignored in the time of Byzantium (313-637 AD) and an attempt will be made to focus on the ancient morphology of the site. At the same time, reference will be made to those who regarded al-Aqsa mosque as a church of Justinian "*Nea* Church"[5] [see for example Warren, 1970, p39; Creswell, 1969, p31], while archaeological evidence will make it clear that Justinian (527-565 AD) never built a church on the site. Moreover, a historical account will be introduced to show that Christians totally ignored the enclave. Secondly, archaeological observations and excavations will be adduced in order to determine the suggested location of the eastern wall that bounded the Christian city, especially at the time of the Islamic conquest.

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[5] The *Nea* (new) Church was built by the Emperor Justinian in 543 AD in honor of Virgin Mary. According to Bahat, the name Nea ("new" in Greek) is a shortened form of the Church's full name. The new Church of St. Mary, Mother of God. [Bahat, 1996, p75].

3.4.1 Early Historical Accounts of the Site of al-Aqsa Enclave.

With the triumph of Christianity over paganism in 313 AD, a new building epoch in *Aelia* commenced. Helena, the mother of the Roman Emperor Constantine, erected several churches in the city including the Church of the Holy Sepulchre. The site of the present al-Aqsa Mosque remained desolate[6]. Evidence from the accounts of Christian pilgrims confirms that the site was ignored in the Byzantine period [Warren, 1970, pp.14-44].

The earliest historical account of the ancient morphology of the site in Byzantine times is one reported during the time of Constantine. Bordeaux, who visited the city in 333 AD left a valuable description. Bordeaux entered and left the city through a gate in the east wall; he did not give its name. He wrote: "There are in Jerusalem two large pools beside the Temple, that is, one to the right and the other to the left, which Solomon made, but **within the city** are the twin pools" [cited in Warren, 1970, p14]. According to Bordeaux, both the Birket Israel and the Bethesda pools are outside the city (see Fig.3.22, No.1). So, the gate entered by Bordeaux cannot be located at the present Ottoman Lions' Gate. This account corresponds with the point of view introduced by Wightman [Wightman, 1993, p206] and Wilkinson [Wilkinson, 1989, p90]. Therefore, this text indicates that the limits of Byzantine Jerusalem at the time of Bordeaux did not reach the present east wall, and the east entrance of the city was probably located somewhere in the midpoint under the *Via Dolorosa* to the north of the present the al-Aqsa Mosque.

Bordeaux described the twin pools (see Fig.3.22, No.2), and probably walked along the west wall of the present al-Aqsa area. He described a high tower (see Fig.3.22, No.3) and then he probably reached the underground tanks below the present Gate of Chain (see Fig.3.22, No.3): "There is the corner of a very high tower... and under the pinnacle of the same tower are very many cells". Bordeaux was at this point probably still outside the area of the present al-Aqsa Mosque (see Fig.3.22, No.3).

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[6] Christians ignored the site and did not pay any attention to it because they would regard this site as the one on which Jesus expected the destruction of the Temple to have taken place when he said " Behold, your house is left unto you desolate"; see [Mathew xxiii, 38].

Then he probably visited the area later occupied by of al-Aqsa compound which was at that time in ruins (see Fig.3.22, No.5): "And **in the enclosure itself**, where (there) was the temple" [Warren, 1970, p14]. He did not mention any Christian church or buildings inside the enclave.

Bordeaux probably left the enclosure to the south, turned round and ascended to Mount Sion (see Fig.3.22, No.6). The valley where the Siloam pool was is on his left-hand side, while Mount Sion was in front. He said: "you may go up Sion, on the left and down in the Valley...is the pool which is called Siloa". He then entered the city from a gate located south of the present city. According to Wightman, this gate seems to be located in the vicinity of the present Ottoman Dung Gate.

The description given by Bordeaux does not indicate how he left Jerusalem, or how he entered what later become al-Aqsa enclave[7]. It can, however, be suggested that he entered a secondary gate located somewhere near the pinnacle (see Fig.3.22, No.4), which led him to this deserted site.

In the following century, there is another witness. Sometime between 427 and 440 AD, the site was visited by Eucherius, who reported that "the site is located in the lower part of the city near the east wall... of which a certain pinnacle of one of these ruined walls stands above the rest, which are demolished even to their foundations" [cited in Warren, 1970, p18]. The pilgrim mentions the east wall of the city and at the same time he reports that the walls of the site are totally demolished. Presumably, the eastern wall of the site is on the same line as the eastern wall of the present city.

The pinnacle mentioned by the pilgrim appears to be the south-eastern corner of the site where some magnificent masonry extends upwards for some 13 metres above the

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[7] We cannot be certain about this point, because there are two possibilities as mentioned in the previous section. (see the previous section about the description of Bordeaux)

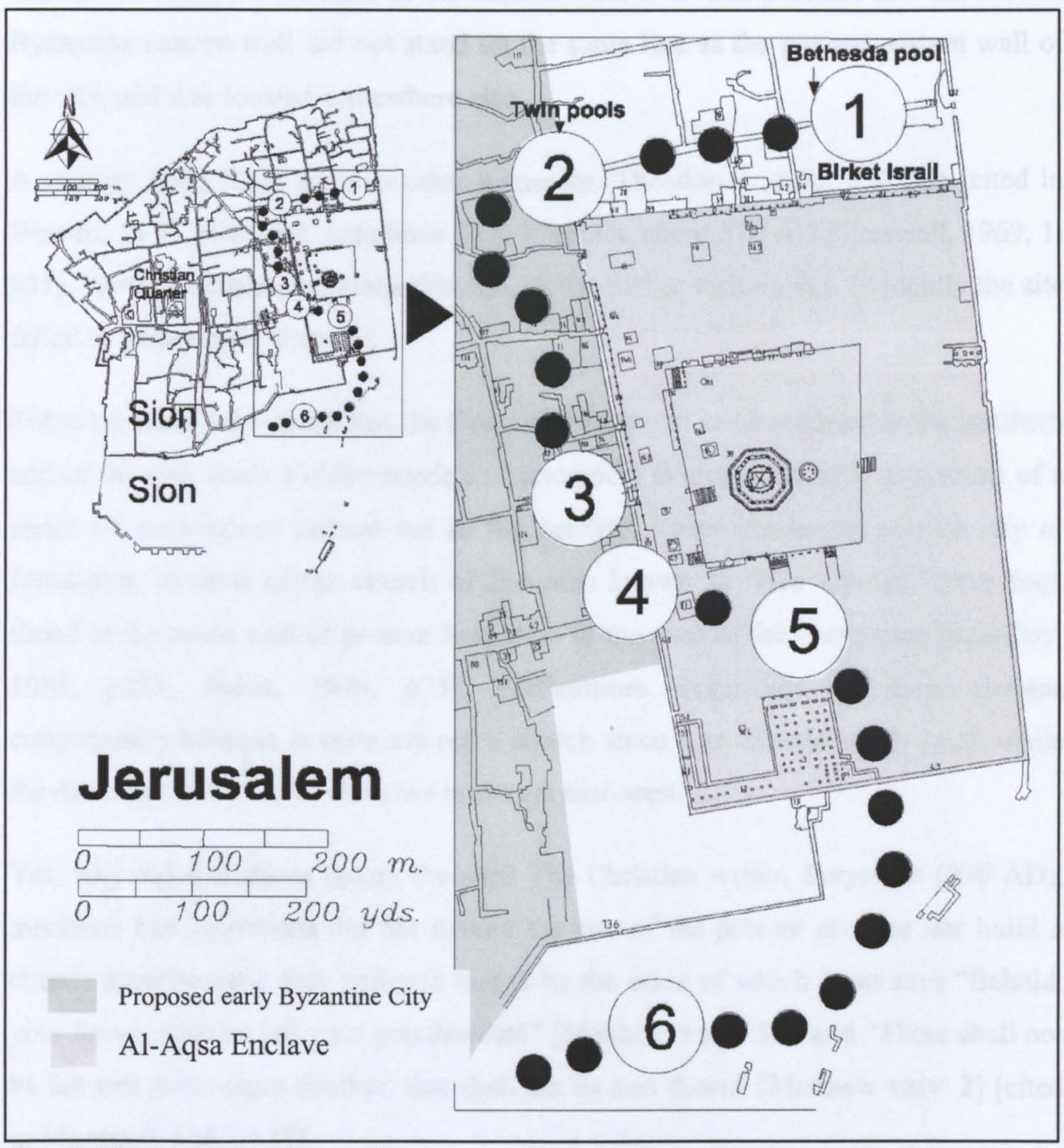


Fig. 3. 22 **Jerusalem: The map shows the suggested route followed by "Bordeaux" on the eastern side of the city in correspondence with the locations of some places described by "Bordeaux" in 333 AD.**

Source : The researcher.

ground [Creswell, 1969, 1: p31]. (see Fig. 3.23). Today this is still obvious in the masonry. It is conceivable that such a pinnacle would have stood above the rest because it would be included in the eastern wall. It is then possible that the ancient Byzantine eastern wall did not stand on the same line as the present eastern wall of the city, and was located somewhere else.

A century later, there are two other witnesses. Theodorus, about 530 AD [cited in Warren, 1970, p18] and Antoninus from Placenta, about 570 AD [Creswell, 1969, 1: p31]. Neither of them mentions this site, as the earlier visitors did. Evidently the site failed to attract their attention.

There are those who claim that the Church of Justinian had been built at the southern end of the site. Such a claim needs archaeological evidence. In fact, as a result of a series of excavations carried out in the Jewish quarter inside the present city of Jerusalem, remains of the church of Justinian known as "*Nea* Church" have been found at the south wall of present Jerusalem to the west of the Dung gate [Ben-Dov, 1985, p233; Bahat, 1996, p75]. Furthermore, regardless of date, al-Aqsa congregation Mosque is certainly not a church since it is directed north-south while the direction of Christian churches is always east-west.

Yet, why did Christians ignore the site? The Christian writer, Eutychius (930 AD), mentions that Christians did not restore the site of the present al-Aqsa nor build a church there because they believed that to be the place of which Jesus says "Behold, your house shall be left unto you desolate" [Matthew xxiii: 38], and "There shall not be left one stone upon another, that shall not be cast down" [Matthew xxiv: 2] [cited in Marmarjī, 1987, 338].

3.4.2 Archaeological Observations on the Site of al-Aqsa Enclave.

Such historical accounts alone do not produce sufficiently sound evidence on the ancient morphology of the site in the time of Byzantine.

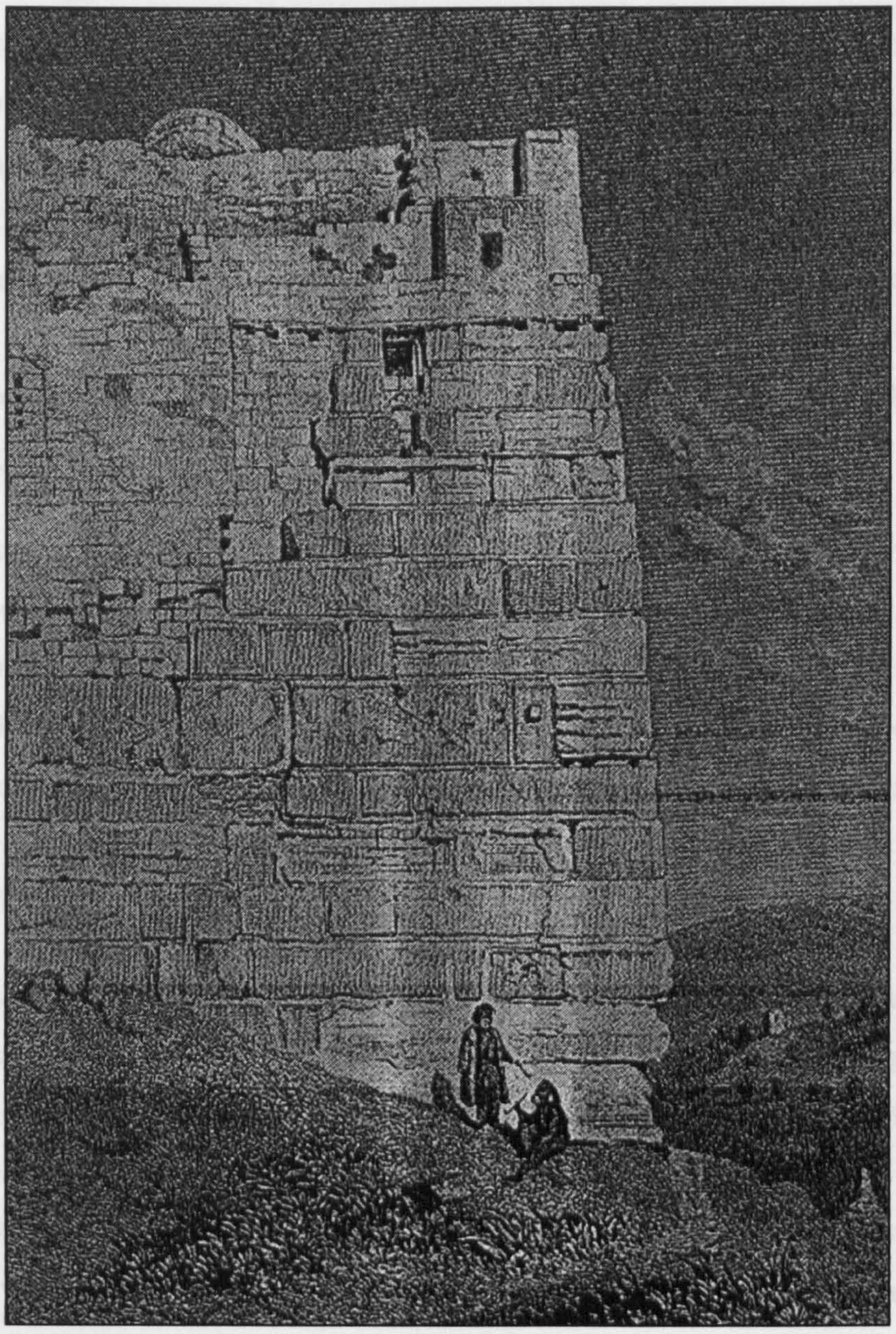


Fig. 3. 23 **Jerusalem: South-east corner of al-Aqsa enclave which is mentioned by some pilgrims as the pinnacle of the Temple.**

Source: Schiller, no date, p171.

Earlier investigations carried out by Warren, who excavated on the behalf of the Palestine Exploration Fund in 1867-1870, did not produce any evidence that would support the possibility that Byzantium restored the eastern wall of the present enclosure. Warren examined the eastern and the southern wall but did not mention any evidence suggests that Christians had restored the eastern or southern wall of the site. He also examined the courses over the Herodian drafted stones (above the 7 courses from the Herodian street) at the southern part of the western wall of al-Aqsa enclave, known *al-Burāq* (the lightning) Wall (or Jewish name, the Wailing Wall) (see Fig. 3.24). Warren reported that "above these drafted stones are four courses of large squared stones with plain dressed faces, which are usually referred to the late Roman or Byzantine period" [Warren, 1970, p188]. Ben-Dov[8] and Armstrong, however, believe that these courses should be dated to the time of Umayyad [Armstrong, 1996, p131].

To eliminate any doubt, the researcher also compared these courses with other Umayyad courses located in the southern wall of the enclave and those found in the walls of the Umayyad palaces adjacent to al-Aqsa. The results of this observation show that the masonry in these courses is the same as the ashlar masonry located in the southern wall of the enclave and courses found in the Umayyad palaces. These stones are relatively square, and have plain dressed faces with small spaces between the stones. They are dated to the time of Umayyads (see Fig.3.25).

Other archaeological observations made by Warren at the western wall of the present al-Aqsa enclave may indicate that some structural activity took place during the late Roman or Byzantine period at the western wall of present al-Aqsa. He reported that a great arch in the middle of the western wall, spanning the valley adjacent to the west wall of al-Aqsa, was embedded below the ground. Colonel Wilson attributed this arch to the "late Roman period, or probably to the time of Justinian" [Warren, 1970, p68]. According to Warren "This arch as it now stands cannot be earlier than the fifth or sixth century" [Warren, 1970, p196]. At this stage it is too early to argue against

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[8] This information was obtained during a discussion between the researcher and Ben-Dov, the senior Jerusalem excavator of the Umayyad palaces and of other early Islamic traces in Jerusalem.

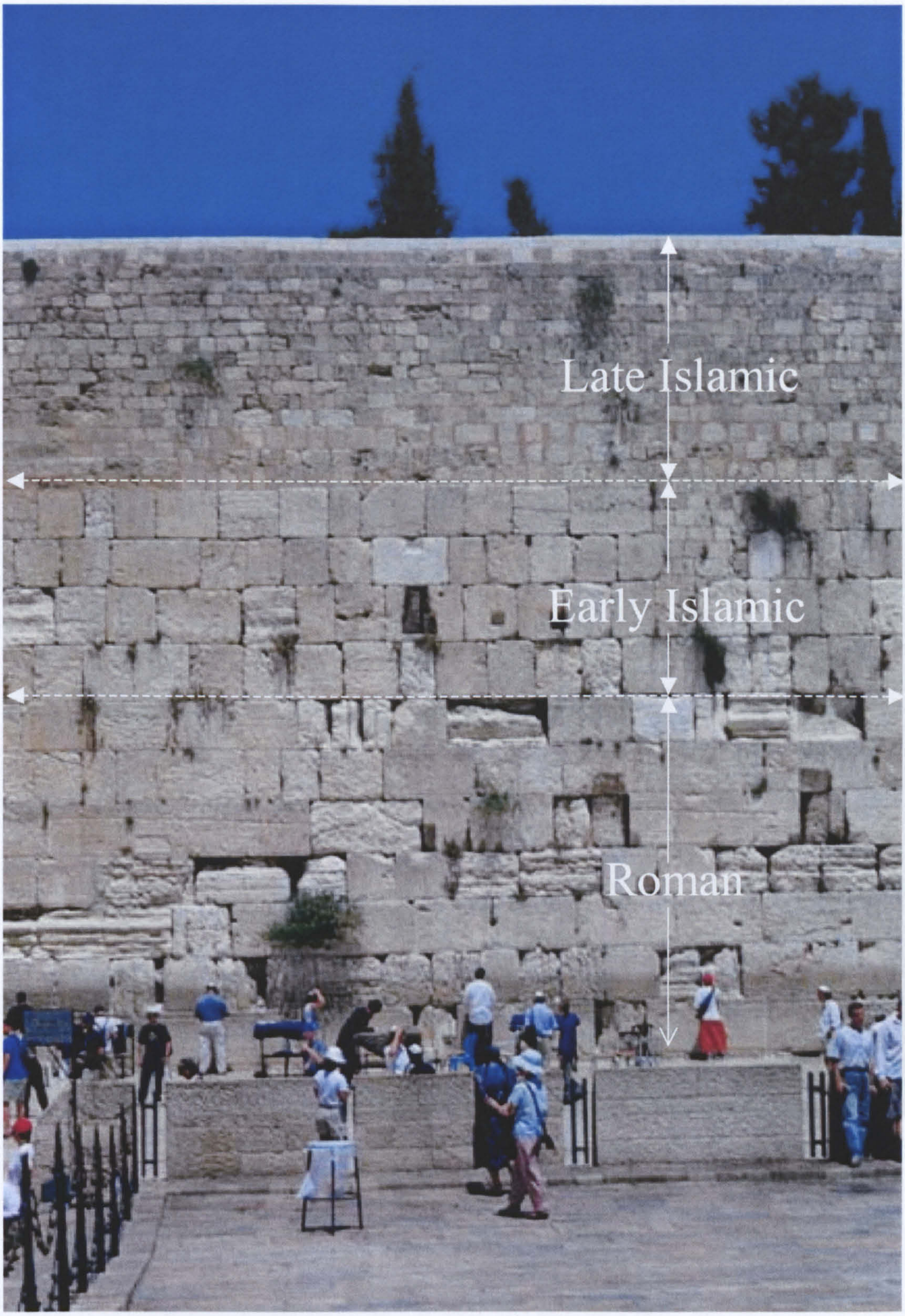


Fig. 3. 24 **Jerusalem: The early Islamic stone masonry as suggested by Ben-Dov over Roman stone masonry at the western wall of al-Aqsa enclave.**

Source: The researcher.



Fig. 3. 25 **Jerusalem: The lower courses indicate Umayyad stone masonry at the southern wall of al-Aqsa enclave (up-to 9 courses from the ground).**

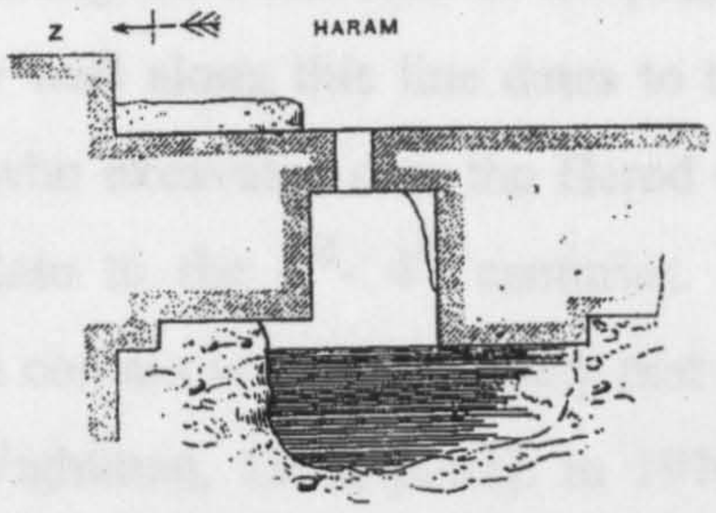
Source: The researcher.

this dating because the main function of this arch is to give access to the site of the present al-Aqsa enclave. So,

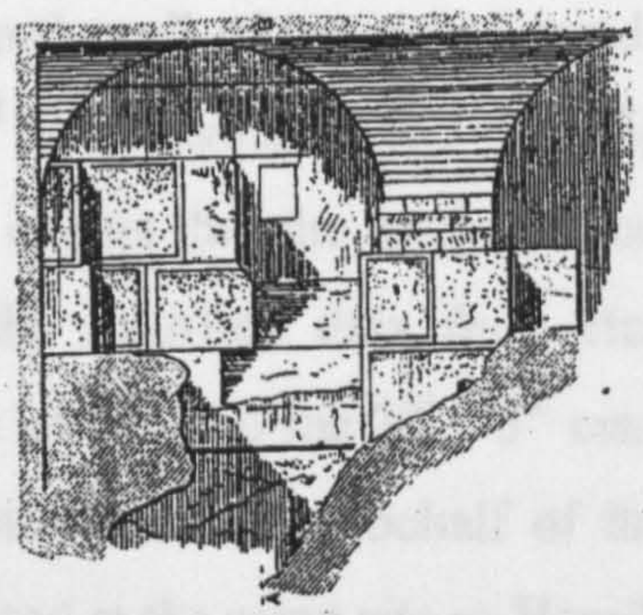
- Why build such an arch to reach an ignored site in the Byzantine period?
- What kind of street was this arch spanning? Is it a main street? It seems not, because the eastern main Byzantine *Cardo* was found discovered by Ben-Dov to be located near the Dung Gate, relatively far away from this street [Ben-Dov, 1985, p225].

Yet, In 1873 Clermont-Ganneau revealed some ancient courses at the north part of western wall of the present al-Aqsa enclave near the present Gate of *Bāb al-Ghawānimah* (see Fig. 3.26). He stated that these ancient courses are similar to the original courses of the Church of the Holy Sepulchre (see Fig.3.26), and attributed them to the time of Constantine [Clermont-Ganneau, 1899, p136]. However, the same scholar examined two shafts sunken at different points inside the east wall of the present al-Aqsa mosque, more than 130m from the south-east corner of al-Aqsa; (one of the shafts reached the level of 10m below the surface) and did not conform to Byzantine masonary or material culture at the eastern side of the enclosure [Clermont-Ganneau, 1899, p135].

Excavations carried out by Mazar in 1968 AD adjacent to the southern wall of al-Aqsa enclave, and extensions made by Ben-Dov, revealed some Byzantine houses south of al-Aqsa enclave. In these excavations, the excavators did not expose any structural traces in the area immediately adjacent to al-Aqsa enclave. "According to Ben-Dov this area was deserted and desolate at the start of the Byzantine period" [Ben-Dov, 1985, p210]. To the south of this area, some Byzantine houses, had probably been established in the 4^{th}-5^{th} century AD and abandoned in the 6^{th} –7^{th} century AD [Ben-Dov, 1985, p259]. There is as yet little information on the relationship between these houses and the city of Jerusalem. These houses were probably established simultaneously with the neighbourhood on the southern part of mount Sion, which is located outside the city walls in the time of Constantine.

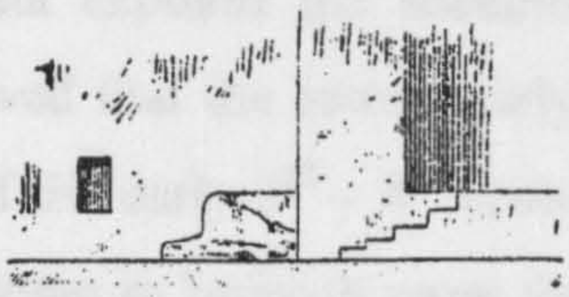


PLAN.

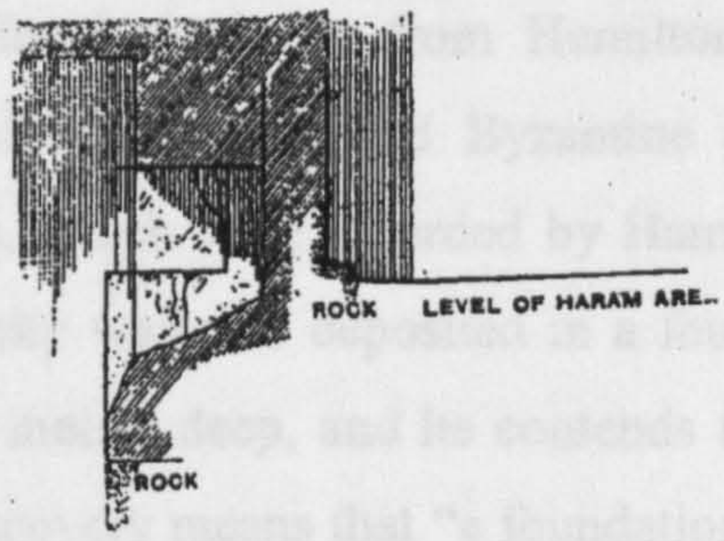


ELEVATION OF THE OUT (WEST) SIDE.

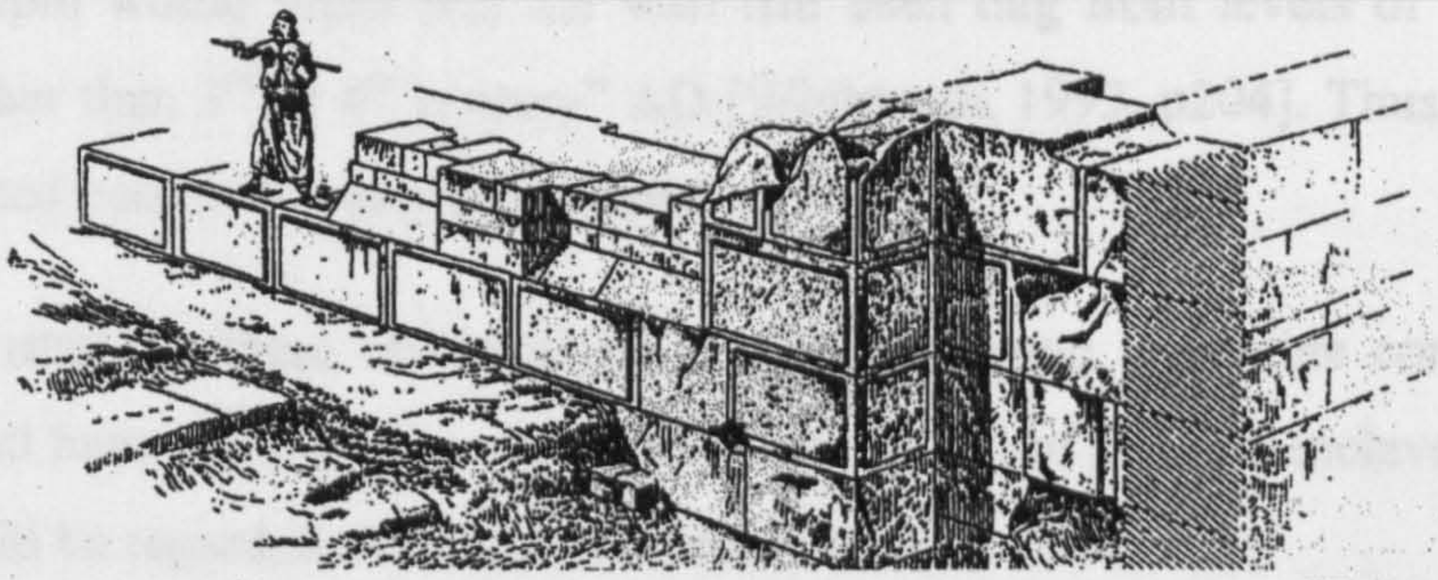
Al-Aqsa Enclave



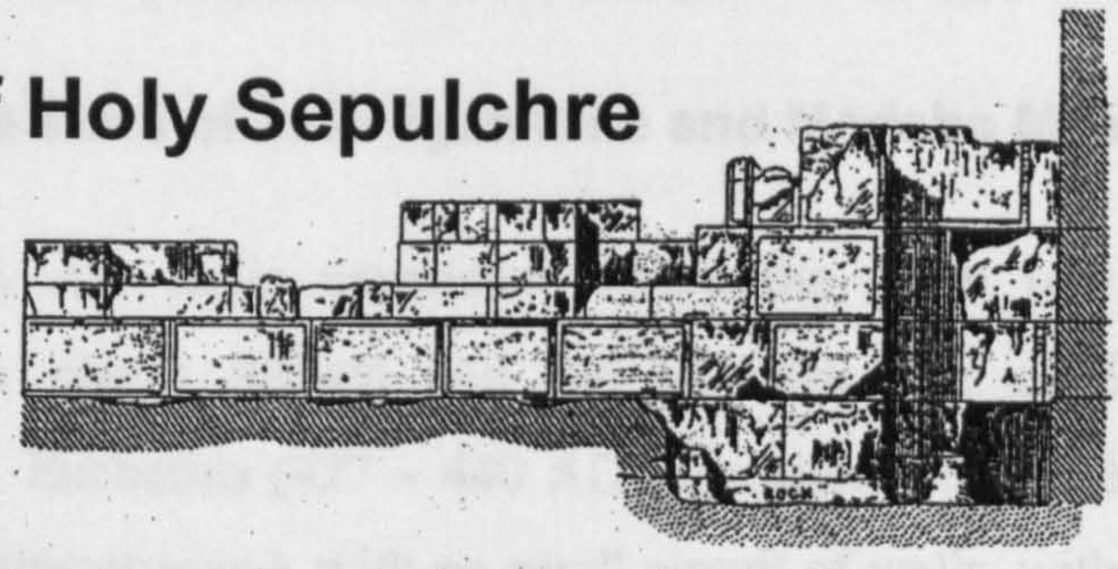
ELEVATION OF THE INSIDE (EAST OR HARAM SIDE).
Scale $\frac{1}{100}$.



CROSS SECTION, FOLLOWING THE LINE



Church of Holy Sepulchre



SECTION OF ANCIENT WALL, A–B ON PLAN.

Fig. 3. 26 **Jerusalem: Northern end of the western wall of al-Aqsa enclave shows that it contains early Byzantine masonry resembling that found at the Church of the Holy Sepulchre.**

Source: After Clermount-Ganneau, 1920, 1: pp.89-90.

But this is not all. To the north of al-Aqsa enclave, excavations which were conducted along the outer face of the present north wall of the city showed that the earliest city wall along this line dates to the 3rd – 4th centuries AD (see Fig. 3.16). Hamilton, who excavated near the Herod Gate, claims that the earliest traces of the city wall date to the 3rd- 4th centuries. But the stratified data from Hamilton's excavations contain very little pottery that could be dated to the 2nd – 5th century AD [cited in Wightman, 1993, p203]. In 1976, Amos Kloner, on behalf of the Israeli Department of Antiquities and Museums, excavated at the same site as Hamilton. His results are quite surprising, since they differed markedly from Hamilton's. His stratified data exposed the accumulation of late Roman and Byzantine periods. Kloner showed that the lowest early courses, which were regarded by Hamilton as the traces of the early 3rd – 4th century AD city wall, are deposited in a foundation trench cut down to bedrock more than three metres deep, and he contends that this had been dug from Byzantine levels. This discovery means that "a foundation trench of such a depth would mean that the wall had been dug from levels of 6th or 7th centuries rather than 3rd or 4th century" AD [Wightman, 1993, p204]. Thus, the wall cannot be dated before the early Islamic period.

In all circumstances, these observations suggest that some Byzantine construction activity would have taken place to build the western wall of al-Aqsa enclave and that this wall could be regarded as the eastern wall of the city at that time.

3.4.3 The Site at the Time of Late Byzantine and Madaba Mosaic Floor.

During the 5th century AD *Aelia* expanded toward the south (see Fig. 3.27). Bordeaux's description places Siloam and the southern part of Sion outside Constantine's city wall. Eucherius (427 – 440 AD), mentioned that in his time "the site of the city itself is almost round, with no small circuit of walls, within which the Mount of Sion, formerly near, is now included" [Warren, 1970, p17]. This extension occurred probably in the time of Empress Eudocia, the wife of Emperor Theodosius II. The site of al-Aqsa continues to be derelict. Archaeological evidence of the 5th century wall exposed by Bilss and Dickie in 1894-1897 AD, includes five projecting towers and a gateway [Wightman, 1993, p210]. This evidence corresponds with the

existence of a defensive wall with towers depicted on the Madaba mosaic floor, which is mentioned in the study background of this thesis.

Yet, no tangible archaeological evidence can confirm that the Byzantine houses which had existed to the south of al-Aqsa Mosque are included within the wall of Eudocia. For many scholars it has long been customary to regard this site as within the wall. A wall has been revealed which joined the south-east corner of al-Aqsa enclave; archaeologists such as Ben-Dov [Ben-Dov, 1985, p222], Gibson and Jacobson [Gibson and Jacobson, 1996, p274] attribute this wall to the late Byzantine or early Umayyad period. Ben-Dov exposed another wall, fortified with towers, with a continuation about 150.00 metres to the southwest; this wall fell out of use quickly. No definite dating for this wall has yet been presented. Ben-Dov acknowledged that several matters regarding the wall at this site remain unanswered [Ben-Dov, 1985, p223], and the matter requires future investigation by archaeologists. For several reasons it seems probable that it was the Umayyads who built this later wall.

First, this wall was built following a course somewhat slightly different from its predecessor. This points to a gap in the time period between the dereliction of the old wall and establishment of the new one.

Secondly, as an abandoned site in the late Byzantine period, so why did the Byzantine builders follow a new line of fortification and not restore the old one. This old line of fortification would have been more economic and easier to be restored after the Persian invasion of Jerusalem in 614 AD rather than establishing a new one. However, the Muslim builders generally ignored the building foundations from the earlier periods and built to an entirely new plan [Mazar, 1969, p21].

Thirdly, no sufficient proof has yet been provided to confirm a time lapse between the old wall when it went out of use and the building of this new wall, i.e. Was the desolation of site to the south of al-Aqsa enclave only during the Persian occupation of Jerusalem or maybe somehow before. And if, presuming this is a late Byzantine wall constructed after the Persian destruction, why was this abandoned area

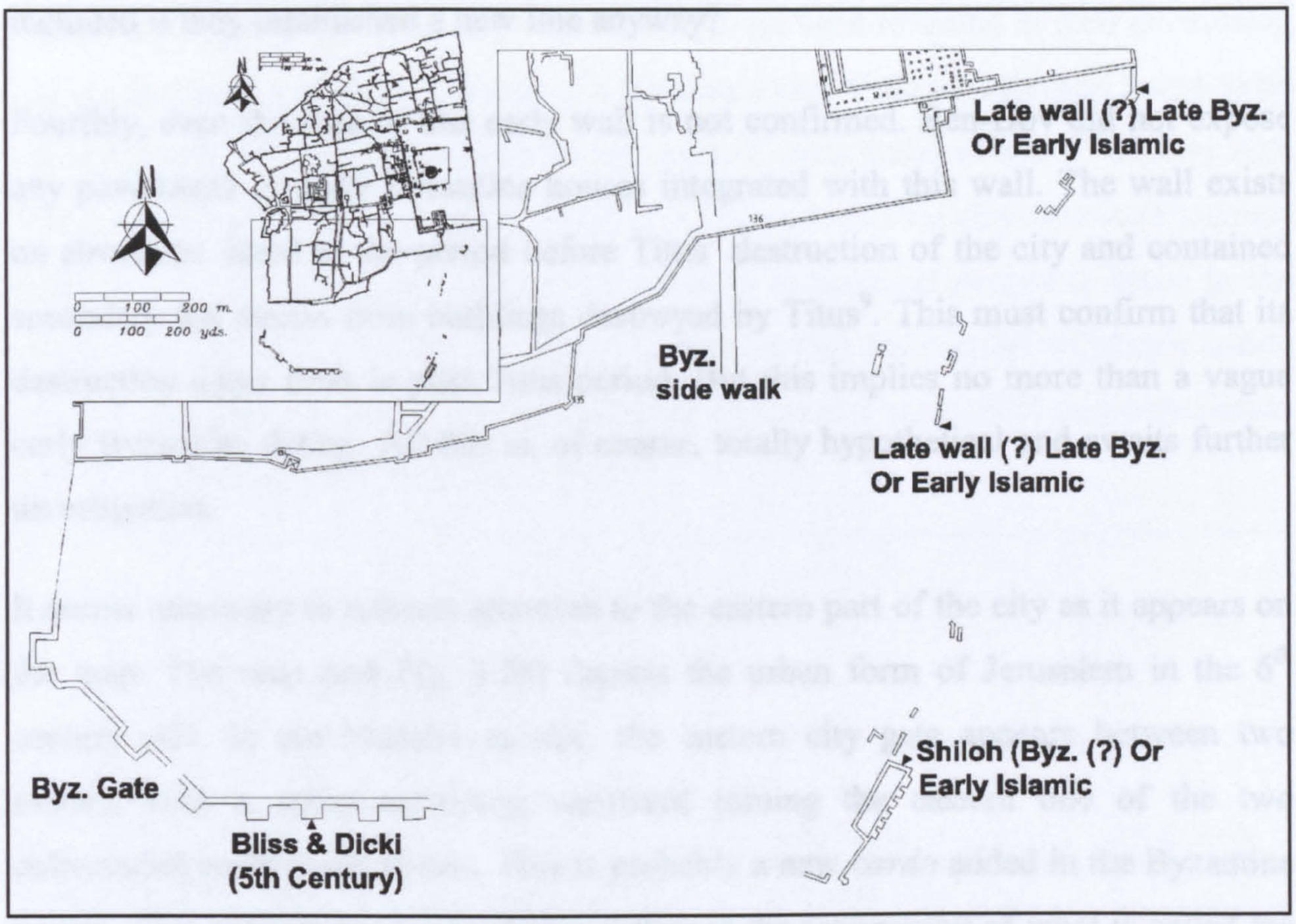


Fig. 3. 27 **Jerusalem: The expansion of the city to the south in the time of Byzantine, as suggested by archaeologists.**

Source : The researcher.



Fig. 3. 28 **Jerusalem in the Madaba Mosaic floor of Greek Orthodox Church of St. George.**

Source: http://www.christusrex.org/www1/ofm/fai/FAlmpjer.html

included if they established a new line anyway?

Fourthly, even the date of this early wall is not confirmed. Ben-Dov did not expose any pavements or early Byzantine houses integrated with this wall. The wall exists on structures dated to the period before Titus' destruction of the city and contained secondary use stones from buildings destroyed by Titus[9]. This must confirm that its destruction dates from is post Titus period. But this implies no more than a vague early Byzantine dating. All this is, of course, totally hypothetical and awaits further investigation.

It seems necessary to redirect attention to the eastern part of the city as it appears on the map. The map (see Fig. 3.28) depicts the urban form of Jerusalem in the 6th century AD. In the Madaba mosaic, the eastern city gate appears between two towers, with a street extending westward joining the eastern one of the two colonnaded north-south streets. This is probably a new *cardo* added in the Byzantine period. This colonnaded street simply followed the topography of what is called the Tyropoeon Valley, though it diverted the street from the main cardinal lines of Roman *Aelia Capitolina* (see Fig. 3. 28/1). In Ben-Dov's excavation at the south-west corner of al-Aqsa enclave, a paved street was exposed some few metres outside the city wall to the west of the Dung Gate. Other excavations situated at about 100 metres north of the Dung Gate, revealed some traces from this wall. According to Ben-Dov, there is no clear evidence "why some British archaeologists dated this street definitely as Herodian" [Ben-Dov, 1995, p227]. Ben-Dov studied the resemblance between the stones in these two excavations and concluded that they are dealing with one and the same street.

Ben-Dov also mentions that rooms are dated to the Roman period, before Titus' destruction, were discovered under this street [Ben-Dov, 1985, p227], but no

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[9] Also some Umayyad traces can be found directly over strata dated before Titus's destruction of Jerusalem, but no accumulation from Roman Hadrian or Byzantine city has been included between them [Ben-Dov, 1985, p192].

accumulation from Roman *Aelia Capitolina* has yet been revealed in their excavation to support the existence of this street in Hadrian's city. Cultural artefacts found to be contemporary with this street include pottery and coins dated to the 3rd century AD. The street must surely be dated to the Byzantine period. Yet, why was such a *cardo* created? It seems that early Christian prosperity encouraged people to settle in the city as it is one of the Christian pilgrim places, so that the number of people inside the city increased to such a degree that more streets and residential accommodation must have been required (see Fig. 3.29).

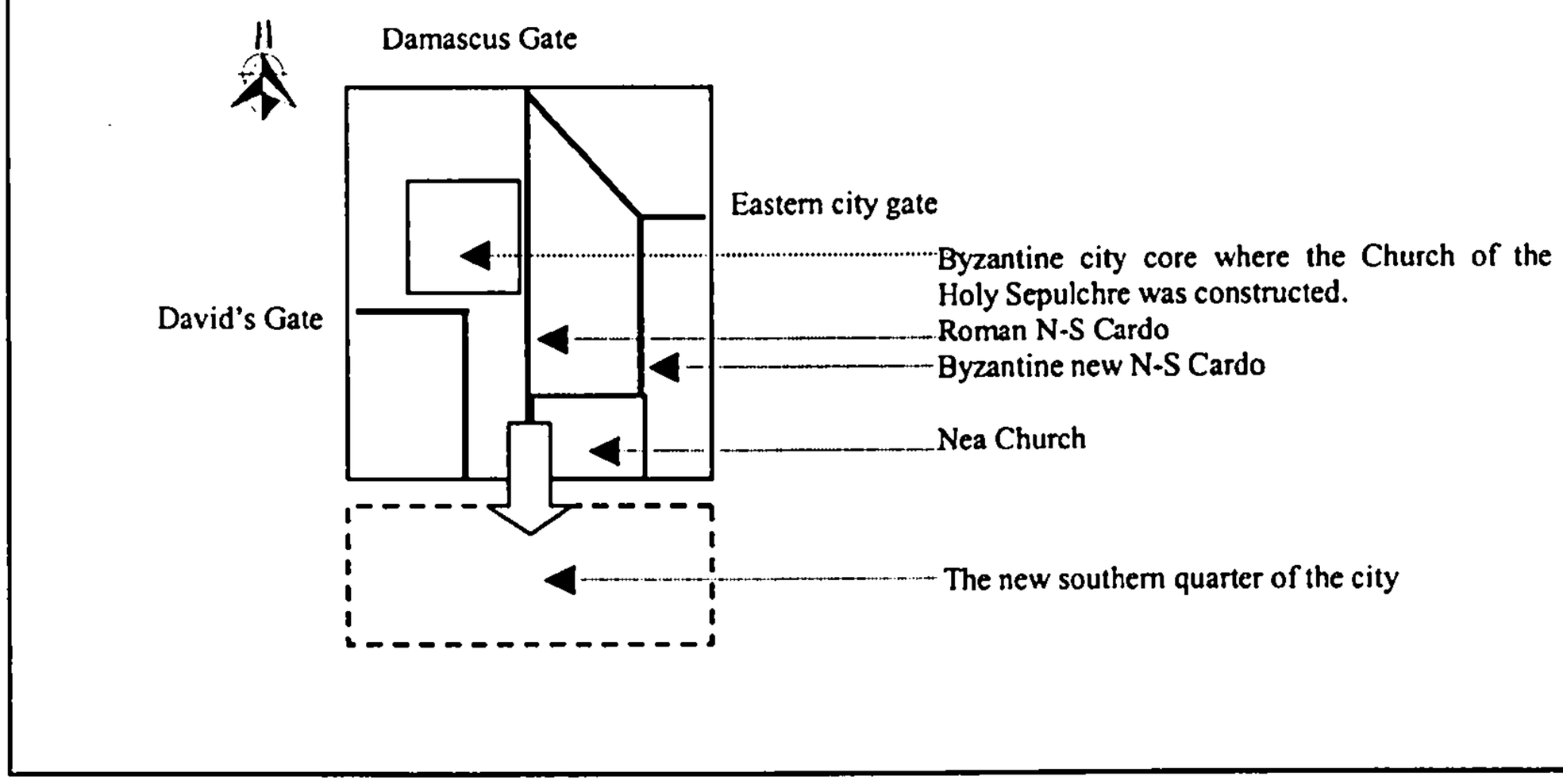


Fig. 3. 29 **Schematic diagram shows the main elements of the urban morphology of Jerusalem in the Byzantine period, which are depicted in the Madaba mosaic floor.**
Source: The researcher.

As the northern and western spaces in the city were probably limited and already over-crowded the only choice was the east and south. This is, in fact, portrayed in the Madaba mosaic floor which shows a high density of housing focused around the Church of the Holy Sepulchre and in the area between the two *cardines* (see Fig. 3. 26/2). However, the area further to the east shows little building concentration.

North of the east city gate is the north-eastern part of the city depicted with churches (see Fig. 3. 28/3). South of this gate, there is a large building with a central entrance and tower (see Fig. 3. 28/4). This tower would seem to be a tower located on the western wall of the present al-Aqsa enclave, described by Bordeaux in 333 AD when

he reported "There is the corner of a very high tower" [cited in Warren, 1970, p14], though there is still controversy among scholars in interpreting this large building; some, for example, have argued that it is *Bāb al-Rahmah* (the Golden Gate) at the east wall of the present al-Aqsa; while others reject this interpretation, since they attribute this gate to the time of the Umayyads.

With the help of fieldwork undertaken in connection with this thesis, an effort was made to trace the existence of such a tower or building, other than the present Golden Gate to find out if it exists, but no such traces were found. So, what is the wall that is shown in the Madaba mosaic floor? Some scholars like Avi-Yonah believe that this wall is the eastern wall of the present city and that the mosaic portrays the site of al-Aqsa enclave. But no sound evidence is presented for this claim. Others, on the contrary, believe that the mosaic floor does not portray the present al-Aqsa enclave, especially, the Israeli scholar Tsafrir who perhaps too hastily accuses Christians of avoiding portrayal al-Aqsa enclave on the Madaba map and regards this claim as a hidden anti-Jewish propaganda [Tsafrir, 1999, p159].

It seems that the artist of the map is innocent of this accusation. The map simply portrays the city of Jerusalem inside the walls. According to Wilkinson the wall that appears in the map is the western wall of the present al-Aqsa enclave [Wilkinson, 1989, p99]. The historical and archaeological comments already presented indicate that the site continued to be desolate in the Byzantine period; so why build an eastern wall around a derelict site? Or, in other words, why include this then disused site inside the city walls unless the area is earmarked for future expansion of the city in the Christian time? (see Fig. 3. 30). It is hard to resist the conclusion that the western wall of the al-Aqsa site represents the eastern wall of the city, and the Madaba mosaic floor is a real depiction of how the urban form of Jerusalem was in the 6th century AD.

The morphology of Jerusalem did not change until the first half of the fifth century (see Fig. 3.31). Theodorus in 530 AD does not mention any alteration occurring in the morphology of the city. The brief Persian invasion of Jerusalem in 614-625 AD

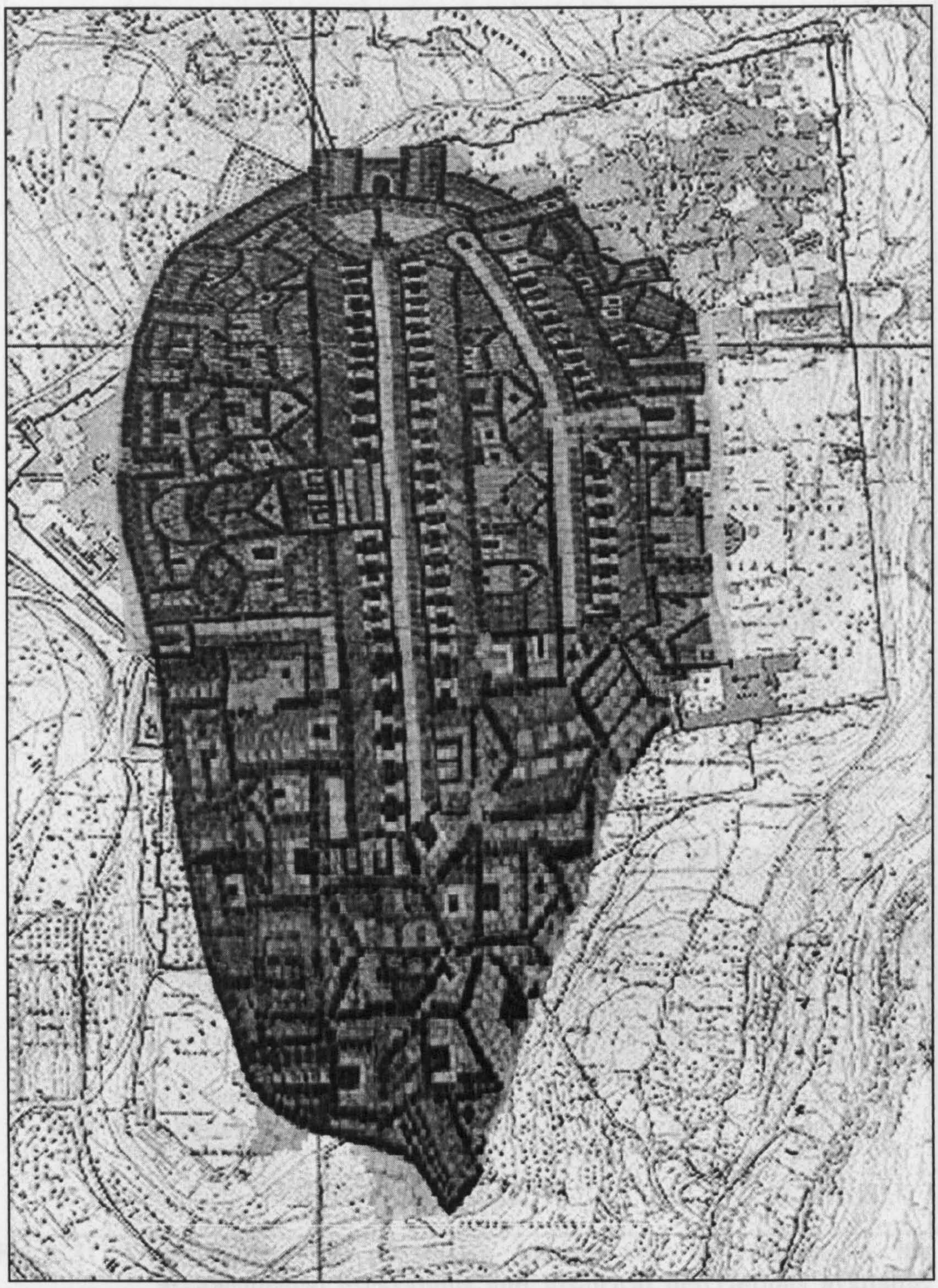


Fig. 3. 30 **Madaba mosaic floor: Planning of Jerusalem in the late Byzantine period as portrayed on the Madaba mosaic floor and the urban form of the Old City of Jerusalem.**

Source: The researcher.

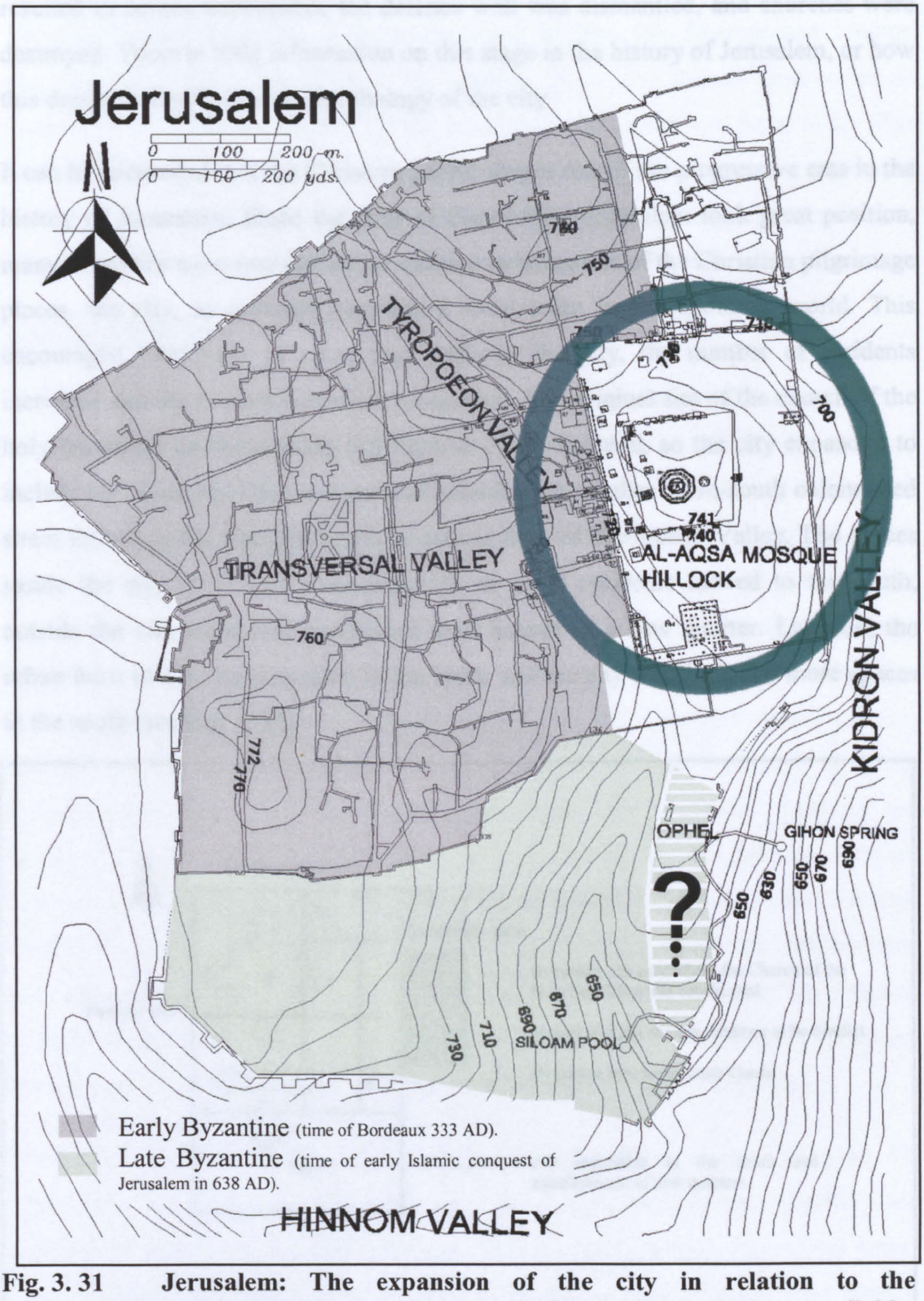


Fig. 3. 31 **Jerusalem: The expansion of the city in relation to the archaeological excavations and historical descriptions available. The archaeological information so far revealed cannot confirm whether the colour-hatched area was abandoned or not in the late Byzantine period.**

Source: The researcher

resulted in severe destruction; the defence wall was dismantled, and churches were destroyed. There is little information on this stage in the history of Jerusalem, or how this destruction affected the morphology of the city.

It can be concluded that the Christian period shapes one of the progressive eras in the history of Jerusalem. Since the time of Constantine Jerusalem took great position, many Churches were established, in addition to being one of the Christian pilgrimage places, the city, as a result, becomes a focal point in the Christian world. This encouraged Christians to come and settle in the city, the number of residents increased and the city become more prosperous. The original site of the church of the holy Sepulchre on the western hill became over-populated, so the city expanded to include all of the hill. This necessitated establishing another north-south colonnaded street following the typography of the natural lines of Tyropoeon Valley. The spaces inside the city wall were over-occupied, so some residents moved to the south, outside the city walls and established their houses in a new quarter. Later on, the urban form of the city expanded to the south and the city wall included more spaces to the south (see Fig. 3. 32).

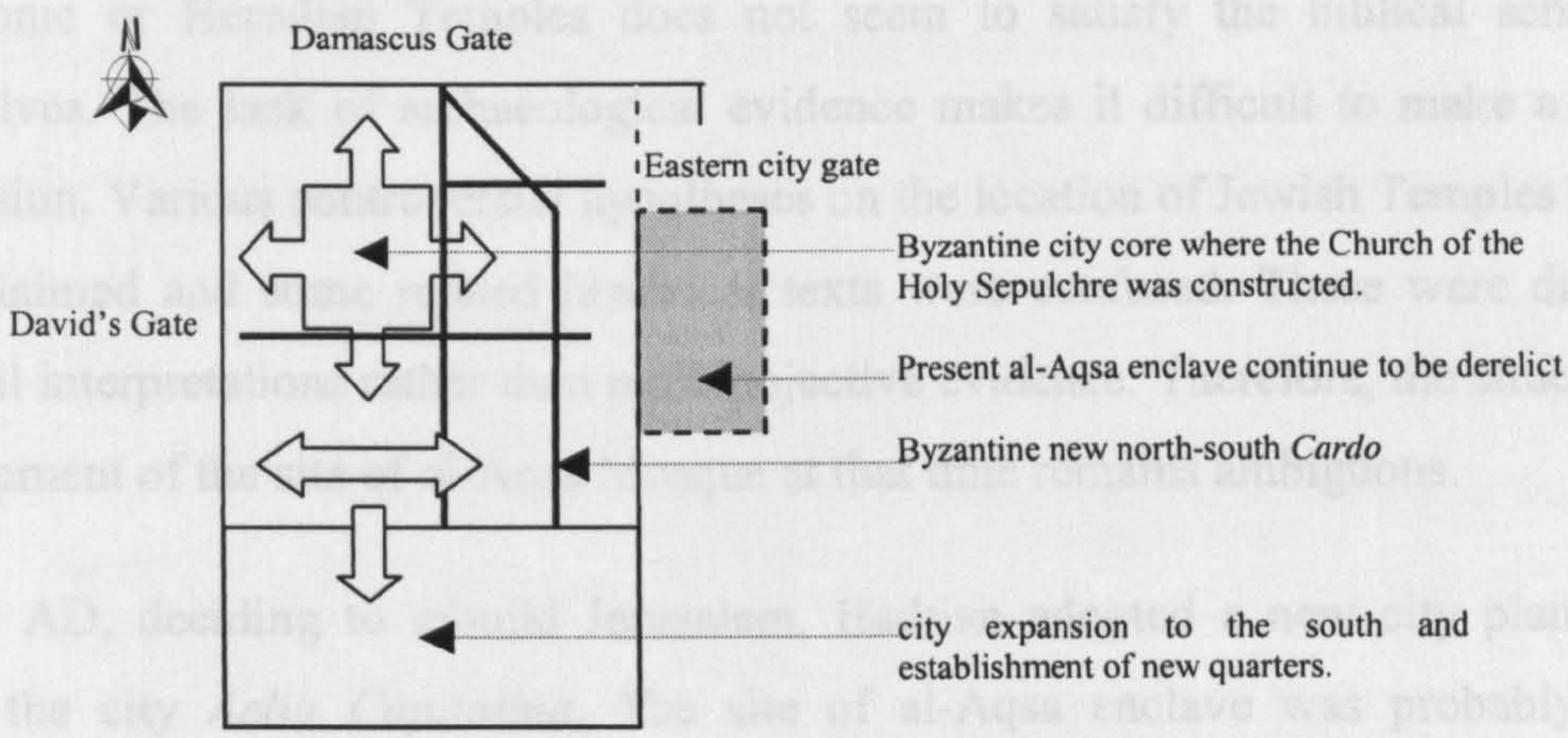


Fig. 3. 32 **Schematic diagram shows the development of the urban morphology of Jerusalem in connection with the new city core in the Byzantine period.**

Source: The researcher.

The site of al-Aqsa enclave, however, remained far from this development. Neither churches nor houses were built in the enclave. Since the Roman destruction of Jerusalem in 70 AD, the eastern and the southern walls continue to be in ruins. This dereliction must encourage the city wall to be established around the developed urban fabric rather than protect a derelict area. Therefore, this suggests that the site of al-Aqsa Mosque might become an extramural area.

3.5 SUMMARY

As has been shown in this and previous chapters, the site of al-Aqsa enclave has a long and complicated history. It is like a puzzle requiring much research to be solved or as el-Awaisi argues "there is a host of problems relating to historical facts about the first Islamic conquest which have to be clarified and resolved" [el-Awaisi, 2000, p48]. However, Jerusalem, irrespective of the location of sacred buildings, is a holy place. Pagan Canaanites, who are the original settlers of the city, acknowledged this holiness, and regarded the city as their God's creation. Jews, Christians and Muslims also acknowledged this sacred quality. Both Jews and Muslims associated this holiness specifically with the area of the present al-Aqsa enclave. From the archaeological point of view, however, what has been produced regarding the Solomonic or Herodian Temples does not seem to satisfy the biblical scholars themselves. The lack of archaeological evidence makes it difficult to make a firm conclusion. Various controversial hypotheses on the location of Jewish Temples have been claimed and some related historical texts were confused. These were due to political interpretations rather than more objective evidence. Therefore, the structural development of the site of al-Aqsa Mosque at that time remains ambiguous.

In 135 AD, deciding to rebuild Jerusalem, Hadrian adopted a new city plan. He called the city *Aelia Capitolina*. The site of al-Aqsa enclave was probably not included in Hadrian's interests, although the city must, indeed, have been rather small. Hadrian transferred the ancient sites of the city to a new administrative core on which he built the Temple of Jupiter. This new core with its forum is located at the intersection point of the east-west and north-south main streets (see Fig. 3. 33).

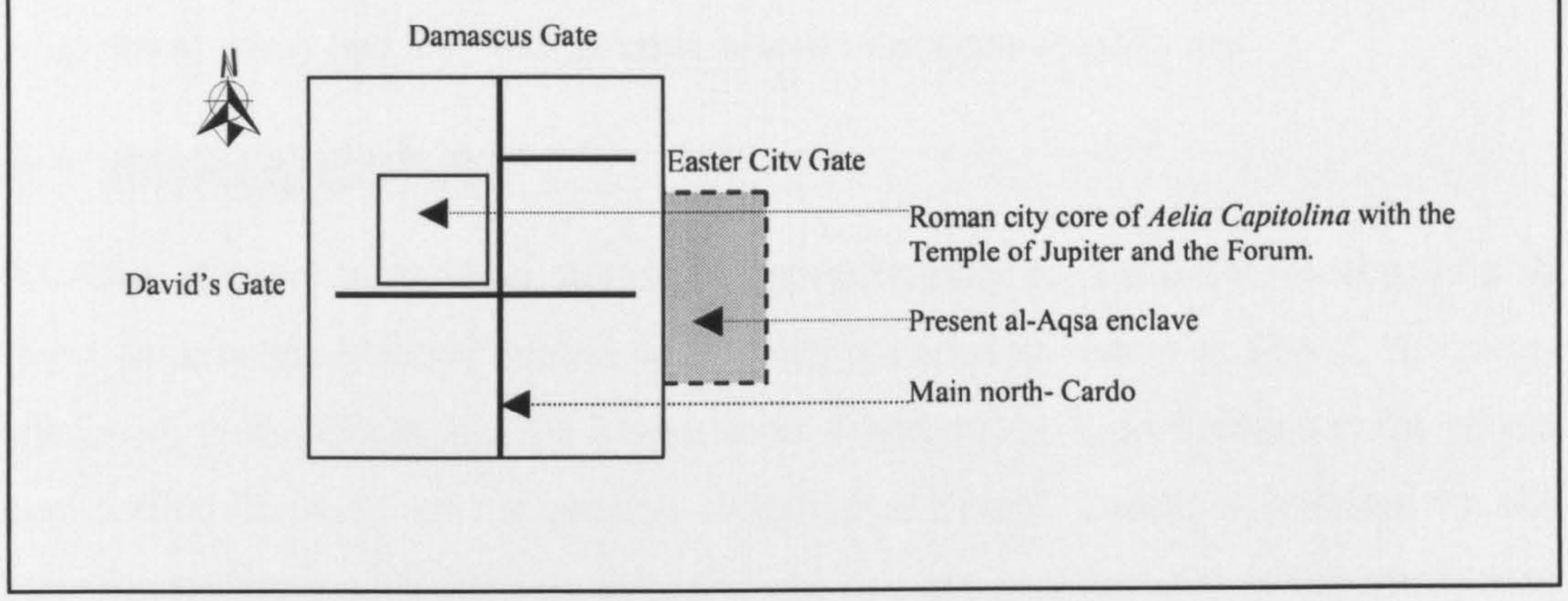


Fig. 3. 33 **Schematic diagram shows the main cardinal lines and the urban form of Roman *Aelia Capitolina*.**

Source: The researcher.

The Byzantines followed the outlines of Hadrian's *Aelia*. As the city became more prosperous as a result of being one of the important Christian pilgrimage places, the number of citizens increased and the city area probably became over-crowded. This encouraged people to build outside the city walls; several churches were built and new neighbourhoods added. Christian prosperity, under Constantine, encouraged the city to expand to the south in order to include more space on which some churches and neighbourhoods were established (see Fig. 3. 34), but the eastern part of the city, the area of the present al-Aqsa enclave, continued to be derelict.

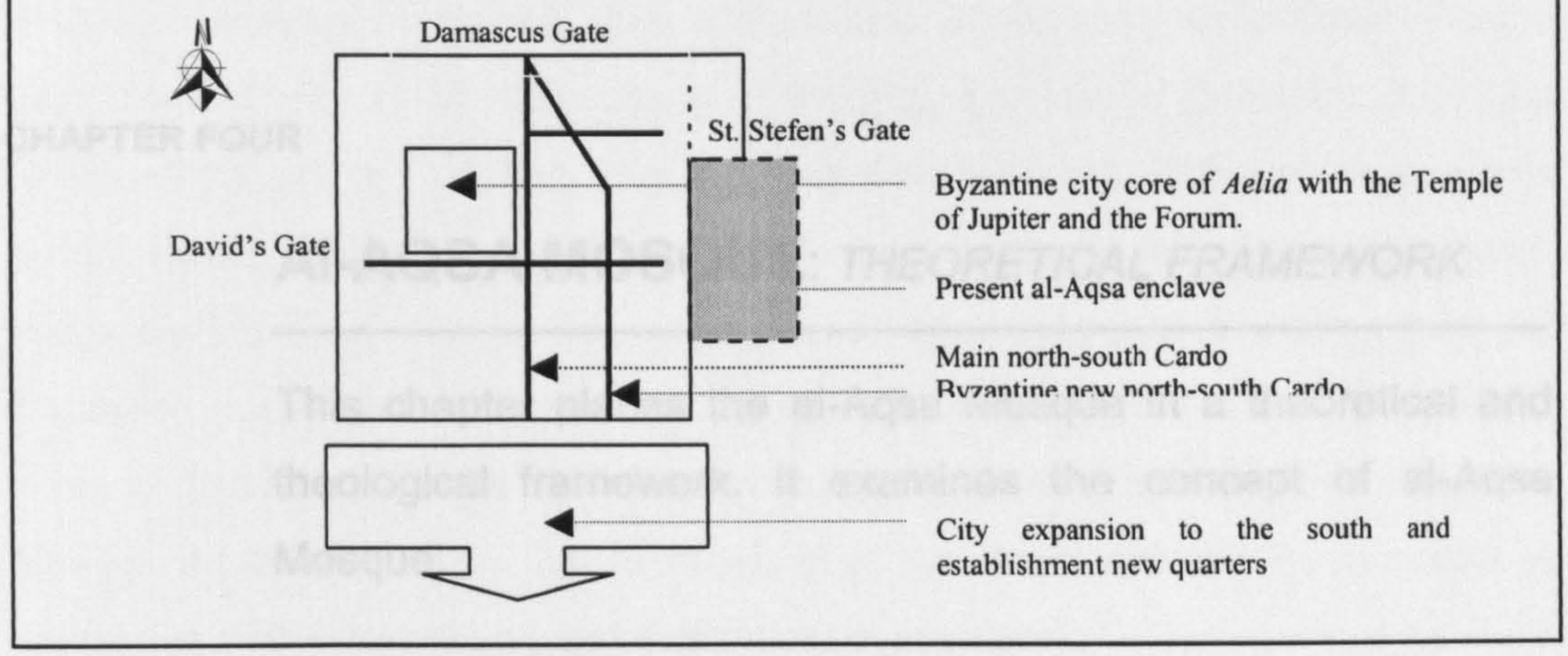


Fig. 3. 34 **Schematic diagram shows the development of the urban form of *Aelia* in the Byzantine period.**

Source The researcher.

CHAPTER FOUR

Al-AQSA MOSQUE: *THEORETICAL FRAMEWORK*

This chapter places the al-Aqsa Mosque in a theoretical and theological framework. It examines the concept of al-Aqsa Mosque.

It is important –before discussing the present site of al-Aqsa– to define and discuss what the Mosque and the other Islamic places of prayers actually are.

4.1 INTRODUCTION

Al-Aqsa Mosque is a name, which is conventionally regarded by some people to stand for a single building within what today is called al-Haram al-Sharīf. However, according to the Qurān and the Muhammad Tradition, al-Aqsa Mosque is the whole area inside the walls of the present al-Haram al-Sharīf. Today, it includes its all-present monuments. In this research, al-Aqsa Mosque is referred to as the whole area inside the walls, including *Qubbet al-Sakhrah* (the Dome of the Rock) and *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and other Islamic monuments, as one unit which in the early times is called al-Aqsa Mosque. This chapter is discussing the meaning of the al-Aqsa Mosque by exegesis as presented by the Islamic main sources, namely the Qurān and Muhammad Traditions. It also investigates the significance of this mosque as illustrated by Islamic geographers and historians.

4.2 DEFINITIONS: RELIGIOUS TERMS

This section deals with the religious and semantic meanings of the Mosque and some other Qurānic terminology that refer to Islamic places of prayer.

4.2.1. Introduction

It seems necessary to embark upon a discussion of the main definitions of some terms used to refer to Muslims places of worship, e.g. *Masjid* (Mosque), *Bayt* (the House of prayer) and *al-Jāmi'* (the Congregation Mosque). Although these terms seem generally to describe one thing, they do indeed differ in their detailed meaning. In this section, the Qurān has been chosen as the main reference or starting point for discussion since to Muslims it is the main source of reference for Islamic holy places. It can be considered as the oldest Islamic source providing information on al-Aqsa Mosque. At the same time, this terminology of the Qurān will also be discussed in connection with other Islamic and Arabic language sources.

The methodological approach in this part of the study is a deductive analytical interpretation of those Qurān verses which mention the places of worship. The aim is to determine the meaning of all such Qurānic terminology as accurately as possible. It could be claimed that an understanding of this Qurānic terminology may help formulate the birth of a spatial concept for the place of worship for Muslims, namely, the Mosque. This can be seen more readily in those terms of a more technical description which are found in some historical or early traveler sources. However, to generate a proper theoretical framework for this thesis it is appropriate to reach an understanding of the main fundamental bases of the idea of the Mosque as mentioned in the Qurān. Consequently, in defining the meaning of the Mosques, namely, the Sacred and al-Aqsa, as mentioned in the Qurān, the aim is to differentiate between the several terms used to refer to the holy places.

This attempt does not challenge or doubt some Islamic understandings, but the aim is both to elaborate and consolidate scholars' arguments in terms of theology, archaeology, history and architecture. Indeed, the attempt here is limited to interpreting some Qurānic verses from a chronological perspective.

4.2.2. What is *al-Masjid* (the Mosque)?

It seems that the most significant Qurānic terminology used to describe the place of worship is "*al-Masjid*" (the Mosque).

Semantic Definition and Idea of the Mosque

The word *Masjid* (mosque) was generated from the Arabic language root of *Sajada*, which means to submit. The religious *Sajada* is to put the forehead on the ground [Al-Jawharī: No date, 1: p482; Al-Fayrūz Abadī: No date, 1: p300; Ibn Manthūr: No date, 2: p98; Al-Zubaidī: No date, 2: p371; Amin and Ibrahim, 1990, p106] by prostrating oneself (in worship). Al-Zarkashī [Al-Zarkashī: 1976, p26], in his book, *I'lam al-Sājid*, mentioned that the name of the Mosque had been derived form the religious step of putting the forehead on the ground, Arabic *sajada,* which is part of the process of Muslim prayers. The significance of this step has been honoured and corroborated in *Hadīth* (the Muhammad's Tradition); Muhammad says "The closest

relation between someone and his God is when he puts his forehead on the ground in his prayer" [Sahīh Muslim: 212/1035; Musnad Abi-Dawūd: 293/873; Musnad al-Imām Ahmad: 9272; Sunan al-Nisā'ī al-Kubrā: 392/727; Sunan al-Nisā'ī al-Su'rā: 698/1130.]. Therefore, it can be safely concluded that from this religious activity of prayer, the name of the place has been derived.

The word *Masjid* (mosque) is mentioned in the Qurān twenty eight times in a variety of ways –sometimes singular or plural referring to generalities, (i.e. undefined mosques), in other locations to a specific or defined mosque. In all cases mosques (pl. *masājid*) are associated with human religious activity, namely, the worship of God. Al-Zarkashī mentions that the Mosque is intended to accommodate the cycle of the five daily prayers regularly made by Muslims. But in physical terms - in terms of place - **what is the Mosque**? The most straightforward answer is that it is a **defined** place of **cleansing**, accommodating the prostration before God [Ibn Manthūr: No date, 1: p98.]. The prayer must be directed towards the *Qiblah*, the Ka'bah[1]. No roof, no minimum size, no enclosing walls and no liturgical accessories are required [Hillenbrand, 1994, p31]. While the Qurān proposes this definition in a rather general way –i.e. in one case referring to a religious function of the prayer while in another to a construction activity–, in all verses it lays emphasis on the nature of the prostration made by believers in the presence of the one God. This emphasis is mentioned in different places in the Qurān, such as "And the places of worship are for Allah (alone): so invoke not any one along with Allah" [72: 18] and "The mosques of Allah shall be visited and maintained by such as believe in Allah" [9: 18].

Idea of the Mosque

Although Frishman believe that the architecture of the Mosque was based on Muhammad's Mosque [Frishman, 1994, p30], Creswell argues that the first mosque

[1] Muslims were originally directed towards the Sacred Rock in Jerusalem in their prayer until Muhammad had a revelation to change the *Qiblah* (the direction of prayer). This diversion occurred after the Qurānic verse had revealed " We see the turning of thy face (for guidance) to the heavens: now shall we turn thee. Turn then Thy face in the direction of the Sacred Mosque: wherever ye are, turn your faces in that direction" [2: 144].

in Madīnah, which Muhammad built, was not a mosque [Creswell, 1932, 1: p9]. In order to understand the nature of the Mosque, it is necessary to embark upon a discussion on what is mentioned in the Qurān regarding the Mosque.

The idea of *Masjid* (mosque) as mentioned in the Qurān was related to more than one activity. This can, for example, be seen in some Qurānic verses: "The mosques of Allah shall be visited and maintained by such as believe in Allah and the Last Day" [9: 18] and "Do ye consider the giving of drink to pilgrims, or the maintenance of the Sacred Mosque, equal to (the pious service of) those who believe in Allah" [9: 19]. According to al-Sabūnī these activities are spiritual and material [al-Sabūnī, 1981, p133].

The spiritual activity is in fact functional. It is intended to allocate and honour some area in order to invite prostration [al-Sabūnī, 1981, p133] and other functions in prayer - functions such as prayer, congregation for Muslims [Ibn Khathīr, No date, 2: p514] or even secular life. According to Ibn Khathīr, al-Kurtubī and al-Sabūnī, God connects between the Mosque and faith [Ibn Khathīr, 1991, 2: p347; Al-Kurtubī, 1986, 3:1614], thus, the Mosque is established as the central point for Muslim activities. This can be seen clearly in the Qurānic verse "There is a mosque whose foundation was laid from the first day on piety; it is more worthy of thy standing forth (for prayer)" [9: 108], "Which is best? - he that layeth his foundation on piety to Allah and His God pleasure? - or he that layeth his foundation on an undetermined sand-cliff ready to crumble to pieces" [9: 109]. The building will surely collapse unless ensuring strong foundations to carry the building. Ibn Khathīr has another opinion; he says that this verse indicates a preference to pray in the early mosques, – the Sacred Mosque and al-Aqsa Mosque – [Ibn Khathīr, 1991, 2: p398]. Regardless of the diversity in interpretation of these verses, it is evident that the Mosque cannot be regarded as a mosque unless its main function is for prayer.

On the other hand, the second meaning is material. The Qurān relates the term *Masjid* (mosque) to some kind of construction activity. First, in the Qurānic verse "Did not Allah check one set of people by means of another, there would surely have been pulled down monasteries, churches, synagogues, and mosques, in which the name of Allah is commemorated in abundant measure" [22, 40]. In addition, the

story of the seven youths, known as the companions of the cave and the inscription[2] Qurān: "Some said, construct a building over them: their Lord knows best about them: those who prevailed over their affair said, let us surely build a place of worship over them" [18: 21].

In an essay about the Qurān and the Mosque, published in the *Islamic Studies Journal*, Ibrahim al-Hueimel argued that the term "mosque" mentioned in the Qurān, affords more than one interpretation. He concludes, however, from all of these interpretations that "the Mosque is meant to be a building" [al-Hueimil, 1998, 3: p240]. Indeed, this word originates in the Qurān itself where it refers to a place of worship, namely, the religious monotheistic one. There is, for instance, no such term as "*Masjid*" (mosque) in the Bible which relates to a place of prayer or worship. The Bible, however, introduced the built up place of worship as "house", Arabic *Bayt*. Neither the Old Testament: "And the House which king Solomon built for the Lord" [Kings 6:1], nor the New Testament: "And Jesus went into the temple of God" [Matthew 21:12] mentions the word "*Masjid*" (mosque). Moreover, neither the pre-Islamic historical sources nor archaeological find mention this word.

The Qurān mentions "house", Arabic *Bayt*, and "mosque", Arabic *Masjid*. The meaning of *al-Bayt*, as mentioned in the Qurān, coincides with the meaning of the same word mentioned in the Old Testament. Therefore, the meaning of "mosque" must be different from that implied by the idea of the "house".

- Is the Mosque a building?

Although this question seems very simple, it is very complicated indeed. To understand the nature of the origin of the architecture of the Mosque it is necessary to discuss the first mosque built on earth. From the Islamic point view, there is no doubt that the Sacred Mosque which is mentioned in the Qurān fifteen times is the first mosque built on earth. According to Ibn al-Jawzī and Ibn Hajar [Abu Halabiyyah, 1998, p63] the Sacred Mosque was built by Adam. Al-Azraqī and al-Zarkashī argue

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[2] This story of the seven Christian youths of Ephesus left their town and hid themselves in a cave in a mountain near by. They fell asleep and remained asleep for some generations or centuries. When they awoke, they had no idea of the duration of time...[Ibn Khathīr, 1994, p107]

that the Sacred Mosque was in its very beginning, "Just an open space around al-Ka'bah, surrounded by houses from all sides" [al-Azraqī, 1858, 1: p306; al-Zarkashī, 1976, p57]. Al-Mawridī also mentions the same definition but he adds that this area is for pilgrims. Al-Azraqī and al-Mawridī called it ***Finā'*** (an area defined by a notional or physical boundary) [al-Azraqī, 1858, 1: p307; al-Mawridī, 1996, p254] while al-Zarkashī called this area ***Fadā'*** (open space) [al-Zarkashī, 1976, p57]. Indeed, both terms are for one thing. The demarcated open space is accordingly **the first basic element of the Mosque**.

The Qurān mentions that "the first House (of worship) placed for people was that at Makkah: full of blessing and of guidance for all the worlds" [3: 96] "In it are Signs manifest; the station of Abraham" [3: 97]. According to Ibn Kathīr the "Signs" which are mentioned in this verse not only refer to the Ka'bah but also to some locations (not buildings) that surrounded it, such as the Station of Abraham, *al-Mish'ar*, *Zamzam* and *al-Safā Wa-al-Marwah*. [Ibn Kathīr, No date, 1: p510]. Therefore, the Ka'bah dominates and forms the focal point of the Sacred Mosque.

The Qurān mentions the Sacred Mosque on a micro and macro scale [al-'Umarī, 1924, 1: p108]; it refers to it as the Ka'bah which is a relatively small building, while in another case, it refers to the large open space surrounding the Ka'bah. One example of "Sacred Mosque" representative of the Ka'bah: in the Qurānic verse of chapter one: "now shall We turn thee to a Qibla that shall please thee. Turn then thy face in the direction of the Sacred Mosque" [2: 144]. Ibn Khathīr and al-Kurtubī mentioned that the Sacred Mosque in this verse is the Ka'bah [Ibn Khathīr, No date, 1: p264; al-Kurtubī, 1966, 1: p158]. One example of "Sacred Mosque" standing for the space around the Ka'bah: another verse in the same chapter: "This is for those whose household is not in (the precincts of) the Sacred Mosque" [2: 196], Ibn Khathīr [Ibn Khathīr, No date, 1: p264] and al-Kurtubī argue that the Sacred Mosque in this verse refers to the open space surrounding the Ka'bah. Therefore, it can be concluded that the Mosque, as mentioned in the Qurān, in its original establishment is a defined open space associated in some cases with some built-up area. The built-up area does not necessarily cover the entire space.

The Mosque must obtain defined boundaries. This is, indeed, manifested by Muhammad when he established his Mosque in Madīnah. According to Ibn Hishām and Ibn Khathīr, Muhammad's first step to establish his Mosque was to choose a place and then he set-up the boundaries of the place. Muhammad, then, determined its *Qiblah* through some construction activity. So, the orientation is, in fact, **another basic element of the Mosque**. [Ibn Hishām, 1987, 2: p138; Ibn Khathīr, No date, 2: p302]. The consequence of these steps in which the Mosque developed is quite significant. The location of the Mosque, its boundaries and *Qiblah* (direction of the prayer) were very important factors that established the early mosque (see Fig. 4.1, 4.2).

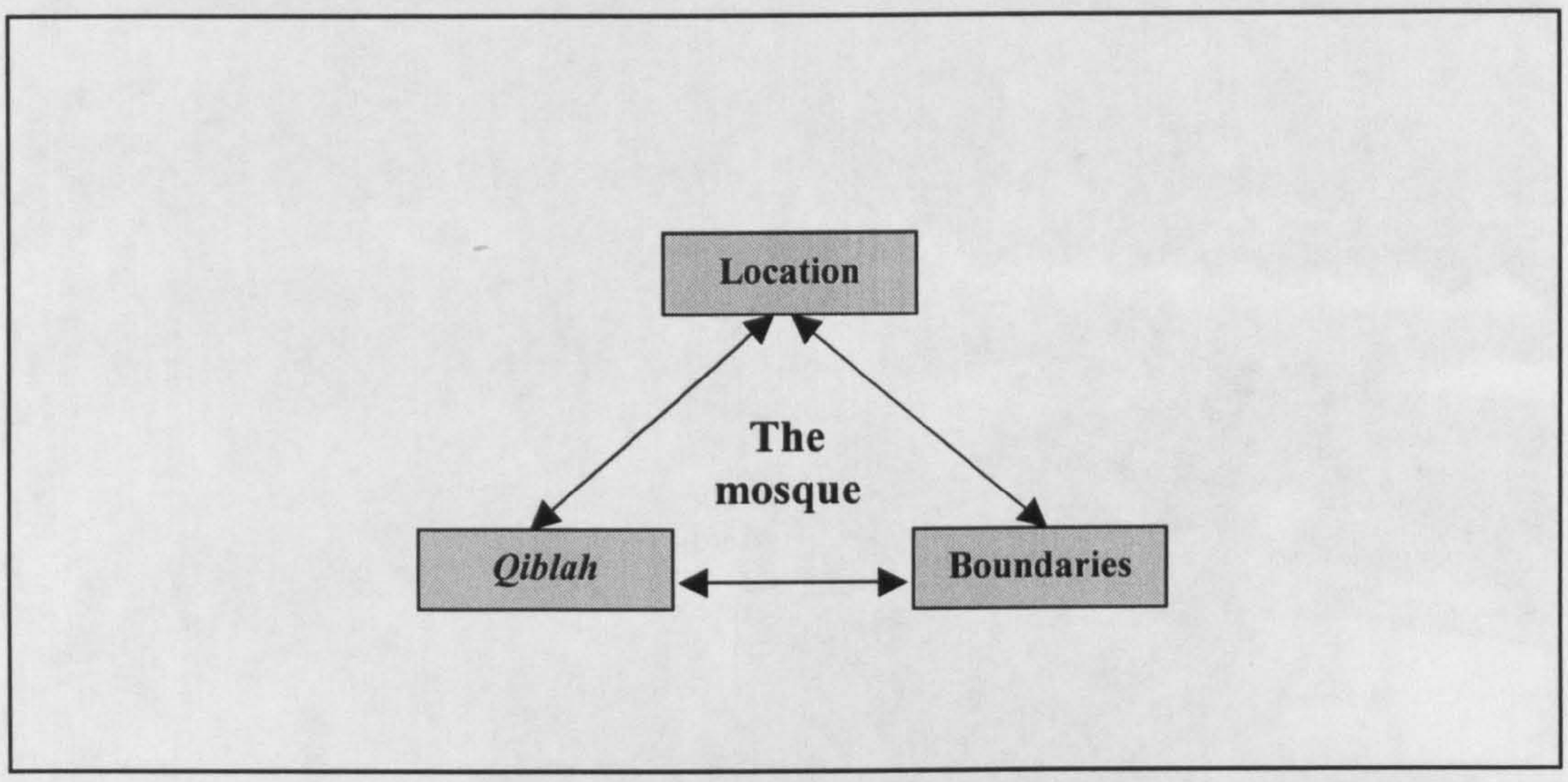


Fig. 4. 1 **Schematic drawing of the main three elements that play the main role in creating the Mosque.**
Source: The researcher.

The location is an important issue in the idea of the Mosque. Unlike other Muslim mosques, the Sacred Mosque in Makkah, al-Aqsa Mosque in Jerusalem and Muhammad's Mosque in Madīnah have very significant locations. The vast majority of Muslims believe that these locations were established by prophets. Muslims seem focused on the concept of centrality of the location of *Qiblahs* and spatial organization of the first and second mosques. The focus was first observed by

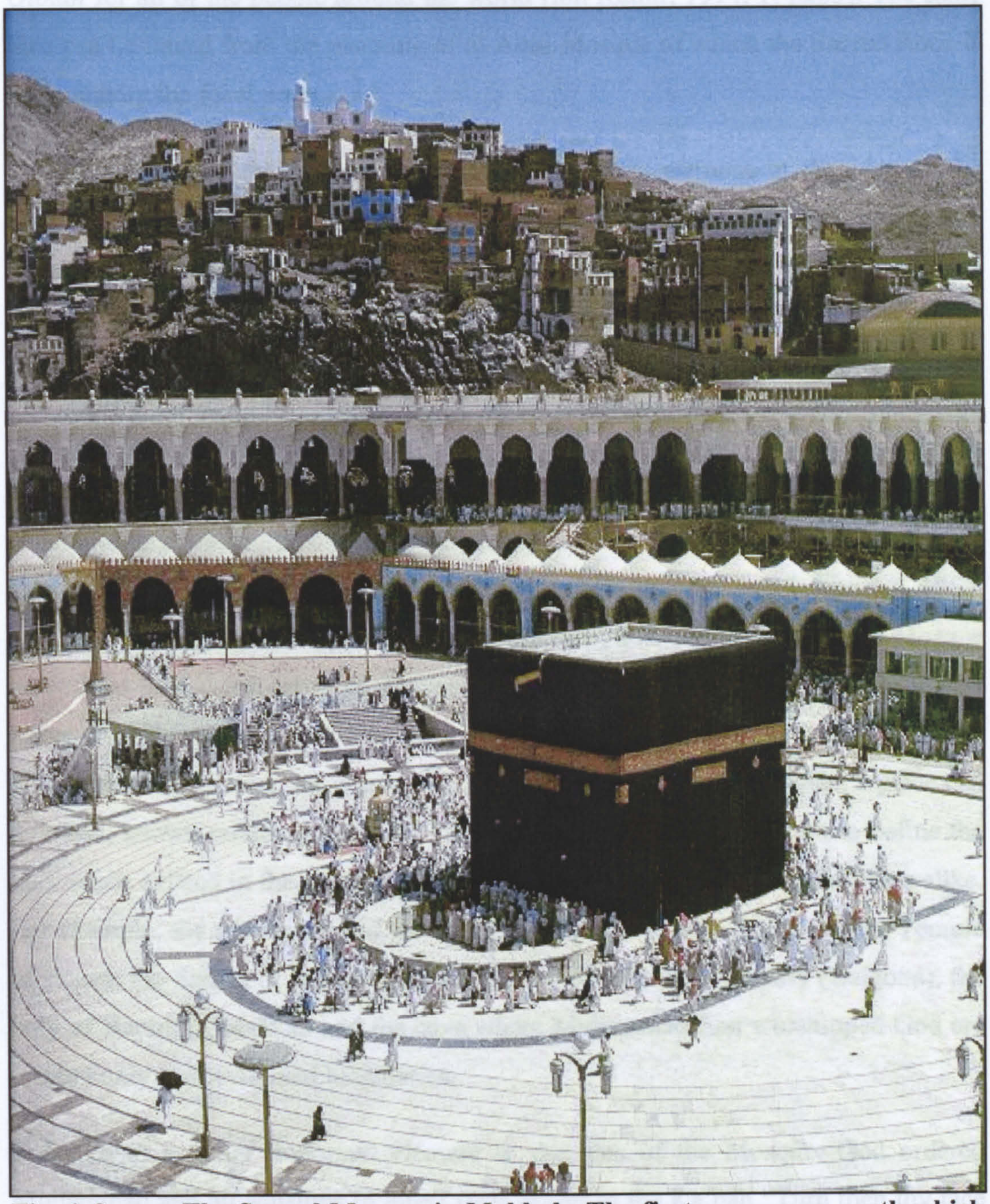


Fig. 4. 2 **The Sacred Mosque in Makkah: The first mosque on earth which indicates the main three elements employed in creating the Mosque: location, *Qiblah* and boundaries.**

Source: http://community.webshots.com/user?beboonly

Muhammad who is reported to have said: The Sacred House is the *Qiblah* of the Sacred Mosque. The Sacred Mosque is the *Qiblah* of the Haram. The Haram is the *Qiblah* for all of the people around the world [Ibn Kathīr, 1994, 1: p263]. The same idea can be traced from the planning of al-Aqsa Mosque of which the Sacred Rock is undoubtedly the focal point.

The boundaries of the Mosque are another important element in the idea of the Mosque. The enclave of the Mosque must be defined. Muhammad used very simple elements to define his mosques that were in their mature form no more than an enclosure, providing a wall correctly oriented towards the Muslims' direction of the prayer, *Qiblah*. The roofing of area comes later, after the Muslims' request for protection from the hot sun [al-Khudairī, 1995, 1: p185].

In the case of the Sacred Mosque and al-Aqsa Mosque, there would originally be no encompassing walls. According to al-Azraqī and al-Mawridī, the Muslim caliph, 'Umar is the first one who surrounded the Sacred Mosque by a wall [al-Azraqī, 1858, 1: p307; al-Mawridī, 1996, p254]. If this is the case, how can the holy of the Mosque be defined in physical terms as a space without any walls or ceiling? In architectural terms, a space can be defined as one created with the help of walls and ceilings but also by natural features, i.e. a space surrounded by valleys or mountains; a place can be a hill, known points or datum points and so on… The phenomenon to define the holy space existed in the ancient civilizations and in the monotheistic religions alike. For example, the ambit space of the ancient Canannite temple, Stela (stellar) Temple of stones, the Sacred of Mount Sina, the Sacred of the hill of Calvary (Galgotta), the holy of Haram in Makkah and the cave where Muhammad first worshipped God are located only inside defined boundaries.

The *Qiblah* is other important element in the idea of the Mosque. God ordered Muhammad and all Muslims to direct their prayer to the Ka'bah "Turn then thy face in the direction of the Sacred Mosque: wherever ye are, turn your faces in that direction" [2: 144]. Therefore, the *Qiblah* must be the direction of the plan of any mosque without exception. All mosques are directed to share the same *Qiblah*. No matter what the topography of the site of the Mosque is, the direction must be correct [2: 144] (see Fig. 4.3). According to Ibn Khathīr, Muhammad considered the *Qiblah*

very much when he established his mosque. He arranged some trunks of the palm trees to indicate the *Qiblah* of the Mosque[Ibn Khathīr, No date, 2: p303].

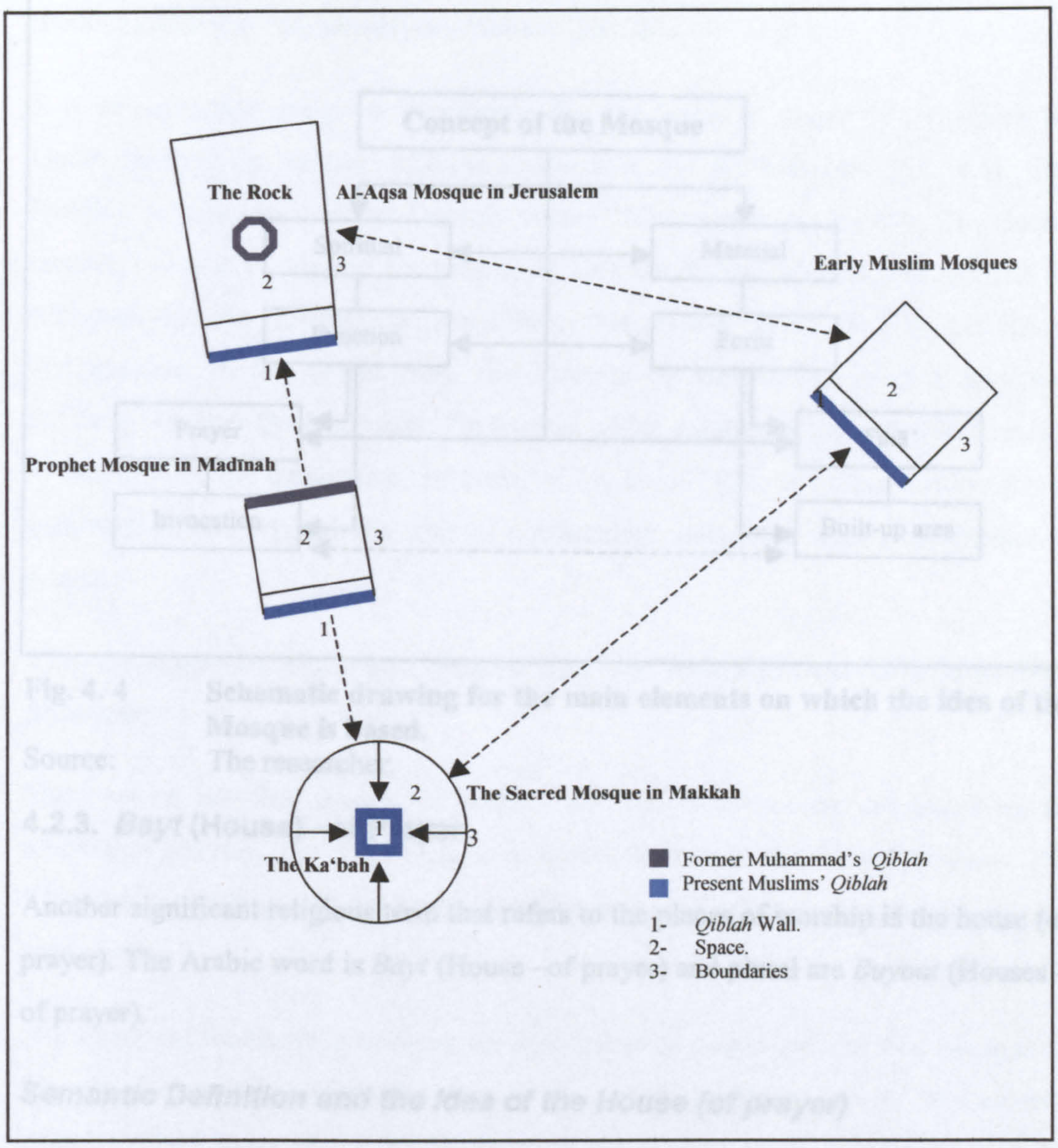


Fig. 4. 3 **Schematic drawing shows the concept of the early Mosques and their relationship.**

Source: The researcher.

In terms of the architecture of the Mosque, it can be concluded that the concept of the Mosque is based on both form and function (see Fig. 4.4). It corresponds with the location, boundaries and orientation, which are the three elements that are employed in the creation of the early mosques, the Sacred and al-Aqsa.

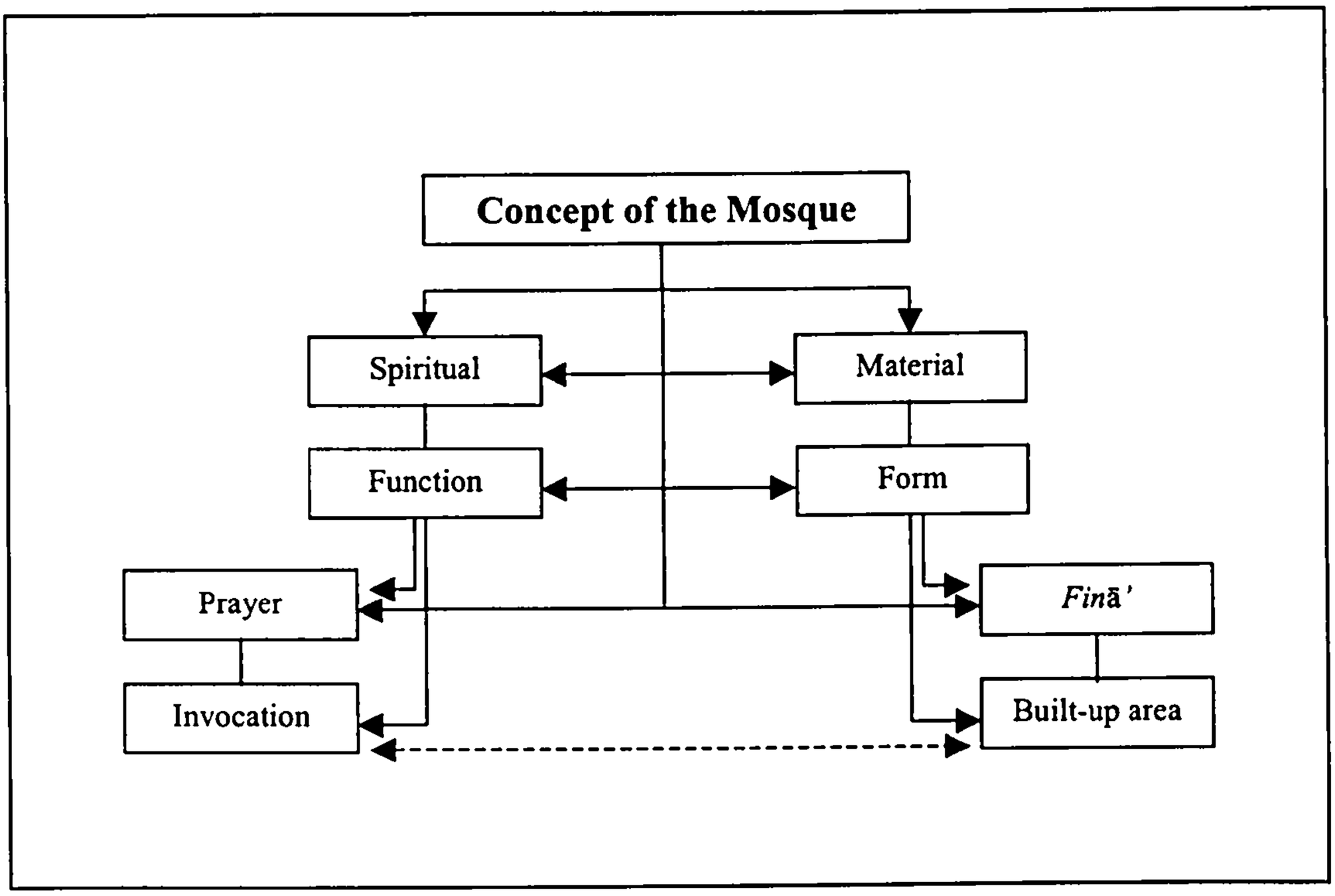


Fig. 4. 4 **Schematic drawing for the main elements on which the idea of the Mosque is based.**

Source: The researcher.

4.2.3. *Bayt* (House) –of Prayer

Another significant religious term that refers to the places of worship is the house (of prayer). The Arabic word is *Bayt* (House –of prayer) and plural are *Buyout* (Houses – of prayer).

Semantic Definition and the Idea of the House (of prayer)

The Arabic language references always use the word *Bayt* to refer to a kind of building [Al-Fayrouz Abadi: No date, 1: p144; Ibin Manthour: No date, 1: p292; Al-Zubaidī: No date, 1: p351]. The religious meaning of *Bayt* (house) is mentioned in both the Old Testament[3] and the Qurān as a building, which accommodates some kind of invocation activity.

[3] The secular and religious meaning can be seen clearly for the word house in the Old Testament, [1Kings 3:1, 6:2].

This religious meaning can be seen in the Qurānic verse "Behold! We pointed the site to Abraham, of the (Sacred) House, (Saying) Associate not any thing (In worship) with me; and sanctify my House" [22: 26].

It is of paramount religious importance that the house of prayer (*Bayt*) which the Qurān honours in several different chapters is the **Ka'bah** (see Fig. 4.5). This building is mentioned in the Qurānic verse: "Allah made the Ka'bah, The Sacred House, a means of support for people, as also the Sacred Months, the animals for offerings, and the garlands that mark them: that ye may know" [5: 97]. It is clearly distinguished in the Qurān from the Mosque by considering it as a particular building. Another Qurānic verse: "In houses, which Allah hath permitted to be raised to honour; for the celebration, in them, of his name" [24: 36] clearly refers to the construction activity and the idea of containment associated with these houses of prayer.

The Concept of the First House and its Relationship with the First Mosque

The idea of the first house "of prayer" and the first mosque are based on an invocation activity. The *K'abah* is an essential element of the Sacred Mosque. The Ka'bah is a building, and the Sacred Mosque is the Ka'bah including the open space surrounding it.

The historical relationship between the first house of prayer and the first Mosque in the very beginning is somewhat vague. The most significant text of Muhammad regarding the history of the Sacred Mosque and al-Aqsa Mosque indicates that the Sacred Mosque was first built on the surface of the earth and al-Aqsa Mosque was built next. Muhammad also said that the period of construction between the two was forty years ['Abd al-Bāqī, 1994, 1: 133].

There are two arguments concerning the establishment of the first Mosque on earth. The first is, by Al-Azraqī who mentions that the construction of the Ka'bah in its very beginning was carried out by Angels, and the second construction by Ādam [Al-Azraqī, 1858, 1: p4]. He, moreover, argues that the term "first" House refers to an

absolute beginning in time that had no precedence [Al-Azraqī, 1858, 1: p3]. The second argument is by al-Tabarī (224-310 AH/ 839-923 AD) who disputes the view of al-Azraqī. Al-Tabarī argues that the term "first" refers to the first house established for people and there are many houses that were established before the Ka'bah [al-Tabarī, 1904, 1: p509]. In any case, the term "first" is indeed related to the origin of religious **architecture for people**. Regardless whether Ādam is the first or second builder, it can be noticed that both arguments share the same claim that Ādam built the Ka'bah. This claim coincides with that of al-Zarkashī who argues that the pilgrimage originally started with the building of the Ka'bah [al-Zarkashī, 1976, p45]. Therefore, the first mosque – the Sacred Mosque – is established at the same time as the Ka'bah, and Ādam can be regarded as the first architect on earth.

4.2.4. *Musallā* (Place of Prayer)

According to al-Zubaidī, *Musallā* (the place of prayer), is a word used to refer to the place of prayer and invocation. The Qurān mentions this word on one occasion "And take ye the station of Abraham as a place of prayer" [2: 125]. According to Ibn Kathīr, Abraham's place is not a building, but is an encompassed area (*boq'a*) close to the Ka'bah [Ibn Kathīr, 1994, 1: 235] (see Fig. 4.6).

It seems likely that the concept of *Musallā* (the place of prayer) was linked to a place associated with a specific event, or in other words, was determined for a specific religious activity such as *Musallā al-Eid* (the feast place of prayer) and *Musallā al-Janā'iz* (the funeral place of prayer). According to al-Zarkashī, *Musallā* (the place of prayer) is different from *al- masjid* (the Mosque) in that it is not a place intended to accommodate the cycle of five prayers regularly made by Muslims [al-Zarkashī, 1976, p28]. In addition, unlike *al-Masjid* (the Mosque), *al-Musallā* (the place of prayer) does not imply the same activity, such as offering a greeting prayer to the Mosque before getting involved in any activity [al-Khudairī, 1998, 1: p11].

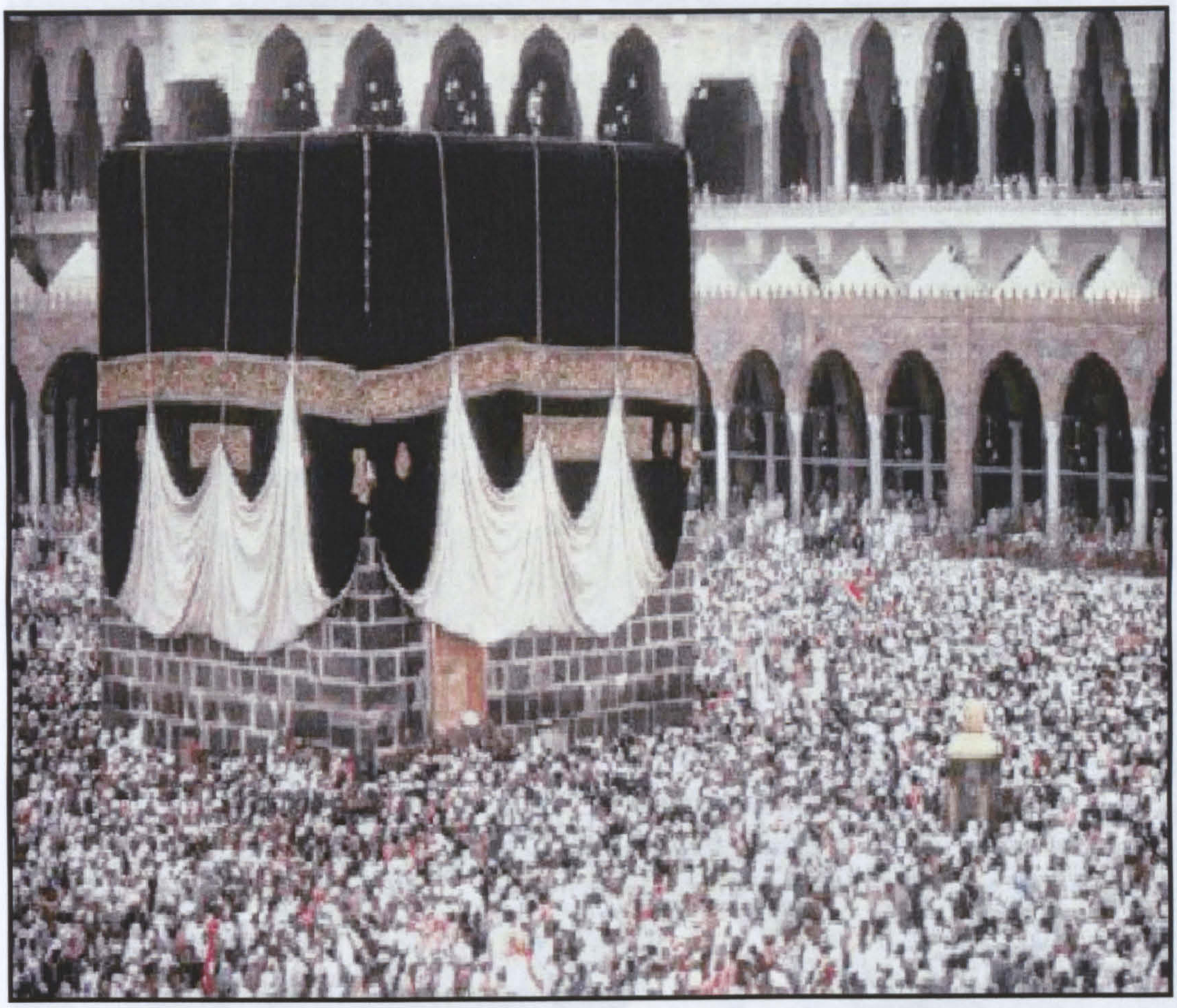


Fig. 4. 5 **The Ka'bah in Makkah. First Muslim house of prayer.**
Source: http://community.webshots.com/user?beboonly

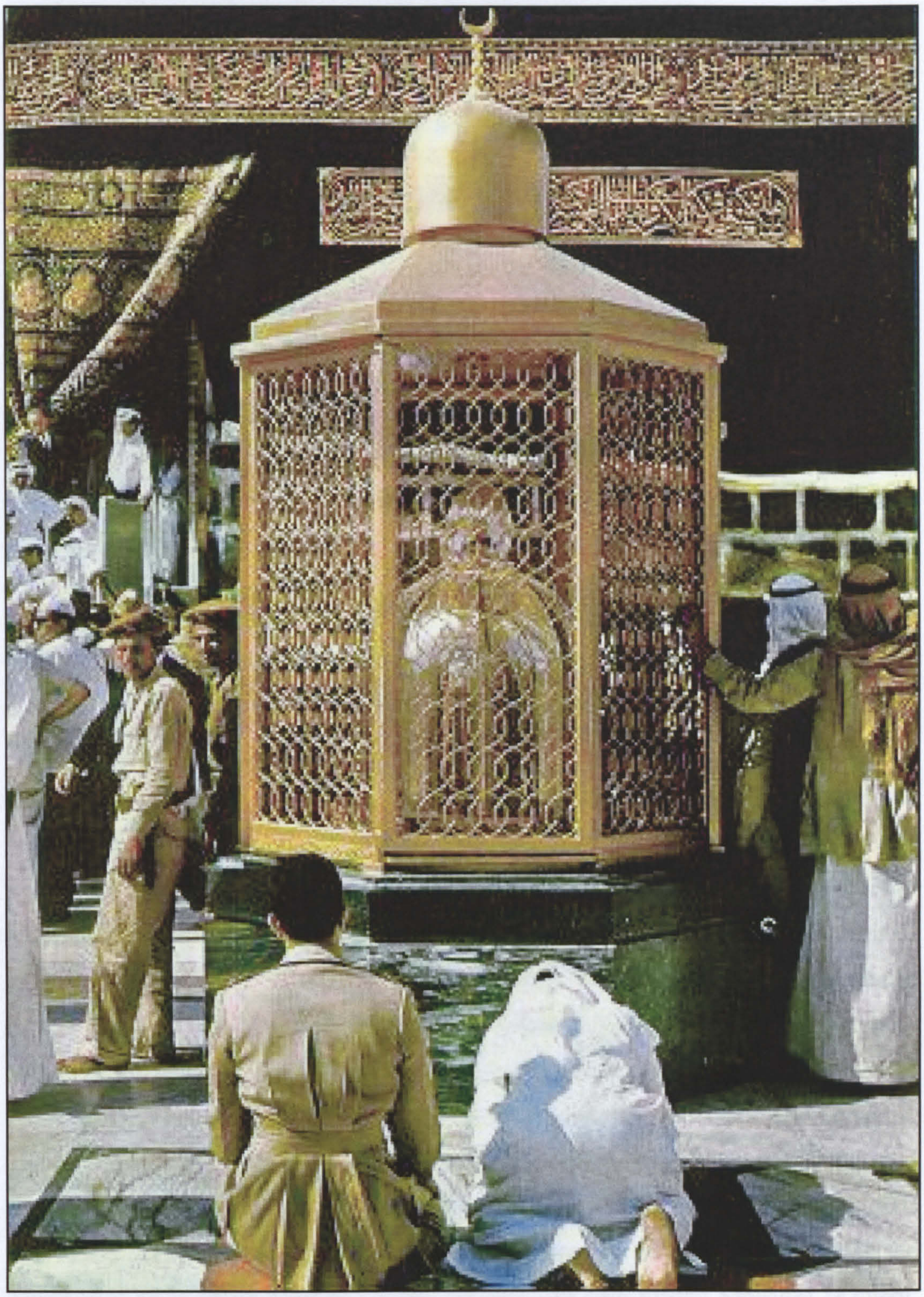


Fig. 4. 6 **Station of Abraham in Makkah. This is where Abraham's *Musallā* was established.**

Source: http://community.webshots.com/user?beboonly

In the early Islamic period *al-Musallā* (the place of prayer) used to be outside the city center. However, with the development of Muslim cities most of *Musallās* (places of prayer) are now part of the Mosque (e.g. funeral place of prayer) or within the nearest open space in the city which could accommodate the majority of city dwellers.

4.2.5. *Al-Jāmi'* (the Congregation Mosque)

Al-Jami' (the congregation), means in Arabic the union of the scattered [Al-Jawharī: No date, 3: p1200; Al-Fayrūz Abadī: No date, 3: p14; Ibn Manthūr: No date, 1: p499; Al-Zubaidī: No date, 5: p305]. *Al-Jāmi'* (the Congregation Mosque), is the name of any mosque that accommodates the five daily Muslim prayers. *(Al-)Jāmi'* is mentioned in the Qurān three times, which does not relate to any building. However, *al-Jāmi'* refers to God's name, i.e. God who gathers mankind at the Judgement day. This can be seen in the Qurānic verse: "Our Lord! Thou art He that will gather mankind together against a Day about which there is no doubt" [3: 9].

Although Muhammad did not use this term, it was used since the early Islamic period. For example, it can be encountered in the speech of those narrators who reported texts during the early Islamic period in *Sahīhs* (the collections of the Muhammad Tradition). Later on, Ibn al-Faqīh (d. 290 AH/ 903 AD) used the terminology to refer to the main mosque of the city of Ramlah in Palestine [Ibn al-Faqīh, 1996, p152]. Al-Maqdisī (d. 380 AH/ 990 AD) used the term *al- Jāmi'* to describe the southern building of al-Aqsa Mosque when he mentioned the cisterns of *al-Jāmi'* [al-Maqdisī, 1987, p145]. Al-Maqdisī used two terms, namely *al-Mughatta* and *al-Jāmi'*, to describe the same building. It seems that for professionals, namely master builders, al-Maqdisī used a technical construction description for the parts of al-Aqsa Mosque area while in other situations he used the more conventional name. Moreover, he used the term *al-Jāmi'* to describe the main mosque of *Ramlah* and Damascus [al-Maqdisī, 1987, pp142-143, 146]. Much later, Khusrū (d. 438 AH/ 1074 AD), however, used another term –in addition to "mosque" – to describe the whole area of al-Aqsa Mosque: *Masjid al-Jumu'ah* (the Friday Mosque) [Khusrū, 1983, p57]. Al-Idrīsī (d. 548 AH, 1154 AD) named the same whole area of al-Aqsa Mosque as *al-Jāmi' (*the Congregation Mosque) [cited in Marmarjī, 1987, p353]. Al-

Antākī (d. 458 AH, 1063 AD) used the term of *Jāmi' Bayt al-Maqdis* (the Congregation Mosque of Jerusalem) to describe the southern building of al-Aqsa Mosque in Jerusalem [Marmarjī, 1987, p62.]. Al-Bahgdadī (d. 623 AH/ 1225 AD) used the term of *al-Jāmi' al-Aqsa* (al-Aqsa Congregation Mosque) to describe the southern building of al-Aqsa Mosque [al-Baghdadī, 1957, p63].

In Muslim cities, *al-Masjid al-Jāmi'* (the Congregation Mosque), is a term which refers to the main mosque that accommodates the five daily prayers and the Friday prayers. Despite this diversity of terms, namely *al- Jame'*, *al- Jumu'h*, *al-Masjid al-Jāmi'* and *al-Jāmi' al-Aqsa*, they all refer to a built-up place where Muslims congregate and perform the five daily and the Friday prayers [Amin and Ibrahim, 1990, p17]. Like the word "mosque", it seems that by the end of the early Islamic period the term *al-Jāmi'* was also in wide circulation. The following table shows the distinction between each term (see Table 4.1).

Table 4.1 The main distinction between some terms used to refer to the places of worship.

Name	Description		
	Nature	Location	Other technical names
Masjid (Mosque)	It is an encompassed area finā' and has some built up area binā'.	Any defined cleaned area, which is allowed to accommodate Muslims' prayers, it can be identified as a mosque.	No other names. It is a comprehensive word that can probably be applied to all places of worship, i.e. every house of prayer can be considered a mosque but not every mosque is a house of prayer. (used from the beginning of early Islamic period)
Bayt (House of prayer)	Always refers to a building	In most cases sited of places that dominate their surroundings.	Monasteries, Churches and Synagogues (before Muhammad's message of Islam), and Mosque or House (used during the life of Muhammad). After the death of Muhammad, the term House of Prayer seems rarely to be used.
Musallā (Place of prayer)	A place which accommodates occasional prayer; it does not refer to a building.	In most cases outside the city centre, especially in the early Islamic period.	No other names. (used from the early Islamic period)

4.3 Al-AQSA MOSQUE IN THE ISLAMIC SOURCES

This section is concerned with references to al-Aqsa Mosque in Islamic textual sources. Firstly, it seeks to discuss and analyse, the nature and the meaning of al-Aqsa Mosque as introduced in the Islamic sources, and secondly, the early development of this nature as understood by Muslims. These Islamic sources seem to have developed and formulated the idea of al-Aqsa Mosque and related it to architecture. This section attempts to illustrate the important Islamic sources that introduced al-Aqsa Mosque, such as, the Qurān, the Muhammad Tradition, and sources in historical morphological commentaries.

4.3.1. Al- Aqsa Mosque in the *Qurān* and *Hadīth*

This section will show how the Qurān and *Hadīth* introduced al-Aqsa Mosque. These two sources have been chosen as the starting point for discussion because they introduced al-Aqsa Mosque first to Muslims; they are, moreover, the oldest Islamic references still preserved in their original form. The method adopted is essentially one of detection and deduction from the Qurānic verses and *Hadīth*. Meanwhile, this section will also discuss al-Aqsa Mosque in correspondence to the Sacred Mosque, in terms of archaeological evidence and historical commentary.

Semantic Definition and the Idea of al-Aqsa Mosque

"Al-Aqsa Mosque" is mentioned by this name[4] only once in the Qurān: "Glory to (Allah) who did take his servant for a journey by night from the Sacred Mosque to al-Aqsa Mosque whose precincts we did bless, in order that we might show him some of our signs: for He is the one who heareth and seeth (all things)" [17: 1]. According to Abu Halabieh, some Muslim commentators mention that *al-Masjid al-Aqsa*, the Farthest Mosque, took its name because of the large distance between it and the Sacred Mosque in Makkah. Others say that this mosque was the mosque farthest away from the people. Still others say that the mosque took this name

[4] Al-Aqsa Mosque is mentioned in Qurān by other names, among them al-Masjid (the Mosque).

because it is far away from all that is unclean and profane [Abu Halabiyyah, 1998, p64].

It is certain that the Qurān is the main source that mentions al-Aqsa Mosque. Muslims believe that al-Aqsa Mosque was Muhammad's destination when he translocated from Makkah to Jerusalem during *Isrā'* (a Night Journey). *Isrā'* is mentioned clearly in the Qurān and in all *Sahīhs* (Muslim collections of *Hadīth*), but in different ways; for example, in *Sahīh al-Bukharī* the description is short while in *Sahīh Muslim* it is longer.

The short text mentions *Isrā'* is general; the name of *Masjid*, *Bayt al-Maqdis* (Islamic Jerusalem) or both are reported as the destination of *Isrā'*. [Sahīh al-Bukharī, 4518]. The long text referring to *Isrā'* is more detailed; it mentions, for example, Muhammad's activities and his prayer at al-Aqsa Mosque [Sahīh Muslim 81/365]. Although there are too many texts dealing with *Isrā'* to be referred to here, they agree in their content and context that Muhammad translocated from Makkah to *Bayt al-Maqdis* (Islamic Jerusalem), i.e. from the Sacred Mosque to al-Aqsa Mosque [Ibn Kathīr, 1994, 3: p34].

History of al-Aqsa Mosque

Muslims believe that the history of the first mosque on earth would be associated with the history of monotheism. The relationship of monotheism with the first man, Ādam, is agreed by both the Qurān and the Bible. It follows that Ādam must have had some place of prayer. According to the Qurān: "The first House (of worship) appointed for people was that at Makka" [3: 96], "And remember Abraham and Ismā'īl raised the foundation of the House" [2: 127]. The most important and well-known *Hadīth* of the Prophet Tradition regarding the existence of al-Aqsa Mosque is that mentioned by Abu Dhar, Muhammad's companion, who stated:

> "I asked God's Messenger about the first mosque established on Earth. 'The Sacred Mosque' (in Makkah), he answered. 'And then what?' I asked. 'Al-Aqsa Mosque,' he said. 'And how long was it between them?' I asked. 'Forty years,' the prophet

replied" [Sahīh Muslim: 1114; Musnad al-Imam Ahmad: 21017; Sunan al-Nisa'ī al-Kubrā: 11182, 8217].

Therefore, from an Islamic point of view, *al-Masjid al-Haram* (the Sacred Mosque) was founded at the time of Ādam, or even earlier by angels. This contributed to the argument of some scholars, such as Ibn al-Jawzī and Ibn Hajar [cited in Abu Halabiyyah, 1998, p63] that both the Sacred Mosque and al-Aqsa Mosque must have been established at the time of Ādam. In any case, one cannot establish any building without choosing its location. So *al-Ta'sīs* or *al-Wadi'* (the allocation or establishment) of al-Aqsa Mosque is a prior stage of establishing any building.

Abu Halabieh stated that Ibn Hajar acknowledged that there is a disagreement in interpreting this *Hadīth* (text) because some Muslims believe that Abraham built the Sacred Mosque and Solomon the Sacred House in Jerusalem and that there is at least a thousand years between them. Ibn-Hajar tried to resolve this contradiction by mentioning that Ibn al-Jawzī said that Ādam would have built the Sacred Mosque. As a result, Ibn Hajar corroborated his arguments by what al-Kurtubī said in this *Hadīth* (text) that Abraham and Solomon renovated these mosques. Ibn Hajar, furthermore, supported his argument by Ibn Hishām's claim that Ādam had built both the Ka'bah and al-Aqsa Mosque [Abu Halabieh, 1998, p.63]. A current scholar, el-Awaisi, has repeated the same argument [el-Awaisi, 1997, p14]. He argued that, on the basis of the Muhammad Tradition and some statements of Muslim scholars, al-Aqsa Mosque was first established by Ādam and later renovated by David and Solomon. He, therefore, concludes that al-Aqsa Mosque is established after the Sacred Mosque. Al-Aqsa Mosque also might have existed since the time of Ādam, and might have a connection with the Sacred Mosque. Archaeological excavation, however, has failed to find any cultural artifacts in the present area of al-Aqsa Mosque or Jerusalem that might substantiate this mytho-historical construction. However, archaeology does not ignore it, because the urban context of al-Aqsa Mosque in its original establishment was different from that of today. So, any archaeological references might have vanished. It might be that some evidence has been preserved which can rcinforce the credibility of the mytho-historical construction of the Sacred and al-Aqsa Mosques. As will be established later, it can

even be claimed that there might still be some preserved similarities in the proportions of both defined places and even a relationship in the location between al-Aqsa Mosque and the Sacred Mosque. These could point out a link between the two mosques in their original establishments or planning.

The concept of al-Aqsa Mosque in the Qurān and Hadīth

Although the *Qurān* and *Hadīth* mention explicitly al-Aqsa Mosque, one question needs to be answered: -

- Is al-Aqsa Mosque mentioned in the Qurān as a building?

A claim, introduced by al-Khudairy [al-Khudairy, 1998, 1: p219], that al-Aqsa Mosque mentioned in the Qurān was in fact a building, is certainly without supportive evidence. Furthermore, al-Khudairy seems to lack any relevant historical and archaeological data for his claim that "al-Aqsa Mosque and Jerusalem after Solomon fell under the sovereignty of Romans, Hixos, Hebrews, Assyrians for brief periods to the Muslims"[al-Khudairy, 1998, 1: p222]. Al-Khudairy confuses Assyrians and Persians, while he inexplicably differentiates between Solomon and Hebrews[5], though they were of the subsequent period. Moreover, Roman rule over the city came several centuries after the Greek rule. Clearly the credibility of the historical data mentioned by some scholars dealing with pre-Islamic history must be carefully handled!

It is significant that al-Khudairy and al-Hueimel's claims [al-Hueimel, 1998, 3: p240] that al-Aqsa Mosque was only a building is contradicted by the fact that al-Aqsa Mosque and the Sacred Mosque did not exist as buildings at the time of Muhammad's *Isrā'* (Night Journey), nor even during the life-time of Muhammad. Therefore, it must be that the Qurān describes al-Aqsa Mosque at the time of Muhammad in its original idea as a **defined holy place,** regardless of its later development into a built-up area.

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[5] Al-Khudairy must mean the kingdom of Judah, because Jerusalem was never under the Hebrews' rule neither before David nor after the Romans.

The elusive matter of any interpretation regarding the origins of al-Aqsa Mosque as a building –i.e. the claim that Solomon established al-Aqsa Mosque– can be easily challenged. Interpreting al-Aqsa Mosque originally as a building may be unacceptable on the basis of the text of the Muhammad's *Hadīth* (Tradition) regarding the origins of the first mosques. It can be surmised that al-Aqsa Mosque, as mentioned in the Qurān and Muhammad texts, was originally established as a demarcated place, then developed by some construction activity which does not necessarily cover all of the demarcated area of al-Aqsa Mosque. At the same time any destruction of a building that would have been erected in the enclave would not mean the end of the existence of the al-Aqsa Mosque which according to the Qurān and *Hadīth* existed as a demarcated holy place even without any specific building.

Solomon's House of the Lord and al-Aqsa Mosque

The Bible mentions that Solomon built a House of the Lord when he ruled over an ancient *Yurusalem* (Jerusalem). According to the Bible, this House was very luxurious, measuring 60 cubits (nearly 28.8 metres) in length by 20 cubits (nearly 9.6 metres) in width by 30 cubits (nearly 14.4 metres) in height. It contained a porch in front of the House, a niche, and against the wall of the house several chambers, built around a courtyard. "And the house which King Solomon built for the Lord, the length thereof was threescore cubits, and the breadth thereof twenty cubits, and the height thereof thirty cubits" [1Kings, 6: 2]. The aim here is not to discuss the architecture of Solomon's House of the Lord as mentioned in the Bible but to show how the dimensions of this House compare with those of the present area of al-Aqsa Mosque. The question is:

- Is al-Aqsa Mosque identical to Solomon's House of the Lord?

The Qurān and *Sahīhs* (the two Muslim collections of the Muhammad Tradition) contain no mention of any construction activities regarding Solomon's House of the Lord. However, Ahmad Ibn Hanbal mentions a text regarding David's and Solomon's building activities; this text is quoted from Abdullah al-Dulaimī's from Abdullah bin 'Amr as God's Messenger and says:

"Solomon, the son of David, asked God to grant him three things, and he obtained two, hoping that he would obtain the third too: he asked for a rule and he was given it, he asked for a kingdom and he was given it and he asked whatever man who left his house seeking nothing except prayer in this mosque to be forgiven all his sins as at this day of birth" [Musnad al-Imam Ahmad: 6588].

Both al-Nisa'ī [Sunan al-Nisa'ī al-Kubrā: 775; Sunan al-Nisa'ī al-Sughrā: 400:688] and Ibn Mājah [Sunan Ibn Mājah: 1452] mention the same *Hadīth* (text), with little additions in the text. This was quoted also from Abdullah al-Dulaimī's from Abdullah bin 'Amr as Muhammad saying:

> "After Solomon, the son of David built Bayt al-Maqdis, he asked God to grant three things, and he obtained two, hoping that he would obtain the third too: he asked for a rule and he was given it, he asked for a kingdom and he was given it and he asked whatever man who left his house seeking nothing except prayer in this mosque to be forgiven all his sins as at his day of birth".

It is evident that both texts by Ahmad and al-Nisa'ī were quoted from the same source. All Muhammad's texts, mentioned by Muslim commentators, do not state explicitly that Muhammad said Solomon established al-Aqsa Mosque. In any case, this does not mean that Solomon's House of the Lord, wherever it was built in Jerusalem, would not also have been holy to Muslims because, unlike Jews, Muslims believe that Solomon is a prophet. A claim was made by Muhammad Sharāb after his study, *Bayt al-Maqdis and al-Aqsa Mosque*, that Solomon did not build al-Aqsa Mosque [Sharāb, 1994, p58]. Is this claim acceptable? No tangible archaeological evidence proves that Solomon built any monument in al-Aqsa area, but at the same time, neither does evidence exist to prove that it was not built. The exact location of Solomon's House is, however, still controversial and uncertain. Still two questions arise:

- Whether Solomon's House of the Lord was inside or outside the present area of al-Aqsa Mosque.
- Whether or not the boundaries of Solomon's House of the Lord are identical with al-Aqsa Mosque as it existed at the time of the prophet (i.e. as a defined enclave without any building(s)).

The answers to these two questions are elusive. From the arguments mentioned above, the following points summarise what the literary sources and archaeological information suggest:

1- Al-Aqsa Mosque at the time of Muhammad was a delineated defined place without buildings. The ancient buildings of the enclave were, no doubt, destroyed during the 1st century AD (before the establishment of the Umayyad building scheme in al-Aqsa enclave).

2- Solomon's House of the Lord, if it had existed in Jerusalem, was also destroyed long before the birth of Christ and no longer existed.

3- No archaeological evidence has yet been found in the enclave that Solomon's House of the Lord was located there; the enclave's earlier foundation does not match his House's dimension.

4- This discrepancy renders it very unlikely that Solomon's House of the Lord, as stated in the Bible, has ever been identical to the boundaries of al-Aqsa Mosque referred to in the Qurān and *Hadīth*.

5- On the basis of these points, the area of the holy al-Aqsa Mosque –as introduced in the Qurān and *Hadīth* which Muslims believe in– are bigger than the boundaries of the area of the holy Solomon's Temple as stated in the Bible.

6- Nevertheless, Solomon's House of the Lord has a religious significance and it is holy for Muslims too, whether or not it had been built or renovated and wherever it was located.

4.3.2. Early Established Elements of al-Aqsa Mosque

The Location of al-Aqsa Mosque

There is no doubt that the location of al-Aqsa Mosque has great significance. The Qurān indicates that al-Aqsa Mosque was given an important location, and it is linked with the Sacred Mosque. The location also has a connection to the three monotheistic religions and prophets. Moreover, the area surrounding al-Aqsa was sacred too. It was mentioned together with the name of al-Aqsa Mosque itself as God was saying "Whose precincts We did Bless" [17: 1]. Kutub argues that the Qurānic terminology in this verse is quite significant. The Qurān dignifies al-Aqsa Mosque by describing it as a centre which *al-Baraka* (the Blessed) surrounds on all sides [Kutub, 1979, 4: p2212]. It is al-Aqsa Mosque which is the symbolic focal point of the sacred area that surrounds it; the more one approaches the mosque the more blessed the area becomes holy. *Hadīth* contributes to the Qurān in presenting some direct references to al-Aqsa Mosque. For example, it mentions that al-Aqsa Mosque is the second oldest Mosque established on earth ['Abd al-Baqī, 1994, p133]. *Hadīth* (the Muhammad Tradition) also encourages the prayer in the Sacred, Muhammad and al-Aqsa Mosques more than in any other Muslim mosques [Sahīh al-Bukharī, 1165].

Al-Aqsa Mosque and the First Muslims Qiblah (Direction of Prayer)

It might be that the history of the *Qiblah* was connected with the first monotheistic place of prayer. In a study made by Shihāb ad-Dīn al-Hamawī (late 11th century AH/ 17th century AD) an argument is presented which states that prophets before Abraham took the place of the *Ka'bah* as their *Qiblah* [cited in al-Abed, 1992, p94]. Like the mosque, Shihāb argues that the *Qiblah* is originally limited to the defined place on which the Ka'bah was established or rebuilt. From this, **it can be concluded that al-Aqsa Mosque in its original establishment took the Ka'bah as its *Qiblah*.** This issue will be discussed in more detail in the coming chapters. According to Shihāb's study, the *Qiblah* is then diverted towards Jerusalem. It is possible that Moses was the first one who obtained a revelation to direct his prayers to Jerusalem [Khusrū, 1983, p57]. Jerusalem was the first *Qiblah* of Muhammad, but he also acknowledged **the Ka'bah as *Qiblah***. When Muhammad started his prayer in

Makkah, he set up an interesting link between al-Aqsa Mosque (the Rock) and the Ka'bah. According to Ibn 'Abbās, Muhammad, when he was praying in Makkah, used to place himself such that the Ka'bah was between him and Jerusalem [Ibn Hishām, 1987, 2: p87]. However, when he migrated to Madīnah, there was no possibility to preserve the same link between two *Qiblahs*, because the direction of Jerusalem is to the north of Madīnah while Makkah is to the south of Madīnah (see Fig. 4.7). So he continued to pray toward the rock and al-Aqsa Mosque and ignored the K'bah for more than one and half years; after that he redirected the *Qiblah* to the Ka'bah.

The Boundaries of al-Aqsa Mosque

It is often said that the boundaries of al-Aqsa Mosque are and have always been those walls that encompass the present area of al-Aqsa enclave; this is in fact a straightforward argument. Unlike the Sacred Mosque, the boundaries of al-Aqsa Mosque have not changed since the establishment of the Umayyad period. The Umayyad traces in the stone courses of the walls of the al-Aqsa enclave are still visible and in *Bāb al-Nabī* (the Double Gate), *Abwāb Mihrāb Mariam* (the Triple Gate) and *Bāb al-Rahmah* (the Golden Gate) [Ben-Dov, 1985, p286]. This raises a number of questions. Why did none of the Muslim caliphs attempt to enlarge the limits of the Umayyad al-Aqsa? Is it because of the holy area? If so, what are the maximum limits of the holy site in which al-Aqsa Mosque must be enshrined? Although al-Zarkashī argues that Ādam is the first one who established both the Sacred Mosque and al-Aqsa Mosque [al-Zarkashī, 1976, p31], it seems that the question of boundaries is very elusive.

In the case of the Sacred Mosque, it seems that its boundaries did not preserve their original delineation at the time of Muhammad. The historical development of Makkah used to have houses established inside the boundaries of the Sacred Mosque, i.e. inside the space in which the Ka'bah[6] is located. This is the reason why Muslim

[6] Ibn Ishāq argues that the place from which Muhammad translocated in Isrā' is indeed located within the boundaries of the Sacred Mosque [Ibn Hishām, 1987, 2: p52].



Fig. 4. 7 **Geographical map shows the location of Jerusalem, Makkah and Madīnah.**

Source: http://www.jobs.net/locations/sa/flag_and_map.html

caliphs were able to enlarge the space around the Ka'bah and of course the Sacred Mosque. However, with the exception of a small extension northward[7], al-Aqsa Mosque still has its original boundaries since the time of Muhammad, and the Umayyads maintained them. The reasons for this were:

1- The area was sufficiently large.

2- The area was clearly defined by physical boundaries.

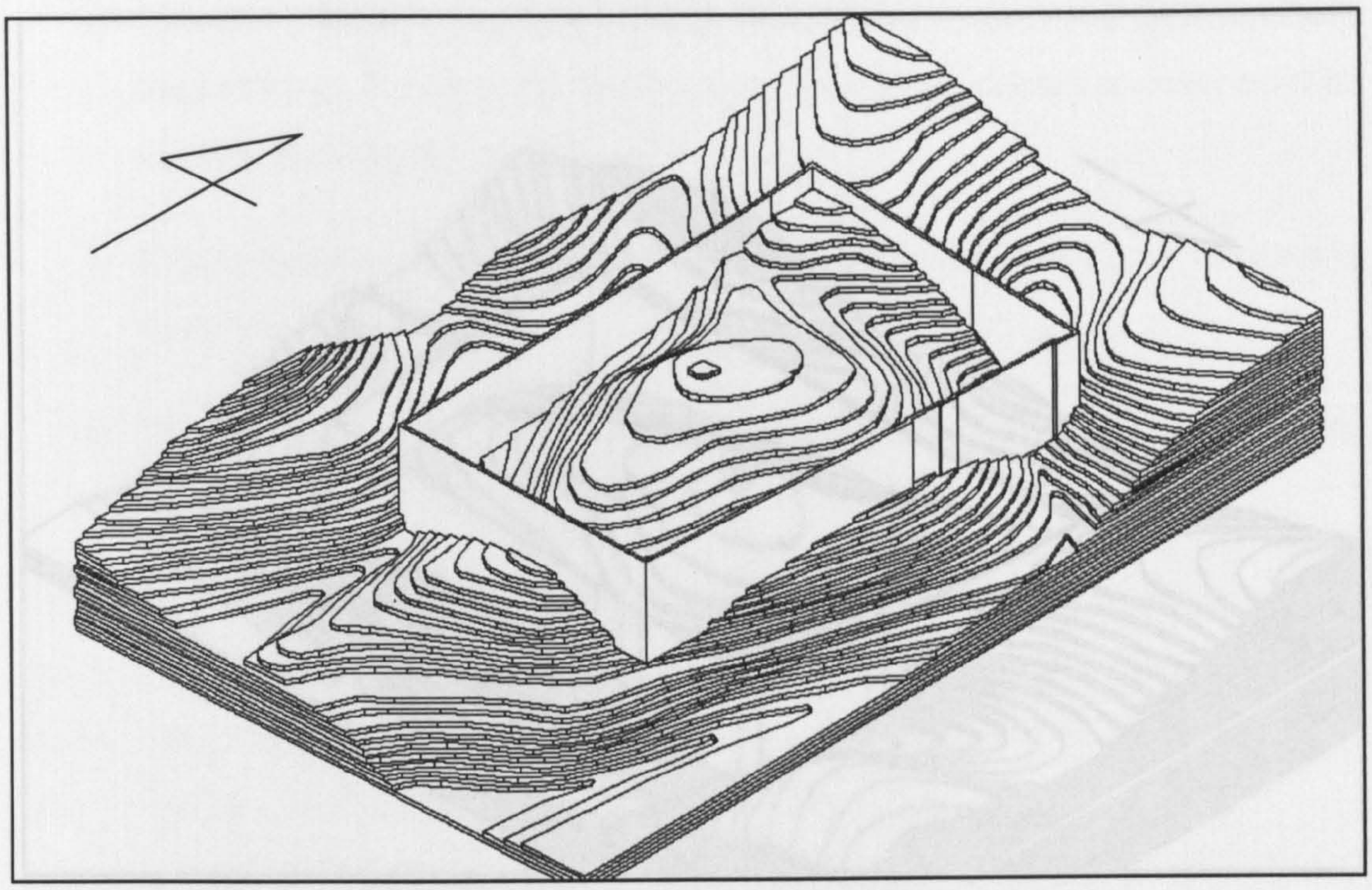
Yet, the question is why al-Aqsa Mosque occupies such a large area of 142,000 square metres. A detailed study of the topography shows that the walls of present al-Aqsa enclave are encompassing a rocky hill, which is located approximately in the center (see Fig. 4.8, 4.9). The top of this rocky hill is the sacred rock. According to Ibn Kathīr God ordered Muhammad to direct his prayer to this rock [Ibn Kathīr, 1994, 1: p259]. Therefore, it can be concluded that this rocky hill is associated with the belief of the Muslim's first fundamental direction of prayer. Another Qurānic verse advances the sacredness of the rock; it mentions "And listen the day when the caller will call out from a place quite near" [50: 41]. According to Ibn Kathīr this place is the Sacred Rock [Ibn Kathīr, 1994, 4: p249].

Seemingly, not only the top of the hill is sacred but also the hill itself for the three following reasons: -

1) If the Sacred Rock is regarded only as the top of the hill, its boundaries would be unclear; in addition, there would be questions regarding the exact definition of the top.

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[7] See chapter six.



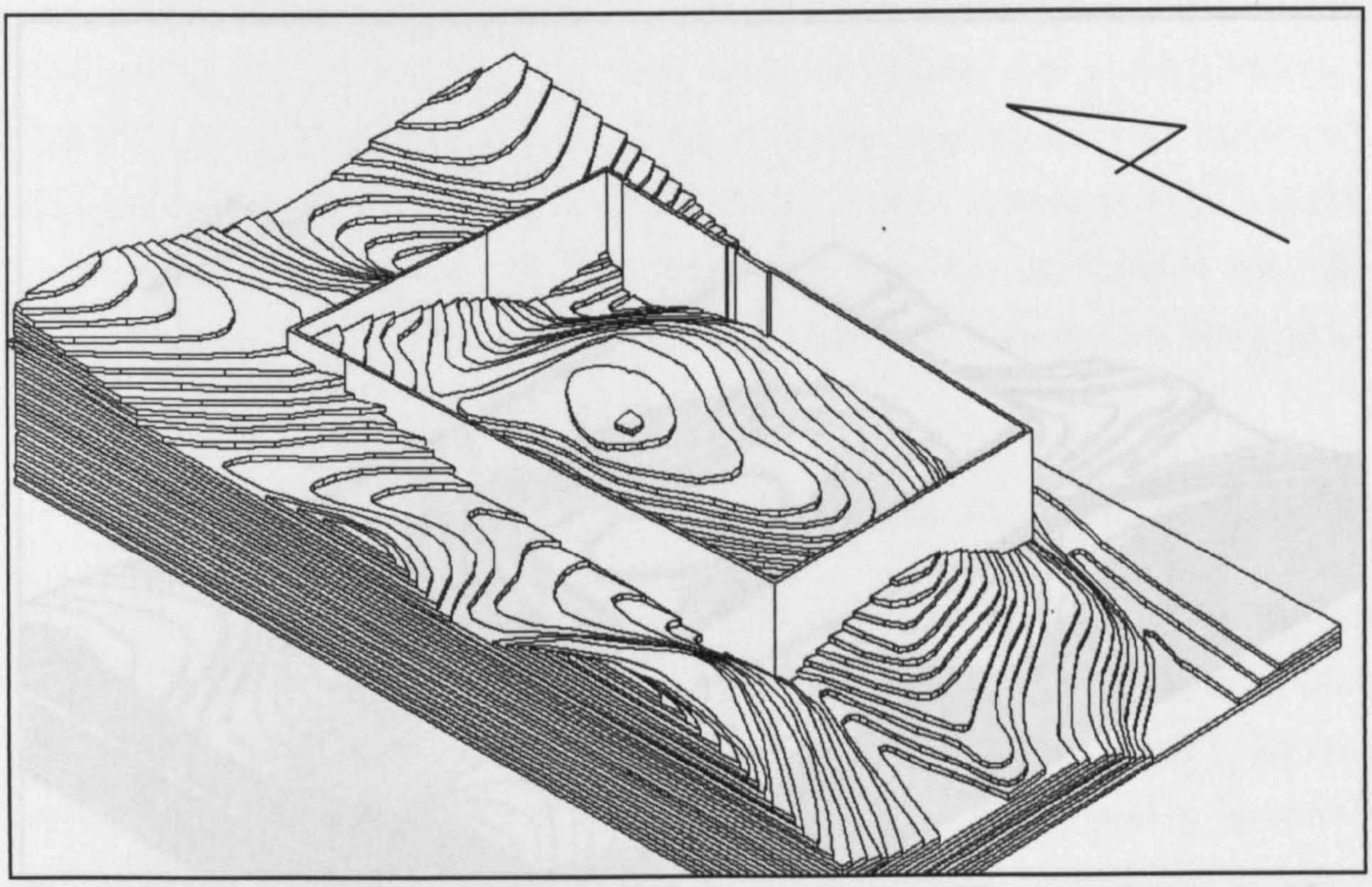
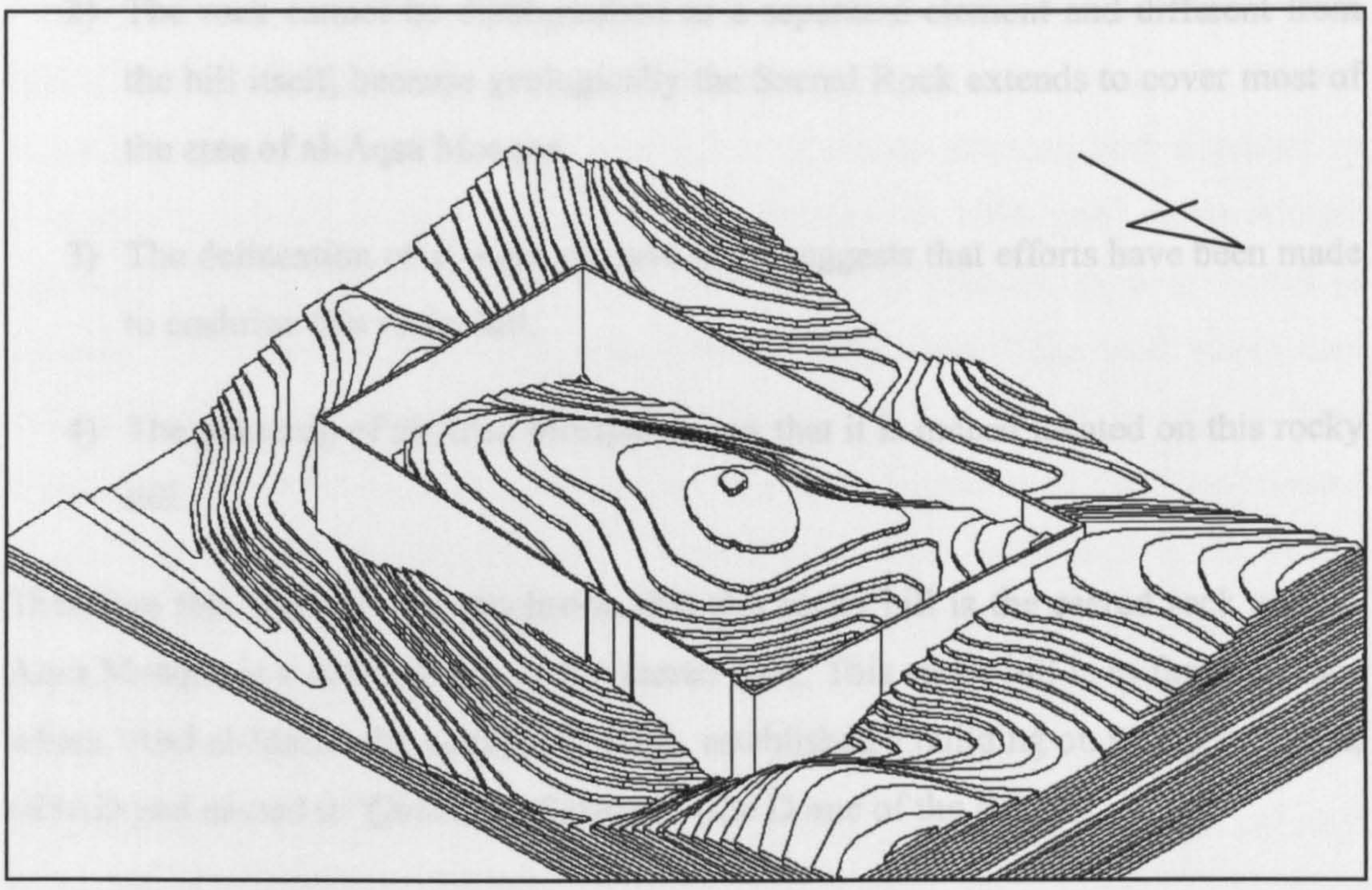


Fig. 4. 8 **Computer modeling of al-Aqsa Mosque: The top picture looking from the south-east angle to the north-west, while the bottom is looking from the south-west angle to the north-east. This illustrates the main three elements that play the main role in creating al-Aqsa Mosque.**

Source: The researcher.



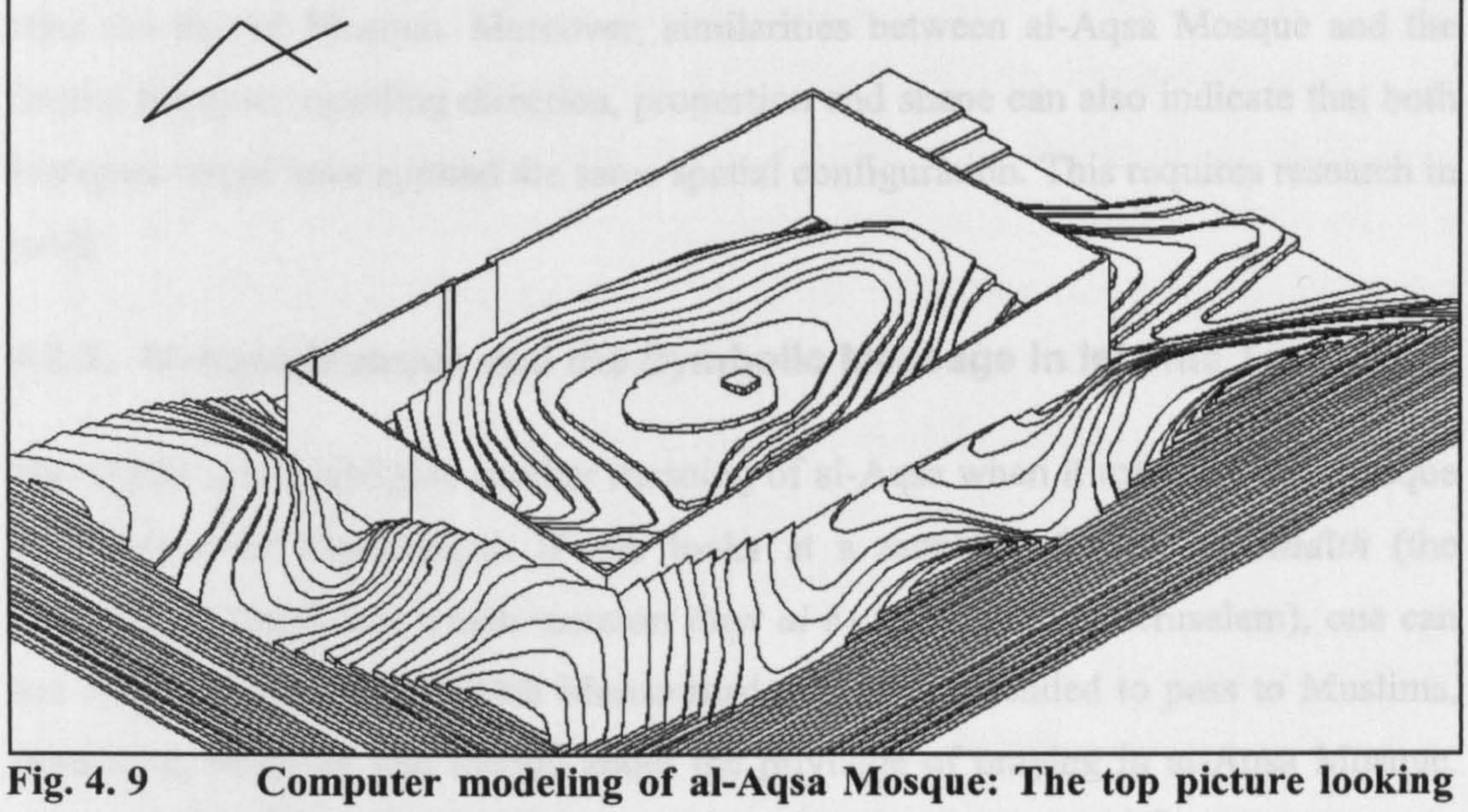


Fig. 4. 9 **Computer modeling of al-Aqsa Mosque: The top picture looking from the north-east angle to the south-west, while the bottom is looking from the north-west angle to the south-east. This illustrates the main three elements that play the main role in creating the al-Aqsa Mosque.**

Source: The researcher.

2) The rock cannot be distinguished as a separated element and different from the hill itself, because geologically the Sacred Rock extends to cover most of the area of al-Aqsa Mosque.

3) The delineation of al-Aqsa enclave itself suggests that efforts have been made to enshrine this rocky hill.

4) The planning of al-Aqsa Mosque shows that it is indeed located on this rocky hill.

Therefore this leads to the conclusion that this rocky hill is the sacred rock and al-Aqsa Mosque is a defined area of the sacred rock. This rocky hill is in fact the place where 'Abd al-Malik, the Umayyad caliph, established a building on its top in 69AH, 688AD and named it "*Qubbet al-Sakhrah*" (the Dome of the Rock).

The Time al-Aqsa Mosque was Established

Evidence can be obtained from the early established elements of al-Aqsa Mosque, such as in its direction, proportions and shape, that al-Aqsa Mosque was established after the Sacred Mosque. Moreover, similarities between al-Aqsa Mosque and the Sacred Mosque regarding direction, proportion and shape can also indicate that both Mosques might have applied the same spatial configuration. This requires research in itself.

4.3.3. Al-Aqsa Mosque and the Symbolic Message in Islamic Teachings.

The Qurān also highlights another meaning of al-Aqsa when it refers to this mosque at the time of Muhammad. If one looks at a number of texts of *Hadīth* (the Muhammad Tradition) which mention *Bayt al-Maqdis* (Islamic Jerusalem), one can see a symbolic message which Muhammad may have intended to pass to Muslims, especially, when he was talking about the privilege of praying in al-Aqsa Mosque. The most interesting and famous *Hadīth* (text) is mentioned in both Al-Bukharī and Muslim in their *Sahīhs* (collections of the Muhammad Tradition), quoted from Abu-Hurayra as saying that God's messenger said: "Set out deliberately on a journey to only three mosques: this mosque of mine (in Madīnah), the Sacred Mosque (in

Makkah), and Al-Aqsa Mosque" [Abu Halabiyyah, 1998, p74]. Another text reports Muhammad as having said: "A prayer in the Sacred Mosque is worth 100,000 prayers, a prayer in my mosque is worth a thousand prayers, and a prayer in Jerusalem is worth five hundred prayers"[Abu Halabiyyah, 1998, p68]. Imam Ahmad reported a text in which Muhammad was asked, " O prophet, give us *Fatwā* (a pronouncement) about *Bayt al-Maqdis* (Islamic Jerusalem). "The land where they will be raised and gathered," [Sunan Ibn Majah: 397/1451] he is said to have answered. Abu-Daūd, in his *Musnad* (collection of the Muhammad Tradition) quoted from Ziyad Ibn Abi-Su'dah as saying: "O prophet, give us *Fatwā* (a pronouncement) about Jerusalem, God messenger, tell us about *Bayt al-Maqdis* (Islamic Jerusalem). He said: "Come and pray in it, if you do not attend it, send some oil for its lamps" [Musnad Abu-Dāūd: 156: 456]. There are a lot of other texts of Muhammad about the privilege to set up the journey to al-Aqsa Mosque and *Bayt-al-Maqdis* (Islamic Jerusalem) and to be steadfast in the Holy Land [el-Awaisi, 1997, p15].

From these texts of Muhammad, it can be concluded that Jerusalem, mentioned by Muhammad as the place of "**the holy**" (*Bayt al-Maqdis*), has great significance for Muslims. There are a number of reasons for this holiness. First, Jerusalem is the place associated with al-Aqsa Mosque which the Qurān also blessed. Secondly, it is linked with the place where Muhammad is translocated during his night journey. This significance was affirmed by the Qurān in Sūrat Bani Isrā-īl [17:1] and the Muhammad Tradition as mentioned in its *Sahīhs* (collections), especially, those that mention his night journey to Jerusalem and his ascension from it to heaven. However, commentaries on these texts that refer to al-Aqsa Mosque as a building at the time of Muhammad may lead to confusion. Such interpretation of al-Aqsa Mosque can be challenged for a number of reasons: -

1- No building existed for Muslims at that time for them to set out deliberately on a journey to a "mosque" as a building.
2- There is no sovereignty of Muslims over the city at that time.
3- No historical sources mention that Muslims established their liturgical acts in the city before the Islamic conquest of Jerusalem.

Therefore the texts might be interpreted as a symbolic message in Muhammad's texts regarding al-Aqsa Mosque in order to encourage Muslims to start their conquest to the Holy Land and al-Aqsa Mosque. For example, al-Waqidī mentions that the first Muslims' caliph, Abu Bakr (11 AH, 632AD) directed 'Amrū bin al-'As, the commander of the Muslim army, to Palestine and ***Aelia*** [al-Waqidī, No date, p32]. If this were not the case, the question would arise immediately, why did the Muslims not come and pray in that mosque before the Islamic conquest.

It seems, however, that what is mentioned in the Muhammad Tradition of al-Aqsa Mosque and his encouragement to visit this mosque even before the Islamic sovereignty over Palestine and Jerusalem is meaningful in two direct ways: -

1- Like Makkah and Madīnah, Muhammad considered al-Aqsa Mosque, Jerusalem, and its precincts as Islamic land. Therefore it seems that he raised in these texts a spiritual order by God for Muslims not only to establish Islamic rule over the land of al-Aqsa Mosque but also to rebuild al-Aqsa Mosque and be steadfast in this land. Historical and archaeological evidence may affirm this interpretation. For example, 'Umar's assurance to the people of *Aelia* shows that he preserved the actual non-Muslim properties in Islamic Jerusalem, at the same time it did not forbid Muslim buildings to be constructed in the city. Since the time of Umayyad caliph Mu'away Jerusalem has been the religious capital for Muslims. The city became the centre of the Umayyad caliphs' *Bay'ah* (pledge of allegiance). Moreover, Mu'āway in (41 AH) established a coin with the name of *Aelia* (Islamic Jerusalem) inscribed [Bahat, 1996, p87].

2- The Qurān classifies Aelia as "Sacred" because it is the precinct of al-Aqsa Mosque. This reference manifested in Muhammad's translocation to Jerusalem during *Isrā'* and ascension to heaven from the city where, according to the Muslims' Tradition, he prayed with all of the prophets and he was their Imam. This activity would be considered by Muslim commentators as a symbolic message supporting the idea that Islam inherited all of the monotheistic religions. Moreover, this may be corroborated as identification of Islamic Jerusalem as *Qiblah*, the

direction of first Muslim prayers. The Muhammad Tradition agrees with the Qurān when Muhammad introduced symbolic codes into his Tradition. This message was understood by Muslims, who established the conquest of *al-Shām* (historical Syria; Palestine, Syria and Trans-Jordan), including al-Aqsa Mosque and the Holy Land, as their first priorities.

Therefore, it is clear that Muhammad emphasised the holiness of "al-Aqsa Mosque" and referred to its sacred quality both directly and indirectly in his texts. He also puts this reference in a symbolic message manifested in his texts. This reference would be considered by Muslims to liberate and conquer this land in order to rebuild al-Aqsa Mosque. This, in fact, shows that al-Aqsa Mosque is not only referred to as the present enclave, but also mainly as the holy place.

Table 4.2 summarizes the main extracts from the Qurān and *Hadīth* which refer to the two mosques. It may be concluded that al-Aqsa Mosque, as mentioned in the Qurān and *Hadīth*, refers originally to a **defined place** located in Jerusalem which obtained several buildings in its historical development. In the Islamic point of view, al-Aqsa Mosque belongs to God and is very holy, like the Sacred Mosque, which is acknowledged by the Qurān and commemorated by the prophets including the Muhammad's *Isrā'* (Table 4.2).

Table 4.2 The nature of the Sacred Mosque and al-Aqsa Mosque as referred to in the Qurān and *Hadīth*.

Description

Name	Nature	Other names	Location
Al-Masjid al-Harām (The Sacred Mosque)	According to the Qurān, it refers originally to a defined place in Makkah. It has the Ka'bah and an open space around the Ka'bah.	No other names	In Arabia Peninsula
Al-Masjid al-Aqsa (Al- Aqsa Mosque)	According to the Qurān, it is a defined place in Jerusalem; i.e. in the city of *Bayt al-Maqdis*.	*Al-Bayt al-Muqaddas*	In *Bayt al-Maqdis* (Jerusalem).

4.3.4 Al-Aqsa Mosque in Historical and Travelers' Accounts

This section gives a general picture of al-Aqsa Mosque as referred to by Muslim historians and travelers. It investigates how much they were interested in Jerusalem and al-Aqsa Mosque, why they were interested in it, and the general view they held of Jerusalem and al-Aqsa mosque. Such sources are also introduced as important accounts on al-Aqsa Mosque. The aim is to reveal how the idea of al-Aqsa Mosque that is mentioned in the Qurān gained importance through the Umayyad scheme in the area of the present Al-Aqsa Mosque.

The historical and travelers' sources follow the Qurān and the Muhammad Tradition in demonstrating the relationship between Jerusalem and al-Aqsa Mosque which was established before the *Isrā'* (or Muhammad's Night Journey).

Al-Aqsa Mosque in Muslims Historical and Travelers' Sources

Since the very beginning of Muhammad's message of Islam, al-Aqsa Mosque held an important position for Muslims writers. The vast majority of Muslim literature on Jerusalem concentrated on stressing the religious status of Jerusalem and al-Aqsa Mosque. Al-Wāqidī (d.207 AH/ 823 AD), for example, mentions several stories on Muslims who regard not only al-Aqsa as very holy but also the city of Jerusalem [al-Wāqidī, No date, 1: p303]. Among them, there is the story of an event that took place during the time of the Muslim conquest of Jerusalem. Al-Wāqidī reported, when the Muslim army surrounded the city, they told Christians that "they will not leave the city for any reason because it is a Muslims' concession and the place where Muhammad was translocated to, and from which he ascended to heaven" [al-Wāqidī, No date, 1: p303]. Most Muslim writers did not, however, deprecate the city status of other religions like Christianity and Judaism, all of which confess a monotheistic faith. Al-Wāqidī's texts indicate that Muslims did not ignore the status of the city as being the holy place for the other religions, Christianity and Judaism [al-Wāqidī, No date, 1: p303]. Furthermore, according to al-Wāqidī, not only did each Muslim commander wish to conquer Jerusalem in order to enjoy praying in the Holy City and to see the prophet's heritage, but they also considered themselves as those to whom

God gave his promise [al-Wāqidī, no date, 1: p299]. In other words, God's promise was granted to Abraham and his dynasty. According to the Bible and Qurān, Abraham had two sons; Ishmāel and Isaac [Genesis 17:18; Qurān, 14:39]. Neither Ishmāel nor Isaac were excluded from the promise. As Muslims are Ishmāel's descendants, they are included in God's promise.

Since the early Islamic conquest of Jerusalem, the importance of the city has been demonstrated by the attendance of the Muslim caliph 'Umar bin al-Khattab [al-Wāqidī, No date, 1: p318, al-Balādhurī, 1983, p144; al-Ya'qūbī, 1999, 2: p101; al-Tabarī, 1960, 1: p2399]. Al-Wāqidī (d. 207AH/ 823AD) mentions that 'Umar demarcated a mosque in the present area of al-Aqsa enclave [al-Wāqidī, No date, 1: p314] for this was the Arabs' first building activity in all their conquered cities. This corroborates other evidence that there was no al-Aqsa Mosque as a building at that time; otherwise, why would 'Umar decide to build a mosque in al-Aqsa Mosque precinct? Moreover, there were those Arabs who knew Jerusalem through their trade with *al-Shām* (Histrorical Syria). This leads to another question: had the mosque as a building already existed, why did Muslims not discover the present place of al-Aqsa Mosque before the Islamic conquest of Jerusalem.

Al-Aqsa Mosque attracted many of the early Muslim travelers who also acknowledged the status of al-Aqsa Mosque for Muslims. Among them Ibn-al-Faqīh who not only mentions a text by Muhammad telling Muslims that they will migrate to the place where Abraham had migrated to "*Bayt al-Maqdis*", but he also reported several verses from the Qurān which highlight the position of Jerusalem and al-Aqsa Mosque before and during the time of Muhammad. Since that early period, there have been many Islamic invocations calling upon the faithful to visit the city and to see the places where the prophets were, for example, those of the Muhammad Tradition which are mentioned by Ibn al-Faqīh and followed by al-Muqaddasī.

Al-Aqsa Mosque as Religious Place and Islamic Symbol.

Since the early Islamic sovereignty over Jerusalem, many Muslims have visited the city, some to settle there. This resulted from the religious attraction of Jerusalem in general, from the place where al-Aqsa Mosque is located in particular and, of course,

from the encouragement of the prophet Muhammad to go there. According to al-Sayūtī (d. 880AH/ 1575AD) [al-Sayūtī, 1982, 2: p5], Mujīr al-Dīn (d. 901AH/ 1496AD) [al-'Ulaimī, 1995, 1: p260] and al-Nabulsī (d. 1143AH/ 1730AD) [al-Nabulsī, 1986, p116], some of Muhammad's companions themselves visited the city, among them Abu 'Ubaidah Ibn al-Jarrāh, Ma'āth Ibn Jabal al-Ansārī, Bilāl Ibn Rabāh, Khāled Ibn al-Walīd, 'Ubadah Ibn al-Sāmit al-Ansārī, Salmān al-Fārisī, Abu-Mas'ūd al-Ansārī, Shaddād Ibn 'Aws, Abu-Hurairah.

After the Muslim caliph 'Umar's display of respect for the holy of al-Aqsa Mosque, the Umayyads dramatically demonstrated the religious significance and status of Jerusalem. Although the Umayyads took Damascus as their capital, this choice did not affect their strong interest in Jerusalem. The early Islamic sources which quoted al-Ya'qūbī (d. 292AH/ 904AD) [al-Ya'qūbī, 1999, 2: p182] and al-Maqdisī (d. 375AH/ 985AD) [al-Maqdisī, 1987, p139] mention that, for example, 'Abd al-Malik's activities in Jerusalem were intended to raise the religious status of the city, which can be seen on two counts.

First, practically from the time of the Umayyad caliph Mu'āwyah onward, the Umayyads used to take their *Bay'ah* (pledge of allegiance) in Jerusalem. The establishment of *Qubbet al-Sakhrah* (the Dome of the Rock) in 685 AD, followed by the construction of the southern building of al-Aqsa Mosque and other large construction projects east of old Jerusalem in al-Aqsa enclave, prove the Umayyads' interest in the city. According to Armstrong, although the holy cities are seldom capital cities of the Islamic world, Umayyads did consider the possibility of making Jerusalem their capital instead of Damascus [Armstrong, 1998, p15]. This possibility, evidently raised by a large compound of Umayyad palaces, discovered by Ben-Dov [Ben-Dov, 1985, p.274] in the southern part of al-Aqsa Mosque, indicates that 'Abd al-Malik might have intended to live in Jerusalem. Furthermore, the early historian al-Ya'qūbī [al-Ya'qūbī, 1999, 2: p182] mentions that the Umayyad Caliph Suliemān bin 'Abd al-Malik's residence was in Jerusalem but seemingly not for a long time. According to al-Istakhrī [cited in al-Sayūtī, 1984, 2: p181] and al-'Ulaimī [al-'Ulaimī, 1995, 1: p280] Sulaimān also intended to make the city his permanent residence and to make it the capital of the Islamic Umayyad state.

Secondly, the Umayyad Qurānic calligraphy inside the Dome of the Rock refers to the domination of both Judaism and Christianity by Islam. Among these verses are those from chapter three and chapter twenty which refer to the three monotheistic religions that existed in this place. These might also have a symbolic message that Islam, which according to the Qurān was believed in by Moses and Jesus, did not cancel out the revelations of other monotheistic religions in the past but is, according to Armstrong, this message is simply a continuation of a universal quest [Armstrong, 1998, p13]. Al-Ya'qūbī (292AH/ 874AD) attempted to confuse this message in which was embodied the Umayyads deeds and their building efforts in Jerusalem [al-Yaq'ūbī, 1999, 2: p182]. He tried, as an Abbasid loyalist, to persuade the readers of his manuscript that 'Abd al-Malik bin Marwān was motivated by political intentions to divert the Islamic pilgrimage from Makkah to Jerusalem. This will be discussed in more detail in chapter five. Another Islamic source, that of al-Maqdisī (375AH/ 985AD), mentions that the Umayyads and 'Abd al-Malik bin Marwān made great efforts to give Jerusalem its full Islamic religious prestige [Al-Maqdisī, 1987, p145].

After the Umayyads had set up their scheme of al-Aqsa Mosque, Muslim travelers were attracted by both the religious significance of the city and the charm of the Umayyad construction of al-Aqsa Mosque. They fostered literature in an abundant measure, referring to Jerusalem and focussing on al-Aqsa Mosque. Some Muslim writers like Ibn al-Faqīh and al-Muqaddasī described Al-Aqsa in more detail. Such interest reached its height in the 5th century AH/ 11th century AD, in the Islamic references known as *Kutub al-Fadā'il*, such as that by al-Wāsitī (410AH, 1019AD) and Ibn al-Murajjā (430AH/ 1040AD), which sometimes drew upon Jewish stories and put these into an Islamic shape. In some cases the accounts were considerably exaggerated. Ibn 'Abd Rabbih (300AH, 913AD) [Ibn 'Abd Rabbih, 1953, p255] mentions, for instance, that the shadow of the Rock under the present Dome of the Rock reached Jericho near the Dead Sea. Another scholar, al-'Ulaimī (901AH/ 1496AD), claims that this Rock in Jerusalem is suspended in the air.

Historical Architectural Information on al-Aqsa Mosque

The historical references to al-Aqsa Mosque are quite significant. Some writers made an attempt to carry out a more detailed investigation, including technical descriptions

and measurements. Among them, Ibn al- Faqīh (d. 290AH/ 903AD) who might be the first among others, including Ibn 'Abid Rabbih (d. 300 AH/ 913 AD), al-Maqdisī (d. 380AH/ 985AD) and Khusrū (d. 438AH/ 1047AD), who described al-Aqsa Mosque and its monuments in some detail, such as: the dimensions of al-Aqsa Mosque; an architectural description of *Qubbet al-Sakhrah* (the Dome of the Rock) including its doors, windows, and columns; historical information on the constructions or renovations for some monuments; and so on.

Table 4.3 shows the dimensions of al-Aqsa Mosque, which are mentioned in some historical and travelers' sources: -

Table 4.3 The main dimension of al-Aqsa Mosque as mentioned in some historical and travelers' sources.

Description				
Date: AH/ AD	**Writer**	**Dimension Length × Width**	**Measurement Unit Description**	**Proportion Width/Length**
290/903	Ibn al- Faqīh	1000 × 700	No details	0.70
300/913	Ibn 'Abd Rabbih	874 × 455	The *Amāmī* cubit	0.52
380/985	Al-Maqdisī	1000 × 700	The *Hāshimī* cubit	0.70
438/1047	Nāsir Khusrū	754 × 455	The *Malakī* cubit	0.60
549/1154	Al-Idrīsī	200 × 180 "1200 × 1080 Foot"	(*Bā'*) "Foot"	0.90[8]
572/1176	Ibn 'Asākir	755 × 465	The Malakī (Royal) cubit	0.62
583/1187	Ali al-Hirī	700 × 455	The Malakī (Royal) cubit	0.65
752/1351	Al-Maqdisī or The author of Muthīr al-Gharām	784 × 455	No details	0.58
556/1355	Ibn Battutah	752 × 435	The *Malakī* (Royal) cubit	0.58
902/1496	Al-'Ulaimī	660 × 406	The *Mi'mārī* (Architectural) cubit	0.62
1291/1874	Clermont-Ganneau	784 or 734 × 455	No details	0.58 or 0.62
1421/2000	The researcher	466 × 281	Metre	0.60

In order to check the accuracy of these measurements, it is necessary to compare these values with the present recorded measurements of the enclave. Regardless of the measurement unit employed, the proportion remains constant unless dimensions

[8] Al-Idrisī did not measure the whole length of the enclave.

have changed. The following (Fig. 4.10) states the recorded measurements of the enclave, which are measured on the inside, so the thickness of the walls are not included.

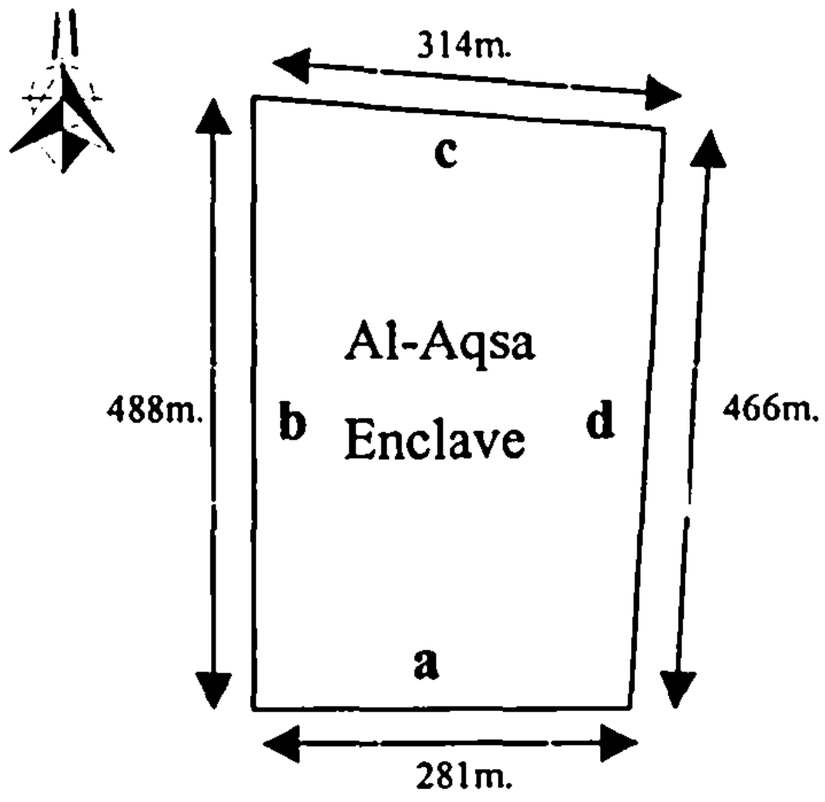


Fig. 4. 10 **Schematic drawing showing the inner measurements of al-Aqsa enclave.**
Source The researcher.

By carrying out a simple mathematical calculation, the proportion of the different walls of the enclave can be established as:

a/b= 281/488= 0.58 **a/d**= 281/466= 0.60

c/b= 314/488= 0.64 **c/d**= 314/466= 0.674

It is noticed that the proportion of al-Aqsa Mosque as recorded in the historical descriptions is not exactly identical with those calculated on the basis of todays measurements; the variations could be attributed to a number of causes:

1- Mistakes made while measuring the length and width of the enclave, such as personal errors and mistakes resulting from the measuring instrument.

2- As the shape of al-Aqsa enclave is not a regular rectangle, the measurement discrepancies between researchers might be due to the record of the choice of walls measured.

3- The thickness of the walls might be included or excluded in the measurements.

It should be noted that the south-east and the south-west corners of al-Aqsa Mosque still preserve the ancient Roman stone courses which indicate that the dimension of the southern wall of al-Aqsa enclave has lasted since the Roman period. So, this wall can be regarded as a constant "base line". This in turn means that the proportion is not dependent upon the kind of measurement unit, and it can therefore, be used to check: -

- How accurate the dimensions are;
- Any changes that might have occurred to the enclave.

From Table 4.3 it can be noticed that the proportions of the enclave as based on the present recorded measurements are corresponding reasonably closely to those mentioned by the historical sources, and this indicates that these dimensions are reasonable accurate. It can, therefore, be concluded that the enclave continued to exist in its original size and shape since its early description.

The Name "Al-Aqsa Mosque" in Muslims' Historical and Travelers' Sources

Ibn al-Faqīh (290 AH/ 903 AD) [Ibn al-Faqīh, 1996, p150] and Al-Ya'qūbī (died 292AH/ 874AD) [al-Ya'qūbī, 1999, 2: p182] mention the present al-Aqsa Mosque as the "Mosque of Jerusalem", Arabic *Masjid Bayt al-Maqdis*. Ibn al-Faqīh also mentions the place where Muhammad tied his *Burāq* during his *Isrā'* (Night Journey) and recounts many stories regarding the religious significance of Jerusalem. Ibn 'Abd Rabbih (300 AH/ 913 AD) linked several places in the present area of al-Aqsa to Muhammad, he did not, however, use the Qurānic term "al-Aqsa Mosque" but used the same as Ibn al-Faqīh.

Al-Istakhrī (340 AH/ 951 AD) [Al-Istakhrī, 1961, p44] and Ibn Hawqal (367 AH/ 978 AD) [Ibn Hawqal, No date, p158] used the same name, *Masjid Bayt al-Maqdis*. Al-Maqdisī (375AH/ 985AD) [Al-Maqdisī, 1987, p145] would be the first traveler who named the present al-Aqsa enclave as "al-Aqsa Mosque". Khusrū (438AH,

1047AD) [Khusrū, 1983, p59], however, mentions the present al-Aqsa Mosque as the Friday Mosque. From the early eleventh century, "al-Aqsa Mosque" was used in many historical and traveler sources to refer to the enclave of the present al-Aqsa Mosque. By then the name was well established in Islamic sources such as al- Idrissī (548 AH/ 1154 AD), al-Harawī (569AH/ 1173AD), Yaqūt [Yaqūt, 1957, 5: p168] (623 AH/ 1225 AD), Ibn al-Athīr (630 AH/ 1232 AD), Ibn Batūtah [Ibn Batūtah, No date, p78] and others. These travelers, in fact, followed the crusader's invasion to Jerusalem in 1099 AD who slaughtered many of its inhabitants. Consequently, much historio-religious literature on the city influenced many Muslim sources including "*Kutub al-Fada'il"* since the 5th century AH/ 11th century AD, aimed at stimulating Muslims to liberate Jerusalem.

In all circumstances, two things should be taken into account. First, most of the Islamic historical and traveler accounts mention al-Aqsa enclave by using terms which are either used in the Qurān or the Muhammad Tradition such as "*al-Masjid al-Aqsa*", "*Masjid Bayt al-Maqdis*", "*Masjid Aelia*", and "*al-Bayt al-Muqaddas*". Secondly, some names and stories mentioned in Islamic sources are not factual, for instance, Kursī Sulieman "Solomon's chair" and "David's Chain" where the Dome of the Chain is located, but they were used to augment the religious aura of the place. In the case of al-Aqsa Mosque, there is, however, no doubt about the existence of this mosque which is not only approved by the Qurān and the Muhammad Tradition but also confirmed by the very architectural development of al-Aqsa Mosque starting in the early Islamic period.

The idea of al-Aqsa Mosque as a piece of building construction was brought up again by the Umayyads' activity in the present area of al-Aqsa Mosque. Although the early Muslim scholars such as al-Wāqidī called the Mosque (which was built by 'Umar in the area of al-Aqsa enclave) "*Masjid 'Umar*" ('Umar's Mosque) due to his earlier activity on the site, the significance of the place the consequence of what the Qurān regards as al-Aqsa Mosque. However, the early Islamic writers did not only use the term "al-Aqsa Mosque" to refer to al-Aqsa enclave but, at the same time, most of the names used in Islamic literature are taken from either the Qurān or the Muhammad

Tradition. The vast majority of the Islamic historians and travelers make some reference to the prescnt area of al-Aqsa Mosque as a very holy place in Jerusalem. Their accounts confirm the fact that this site is al-Aqsa Mosque as mentioned in the Qurān. Since the early Islamic conquest the understanding of al-Aqsa Mosque seems to have again been developed as a built-up complex. With the advent of the 5th century AH/ 11th century AD, the importance of al-Aqsa was raised dramatically in Muslim literature by including many mythological stories as a result of the turbulent political situation at the time of the Crusader's invasion of the city.

4.4 SUMMARY AND CONCLUSION

Having discussed so far some of the terms used to refer to the places of prayer, it seems that the term of *Masjid* (mosque) was originally intended to mean mainly the defined area of sacred ground and not merely intended to denote some kind of building, while later usage of the term implies that the Qurān mentions the building itself either as a mosque or as a house of prayer. At the same time, however, this house of prayer is a "mosque", because it contains the idea of the mosque itself. Therefore, the house obtained its holiness from its sacred function enshrined in its defined sacred place.

Although al-Qurtubī [cited in al-Khudairy, 1998, 1: p11] regarded the mosques as buildings, his reference is scarcely acceptable, and to consider al-Aqsa Mosque and the Sacred Mosque merely as buildings is inappropriate. This failing can be traced back to the Muslim belief that the first mosque was established on the earth at the time of Ādam, or earlier by angels, because the mosque was the place where the prophet Ādam prayed, and this contradicts the claim of al-Qurtubī.

From what has been discussed in this chapter, it may be concluded that the present usage of the terminology is loose but comprehensive. The phrase "al-Aqsa Mosque", in use today, did not originally refer to a building but to a sacred defined place in Jerusalem, which was then developed into the built-up complex of the present al-Aqsa enclave.

This definition differentiates between (*al-Bayt*) the House of prayer and *al-Masjid* (the mosque). That is, the house of prayer is always a building. After Muhammad set up the construction of mosques, both the house and the mosque developed to become one and the same. So, *Bayt* (the house of the prayer) in the Qurān and in most Islamic sources fell out of use, to be replaced by *al-Masjid* (the mosque). Consequently, the mosque should be regarded both as a construction or as an encompassed place.

In the past, before the revelation of the Qurān, the term "temple" was not known conventionally as a mosque and the present area of al-Aqsa Mosque was in ruins at the time of Muhammad. Furthermore, any claim regarding al-Aqsa Mosque as a building at the time of Muhammad lacks evidence; archaeology has not yet succeeded in discovering remains of any building constructed at this time on al-Aqsa enclave prior to the building of the early Islamic period. Although not mentioned in the Bible, the term "mosque" existed or was used by Arabs of Historical Syria before the revelation of the Qurān. Archaeological evidence obtained from a Nabatean inscription in Syria confirms the existence of this term "mosque" which could have been used to denote a place for worship [Walī, 1993, p14]. According to the Muhammad Tradition, Muslims were asked to pray five times after Muhammad translocated to al-Aqsa Mosque during the *Isrā'* in which he ascended to heaven. After Muhammad's visit to al-Aqsa, he laid down the main principles of the mosque as a particular built-up area with a specific plan. He was, in fact, the one who directed Muslims to the main elements of spatial organisation of the mosque in its present arrangements, e.g. in *Qibā'* Mosque in *Ta'if* near Makkah and the Prophet Mosque in Madīnah. Since that time, Muslims have followed the idea of the mosque set up by Muhammad.

Both the Qurān and Muhammad himself defined the place of prayer on the macro and micro scale, for example, "the Sacred Mosque" and "the Sacred House". It also can be found as a permanent place, such as the Sacred Mosque and al-Aqsa Mosque, and as a temporary place: "wherever you pray, that is a mosque". From the previous sections it can be concluded that the Qurān must have meant that al-Aqsa Mosque is a permanent place located on the eastern hill of Jerusalem (The Rock). This is corroborated by the fact that there was no built mosque in Jerusalem at the time of

Muhammad, and the name of al-Aqsa Mosque in the Qurānic verse was used in connection with that of the Sacred Mosque which was also originally not a building.

The Qurān must also have intended another perspective when it mentions Muhammad's Night Journey and the name of al-Aqsa Mosque together: to direct Muslims attention towards the **Holy City** and **al-Aqsa Mosque** so as to establish an Islamic rule over them [al-Wāqidī, No date, p32]. Muslims located thousands of miles from *Aelia* (Islamic Jerusalem) made *al-Shām* (Historical Syria) and Jerusalem their first priorities when they established their conquests.

After 'Umar Ibn al-Khattāb, the Muslims' Caliph entered *Aelia* (Jerusalem) he demarcated a mosque in the present area of al-Aqsa Mosque. It is often said that this mosque is called the mosque of 'Umar so as to dignify his early activity in the place. A half-century from the Umar's conquest of Jerusalem, 'Abd al-Malik, the Umayyad caliph, took the responsibility upon himself to enhance the Islamic religious perspective of the city by building a large religious compound in the eastern part of Jerusalem. He reasserted the Islamic prestige of the city, and transferred the image of the city from Christianity to Islam. The historical evidence from al-Maqdisī [al-Maqdisī, 1987, p138] confirms the fact that the Muslim caliph, 'Abd al-Malik, had indeed established a Muslim Jerusalem. According to Ben-Dov his major activities in Jerusalem were "not to replace Makkah and Madīnah but to support them" [Ben-Dov, 1985, p278]. Consequently, he concentrated very large efforts on demonstrating the significance of the city in Islam by establishing, for example, the Umayyad scheme of al-Aqsa Mosque and monumental buildings south al-Aqsa Mosque. At the same time, 'Abd al-Malik made other efforts to change many pre-Muslim administrative systems still in use into new Muslim ones; he changed, for example, the language which was used in *al-Dawāwīn* (the Councils) to Arabic. Furthermore, he established Muslim coins, which had Qurānic verses instead of Christian symbols. As a Muslim jurist, 'Abd al-Malik did not, however, exclude Jews and Christian from the city [Ibn al-Athīr, 1965, p94]; this corresponds to the Qurānic epigraphs, which have existed inside *Qubbet al-Sakhrah* (the Dome of the Rock) since that time, which explain the Qurānic point of view regarding other monotheistic religions.

Al-Aqsa enclave did not change since its earliest historical descriptions. As stated in the previous section, mathematical evidence indicates that the dimensions of the enclave, which are mentioned in historical sources, were not affected by any Islamic structural development in the enclave or the city. Therefore, this confirms that the boundaries of al-Aqsa Mosque were permanent.

CHAPTER FIVE

MUSLIM REAFFIRMATION OF AI-AQSA MOSQUE:

AN EARLY ISLAMIC EPOCH FOR AL-MASJID AL-AQSA

This chapter explores the historical circumstances of the al-Aqsa Mosque at the time of the conquest and examines the Muslims' reaffirmation of al-Aqsa Mosque at that time.

It has already established earlier that the area of al-Aqsa enclave was neither rebuilt by Romans after Titus' destruction of Jerusalem nor in the Byzantine period. Throughout this period the area of the present Mosque was not dedicated to building expansion, so it continued to be desolate. As al-Aqsa Mosque is believed by Muslims to have existed in the present area of al-Aqsa enclave before the conquest of Jerusalem, the question arises: how did Muslims deal with al-Aqsa Mosque when they started their rule of Jerusalem?

5.1 INTRODUCTION

With the establishment of the Islamic rule over Jerusalem in 638 AD, Muslims began to focus their activities on the present site of al-Aqsa enclave. This new stage in the history of Jerusalem raises yet more questions regarding the present al-Aqsa enclave:

- What happened to al-Aqsa Mosque mentioned in the Qurān, when Muslims started their rule over Jerusalem?
- What was the nature of this site at the time of the conquest?
- What did the Muslims do in the present area of al-Aqsa enclave?
- Why did Muslims not build a mosque in the centre of Jerusalem or convert the church of the Holy Sepulchre to a mosque?
- What happened to this site in relation to the urban form of the city?

Many other questions arise, more than enough, to justify the attempt to unravel the history of the site during the period of the early Islamic conquest of Jerusalem. In so doing, attention will be drawn to various issues. The first task is to study the early historical accounts which mentioned the Muslim's conquest of the city, taking them in chronological order so as to show why the Muslims established their mosque on this desolate site where, at that time, no temples and no other structures existed. Observations and archaeological comments will be made in order to determine early Muslim activities and changes to the urban form at the eastern part of the city before and after the time of the Islamic conquest.

5.2 AI-AQSA MOSQUE AND 'UMAR'S CONQUEST OF JERUSALEM

Since the earliest Muslim times neither Jerusalem nor al-Aqsa Mosque were alien to the Muslims. After the death of Muhammad in 632 AD, Muslims set up their campaign to spread the message of Islam. In 638 AD, Abu 'Ubaidah, the leader of the Muslims' army, surrounded Jerusalem and peacefully conquered the city. 'Umar, the Muslims' caliph, himself gave the assurance of safety to the people of Jerusalem. Early Muslim accounts of al-Wāqidī (d. 207AH/ 822AD) [al-Wāqidī, no date, p318], Abu 'Ubaid (d. 224AH/ 839AD) [Abu 'Ubaid, 1986, p168] al-Baladhurī (d. 279AH/ 892AD) [al-Baladhurī, 1983, p144], al-Ya'qūbī (d. 292AH/ 895AD) [al-Ya'qūbī, 1999, 2: p101] mention this event.

5.2.1 Al-Aqsa Mosque and 'Umar's Assurance

It is necessary to re-stress 'Umar's Assurance of safety to the people of *Aelia* (Islamic Jerusalem). As 'Umar's Assurance was granted to the people of *Aelia*, it is often thought that this Assurance covered the city of *Aelia*. The questions arise:-

- Is al-Aqsa Mosque covered by the Assurance?
- Does the Assurance allow Muslims to build or settle in Jerusalem?
- What is the impact of the Assurance on the urban form of the city including al-Aqsa Mosque?
- Were Christians granted sovereignty over the city?

It might be that the earliest text that gives an indication to the content of 'Umar's Assurance is that by Abu 'Ubaid (d. 224AH/ 838AD). Quoting from Abdullah Ibn Salih, from Layth Ibn Saīd, as quoted from Yazīd Ibn Abu Habīb, he mentions that 'Umar Ibn al-Khattāb gave an assurance to the people of *Aelia* (Islamic Jerusalem). "It was agreed that everything within the city walls (fortification) should remain in the hand of the inhabitants as long as they paid *Jizyah* (tax). The area outside the city walls would be in the hands of the conquering" [Abu 'Ubaid, 1986, p168]. The same text is also mentioned by al-Balādhurī (d. 279AH/ 892AD) [al-Balādhurī, 1983, p144]. Another text referring to the Assurance was mentioned by al-Ya'qubī which reads "you are given safety of your persons, properties and churches which will not be inhabited (taken over) or destroyed unless you cause some public harm" [al-

Ya'qūbī, 1999, 2: p101]. It can be seen that this text is more detailed than Abu 'Ubaid and al-Balādhurī. Yet, al-Tabarī (d. 310AH/ 922AD) mentions a text of the Assurance, including the same context of al-Ya'qubī but expanded and with more additional details. His text reads "...'Umar has granted the people of *Aelia* an assurance of safety for their lives and possessions, their churches and crosses; the sick and healthy of the city (so every one without exception) and for the rest of its religious community. Their churches will not be inhabited (taken over) nor destroyed (by Muslims). Neither they, nor the land on which they stand, nor their cross, nor their possession will be encroached upon or partly seized..."[al-Tabarī, 1960, 1: pp. 2399, 2405-2406]. The aim here is not to discuss all of the versions of 'Umar's assurance such as that preserved in the Greek orthodox library in the Phanār quarter of Istanbul in Turkey. The authenticity of such versions is highly doubtful for some scholars, among them el-Awaisi, who argues that they might have been invented after the 16th century [el-Awaisi, 2000, pp. 68-74]. Interpretation in this thesis is limited to reveal the impact of 'Umar's Assurance on the urban form of Jerusalem, especially on the site of al-Aqsa Mosque.

As stated above, Muslim writers and historians describe 'Umar's Assurance in different ways. Their references do not, however, contradict their content. It seems that Abu 'Ubaid's text points out that Christians asked 'Umar to grant them the area inside the wall of Jerusalem while the area outside was given to Muslims. The question is whether Christians are granted the area inside the walled city or just only their possessions inside the city? In the texts of al-Ya'qūbī and al-Tabarī there are more details which can answer this question. Their texts indicate that Christians are given their property, which existed in Jerusalem, i.e. churches, houses. In other words, they are granted their settled **neighbourhoods** in which their possessions exist and **not the city** with its land. If this were not be the case, no people other than Christians would have been allowed to inhabit the city. Paradoxically, 'Umar allowed Muslims to live in the city [Ibn al-Murajjā, 1995, p57] and a building in al-Aqsa Mosque to be constructed. The Assurance preserved the Christian buildings in the city, including their neighbourhoods, as property of the Christians and protected them from destruction or confiscation. The preservation of the urban form and structure of the city was not included in the Assurance. Therefore, it can be

concluded that 'Umars Assurance granted the Christians their property but not the city. In other words, Christians civic rights are granted and guaranteed in the city, while the sovereignty over the city and al-Aqsa Mosque was given to Muslims.

Yet, Abu 'Ubaid's text indicates that the area surrounding the city, a part of Jerusalem was totally conceded to Muslims. This area would accommodate houses, mills and agricultural lands associated with the normal life of the city. In this case, it was permissible for Muslims to take over these properties. It might be that al-Aqsa Mosque enclave and the area to the south of al-Aqsa were part of this extramural area of the city. According to Abu 'Ubaid, Muslims were granted sovereignty over the present al-Aqsa Mosque which, as a result of the agreement, was "regarded as Muslims right" [Abu 'Ubaid, 1986, p168]. Indeed, 'Umar's Assurance does not allow Muslims to take over any Christian houses in the city. **This must have encouraged Muslims to restore derelict and deserted houses and to build new houses in Jerusalem**, especially for those who intended to live in the city.

5.2.2 Muslims' Revitalization of Al-Aqsa Mosque in Jerusalem

After 'Umars' endorsement of the Assurance of safety to the people of *Aelia*, the city comes under the Islamic rule. Revitalizing the area of al-Aqsa Mosque was the main issue that 'Umar highlighted. In order to unlock some issues of the early Muslim activities in al-Aqsa Mosque and Jerusalem, an attempt is made to answer the three main questions listed below: -

- Who selected the site for Muslims?
- Is it true that Christians profaned the present area of al-Aqsa enclave before the early Islamic period?
- Why was this site chosen?

The roots of various early legends regarding al-Aqsa enclave, highlighting the sources that first introduce such legends, will be discussed without taking into consideration their later development. These legends are probably developed from two main fabricated texts of different origins.

Historical Legends Regarding 'Umar's Selection of the Site:

The first story concerns Ka'b al-Ahbār, who is of a Jewish origin. It was he who led 'Umar to the Sacred Rock, which was before it was covered by rubbish, dumped there by Christians. On this location the Umayyad caliph 'Abd al-Malik built *Qubbet al-Sakhrah* (the Dome of the Rock) in 691 AD. On the other hand, a second story mentions that the patriarch of Jerusalem, Sophronius, is the one who led 'Umar to the present area of al-Aqsa where Christians had dumped their rubbish. In order to deal with this matter, a historical approach will be used based on critiques and analysis to show that neither Jews nor Christians led 'Umar to this site nor was the site a dunghill.

The earliest text referring to Ka'b is that of Abu 'Ubaid quoted, from 'Abdullah bin Abi 'Abdullah, as saying that "'Umar asked Ka'b about the location of the Sacred Rock; he replied: it is located a few cubits from the wall adjacent to "wadī Jahannam' ... and this place at that time was a dunghill of rubbish" [Abu 'Ubaid, 1986, p168]. A story which contradicts this version is first mentioned by Eutychius (d. 328 AH/892 AD) and says that Sephronius gave the caliph 'Umar a place to build a mosque. So "Sophronius took the caliph 'Umar to a place which Christians had made into a dunghill" [Marmarjī, 1987, p338].

In the early Christian pilgrims' accounts of Bordeaux in 333AD, handed down via Eucherius about 427-440AD, and Theodorus 530 AD, there is no mention of any dunghill caused by Christians. All their reports agree that the site of the present area of al-Aqsa had been abandoned since the time of Titus' destruction of Jerusalem in 70 AD. So the site necessarily contained accumulations of ruinous remains from past centuries. No text contemporary to the time of the Muslims' conquest or before mentions any Christian profaning activity took place in the site of the present al-Aqsa enclave.

Both texts which mention the revelation of the Sacred Rock, the first by the guidance of Ka'b and the second one of Eutychius (Ibn al-Batrīq), are unacceptable for many reasons. Some of them are presented here:

First, the Sacred Rock would still be visible at the time of the conquest. Bordeaux mentioned it as a "pierced stone" (*lapis pertusus*) when he visited Jerusalem at the time of the Roman Emperor Constantine about 333 AD [Warren, 1970, p15]. In addition, because the height of the hill, it is it highly questionable that its top would be completely covered and therefore hardly recognisable.

Secondly, a Greek text contemporary with the Muslims' conquest of Jerusalem, written in the second half of the seventh century and now preserved in Georgia, mentions that when the Arabs had entered Jerusalem they proceeded immediately to a place called *Kapitolion* and there established a mosque. There is no mention of a leader made in this text. According to Flustine the name of *Kapitolion* was applied to the area of the present al-Aqsa enclave [cited in Mango, 1992, p2]. Flustine, did not show convincing evidence for his claim. He probably confuses the *Kapitolion* of *Aelia* where the Church of the Holy Sepulchre had been built with the present al-Aqsa enclave. If this is not the case, why did the early pilgrims' accounts not use this name in mentioning the site of the present al-Aqsa enclave?

Thirdly, according to the earliest available Islamic historical source of al-Wāqidī, Ka'b al-Ahbar only became a Muslim shortly after 'Umar gave an assurance of safety to the people of Jerusalem [al-Wāqidī, no date, p316]. Al-Wāqidī recounted how Ka'b became a Muslim, as quoted from Ka'b himself, Ka'b first came to 'Umar when he was praying with Muslims at the Sacred Rock. Moreover, it cannot be believed that Ka'b became for just one day 'Umar's guide for the very short period that he stayed in Jerusalem which, according to al-Wāqidī, was not more than ten days [al-Wāqidī, no date, 1: p315]. Furthermore, presuming that the Sacred Rock was covered, how could Ka'b know the place of the Sacred Rock. He was, after all, a Jew from Yemen [Ben Zeev, 1976, p21] and had never entered Jerusalem before the Muslims' conquest [Sharāb, 1994, p350].

Fourthly, it is mentioned in Abu 'Ubaid's text that when Ka'b led 'Umar to the place of the Sacred Rock, he said that it was located a few cubits from the "*Jahannam* Valley". But this valley was known at that time as the Kidron valley, and the name "*Jahannam*" was used much later than the conquest.

Fifthly, the second story of Eutychius regarding Sephronius who led 'Umar to al-Aqsa Mosque and the Christian profaning of the place might be a legendary one, according to Creswell, "it is clear that the account is of Christian origin" [Creswell, 1969, 1: p33]. No such reference mentions this story in any previous sources.

The question is ***what is the real text of the Abu 'Ubaid's story***? In fact, Abu 'Ubaid is a reliable writer of matters regarding Islamic jurisprudence, therefore, his story must have an origin. In addition, his text makes no *Isnād* (reference) to either 'Umar Ibn al-Kattāb or Ka'b. The text does exist in the writings of Musnad al-Imām Ahmad. He quoted it from 'Abdullah from Aswad Ibn Amīr, from Hammad Ibn Salamah, from 'Ubaid Ibn Ādam and Abu Mariam and Abu Sha'b, from **'Umar Ibn al-Kattāb** asking Ka'b where do you think I should pray? Ka'b replied; if you wish my opinion, I would pray behind the Sacred Rock, so all of Jerusalem will be between your hands. Then 'Umar said: no, I will pray in the place where Muhammad prayed (at the front). So, he came to *Qiblah* (the front of the place) and prayed there. Then, he swept the place (*al-Kunāsah*) and then the people started to clean the place [Musnad al-Imām Ahmad, 263; Ibn Kathīr, 1994, p26]. This text represents the origin of the story of Ka'b's encounter with the Muslim caliph 'Umar. This shows that 'Umar did not ask Ka'b about the Sacred Rock that already existed. On the other hand, 'Umar cleaned the site of all rubbish and debris which had resulted from the destruction of the city in 70 AD. There is no reference to the story that Christians had profaned the place. This, in fact, corresponds to all of the historical texts that existed before the early Islamic period.

The other question is ***why Jews and Christians would have invented such stories***? It seems that these legends are related to the Jewish-Christian and Christian- Christian relations. For example, the Jews might have intended to give themselves some advantage over the Christians by saying that they themselves had led the Muslims' caliph to the Sacred Rock which they wrongly maintained had been profaned by Christians. On the other hand, the text of Eutychius seems intended to give the Christians the privilege of leading 'Umar to the present area of al-Aqsa enclave. At the same time Eutychius, as a Christian who believed in the Unity of Christ, might not hesitate to accuse Sophronius, who followed another doctrine relating to the dual

nature of Christ (God and man), of profaning the site taken by the Muslims as a place for their mosque [el-Awaisi, 2000, p74].

Muslims' own selection of the site:

The description of *Isrā'* mentioned by Muhammad to his companions led 'Umar and the Muslims to had an image of Jerusalem and al-Aqsa Mosque before they entered the city. Furthermore, such a huge derelict area must have been easy to recognize both from inside and outside Jerusalem. So there would be no need for a guide to lead Muslims to the site described by Muhammad.

- **Why this site?**

'Umar chose the area of the present al-Aqsa Mosque, commemorating the place (which is al-Aqsa Mosque) to which Muhammad translocated. At the same time, he was adhering to his assurance of safety. Muslims used to establish their mosque in the **middle** of the conquered cities, as can be seen at Damascus, Gazza, Nablus, and not on the periphery. Unlike any other conquered cities, the case of Jerusalem is somewhat different; **al-Aqsa Mosque**, as Muslims believe, already exists in the area of the present al-Aqsa enclave which is **on the eastern edge of the Old City**. This appointed the place of the main city Mosque, and Muslims were not free in their choice to establish a mosque in the center of Jerusalem. At the same time, according to the Assurance, there is no means of converting the church of the Holy Sepulchre into a mosque or even of taking over part of the church or of its area for a benefit of a mosque.

5.3 EARLY MUSLIM ACTIVITIES ON THE SITE OF AL-AQSA MOSQUE IN JERUSALEM

The early Islamic sources do not introduce much information regarding early activities on al-Aqsa enclave and Jerusalem.

5.3.1 Muslim Building Activities Inside al-Aqsa Mosque

When 'Umar entered Jerusalem, he proceeded directly to this site. He intended to commemorate the place to which Muhammad had been translocated. There is no doubt 'Umar acknowledged the whole area as a mosque. For example, according to

al-Wāqidī, 'Umar first prayed with his companions at the Sacred Rock where today *Qubbet al-Sakhrah* (the Dome of the Rock) is located; and on another occasion he prayed at the front of the site.

Creswell claims that "none of the earlier Muslim writers, such as al-Baladhurī (d. 279AH/ 892AD) or Tabarī (d. 310AH/ 922AD) mention the construction of a mosque" at the time of 'Umar [Creswell, 1969, p32]. His claim, however, is inaccurate, because Creswell has ignored the important historical source of al-Wāqidī (207AH/ 822AD), which is much earlier than the two early sources presented by Creswell. Al-Waqidī mentions that "'Umar entered Jerusalem on Monday and stayed until Friday. He "*khatta*" demarcated the mosque where he came and prayed with his companions the Friday prayer at that place [al-Waqidī, no date, 1: p314]. According to Akbar the word delineation "*Ikhtatt*a" as mentioned in the Islamic sources is always accompanied by structural activity [Akbar, 1995, p180]; irrespective of how the building might look and what its construction materials might be. This reference clearly indicates construction activity. This corresponds to a text written by an eye-witness of this site who came from the French Gaul area at the time of the Umayyad caliph Mu'āwayah (51 AH/ 670AD). He mentions that on this site, near the eastern wall, "the Saracens have now erected a square house of prayer" [Warren, 1970, p23].

An eleventh century Jewish manuscript from Genizah, in Cairo (Egypt), discovered in the Ibn Ezra Synagogue, contains information about the Jewish tradition in the early Islamic period. This manuscript claims that "'Umar cleaned the area of the present al-Aqsa enclave and ordered the city wall of Jerusalem to be built and a dome on the Sacred Rock to be constructed" [Ben Zeev, 1976, p39]. The intention here is not to discuss the authenticity of the text in this manuscript, but to strengthen the argument from a non- Islamic source that credited some construction activity to the early conqueror. Indeed, this text must be handled carefully; for instance, it was influenced by various Jewish legends. At the same time regarding the construction of *Qubbet al-Sakhrah* (the Dome of the Rock), it confuses 'Umar with the Umayyad caliph 'Abd al-Malik. None of the early sources mentions that 'Umar built a dome on the Rock in the early Islamic period.

5.3.2 Muslim Building Activities Outside al-Aqsa Mosque

Muslims' revitalization of al-Aqsa Mosque must necessitate other construction outside al-Aqsa enclave, especially for those Muslims who are going to settle in or visit the city. If not, why revitalize al-Aqsa Mosque if no prayers were to be performed there?

Muslims not only established their buildings on the present site of al-Aqsa enclave but they also carried out other structural activities inside the city. A few years after the conquest of Jerusalem, Muslims' construction activity went beyond constructing houses in Jerusalem to establishing buildings with a public function. For example, according to al-Suyūtī (d. 880AH/ 1475AD), 'Ayyād Ibn Tamīm (d. 19 AH/ 640 AD) established a bath in Jerusalem before 640 AD [al-Suyūtī, 1984, 2: p26].

As Muslims did not confiscate any of the Christians' properties, as avowed in the agreement of capitulation, they must have settled in newly built or restored houses somewhere in Jerusalem. It is difficult to accept the proposal of some scholars that the Muslims' early construction activity was confined to al-Aqsa enclave. If this was the case, **where did the Muslims settle**? Presuming that they reused some houses evacuated by Christians, the question of the number of such houses needed to accommodate the large number of Muslims remains unanswered.

Establishment of Residential Buildings and Neighbourhoods

A historical text mentions that 'Umar gave permission to Muslims to use some parts located between the western wall and the present area of al-Aqsa enclave. This text is mentioned by Ibn al-Murajjā, quoted from Salām bin Qaisar[1], as saying: when 'Umar conquered Jerusalem, he stood in front of the city market (probably in the plaza where the Damascus Gate is located) and asked, whose is this part of the city (*Sūq al-Bazāzīn*)? They said, it is the property of Christians. He asked, whose is this western part (which includes the Market bath)? They said, it is for Christians. He moved his

[1] Salām, or Salāmah Ibn Qaisar al-Hadramī, settled in Egypt and become the prefect of Jerusalem where he died, and where his grave is located. [Asad al-Ghābah, 1863, 2: p326; al-Isābah, 1905-1907, 3: p111; Khalifah Ibn khayyāt, 1966, 1: p166].

hand saying: this is for them, this is for them and this is permissible for us – to use and settle in – (he probably meant the big market between the two N-S main streets) [Ibn al-Murajjā, 1995, p57].

This text corresponds to archaeological evidence of foundations of early Muslim structures revealed by Avigad, who excavated the eastern edge of the present Jewish quarter. He exposed various fragments of late Byzantine and early Islamic remains. He mentioned that these later structures, from the Byzantine period to the early Islamic period, were found allover his excavation area. He also referred to chunks of gravel mixed with a very hard, limey mortar, which had been poured in the Arab period to form deep foundations[2]. According to Avigad, these blocks were very hard, so hard indeed that air hammers were needed to remove them [Avigad, 1983, pp.95-104]. Unfortunately, Avigad seems not to give much interest to these fragments, failing to recover any information on the general floor plan of these structures. Instead, he drew attention to ancient Jewish structures that he had discovered in that area.

Excavations have not yet presented a clear picture of the Muslims' secular buildings; for example, the location of the prominent Islamic houses in Jerusalem which are mentioned in the historical literary sources; such as *Dār al-Akhmās* which is mentioned in the "*Guide to Jerusalem*" found in the Cairo Genizah and written in Arabic [Mazar, 1969, p20].

Archaeological Controversies Regarding the Early Islamic Period

Although systematic stratigraphical excavations have been established since 1961 AD, early Islamic archaeology, unlike other periods, seems not to have been paid much attention by the excavators of Jerusalem. For example, archaeologists have not established a firm date for various matters concerning the early Islamic period such as the city wall located at the south-west angle of al-Aqsa enclave and the nature of

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[2] The using of deep foundations techniques can only be observed in the early Islamic period not in the Byzantine period. Probably this indicates Muslims' building method employed in their buildings, see for example their technique used in the foundations of the Umayyad palaces south of al-Aqsa enclave [Ben Dov, 1985, p426]

building activity at the southern area before and after the Muslims' conquest of Jerusalem. Instead, the date is only roughly estimated to be somewhere between the late Byzantine period and the Umayyad period. Another example of doubtful identification of Muslim Archaeology is that of Père de Vaux who excavated, adjacent to the south east corner in 1962-63 AD. Two large buildings were identified first as Byzantine [Kenyon, 1974, p276], but later they were regarded as Umayyad palaces after another excavation was carried out by Ben-Dov [Ben-Dov, 1985, p90]. These are two examples, among many other controversies, which highlights the vexed question of the authenticity of archaeological interpretations imposed by some of Jerusalem's excavators, even with the existence of stratigraphical sequence.

Urban aspect: The Area Surrounds Al-Aqsa Enclave

The Muslims' revitalization of al-Aqsa Mosque necessitated the development of the area which surrounds the enclave somehow, so as, for example, to ensure the accessibility to this site which would be needed as a result of the attraction created by this restoration.

It has been argued that al-Aqsa enclave was abandoned after Titus destruction of Jerusalem in 70 AD. If this is true for the area inside al-Aqsa enclave, what about the area surrounding the enclave from the outside?

- Was it abandoned too?
- If not, how were Muslims able to develop the urban form in this area to fulfill the requirements of revitalizing al-Aqsa Mosque, such as new pathways, streets, etc...?

As a systematic large-scale excavation was carried out in the area adjacent to the south wall and to the southeast corner of al-Aqsa Mosque in 1968 AD. An attempt will be made to discuss the urban form of this area at that time.

Urban Form

Excavation by Mazar and also by Ben-Dov exposed a magnificent group of large scale Umayyad buildings south of the present al-Aqsa enclave. These buildings appear to have been developed over a Byzantine neighbourhood. New questions on

what had happened to these Byzantine buildings and why the Muslims chose this area to build on arise. Did Muslims demolish the Byzantine houses in order to set up their own buildings? There is also little information on whether the southern area of al-Aqsa Mosque should be included in the city wall before the Islamic conquest.

At the same time it is worth noting that excavations do not yet give the whole picture of the scale and density of Byzantine structures. For example, according to Ben-Dov, some Umayyad palaces stand on remains dated prior to 70AD [Ben-Dov, 1985, p192]. How can this be? These questions are perhaps best left open for future excavations and investigations.

Ben-Dov revealed Christian buildings below the Umayyad strata, dated to the fourth and sixth century. But the question remains: could the Muslims have begun these structures if this area had been occupied by Christian residential buildings? There is no historical evidence that the Muslims destroyed Christian residential buildings. This, in fact, would have to be regarded as a violation of 'Umar's assurance. But no such violation seems to have occurred; Ben-Dov found that "the floors of the Muslims' buildings were set at a level equivalent to one and a half storeys of the extant Byzantine Buildings" [Ben-Dov, 1985, p246]. This one and a half storey of Byzantine building suggests that the site was evacuated for some reason, (but not a long time before the early Islamic conquest of Jerusalem – probably a few decades). According to Ben-Dov; when the Christians abandoned their houses, they took their belongings with them [Ben-Dov, 1985, p259]. Some of these late Byzantine houses were destroyed while others stood sturdily for many years. The question is what happened there and why did the Byzantines abandon this site?

Although Ben-Dov claims that Muslims evacuated the homes in the Byzantine residential quarter [Ben-Dove, 1985, p271] located in the southern part of present al-Aqsa enclave, this was surely as a result of the Persian destruction of Jerusalem in 614 AD which was followed by significant destruction of large areas in the city including the Nea Church. Indeed, it is difficult to accept Ben-Dov's claim for the following reasons: -

First, the late phase of these buildings, i.e. after the Persian destruction, is found only in one building in the excavation. This building was converted in its assumed form to a hostel, which had a kind of public function rather than a private one. So who converted this building after the Persian destruction? Certainly not the owner of this house, because it comes simultaneously with the abandonment of other buildings. Seemingly, this derelict site encouraged some people to restore buildings and give it a public function so that it would perhaps serve the Jerusalem pilgrims at that time.

Secondly, the existence of only one such building makes it difficult to generalize about the resumption of private residential activity on the site.

Thirdly, how could Muslims confiscate the Christian residential quarter from those who had already been given an assurance of safety by the Muslims caliph, 'Umar, "for their churches will not be inhabited (taken over) nor destroyed (by Muslims). Neither they, nor the land on which they stand, nor their cross, nor their possession encroached upon or partly seized" [al-Tabari, 1960, 1: pp.2399, 2405-2406]. So, if there would have been such destruction, as Ben-Dov claimed, it would be regarded as violation of 'Umar's assurance of safety to the people of *Aelia*. No historical texts mention the existence of such a violation in the early Islamic period.

Fourthly, according to 'Umars' Assurance as mentioned by Abu 'Ubaid and al-Baladhurī, it concedes Muslims the right to confiscate, if needed, any building located **out-side the city wall**. If this is the case, this area must have been located out-side the city wall.

Fifthly, if Muslims had taken over a Christian district as Ben-Dov claims, where would the people of this neighbourhood have moved to? A new district would surely have been established at the same time for those Christians. If so, it would not have been ignored by the ancient sources, least of all the Christian ones.

Sixthly, if this area was located outside the city walls, it is still difficult to accept Ben-Dov's proposal that this destruction occurred as a result of Muslims' activities at al-Aqsa Mosque. According to Mazars' excavation, Muslims' large buildings to the south of al-Aqsa Mosque were only established during the Umayyad period [Mazar, 1969, p16]. No Muslims' houses seemed to exist between the Conquest of Jerusalem and the early Umayyad period. Was this area then not yet allocated for the expansion of the urban fabric of Jerusalem? This, in turn, leads to another question: why confiscate and destroy civic buildings and ignore the area until the Umayyad period?

These points suggest that the site was no longer a residential neighbourhood. In any case, after the Persian destruction of Jerusalem in 614 AD, the city walls were speedily restored. No good evidence has been produced to provide information on the wall which runs from the south-eastern corner of al-Aqsa enclave to the south of it. The question remains whether the wall was restored after Persian destruction or whether this was the result of early Islamic restoration; or it might be that the Byzantines established new lines of the wall to exclude the site of the southern neighbourhood of al-Aqsa Mosque. The site of al-Aqsa enclave was probably still outside the city even after the city expanded to include mount Sion in the south in the middle of the 5th century AD, and it is possible that Muslims created this line. It still not clear. But what is clear is that after the Persian destruction of Jerusalem al-Aqsa Mosque and the area to the south of it was disused and the city seems to have shrunk a little.

Building Concentration Around al-Aqsa Mosque

What Ben-Dov described in his excavation is very confusing regarding ancient city planning in Palestine. For example, Ben-Dov revealed only 18 houses dated to the Byzantine period scattered in his area [Ben-Dov, 1985, p246] of a size of over 3 hectares. The early Byzantine houses exposed by Ben-Dov were very large, were two storeys high, built according to strictly defined floor plans. They had 10 rooms on each level and an average area of 400 sqr. metres; each has also a courtyard. These structures were quite surprising, because they were planned with a 10 to 15 metres wide space between one structure and another. Later on, when the density of

settlements increased, other residential buildings were built in the open spaces between building. The average housing block in Ben-Dov's area estimated to be around 1,000 sqr. metres (see Fig. 5.1). The statistical calculation in this situation will make no sense with regard to the structural and the population density of this area in comparison with what should be expected to be found in Jerusalem. If such a low density would have been employed throughout the city, the total number of houses would have been only 1000 (total area of the city 100 hectare / the area of the urban block 0.1 hectare). Even with a two-fold increase in the late Byzantine period there would still have been only 2000 houses overall; this cannot have been the case because traditionally the development density in the Old City was much higher. This clearly indicates that the development of al-Aqsa enclave and the area to the south in the Byzantine period was 'suburban' rather than urban.

Therefore, it is difficult to generalise on this form of development for all parts of the city, especially in such neighbourhoods around the Church of the Holly sepulchre.

Yet, the large size of the houses and their planning and design in separate units might point to a noble class of residents, i.e. not ordinary people from the poor or working class. Therefore, it can be assumed that in the early Byzantine Jerusalem, when the city became overcrowded, some of the rich people moved beyond the city walls and established their own separate large houses in a new quarter. This would explain why the Madaba Mosaic floor shows that Byzantine houses are very concentrated on the western part of the present city, especially around the Church of the Holy Sepulchre, while the area adjacent to the present al-Aqsa enclave is very thinly developed.

This is in contrast to development during the Umayyad period. Not only did Muslims revitalise al-Aqsa Mosque, but they also upgraded the urban fabric around the enclave.

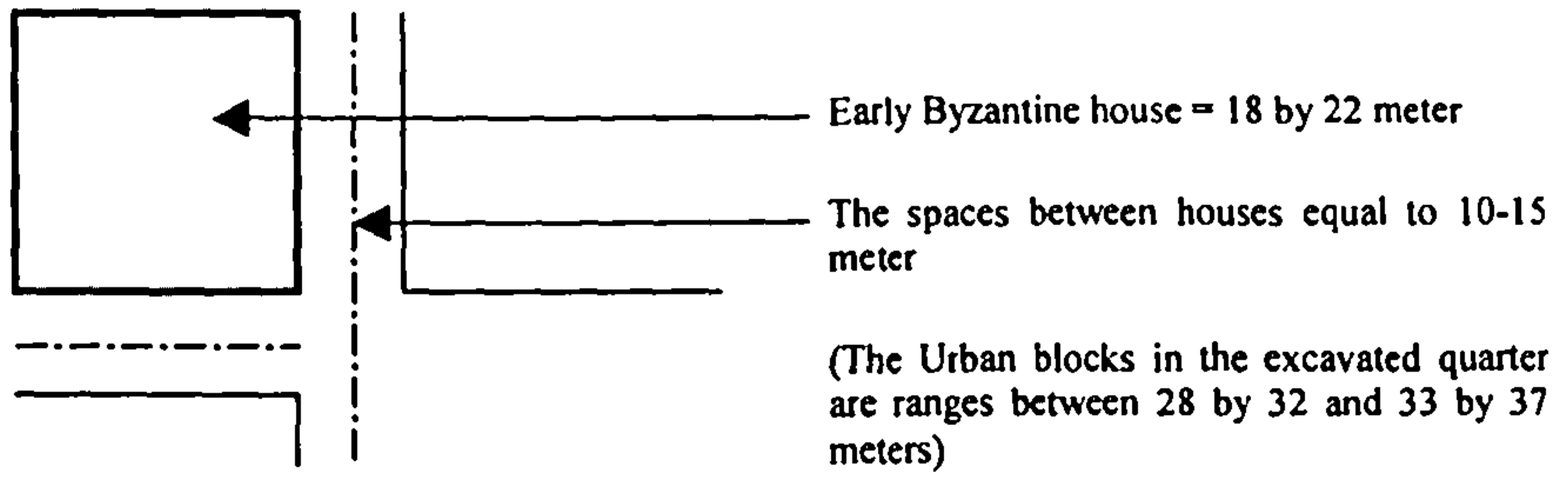


Fig. 5. 1 **Schematic drawing shows proposed early Christian urban block that existed in the quarter which is located to the south of al-Aqsa enclave. This drawing is based on the archaeological evidence revealed by Ben-Dov's excavation south of al-Aqsa enclave.**

Source The researcher.

This area developed, and was intensively built up. Six large Umayyad buildings were discovered; some have an area more than 7000 sqr. metres [Mazar, 1969, p18]. The estimated area of all of the 18 Byzantine houses over 3 hectares in Ben-Dov's excavation nearly equates to the estimated area of only just one Muslim building to the south of al-Aqsa Mosque.

5.3.3 Al-Aqsa Mosque and Additional Gates for Jerusalem

Scattered historical information shows that the morphology of east Jerusalem was changed between the Arab conquest and the later part of the seventh century. Arculf's description of Jerusalem in 670 AD is quite extraordinary. He made an effort to write in detail on Jerusalem. Not only did he count the main city gates, but he also pointed out a few of the smaller gates and posterns. He also counted eighty-four towers located on the city wall. The following text is an English translation of his original text: -

> 'Arculf counted in the circuit of the walls of the holy city eighty-four towers and six gates, the latter being distributed in the following order: the Gate of David on the west of Mount

> Sion, the Gate of the Valley of the Fuller, St. Stephen's Gate, Benjamin's Gate, the little gate leading by a flight of steps to the valley of Jehoshaphat, and the Gate called Tecuitis; of which, the three most frequented are, one to the west, another to the north, and a third to the east. The part of the wall which, with its towers, extends from the gate of David over the northern brow of Mount Sion, which overlooks the city from the south, to the precipitous brow of the same mountain which looks to the east, has no gates [Warren, 1970, p22].

The above text suggests that in the early Islamic time there were six gates leading into the city. Eucherius in about 427-440 AD mentions, however, that "The chief gates are three, one on the west, another on the east, and a third on the north side of the city" [Warren, 1970, p17]. Theodorus also mentions three gates [Warren, 1970, p20]. This also corresponds with archaeological evidence of the plan of Jerusalem in the Madaba mosaic floor which confirms the existence of these three main gates in Jerusalem in the middle of the 6th century AD. Although some scholars consider Jerusalem to have had only three gates in the Byzantine period [Wightman, 1993, p217], these three gates do not negate the possibility of the existence of secondary gates. For example, Eucherius and Theodorus mention only the chief gates, moreover, the Madaba mosaic floor shows, in addition to the three main gates, there was another secondary gate which is located to the south of the eastern Gate. Nevertheless, these gates still do not amount to six.

Arculf mentions the six gates of Jerusalem in clockwise direction (see Fig. 5. 2). So the questions arise: -

- Have more gates been added to the three mentioned elsewhere?
- When did this happen? And who is to be credited with this construction activity?

Some scholars such as Wightman [Wightman, 1993, p228] assigned these additions to the restoration of the city walls after the Persian invasion of Jerusalem in 614 AD,

(a catastrophe which caused the destruction of several churches and parts of the city including these city walls). This version is, however, doubtful because: -

> First, the Byzantines must have completed their hasty restoration of the main parts of Jerusalem, including the walls, before 638 AD. This short time of restoration might have led them to ignore some buildings and churches. Among those not restored after the destruction was the *Nea* (new) Church.
>
> Secondly, the Persian invasion probably affected the population of Jerusalem so that the number of people decreased during the conflict. This may have caused the abandonment of several houses, such as those houses south of al-Aqsa enclave.
>
> Thirdly, the very brief period of recovery of Byzantine rule 625-638 AD in Jerusalem would not be enough to rebuild the city nor affect the addition of new city gates. Much of this work must have awaited a period of prosperity and an increase in the population and consequently the expansion of the city.

Such reconstruction work and additions probably took place after the Islamic conquest of Jerusalem. The increase in the population, when large numbers of Muslims settled in Jerusalem, must have occasioned a boom in construction activity. This seems more convincing than the argument regarding Byzantine restoration.

The expansion of Jerusalem to include al-Aqsa enclave must have taken place since the early Islamic conquest. This would have been accompanied by other construction activities such as restoring the wall in this area, improvement of the existing streets, the building of new pathways leading to the site of the mosque, new houses for the Muslims' streaming into the city, and there would be additional new gates. According to Bahat, who perhaps relied on the Muslim geographer al-Maqdisī, a new gate, "Siloam Gate", for Jerusalem was established by Muslims in the early Islamic period [Bahat, 1996, p81; cited in Wightman, 1993, p239].

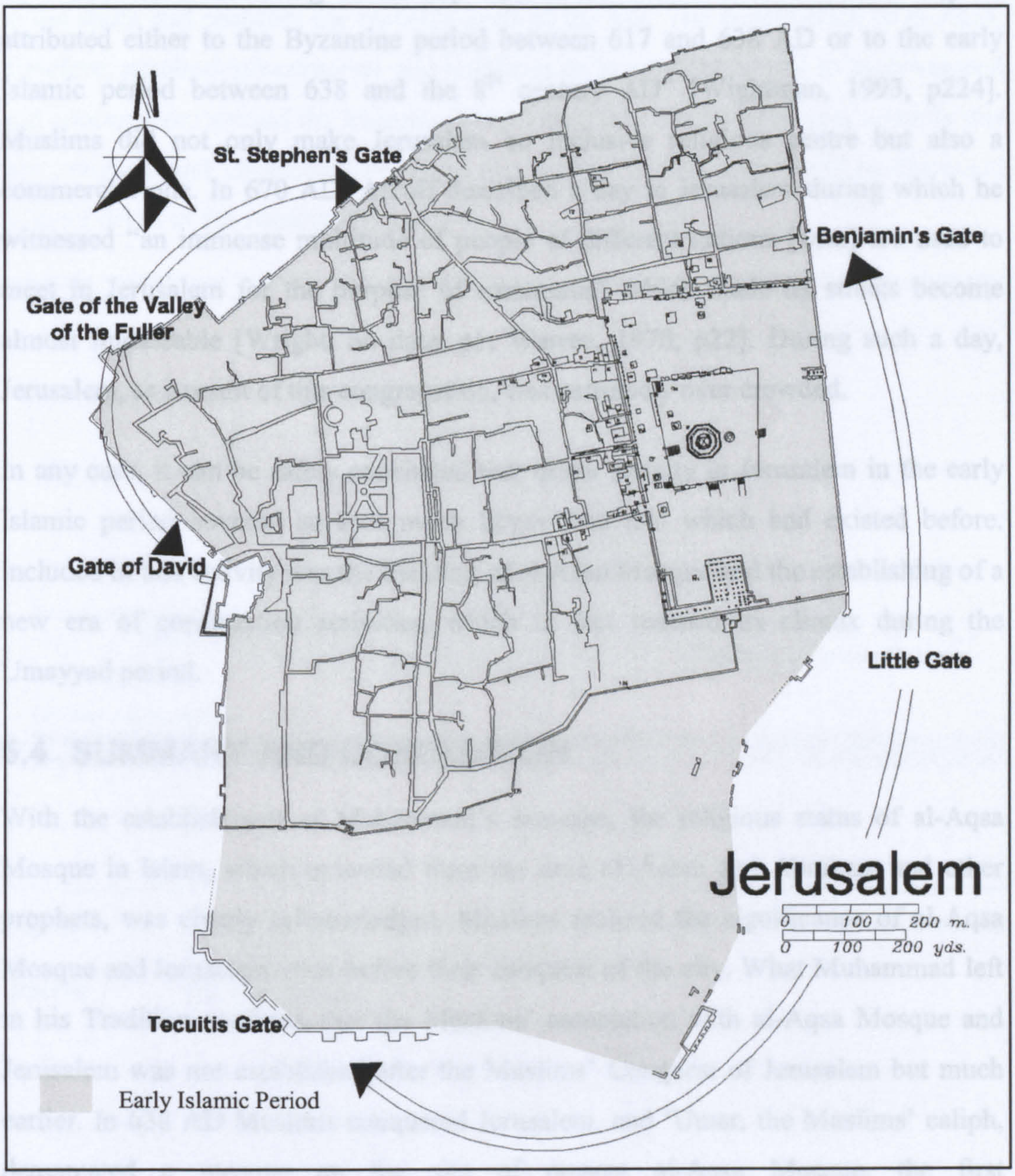


Fig. 5. 2 **Jerusalem: The location of the city gates as described by Arculf in 670 AD. The arrows show that the location of the gates cannot be determined by existing information.**

Source: The researcher.

This also corresponds with Hamilton's conclusion made after he had excavated part of the north wall of Jerusalem, to the east of the present Herod Gate. He claims to have detected a rebuilding of the city wall in his excavated area which "may be attributed either to the Byzantine period between 617 and 638 AD or to the early Islamic period between 638 and the 8th century AD" [Wightman, 1993, p224]. Muslims did not only make Jerusalem an inclusive religious centre but also a commercial one. In 670 AD, Arculf described a day in Jerusalem during which he witnessed "an immense multitude of people of different nations [who] are used to meet in Jerusalem for the purpose of commerce" which made its streets become almost impassable [Wright, no date, p1; Warren, 1970, p22]. During such a day, Jerusalem, as a result of this congregation, was extremely over crowded.

In any case, it can be safely concluded that urban activity in Jerusalem in the early Islamic period covered an area much larger than that which had existed before. Included in this activity was the building of al-Aqsa Mosque and the establishing of a new era of construction activities, which in fact reached its climax during the Umayyad period.

5.4 SUMMARY AND CONCLUSION

With the establishment of Muhammad's message, the religious status of al-Aqsa Mosque in Islam, which extended from the time of Ādam and Abraham and other prophets, was clearly acknowledged. Muslims realized the significance of al-Aqsa Mosque and Jerusalem even before their conquest of the city. What Muhammad left in his Tradition confirms that the Muslims' association with al-Aqsa Mosque and Jerusalem was not established after the Muslims' Conquest of Jerusalem but much earlier. In 638 AD Muslims conquered Jerusalem, and 'Umar, the Muslims' caliph, demarcated a mosque on the site of present al-Aqsa Mosque, the first building there since Titus' destruction of the city. He began the first Muslim building activity in Jerusalem by taking the area of the present al-Aqsa as a mosque and building there. In terms of chronology, most researchers regard this building activity as that of 'Umar's Mosque.

Indeed, this new religious core edifice affected the urban form of Jerusalem. As a result, the urban fabric expanded to include the area of the present al-Aqsa enclave, to the south and probably the northern parts of the site. The construction of al-Aqsa, therefore, required infrastructure and buildings to be established and to be developed and concentrated around the Mosque. Thus, Jerusalem shifted eastwards towards this new religious and administrative centre (see Fig. 5. 3). This matter will be discussed in more detail in the coming chapters.

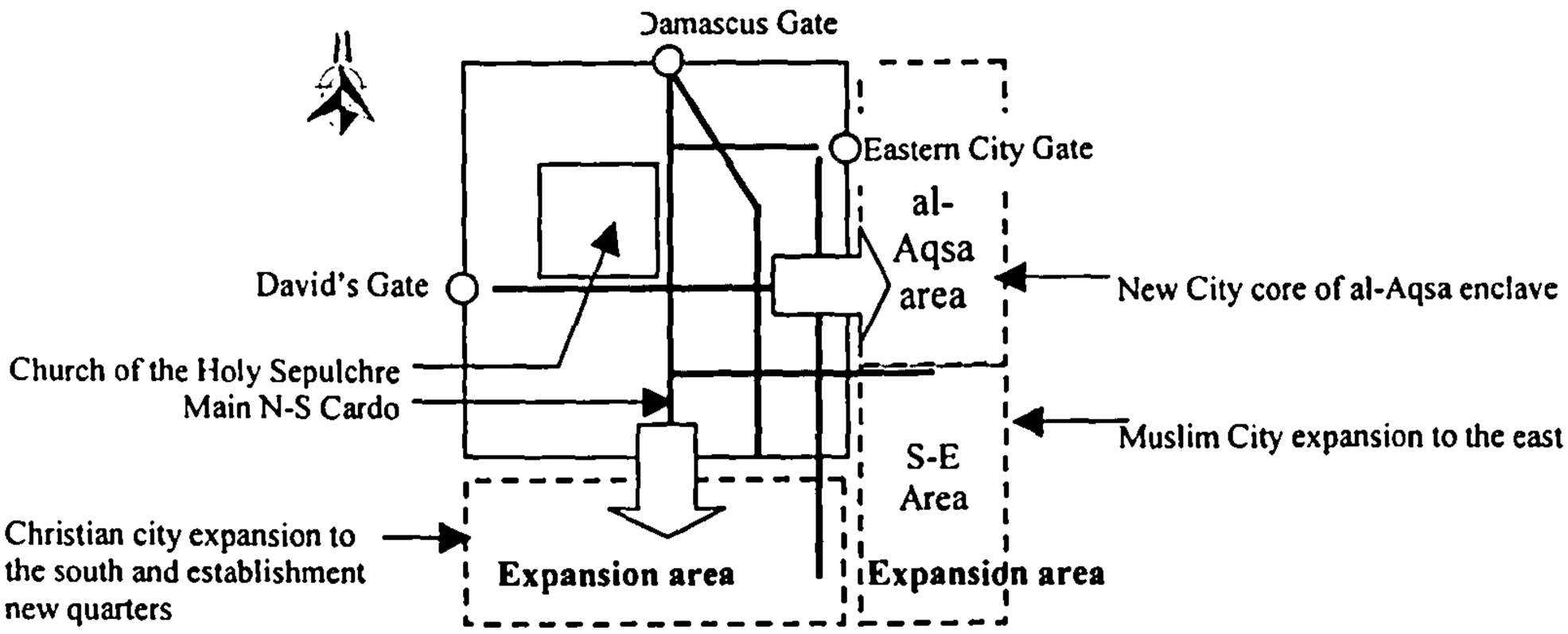


Fig. 5. 3 **Schematic drawing shows the development of the urban form of Jerusalem in the early Islamic period.**

Source The researcher.

PART THREE: THE BUILDING OF AL-AQSA MOSQUE

— CHAPTER SIX

— CHAPTER SEVEN

— CHAPTER EIGHT

CHAPTER SIX

PHYSICAL DEVELOPMENT OF AI-AQSA MOSQUE

This chapter investigates the construction of different installations for al-Aqsa Mosque –gates, bridges, basement, and subterranean passageways– and describes their architectural forms and functions.

After the Muslim conquest of Jerusalem, Muslims reaffirmed the sanctity of al-Aqsa Mosque as their first activity in the city. The restoration of the enclave was started and buildings were raised. This early Muslim physical development of al-Aqsa enclave brought changes to the urban form.

6.1 INTRODUCTION

A new stage in the physical development of al-Aqsa enclave was begun after an area near the southern wall of the enclave had been selected and roofed over in 638 AD. Some decades later, a large-scale building project was initiated in the enclave. This raises more questions regarding al-Aqsa Mosque:

- Who created the area of al-Aqsa enclave?
- How did the early Muslims deal with al-Aqsa enclave?
- What kind of installations did the early Muslims construct or reconstruct in al-Aqsa enclave?
- How did architects arrange the overall plan of the enclave at that time?
- What kind of structures were required in the enclave and why?
- What sort of architecture was manifest in these structures?

These questions are among others that arise regarding the structural development of al-Aqsa enclave. In this chapter the discussion will be limited to the overall planning and installations made for al-Aqsa enclave in the early Islamic period. The monuments themselves will be discussed in the next chapter. In this way, attention will be drawn to various issues. First, the topography of the enclave will be studied, followed by an examination of how the area of the enclave was before and after the installation of the Muslims scheme. Secondly, the way in which Muslims' ensured the accessibility to and from the enclave will be discussed. Thirdly, the architecture of the gates, including the structural solutions, which they employed, will be examined. These investigations provide a good insight into how the early Muslims managed their project, i.e. the macro-planning of the enclave and its initiation. The discussion will be based on historical, archaeological and architectural approaches.

6.2 TOPOGRAPHY OF AL-AQSA MOSQUE

Al-Aqsa enclave is located on the south-eastern hillock of present-day Jerusalem; it forms the south-east corner of the city. It is a quadrangle of about 35 acres, nearly one-sixth of the total area of the Old City. The level of the rock in the enclave inclines from the north to the south and from the middle toward the east and west walls of the enclosure. The level of the north-east corner of the al-Aqsa enclave is 710m above sea level, the level to the south-east is 692.5m, the level to the south-west is 700m, and the height of the rock under *Qubbet al-Sakhrah* (The Dome of the Rock) is 744m. The level of the rock at the north-west corner is quite high, though inside the enclave the rock has been scraped in order to level this area. At the southern corners of the enclave, the rock falls away very steeply, so that a basement was required to level the site (see Fig. 6.1, 2).

6.3 AL-AQSA MOSQUE ENCLOSURE

Walls surround al-Aqsa enclave today. Both the east and north walls, and the west and south walls meet at right angles, while the south east angle is 92° 30′ and the north west is 85°. The eastern wall has a bearing of 352° 30′. Accordingly, the walls of the enclave are not exactly parallel which causes a slight difference in their length; the east wall is 466 metres long, the west wall 488 metres, the north wall 314 metres and the south wall 281 metres. The present enclosed area thus measures some 142,000 square metres. As this area is determined by its enclosure, it is thus of great significance thus examine the walls of al-Aqsa enclave.

6.3.1. The Eastern Wall

The eastern wall of al-Aqsa enclave forms part of the city wall of Jerusalem and stands directly on the rock which has different levels (see Fig. 6.3). An investigation of this wall shows different periods of construction [Avigad, 1976, p16]; the definite history of its original construction is still open for debate [Kenyon, 1974, p111]. The major parts of the stonework courses in the foundation, which were first investigated by Warren in 1867 AD [Warren, 1970, p127], were attributed by him and all archaeologists to the Roman period [Kenyon, 1974, p111]. At the north-east corner



Fig. 6. 1 **Computer model shows the topography of al-Aqsa enclave; the picture looking from the south-east to the north-west angle.**

Source: The researcher.

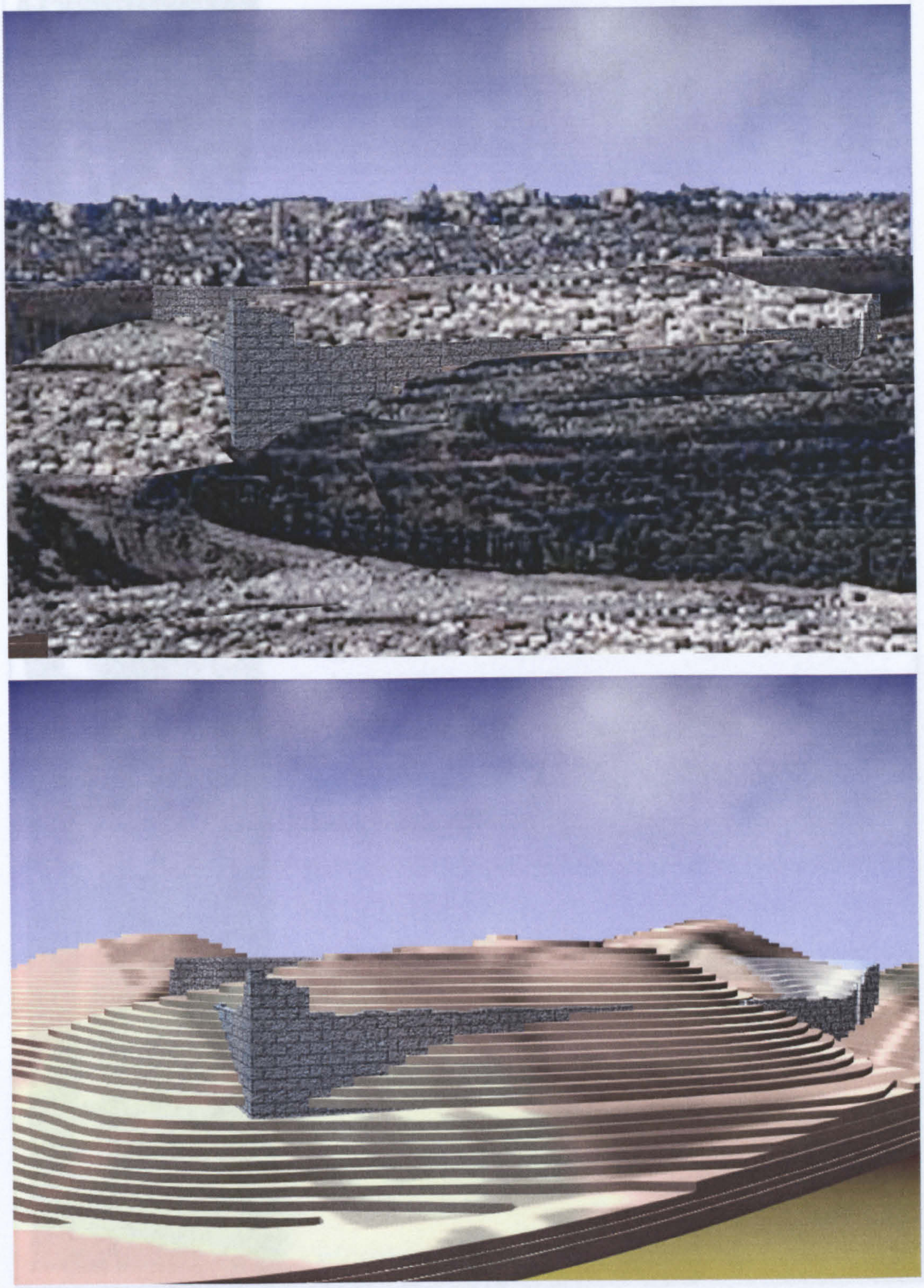


Fig. 6. 2 **Computer model shows al-Aqsa enclave before the early Islamic period; the upper and lower pictures are developed on the basis of archaeological remains that date prior to the early Islamic period.**

Source: The researcher.

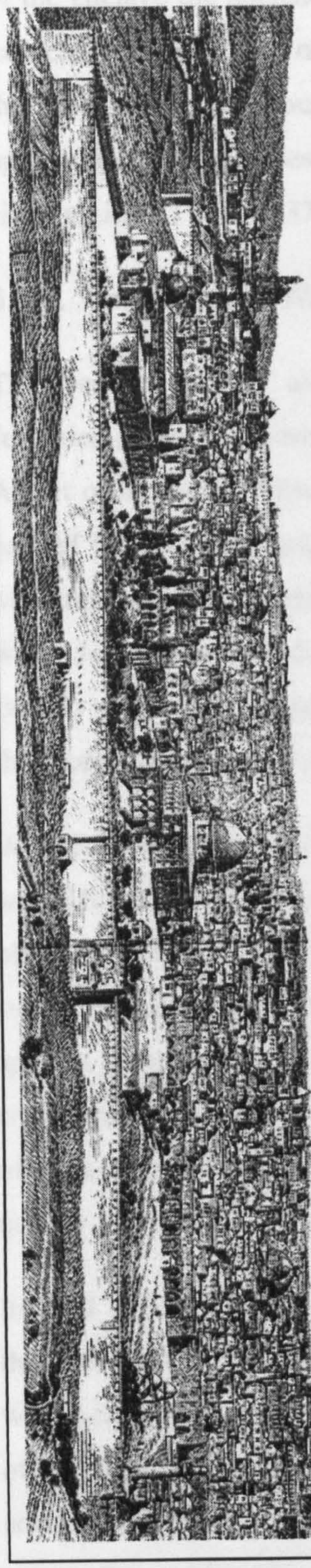


Fig. 6. 3 **Jerusalem: The eastern wall of al-Aqsa enclave.**
Source: Baedeker, 1912, p77.

of the enclave the ancient foundation of the eastern wall does not stop as might be expected, but continues northward [Warren, 1970, p130]. At the southern portion of this wall, the ancient courses have been preserved up to a considerable height. The upper small stone courses of this wall are the result of the Ottoman restoration of the city wall in 943 AH/ 1537 AD.

6.3.2. The Western Wall

The western wall of al-Aqsa enclave forms the eastern portion of the city of Jerusalem, therefore, several buildings were constructed alongside over the centuries. A part of this wall to the south is greatly revered by Muslims not only because it is part of the al-Aqsa enclave, but also because it is believed to be associated with Muhammad's translocation from Makkah to Jerusalem. It is known as "*al-Burāq* wall". Jews, however, consider this part to be the remains of the Temple of Herod, 20 BC, so they come to pray and wail for the lost temple; this part of the wall is, therefore, named by Jews the Wailing Wall.

Warren first excavated the western wall in 1867 AD by sinking shafts alongside the wall. His results indicate that the courses at the bottom of the wall are of enormous blocks of limestone, all finely cut and bears the hallmark of Roman masonry. These stones are situated directly on the rock, which rises northwards and suddenly re-appears at the rock's northern end seen from inside al-Aqsa enclave. These stones are constructed with no mortar between them. Above these large blocks are four courses of large squared stones with plain dressed faces. According to Warren, these are usually dated to the late Roman or Byzantine period [Warren, 1970, p188].

In 1968 AD B. Mazar and M. Ben-Dov exposed the massive Roman foundation of the southern end of this wall. Some years later, the entire length of the Western Wall was excavated by means of a tunnel that runs beneath the buildings of the Old City of Jerusalem. Ben-Dov and later Dan Bahat supervised this work. Their excavation confirms that at some 447 metres from the south-west corner of al-Aqsa, for some reason the original Roman work was abandoned and never finished, including the Roman street contiguous to this wall. So they concluded that the western wall did not extend further north [Bahat, 1994, p189; Geva, 1994, p15].

At the far north end of the western wall the rock appears above the level of the enclave. It was scraped vertically. Consequently, it is of great significant to investigate who carried out the work of scraping the rock at the northern far end of this wall, which also continues under the Northern Wall of al-Aqsa enclave. According to Kenyon, it would have been cut "in **Roman** or **Muslim** times" [Kenyon, 1974, 223] while Clermont-Ganneau suggests even a later period, i.e. the time of the Crusades [Clermont-Ganneau, 1899, 1: p137].

6.3.3. The Northern Wall

The northern wall of al-Aqsa enclosure was constructed from stone masonry. It is penetrated at present by three gates leading out from the sanctuary. Part of it forms the southern wall of the *Birkit Isrā īl* (Israel pool). Examining the northern wall shows that the rock at the base of its western part is 7 metres higher than the level inside the enclave, though it had been scraped vertically (see Fig 6.4). This is in contrast to the eastern part where the rock is embodied below the present level of the enclave. The masonry of the lower courses first examined by Warren at the *Birkit Isrā īl* (Israel pool) [Warren, 1970, p123] does not bear any resemblance to the large stones that exist in other walls: the courses are of small squared stones similar to those seen above. At the same time, Warren did not find any projection in the foundation for the north-east corner of the enclave. This led Conder to believe that the north wall was not built in the same period as the other walls of the enclave, especially when he noticed that the cisterns within this northern wall are of modern masonry [Conder, 1909, p119]. As the construction of the northern wall, including the scraped rock, does not bear any resemblance to the other walls, they must be of a different period. Therefore it is hard to resist the conclusion that part of the enclosure of al-Aqsa enclave was not was not constructed at the same time as other walls of the enclave but is a later construction.

6.3.4. The Southern Wall

The eastern end of the southern wall forms part of the present city wall. It represents

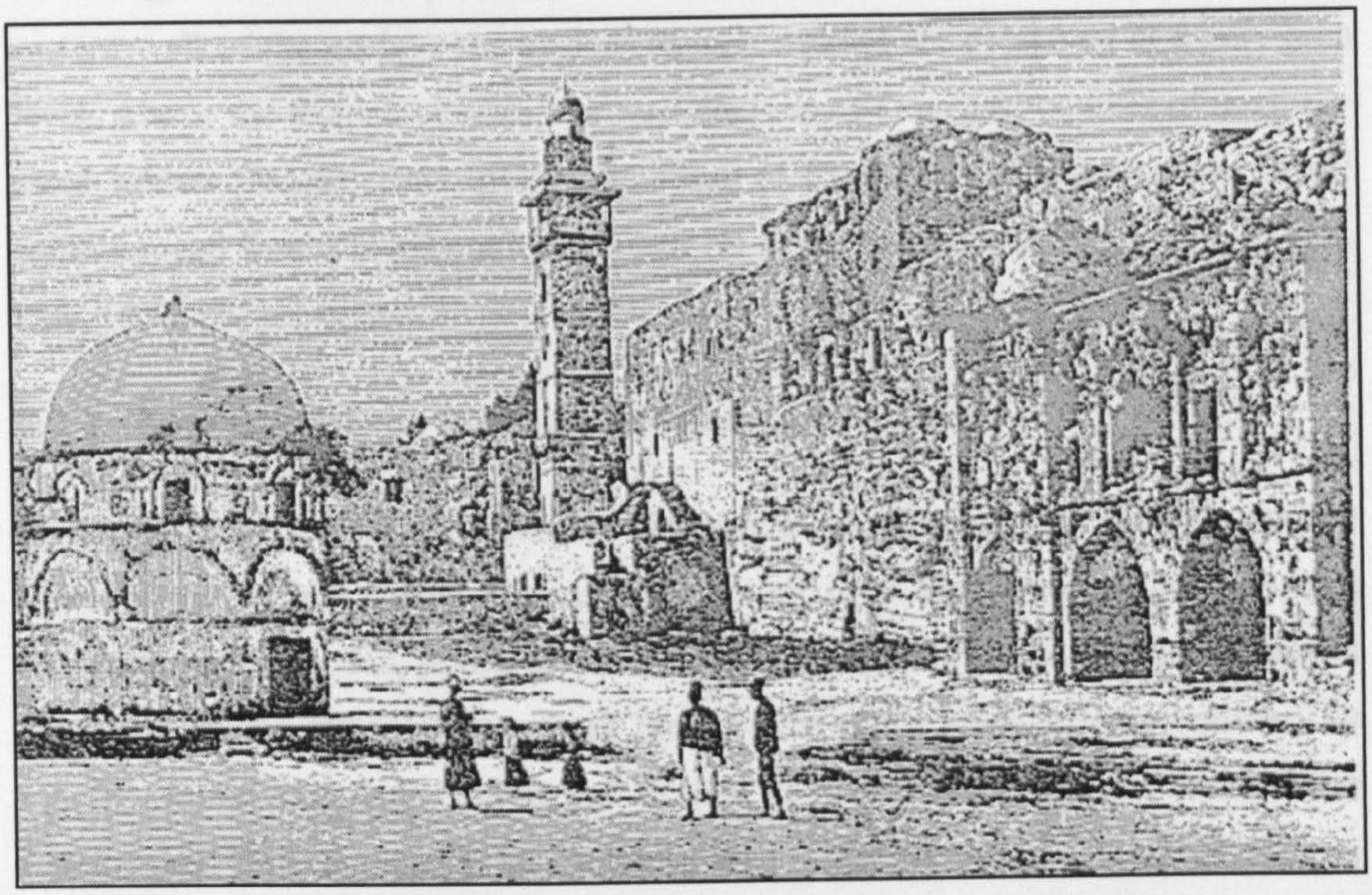


Fig. 6. 4 **Jerusalem: The northern wall of al-Aqsa enclave shows the rock scrape and the minaret of *al-Ghawānimah*.**

Source: http://templemount.org/graphics/Fig9.html

the *Qiblah* wall of al-Aqsa enclave, which is directed towards Makkah. The wall crosses the hillock, though from its midpoint the rock declines steeply downwards towards both ends (see Fig. 6.5). An investigation by Warren, which was followed by the excavation of Mazar and Ben-Dov a century later, has revealed ancient stonework courses at its foundation. These courses were attributed by both scholars to belong to the Roman period [Mazar, 1969, p4]; at the meeting point with the eastern wall of the enclave the ancient Roman courses are preserved at a very high level. Above the Roman courses, the wall consists of Umayyad courses of medium-sized ashlars [Mazar, 1969, p17]. According to Ben-Dov, Umayyad repairs of the southern wall were carried out by the planners of the entire Umayyad complex [Ben-Dov, 1976, p99].

6.3.5. Appraisal of the Al-Aqsa Mosque Enclosure

In short, there is no doubt that the Umayyads' development of al-Aqsa enclave followed the ancient stones that exist in the east, west and south walls of al-Aqsa enclosure which, in fact, points towards the original area of the site before Umayyad development. As stated above, these three walls of the enclave were believed by scholars to be constructed on top of Roman or maybe in some parts even earlier foundations. Only the date of the northern wall is not fixed. Some scholars such as Warren, Clermont-Ganneau and Kenyon believe the northern wall to be a later construction.

The examination of the al-Aqsa enclosure as stated before, confirms Bahat's archaeological evidence that the western wall was originally shorter than it is today (phase I) (see Fig. 7.5:B), this suggests that the present **enclosed area** of al-Aqsa enclave did not exist as early as the 1st century AD. This reinforces Conder's conclusion that there is little doubt that about 1/6 of the present area of al-Aqsa enclave was added later to the original area that existed as early as the first century AD [Conder, 1909, p119]. Accordingly, the area of the al-Aqsa enclosure was expanded northward after the Roman destruction of Jerusalem in 70 AD (see phase I in Fig. 6.6).

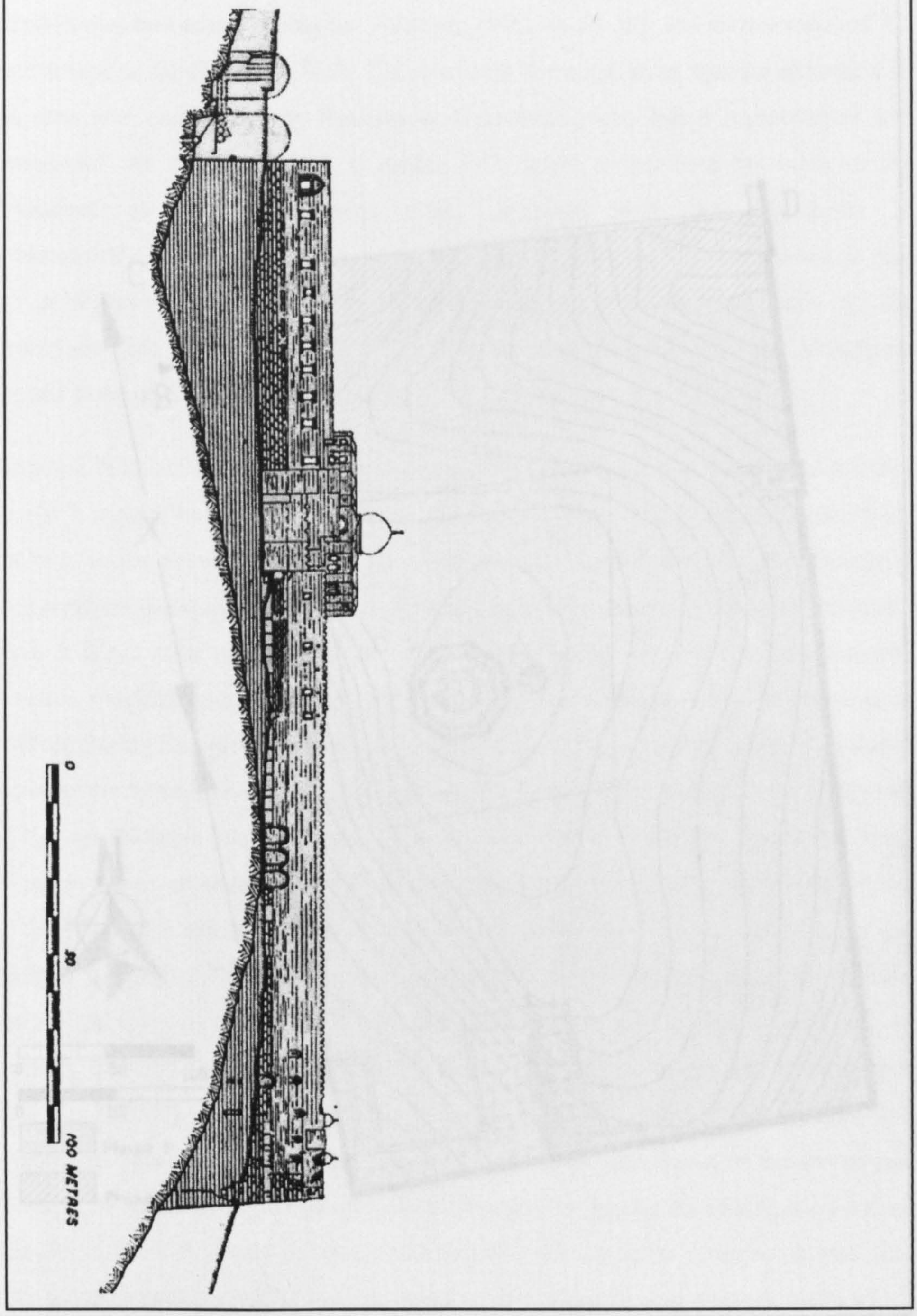


Fig. 6. 5 **The southern wall of al-Aqsa enclave shows the natural level of the bedrock.**

Source: Kenyon, 1974, p113.

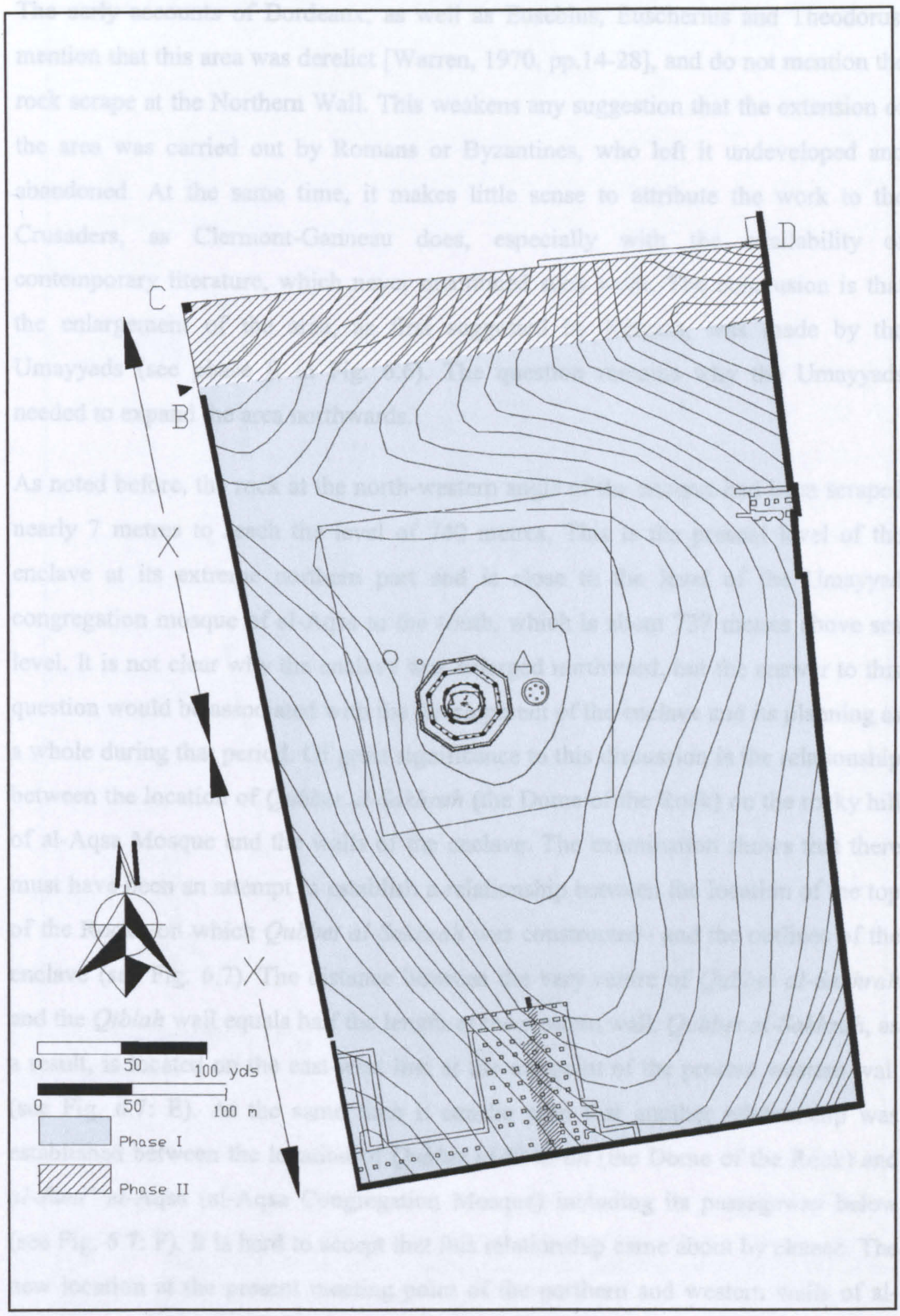


Fig. 6. 6 **Jerusalem: Schematic drawing shows the different phases of al-Aqsa enclave.**

Source: The researcher.

The early accounts of Bordeaux, as well as Eusebius, Euscherius and Theodorus, mention that this area was derelict [Warren, 1970, pp.14-28], and do not mention the rock scrape at the Northern Wall. This weakens any suggestion that the extension of the area was carried out by Romans or Byzantines, who left it undeveloped and abandoned. At the same time, it makes little sense to attribute the work to the Crusaders, as Clermont-Ganneau does, especially with the availability of contemporary literature, which never mentioned such work. The conclusion is that the enlargement of the area, as first suggested by Kenyon, was made by the Umayyads (see phase II in Fig. 6.6). The question remains why the Umayyads needed to expand the area northwards.

As noted before, the rock at the north-western angle of the enclave had been scraped nearly 7 metres to reach the level of 740 metres. This is the present level of the enclave at its extreme northern part and is close to the level of the Umayyad congregation mosque of al-Aqsa to the south, which is about 737 metres above sea level. It is not clear why the enclave was enlarged northward, but the answer to this question would be associated with the development of the enclave and its planning as a whole during that period. Of great significance to this discussion is the relationship between the location of *Qubbet al-Sakhrah* (the Dome of the Rock) on the rocky hill of al-Aqsa Mosque and the walls of the enclave. The examination shows that there must have been an attempt to establish a relationship between the location of the top of the Rock –on which *Qubbet al-Sakhrah* was constructed– and the outlines of the enclave (see Fig. 6.7). The distance between the very centre of *Qubbet al-Sakhrah* and the *Qiblah* wall equals half the length of the western wall. *Qubbet al-Sakhrah*, as a result, is located on the east-west line at the midpoint of the present western wall (see Fig. 6.7: E). At the same time it can be seen that another relationship was established between the location of *Qubbet al-Sakhrah* (the Dome of the Rock) and *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) including its passageway below (see Fig. 6.7: F). It is hard to accept that this relationship came about by chance. The new location at the present meeting point of the northern and western walls of al-Aqsa enclave is marked in the skyline of Jerusalem by the minaret of *al-Gawānimah* which according to al- 'Ulaimī stood there since the time of 'Abd al-

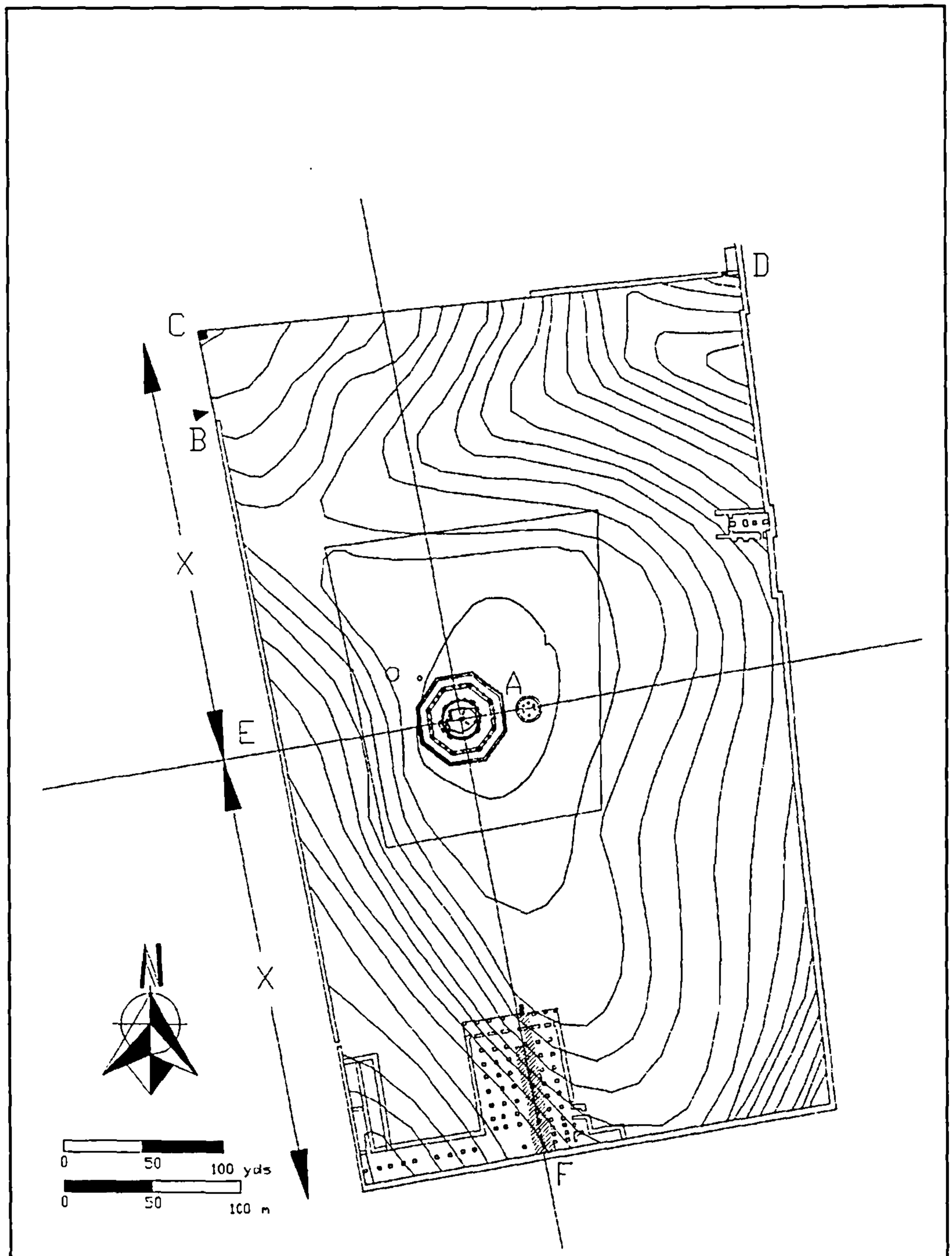


Fig. 6. 7 **Jerusalem: Schematic drawing shows the relation between the top of the hillock of the enclave and the overall plan of it.**

Source: The researcher.

Malik [al-'Ulaimī, 1995, 1: p280, 2: pp.26-27; Clermont-Ganneau, 1899, p144]. The square shape of *al-Gawānimah*'s basement, which resembles other early Muslim minarets, such as that of the White Mosque in Ramlah, bears out this early Muslim date of the minaret. Indeed, part from examining the issue of who created this area, the challenging question of why this very large area had been historically created remains open.

6.4 ACCESS TO AL-AQSA MOSQUE

The distinct variations in the topography of al-Aqsa enclave necessitated that architects and planners would develop an appropriate architectural solution for the rehabilitation of the enclave in the early Islamic period. Its planners ensured access to the enclave from all directions, while its architects employed different solutions such as subterranean passageways, bridges, and direct gates (see Fig. 6.8). In the light of evidence –provided by historical literature, descriptions, archaeological excavations and architectural inspections– it is possible to learn more about the approaches and gates to the enclave which were constructed or reconstructed in the early Islamic period. One of the more important aspects of this section is concerned with the character of the architecture, which was taking form at that time. Though the access points will be examined as they were constructed or restored at that time, their consequent history is of no particular relevance to this discussion.

6.4.1 Gates of *al-Masjid* al-Aqsa in the Early Islamic Period

Eleven gates penetrated the walls of *al-Masjid* al-Aqsa in the Umayyad period – one gate in the eastern wall; three on the southern wall, one of them at a higher level; four on the western wall; and three on the northern wall (see Fig. 6.8).

In dealing with the gates, an attempt will be made to find out the early Islamic name of each gate, discuss their history, examine their architecture –form, function and meaning–, and draw conclusions.

The building and rebuilding of the enclosing walls of the enclave, including

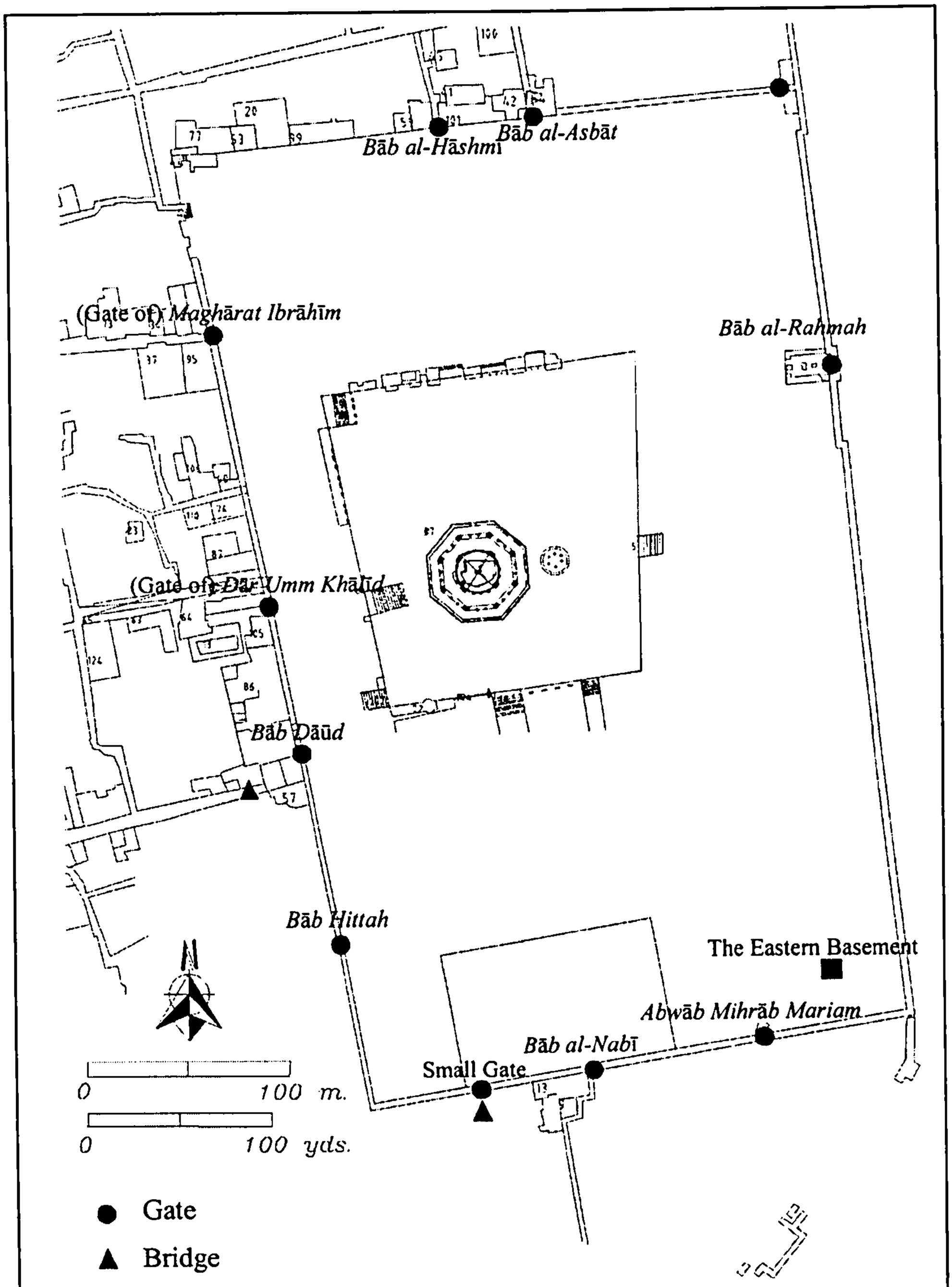
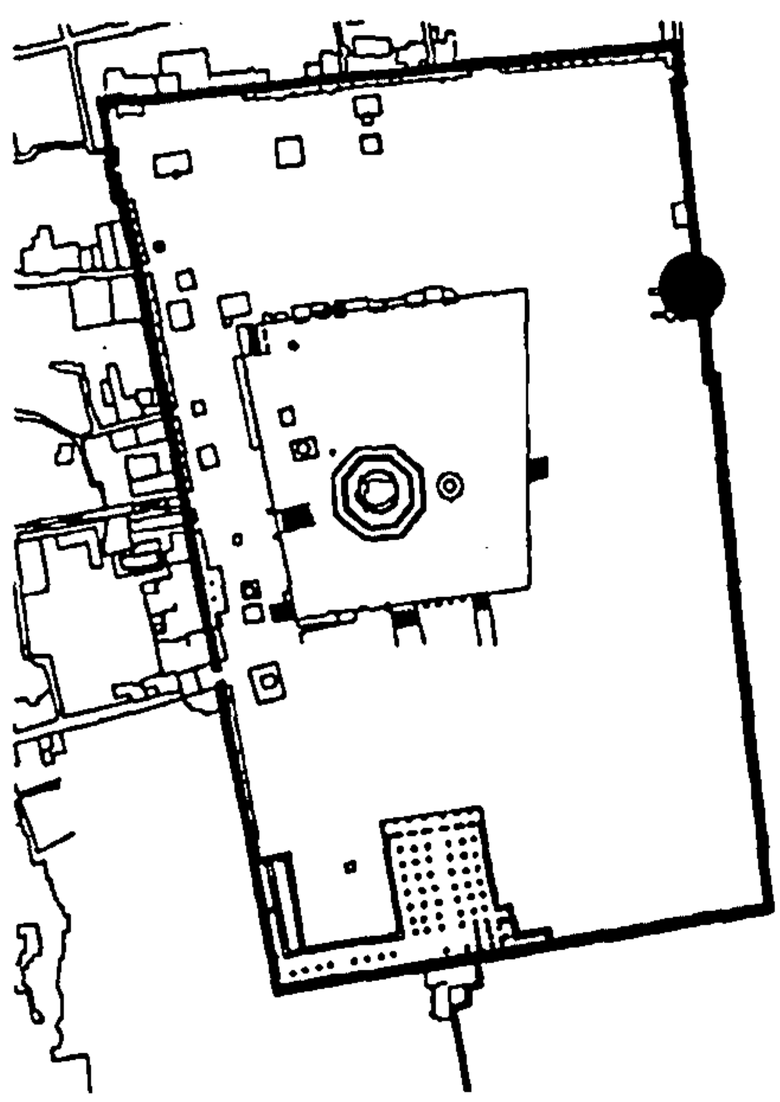


Fig. 6. 8 **Jerusalem: Access to al-Aqsa Mosque in the early Islamic period.**
Source: The researcher.

rebuilding its old gates and constructing new ones, would have been accomplished at the same time as the building of the early Islamic monuments in al-Aqsa enclave. According to Burgoyne, no contemporary account of the work exists, though a later author, Ibn Kathīr mentions that 'Abd al-Malīk built two city gates [Ibn Kathīr, 1932, p261]. The gates will be discussed in this study not in chronological order of their construction, but in a clockwise sequence starting from the east wall of the enclave's enclosure.

Bāb al-Rahmah (The Gate of Mercy) or the Golden Gate



Bāb al-Rahmah (The Gate of Mercy) is a magnificent structure, and the only gate to al-Aqsa enclave at that time from outside the city of Jerusalem. The earliest mention of this gate in Arabic historical sources was made in 301AH/ 913AD by Ibn al-Faqīh who listed it under the name *Bāb al-Rahmah*. In Muslim tradition the name of this gate is probably associated with the Day of Judgement. The other name, the Golden Gate, is based on the Christian tradition that Jesus made his last entry to Jerusalem through this gate. In Jewish tradition, however, the Messiah will enter Jerusalem through this gate [Sharon, 1973, p65]. Indeed, both of the two names have a religious meaning, which indicates how significant the gate is.

The history of the gate has always been in dispute. The vast majority of the 19th and early 20th century scholars such as Robinson, Conder, Bartlett, Vincent and Abel, Melchior de Vogüé and Creswell dated the gate to different periods prior to the Islamic period. Latterly, in the light of developing research, new arguments have been advanced by many scholars such as Hamilton, Sharon, Ben-Dov, Rozen Ayalon, Tsafrir and Wilkinson that the gate should be dated to the 7th –8th century AD, i.e. to the Umayyad period.

The gate represents a rectangular stonework structure directed almost E-W (see Fig 6.9,10,11), with two decorated facades: one on the east and another on the west. Unlike other gates in al-Aqsa enclave, the eastern façade was not built as part of the wall of the enclave, but was shifted 2.00 metres out off the wall. *Bāb al-Rahmah* is a double gate. The two bays are reflected in its plan and main elevations; two doorways are followed by a double passage covered by three pairs of domes (see Fig. 6.12). Originally, the eastern façade of *Bāb al-Rahmah* has two large doorways, separated by a column, which carries a decorated capital. The column and its crown spring from a pier at the back. Each doorway measures 3.90 metres in width, supporting a semicircular arch with a decorated frieze (see Fig. 6.13). The doorways have been designed on the proportion of 1:2 between length and height excluding the height of the arch (Fig. 6.14). Evidently, not only are the stones on the outer faces of the two doorways on different levels but their faces have also been reworked; so the gate must be constructed from reused stones. The doorways in the eastern façade were blocked up in the Ottoman period [Tahā, 1999, p47]. The acanthus leaf decoration motif is a very distinguishable feature on the capitals and pilasters, and the continuous scrolls of rosettes in the frieze above the arches are noticeable. This coincides with the decoration that exists in the *Bāb al-Nabī* (Gate of the Prophet) or in the southern wall of al-Aqsa enclave as well as in the Dome of the Rock [Rozen-Ayalon, 1989, pp.36, 44]. It is noticed that some features in the decoration of *Bāb al-Rahmah* bear a close resemblance to the decoration in other non-Muslim buildings that existed in Historical Syria (see Fig. 6.15). Moreover, the decoration of the Church of the Nativity in Bethlehem which dates to the middle of the 6th century AD [Rozen-Ayalon, 1989, p.42] and of the Church of St. Simeon Stylites in Syria which dates to the 6th century [Butler, 1929, p107] exemplifies these analogies. An elliptical vault follows the semicircular arch of the opening and is also spanning the threshold of the gate (see Fig. 6.16). It is designed on the same proportion employed in the openings, i.e. 1:2 between length and height including the height of the arch (see Fig. 6.17).

The openings of *Bāb al-Rahmah* lead to a rectangular domed vestibule (see Fig. 6.18,19), measuring 20.37 metres in length and 10.50 metres in width. At that time,

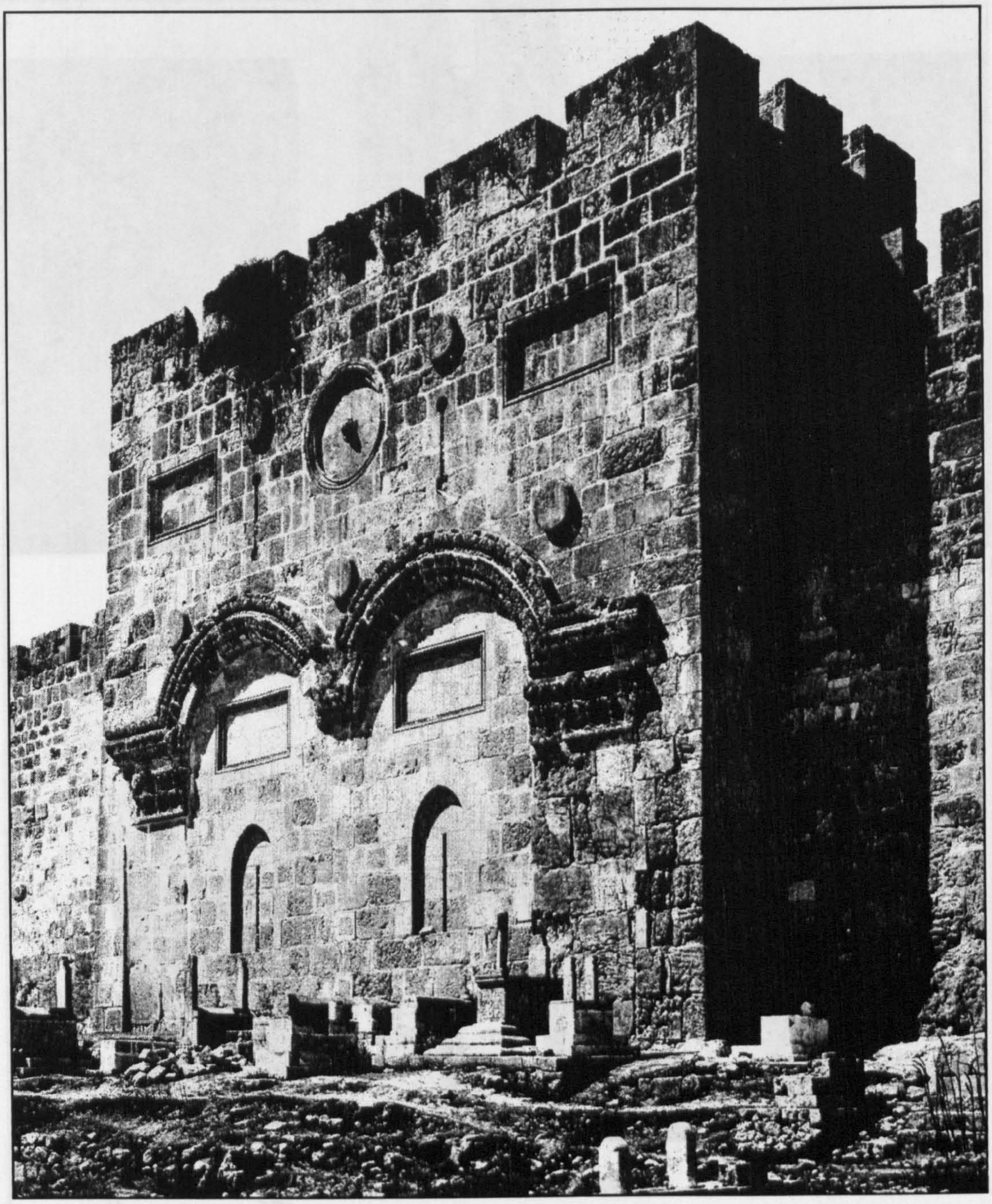
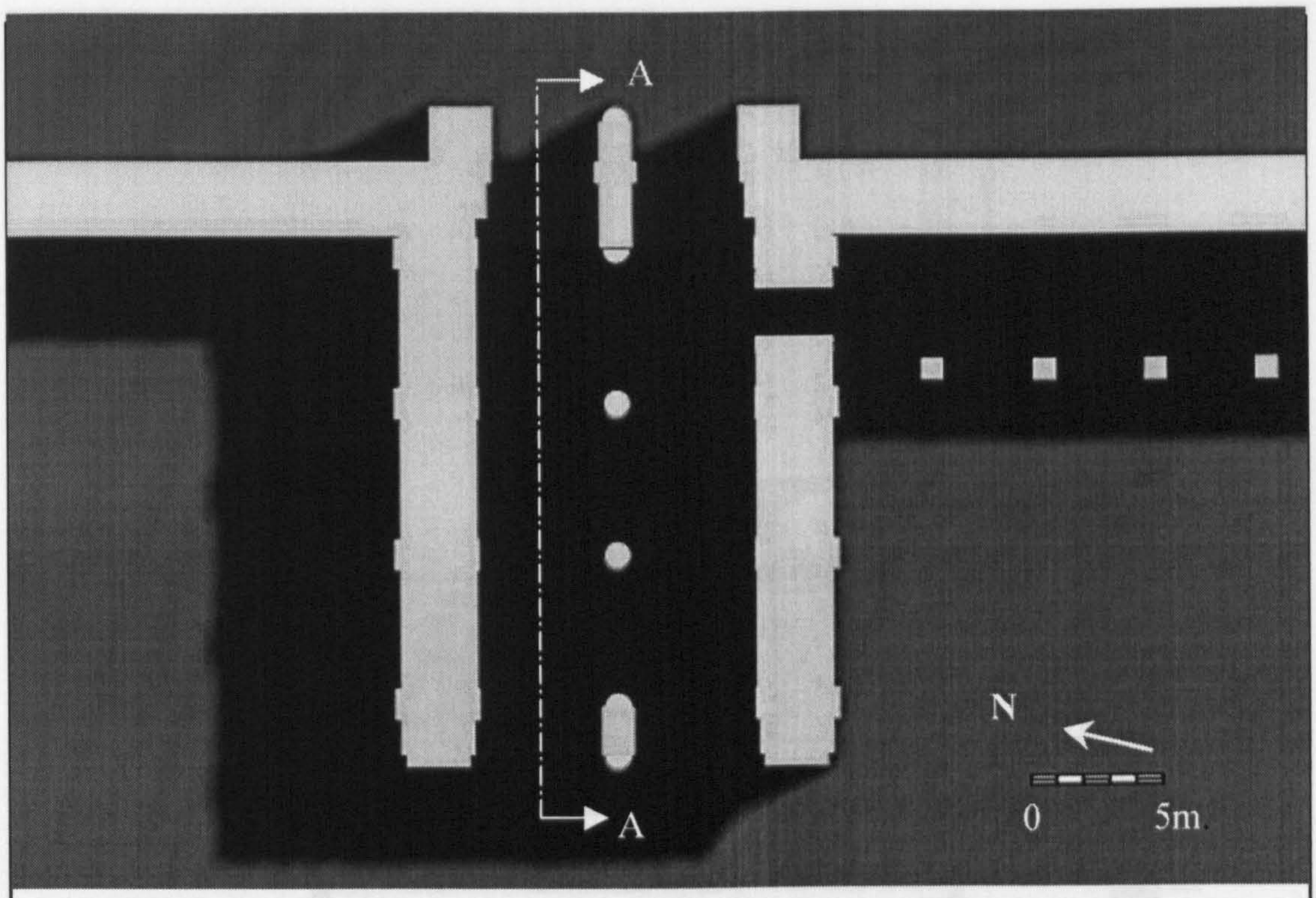
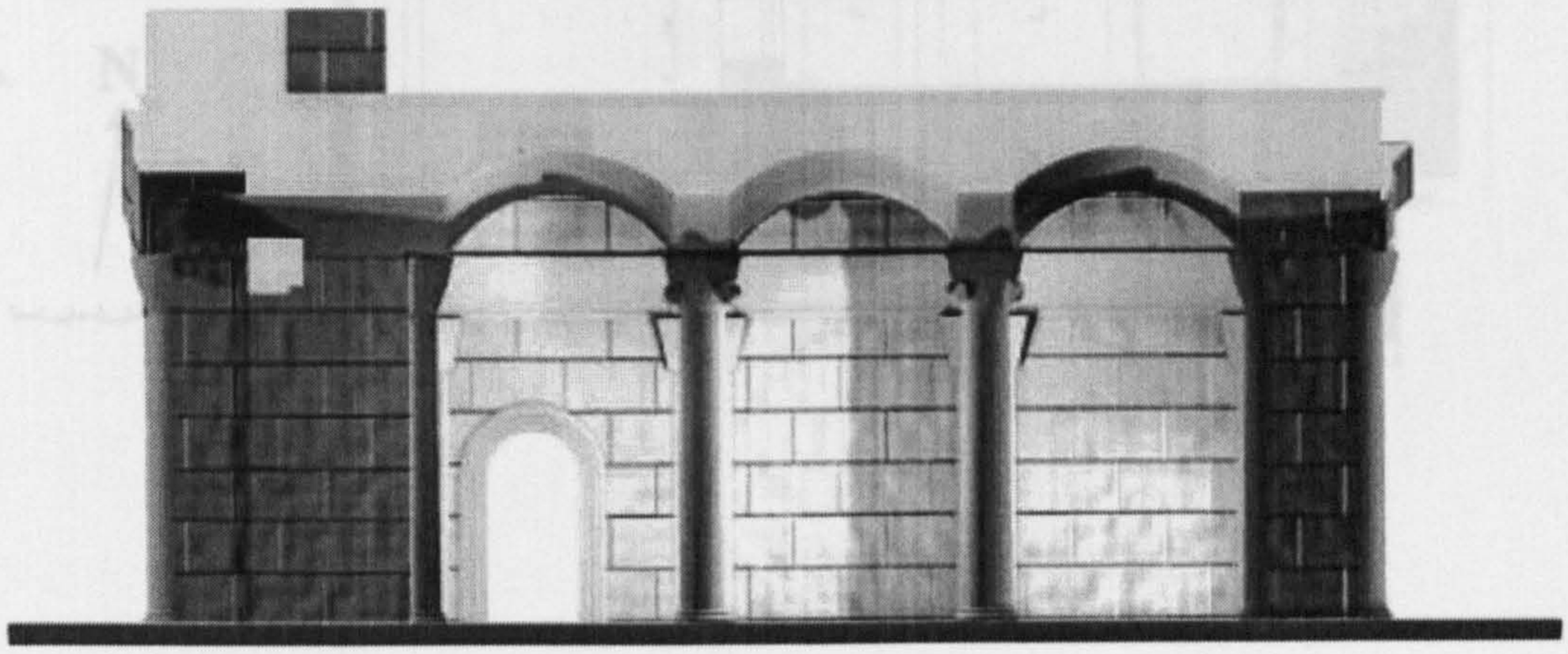


Fig. 6. 9 **Jerusalem: The eastern façade of *Bāb al-Rahmah* (or the Golden Gate) as it looks today from outside.**

Source: Sharon, 1973, p64.



Plan



0 5m.

Section A-A

Fig. 6. 10 **Jerusalem: Top plan and section of *Bāb al-Rahmah* (or the Golden Gate) in the early Islamic period.**

Source: The researcher.

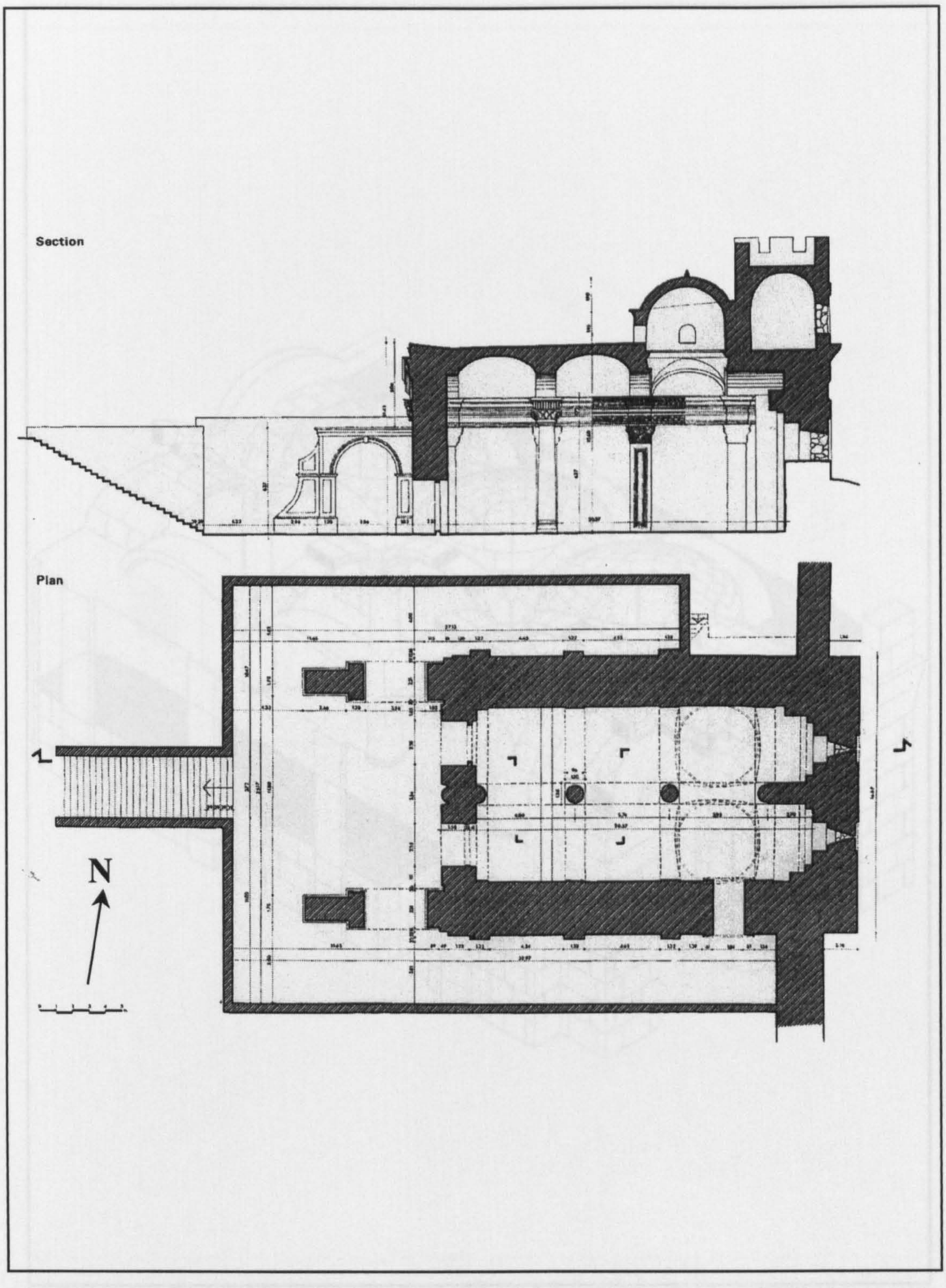


Fig. 6. 11 **Jerusalem: Top plan and section of *Bāb al-Rahmah* (or the Golden Gate) as it looks today.**

Source: After Sharon, 1973, p67.

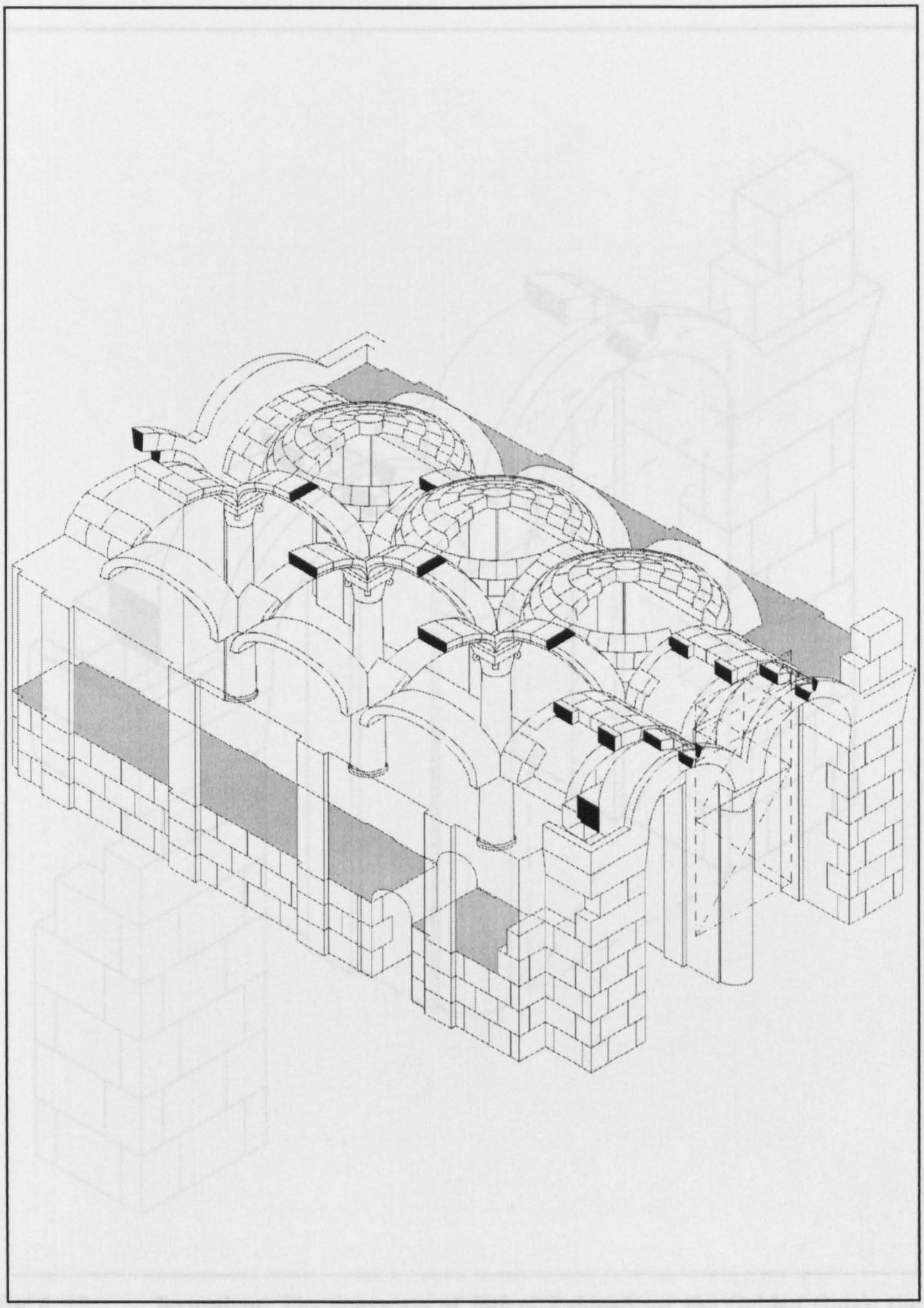


Fig. 6. 12 **Jerusalem: A drawing showing the architectural arrangement and the building technology of *Bāb al-Rahmah* (or the Golden Gate) as it looked in the early Islamic period.**

Source: The researcher.

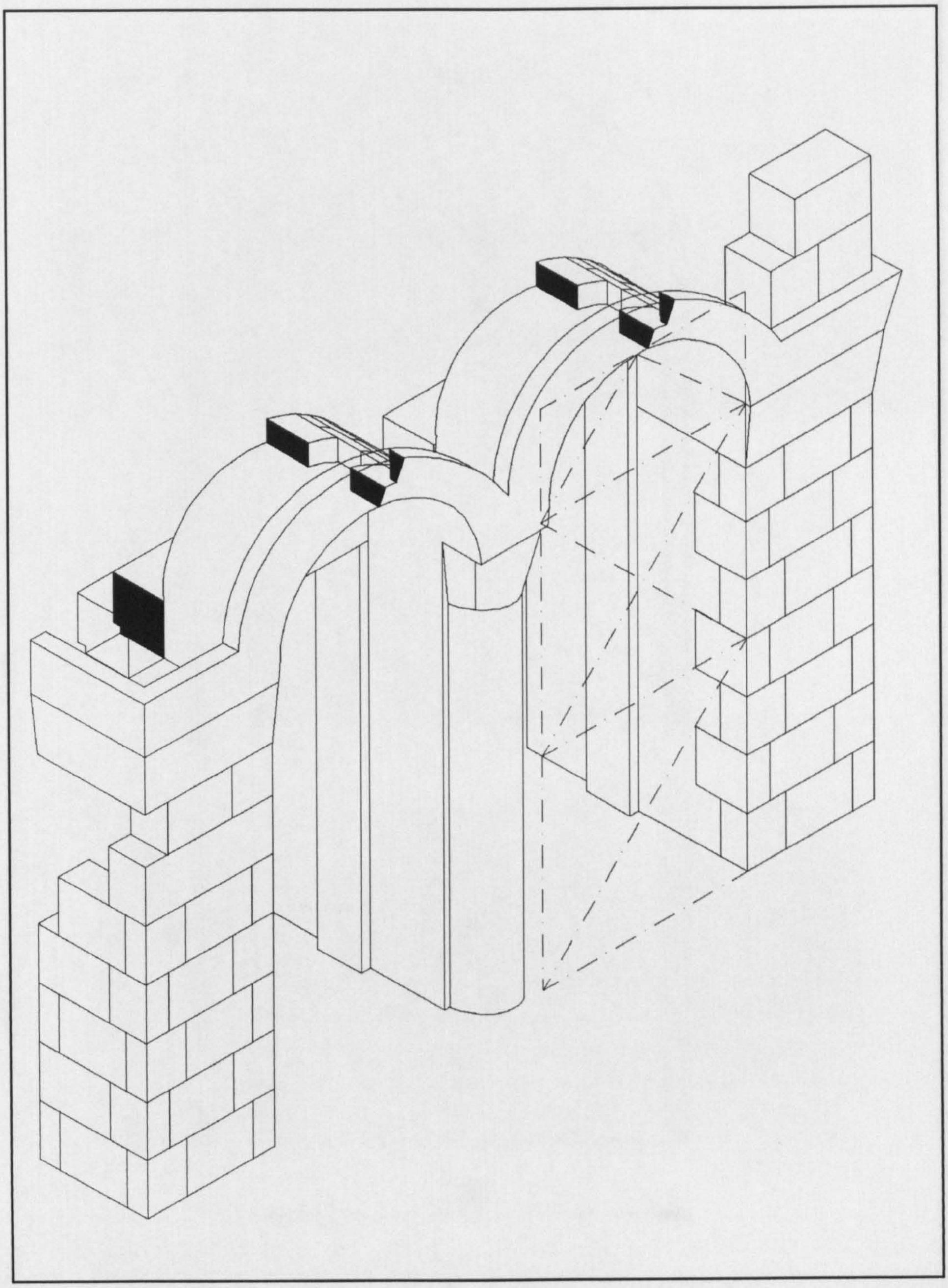


Fig. 6. 13 **Jerusalem: The doorways of *Bāb al-Rahmah* (or the Golden Gate); the picture represents the building technology that is employed in constructing the arch including the proportion of the doorway in the early Islamic period.**

Source: The researcher.

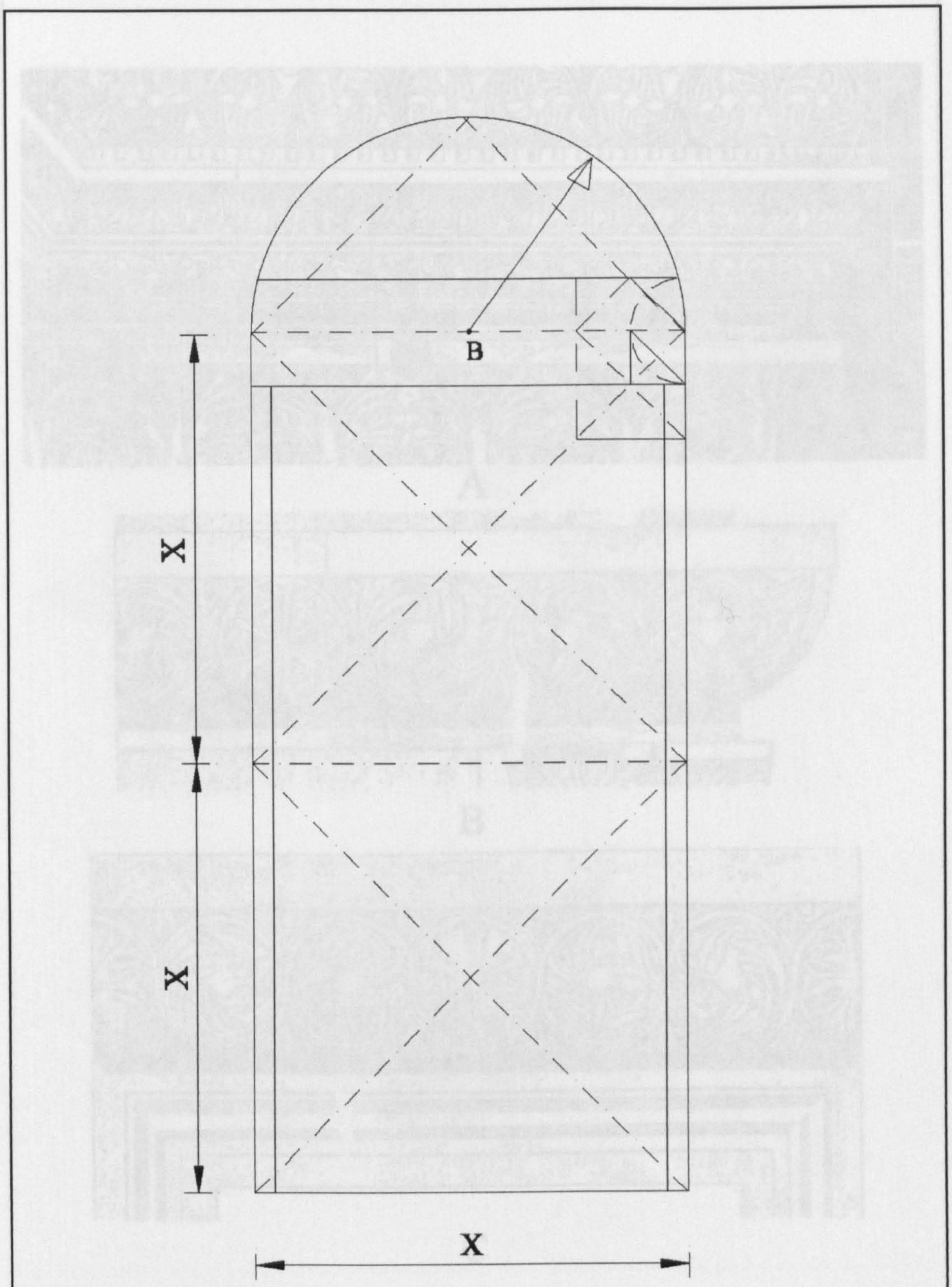
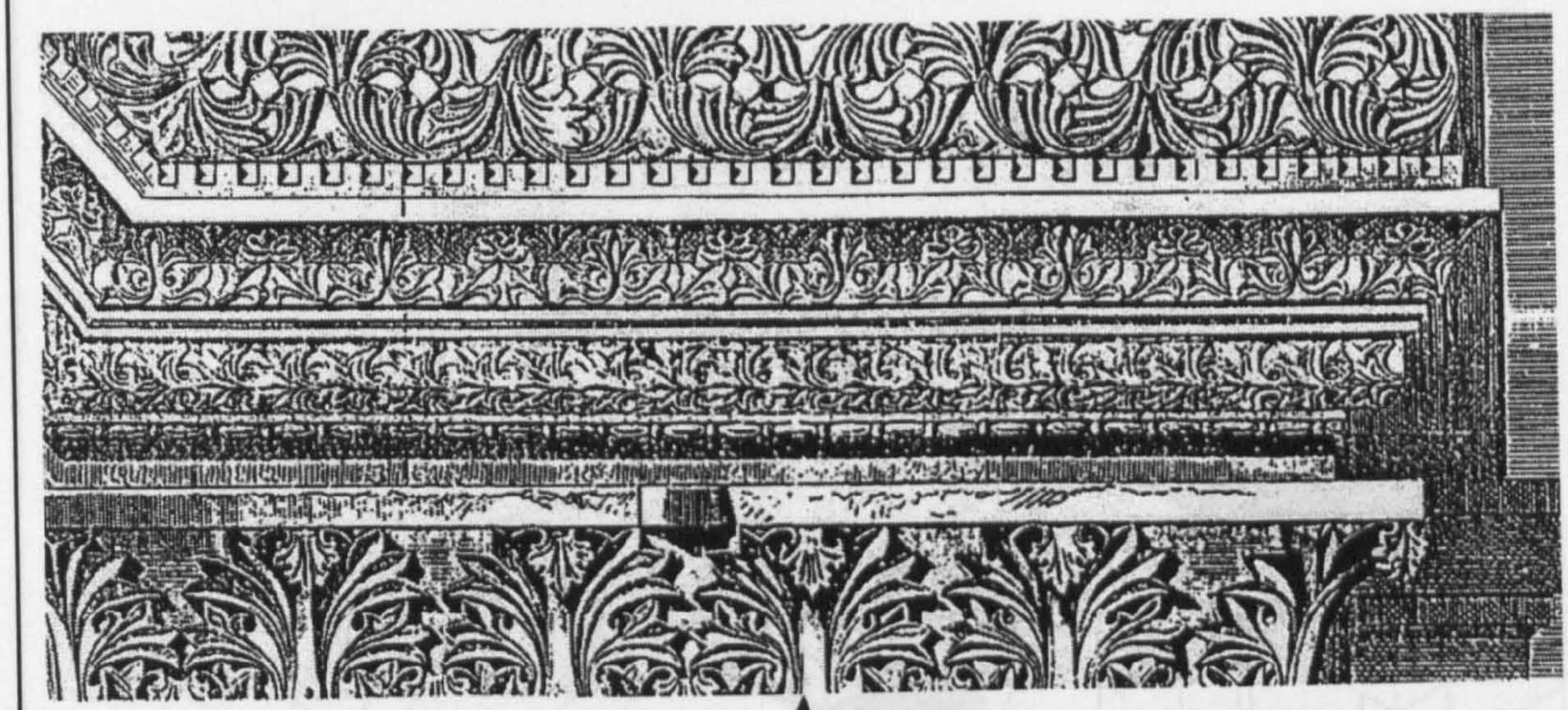
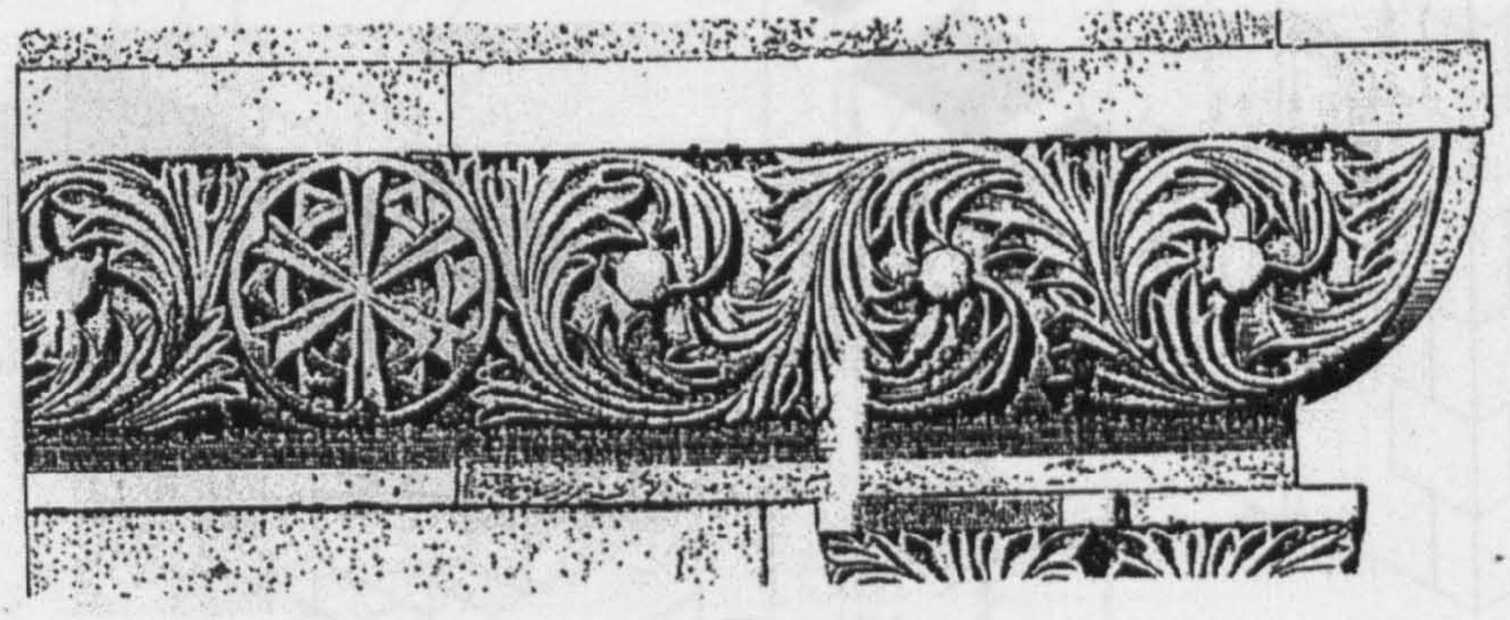


Fig. 6. 14 **Jerusalem: *Bāb al-Rahmah* (or the Golden Gate); mathematical analysis of the proportion of the doorways in the early Islamic period.**

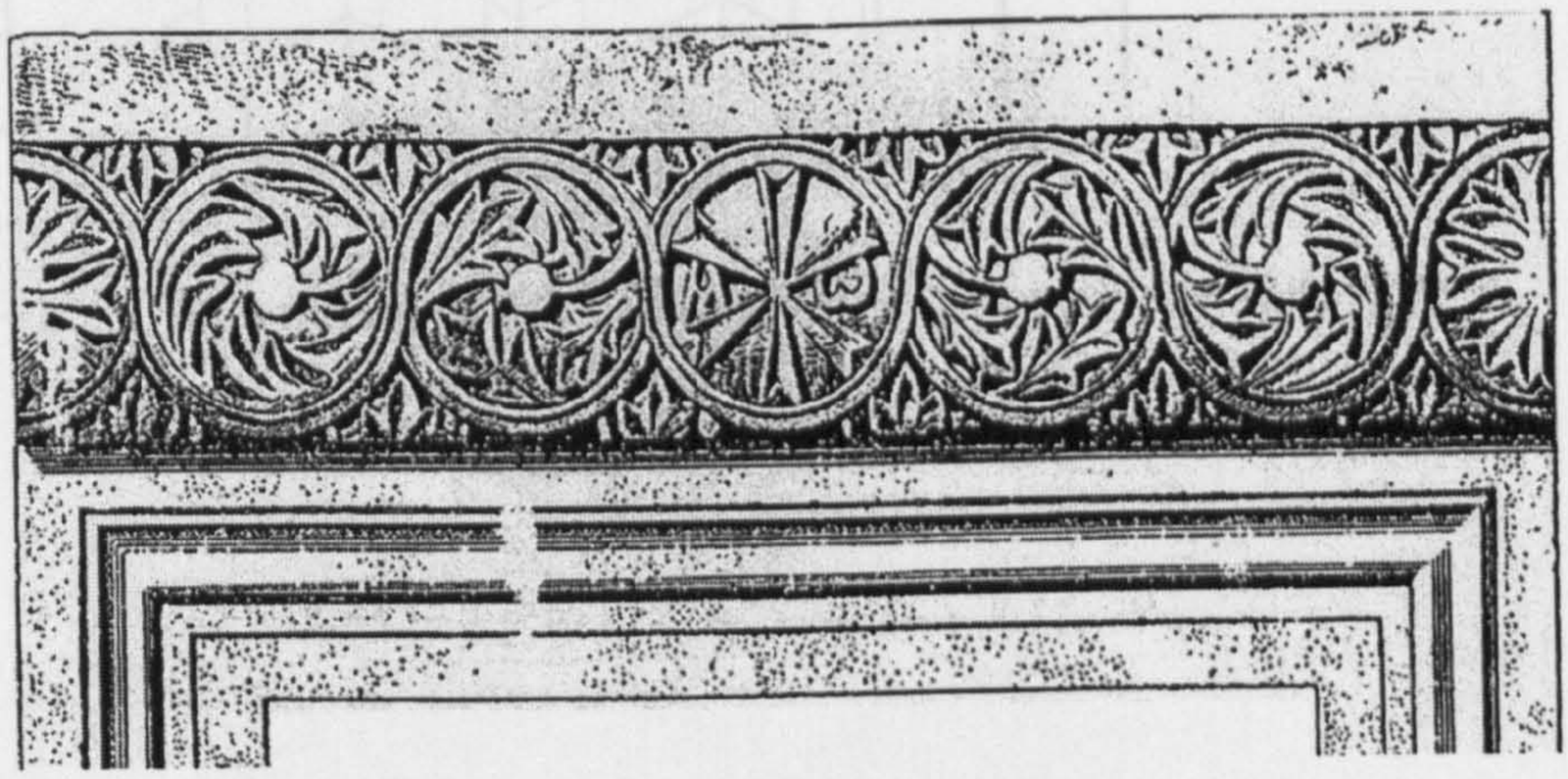
Source: The researcher.



A



B



C

Fig. 6. 15 **Some analogies to the decoration of *Bāb al-Rahmah* (or the Golden Gate). A- The decoration of the main façade of *Bāb al-Rahmah* dates from the early Islamic period. B- Decoration from pyramidal tomb at al-*Bāra* in Syria dates from Byzantine period. C- Decoration of a door lintel at *Mijlayyā* in Syria dates from Byzantine period.**

Source: Creswell, 1969, 1: pp.122-123.

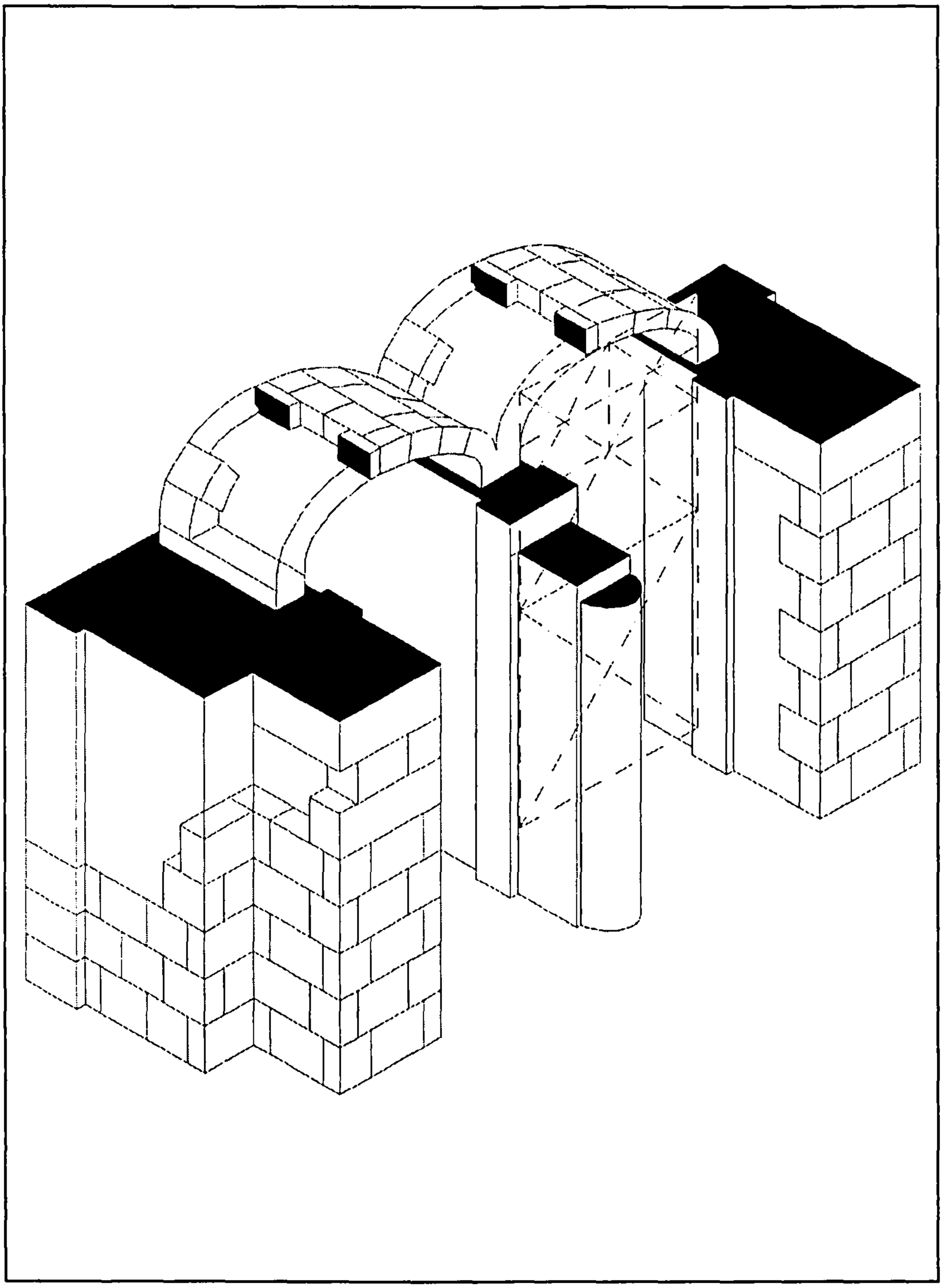


Fig. 6. 16 **Jerusalem: The doorways of *Bāb al-Rahmah* (or the Golden Gate); the picture represents the building technology that is employed in constructing of the vault of the threshold of the doorway including the proportion of the vault in the early Islamic period.**

Source: The researcher.

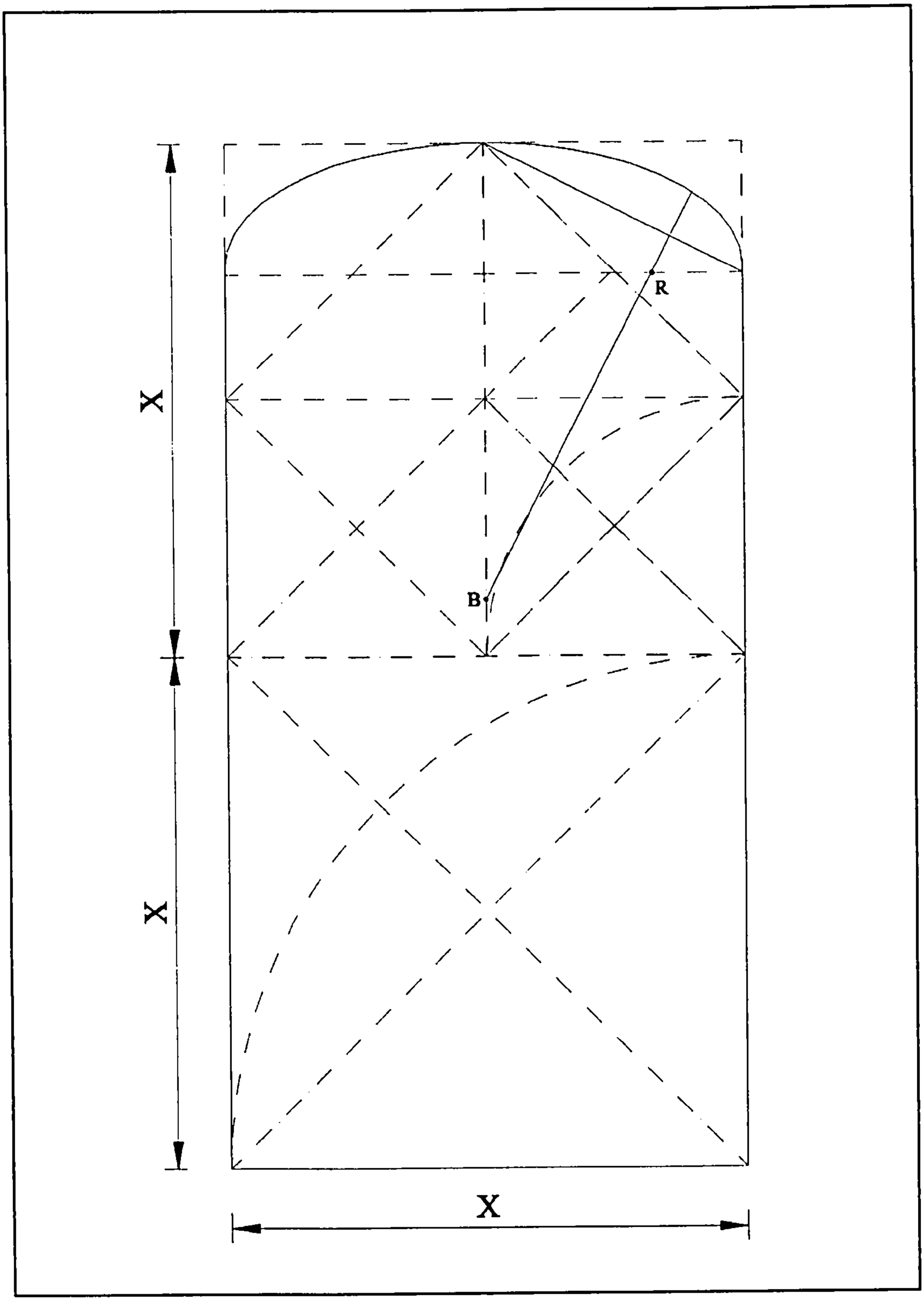


Fig. 6. 17 **Jerusalem: *Bāb al-Rahmah* (or the Golden Gate); mathematical analysis of the proportion of the vault spanning the threshold of the doorways in the early Islamic period. B and R are centres of circles that form the elliptical arch (see Fig. 6.24).**

Source: The researcher.

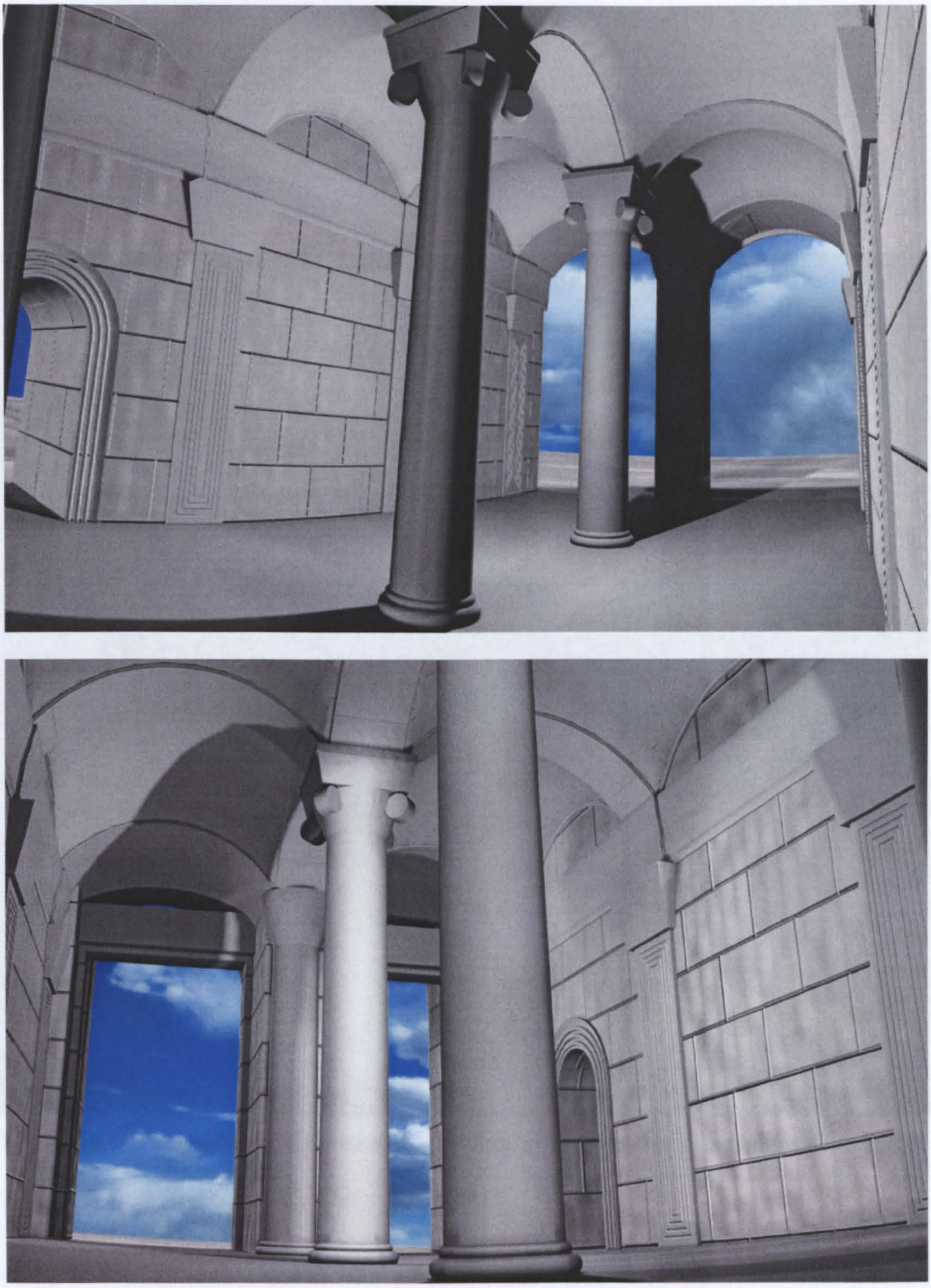


Fig. 6. 18 **Jerusalem: Interior perspectives of the vestibule of *Bāb al-Rahmah* (or the Golden Gate) as they looked in the early Islamic period. The upper picture looks towards the south-western corner of the building and the lower one looks towards the south-eastern corner of it.**

Source: The researcher.

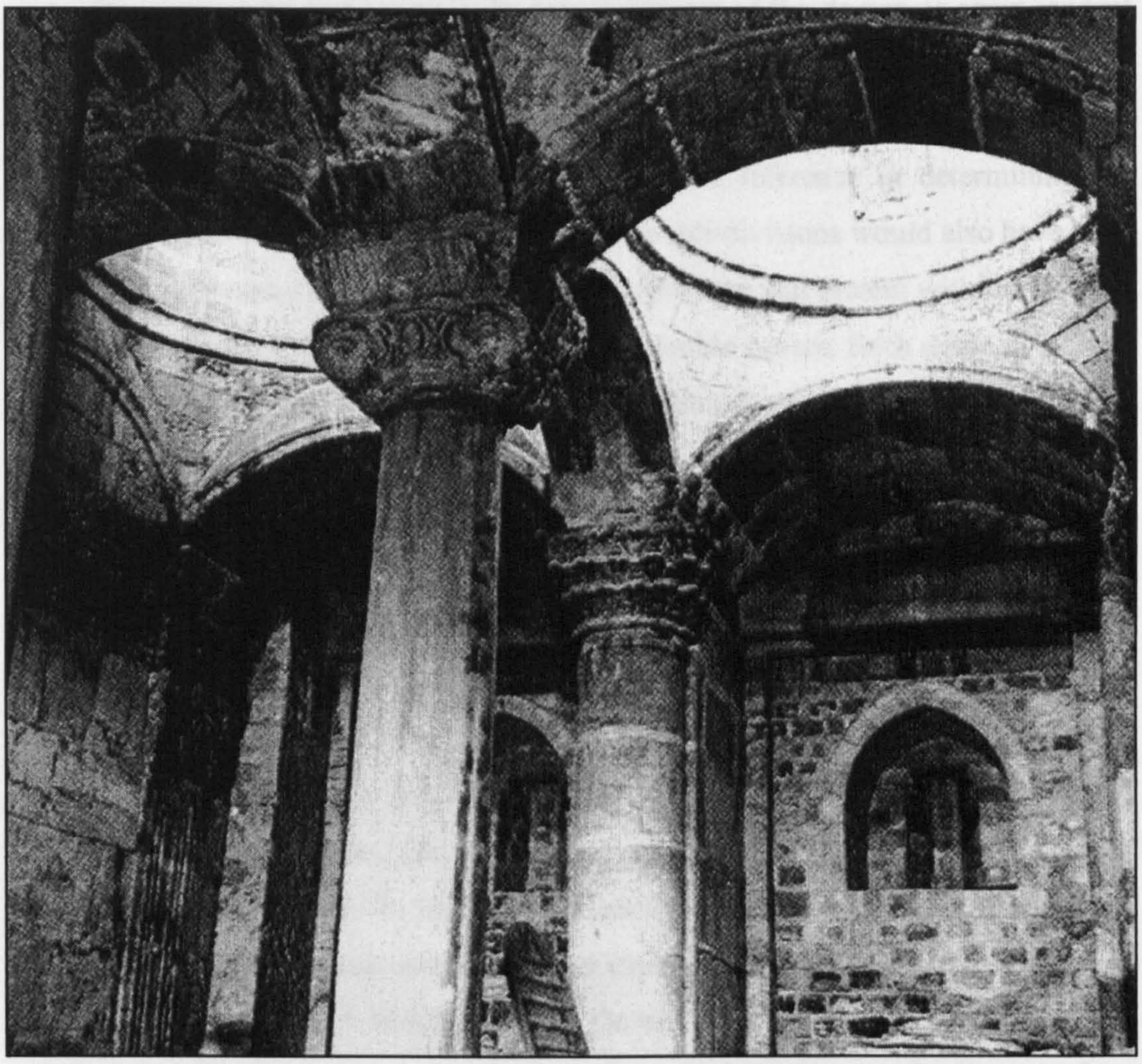


Fig. 6. 19 **Jerusalem: The vestibule of *Bāb al-Rahmah* (or the Golden Gate) as it looks today.**

Source: Sharon, 1973, p69.

the hall consisted of six shallow domes, which have elliptical shape, two of which were changed later. These domes are separated by arches of an elliptical shape springing from two pilasters at the entrances and two central columns (see Fig. 6.20, 21). These arches divide the space into six square bays, so pendentives have been made in order to fit the transition in plan between square and circle. The proportion of 1:2 between width and height, including the height of the domes, is again evident in determining the heights of the vestibule (see Fig. 6. 22). It can be seen that the proportion of *Bāb al-Rahmah* is generated from the square. It is probable that builders of the gate took the width as a means of reference in determining the principal heights inside *Bāb al-Rahmah* while the sub-divisions would also have been determined accordingly. The ratio of 1:2 for the proportional system with the circular arch on top of, and elliptic arch included in, the double square. Each dome in *Bāb al-Rahmah* is constructed over a square plan, so special stones are required to form the successive stone circles that form the dome. As the arches that carry the dome have an elliptical shape, this necessitates determining the centre points of the curve that represent the ellipse. This means that the mathematical rule that dominates the construction of elliptical arches and domes belongs to the ellipse and not to the circle as that of hemispherical domes. The construction of the ellipse requires that its major axis (ON) and minor axis (MS) should be given, in other words its width and height (see Fig. 6.23, 24). Then, a line is drawn that links point (M) on the minor axis and point (N) on the major axis. On this line, one marks off a point (P) at a distance of (L) (half the major axis)-h (half of the minor axis)) from point (M). Then a perpendicular line is constructed from the midpoint (Q) between (P) and (N), a perpendicular line through which intersects the major axis in point (R) and the minor axis in point (B). Consequently, these two points of intersection are the centres of the circles that form the ellipse (curve X-N with centre (R), curve M-X with centre (B)). To generate an elliptical dome 3-D, it necessitates revolving the ellipse around the central axis (see fig. 6. 25). Therefore, the stones that were used in constructing the domes must have been cut with respect to the centre points of the arches that represent the ellipse. This mathematical procedure is totally ignored by Corbet who erroneously suggested that the construction of the domes of *Bāb al-Rahmah* is that of hemispherical domes (see fig. 6. 26) [Corbet, 1952, p11].

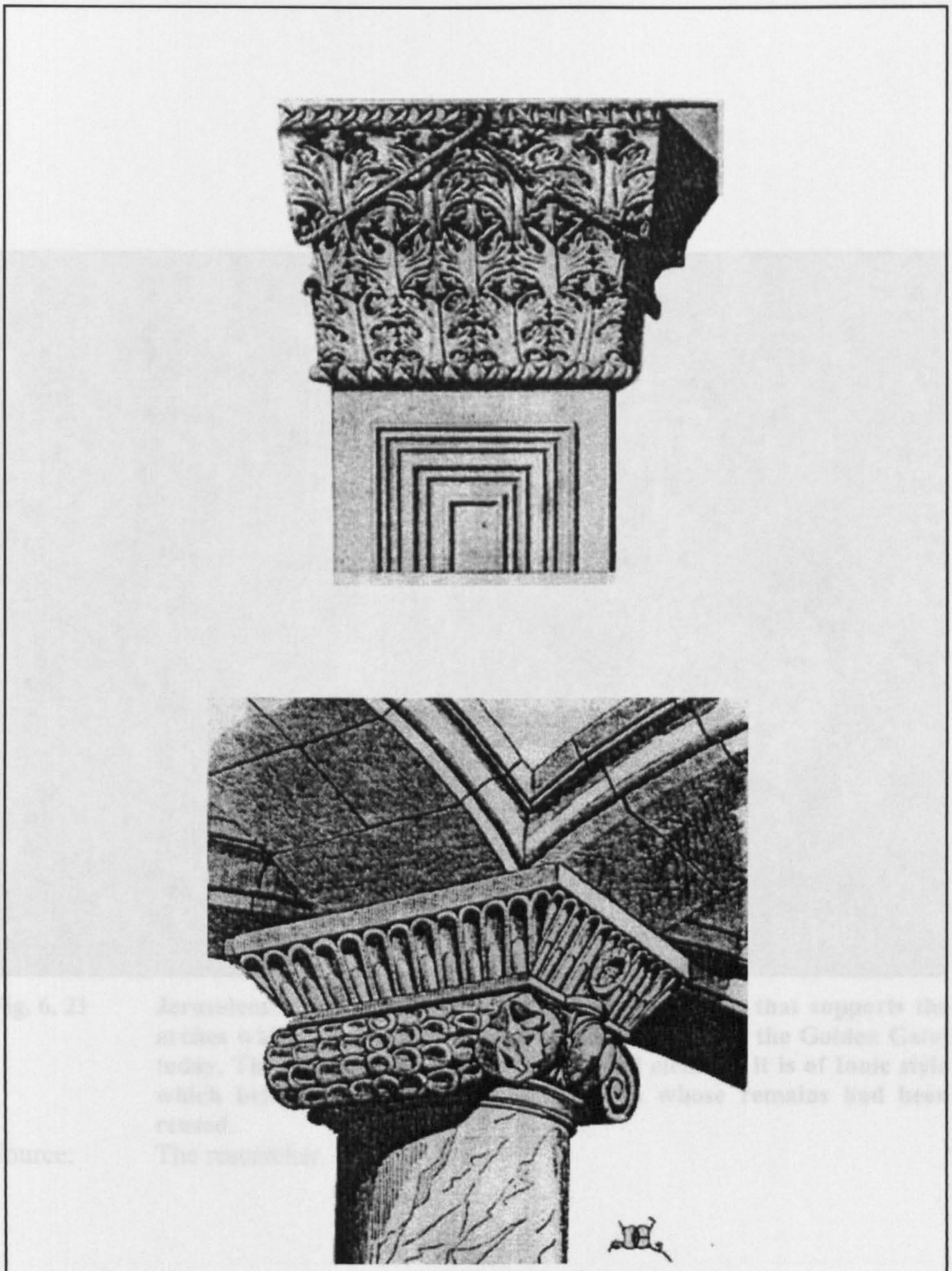


Fig. 6. 20 **Jerusalem: Architectural elements support the arches which carrying the domes of *Bāb al-Rahmah* (or the Golden Gate) today. Top picture: an interior pilaster. Bottom picture: an interior central column.**

Source: Schiller (in Hebrew), no date, p24.



Fig. 6. 21 **Jerusalem: The capital of the interior central pillar that supports the arches which carry the domes of *Bāb al-Rahmah* (or the Golden Gate) today. The capital is a reused architectural element, it is of Ionic style which belongs to an ancient Roman ruin whose remains had been reused.**

Source: The researcher.

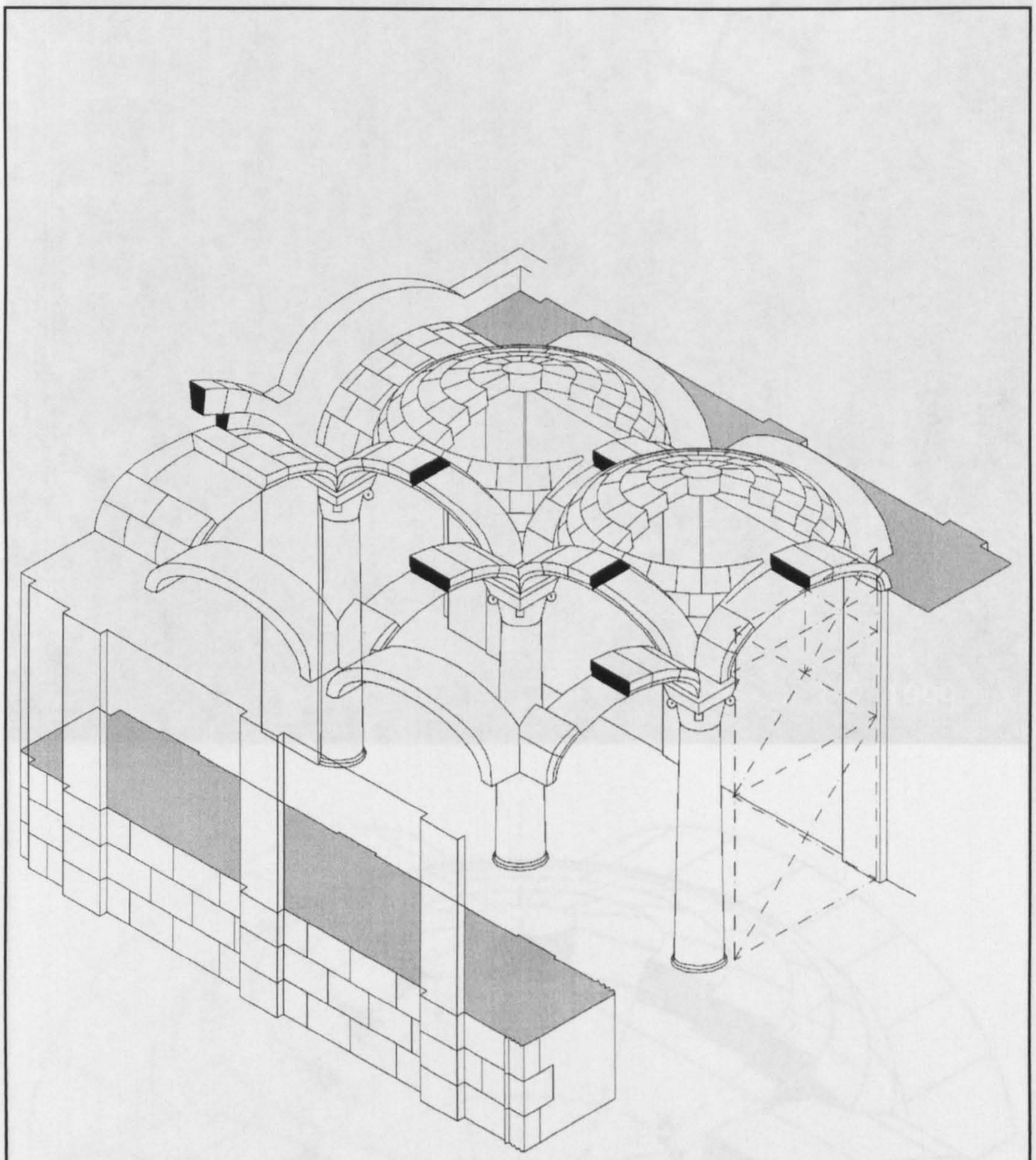


Fig. 6. 22 **Jerusalem: The vestibule of *Bāb al-Rahmah* (or the Golden Gate); the picture represents the building technology that is employed in constructing the domes of the vestibule including their proportion in the early Islamic period.**

Source: The researcher.



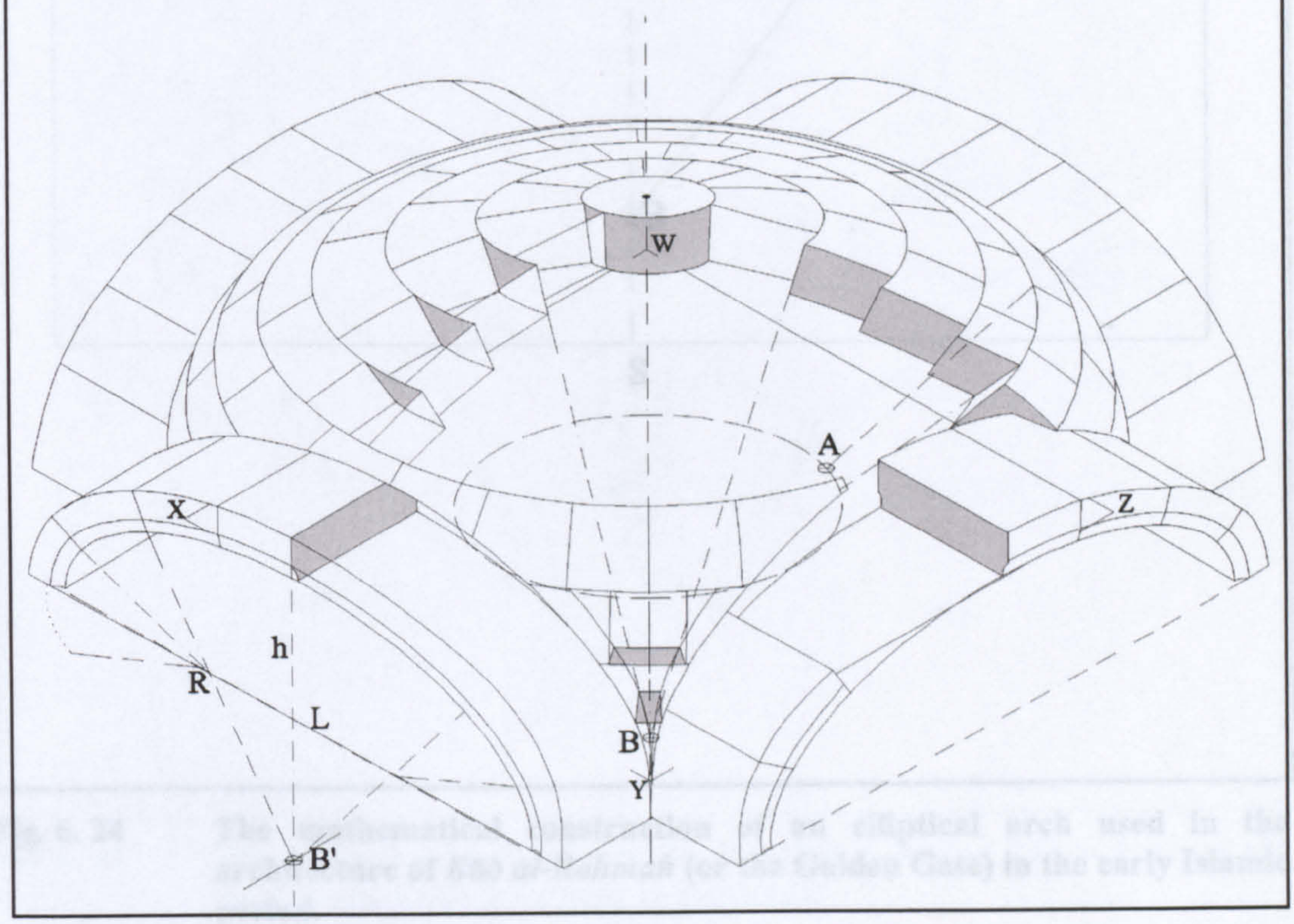


Fig. 6. 23 **Jerusalem: One of the shallow domes of *Bāb al-Rahmah* (or the Golden Gate) which dates back to the early Islamic period, as it looks today.**

Source: The researcher.

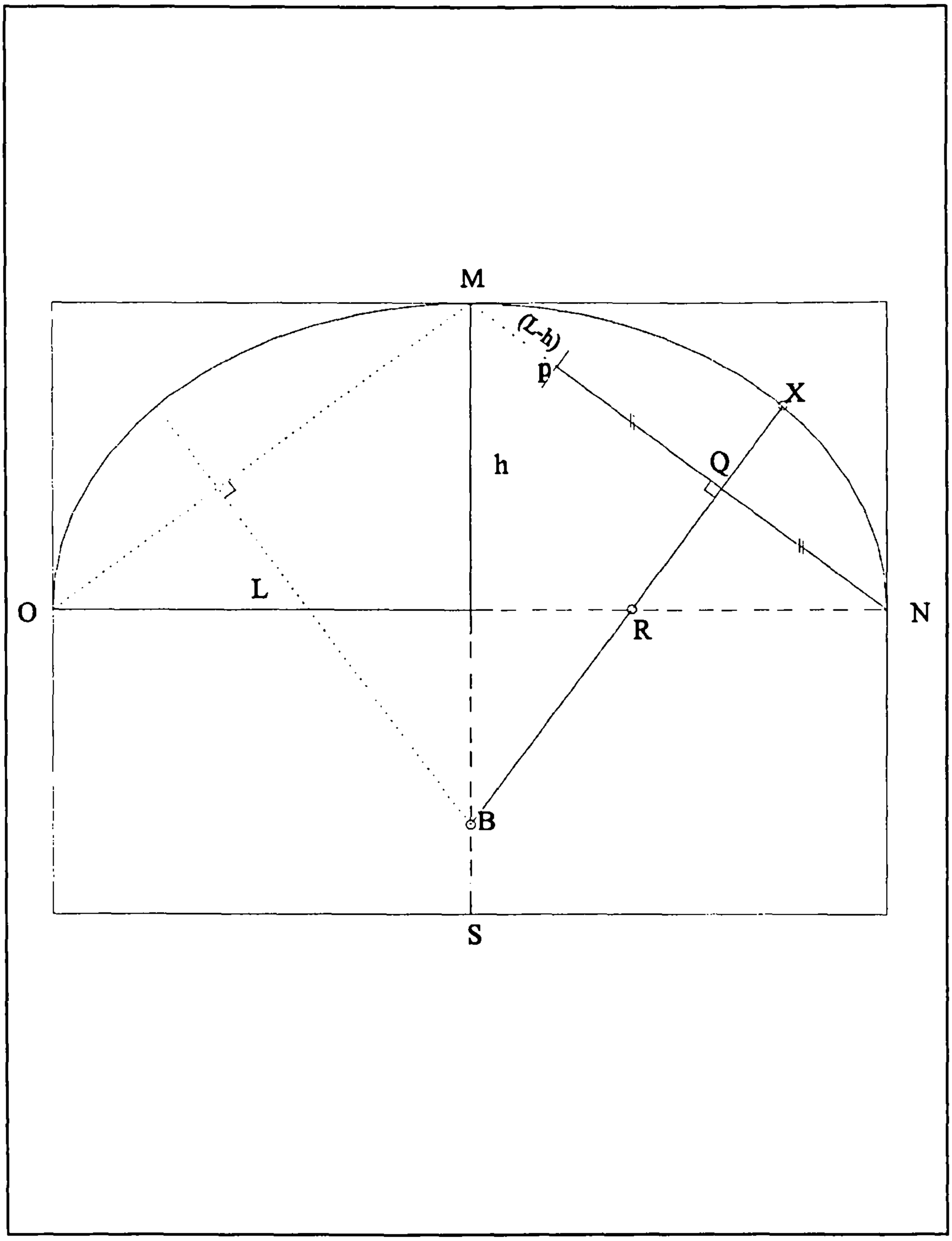
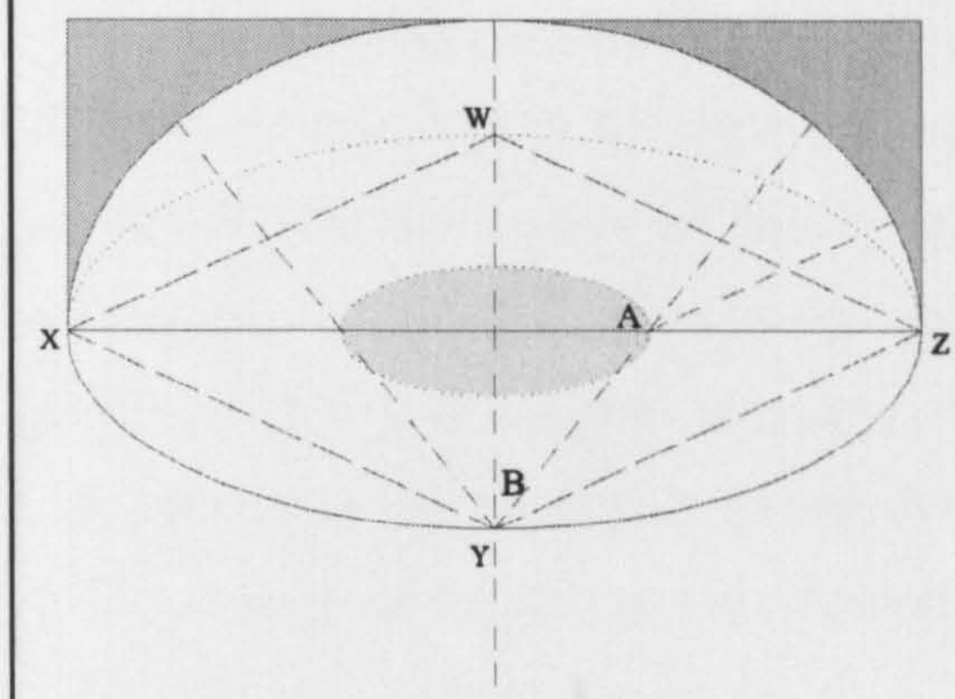
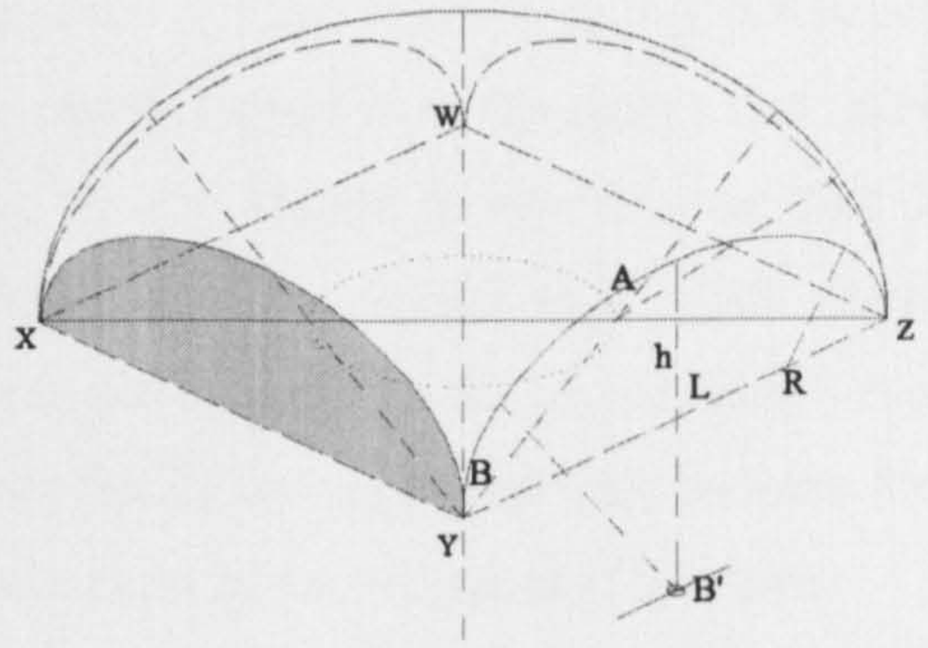


Fig. 6. 24 **The mathematical construction of an elliptical arch used in the architecture of *Bāb al-Rahmah* (or the Golden Gate) in the early Islamic period.**

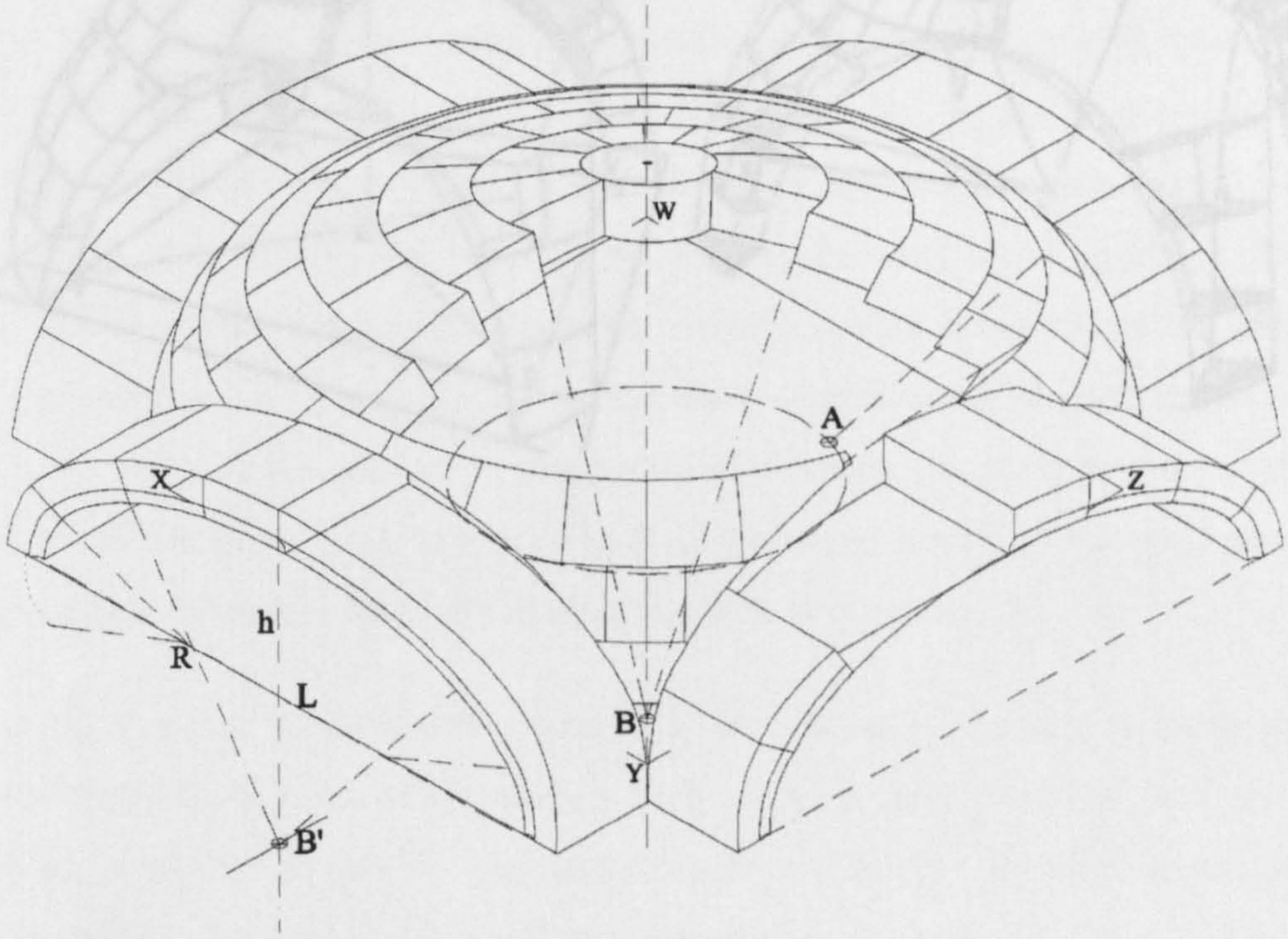
Source: The researcher.



1



2



3

Fig. 6. 25 **Geometrical analysis of how the elliptical domes of *Bāb al-Rahmah* (or the Golden Gate) have been constructed.**

Source: The researcher.

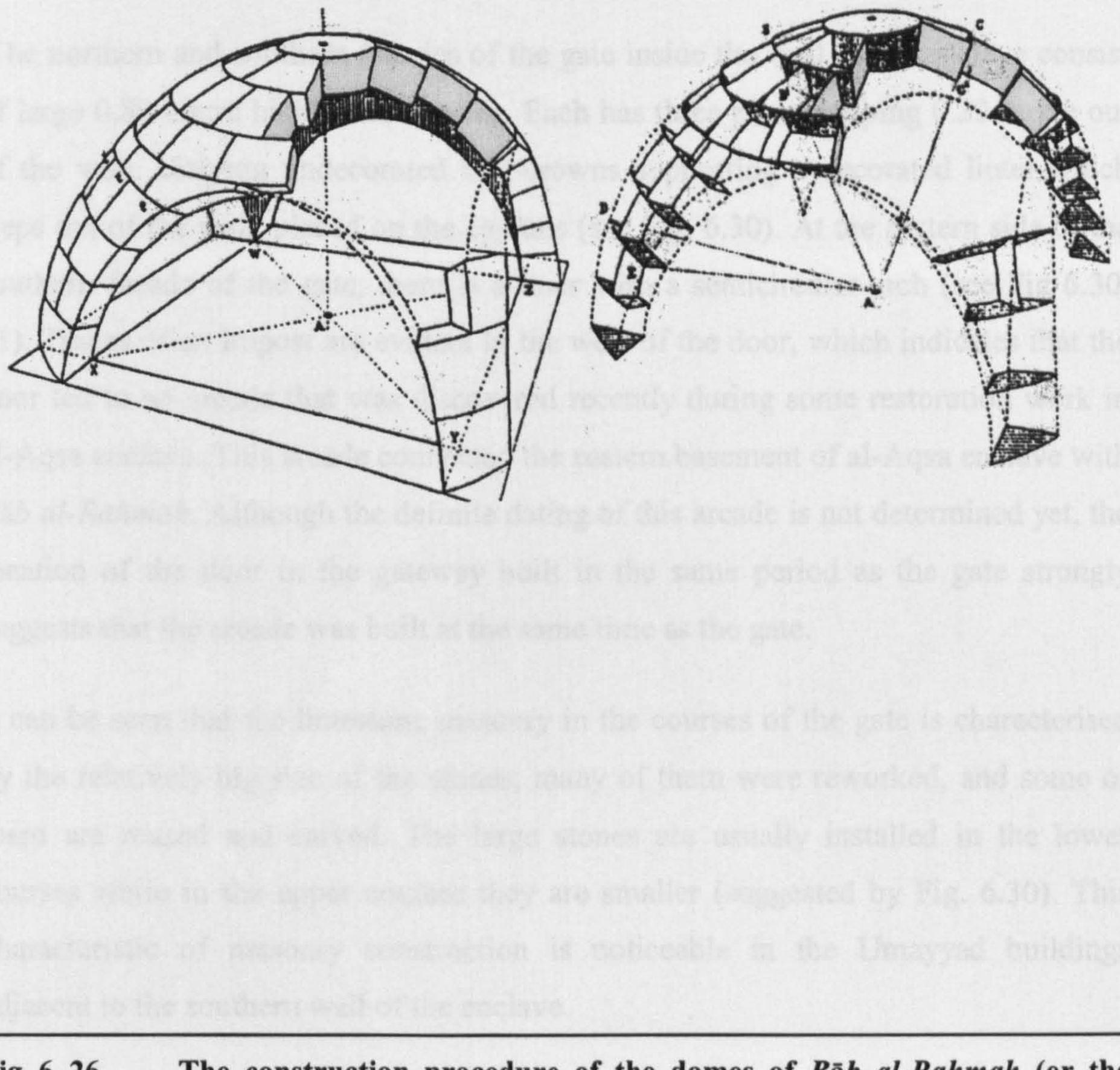


Fig. 6. 26 **The construction procedure of the domes of *Bāb al-Rahmah* (or the Golden Gate) as suggested by Corbett.**

Source: Corbett, 1952, p10.

The overall shape and the decoration of the western façade of the gate are very similar to the eastern one (see Fig. 6. 27, 28). However, the arches of the eastern and western facades are different. As the width of the eastern façade and accordingly the width of its openings are smaller than those of the western façade (see Fig. 6.10), the arches of the openings in the eastern façade cannot extend from the arches that carry the domes. So the arches of the opening of the eastern facade had to take a semicircular shape while those of the western façade had to take an elliptical shape (see Fig. 6. 29). It is not clear why the span of the openings in the eastern facade has been reduced, and the question arises whether this difference in the span between the inner doorways and outer ones is due to the standard of the entrances at that time.

The northern and southern façades of the gate inside the wall of the enclave consist of large 0.80 metre high stone courses. Each has three piers stepping 0.32 metre out of the wall, carrying undecorated half-crowns supporting a decorated lintel which steps out of the wall, placed on the capitals (see Fig. 6.30). At the eastern side of the southern facade of the gate, there is a door with a semicircular arch (see Fig 6.30, 31). Traces of an impost are evident to the west of the door, which indicates that the door led to an arcade that was discovered recently during some restoration work in al-Aqsa enclave. This arcade connected the eastern basement of al-Aqsa enclave with *Bāb al-Rahmah*. Although the definite dating of this arcade is not determined yet, the location of the door in the gateway built in the same period as the gate strongly suggests that the arcade was built at the same time as the gate.

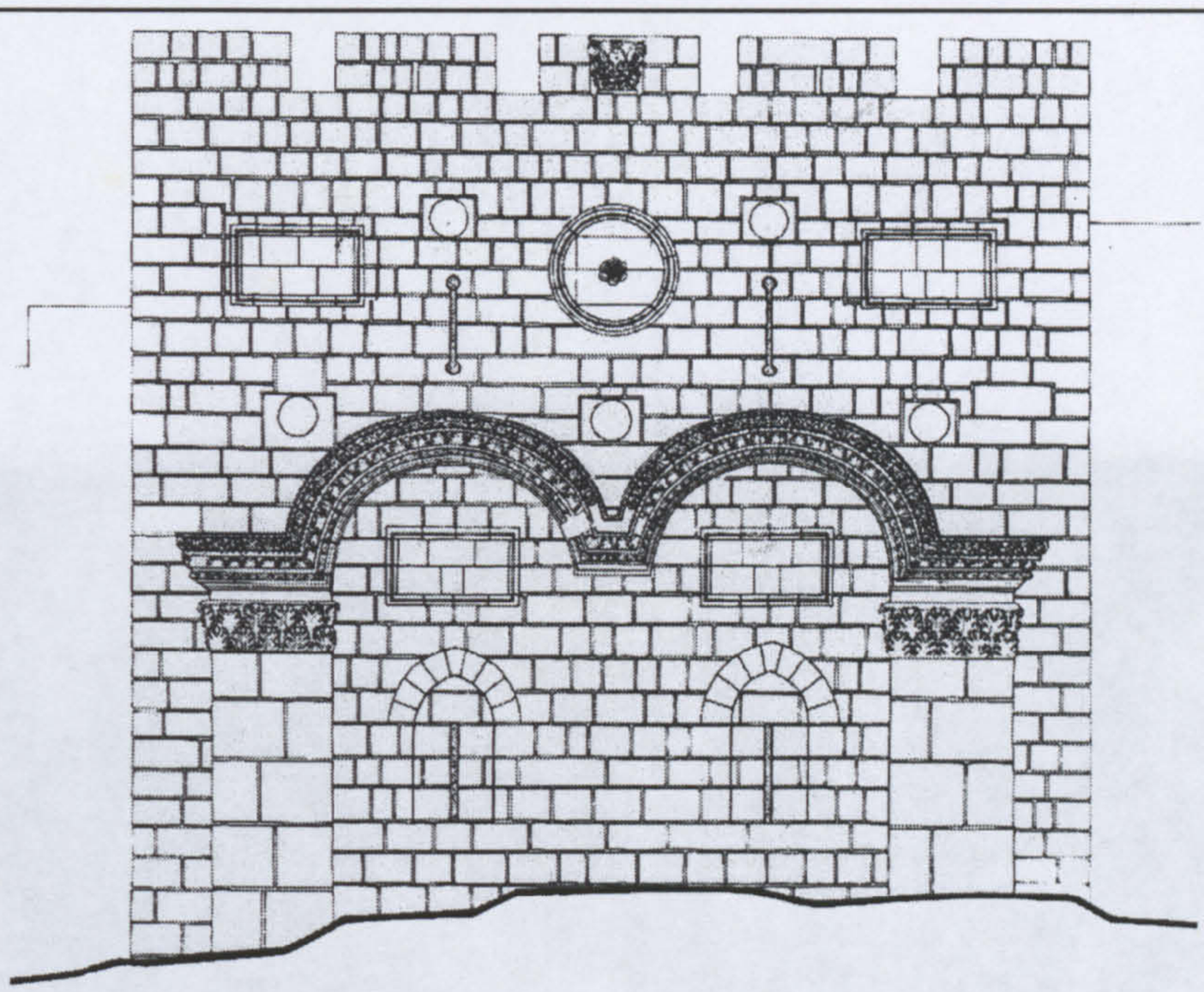
It can be seen that the limestone masonry in the courses of the gate is characterised by the relatively big size of the stones; many of them were reworked, and some of them are reused and carved. The large stones are usually installed in the lower courses while in the upper courses they are smaller (suggested by Fig. 6.30). This characteristic of masonry construction is noticeable in the Umayyad buildings adjacent to the southern wall of the enclave.

Architecturally, the spatial treatment of the gate is somewhat interesting; shifting the façade 2 metres out of the wall indicates a clear definition of its location. The most



Fig. 6. 27 **Exterior perspectives of *Bāb al-Rahmah* (or the Golden Gate) as it may well have looked in the early Islamic period. The upper picture is the eastern façade viewed from outside the enclave and the lower one is the western façade from the inside.**

Source: The researcher.



Elevation

0 1 2 3 4 5 m.

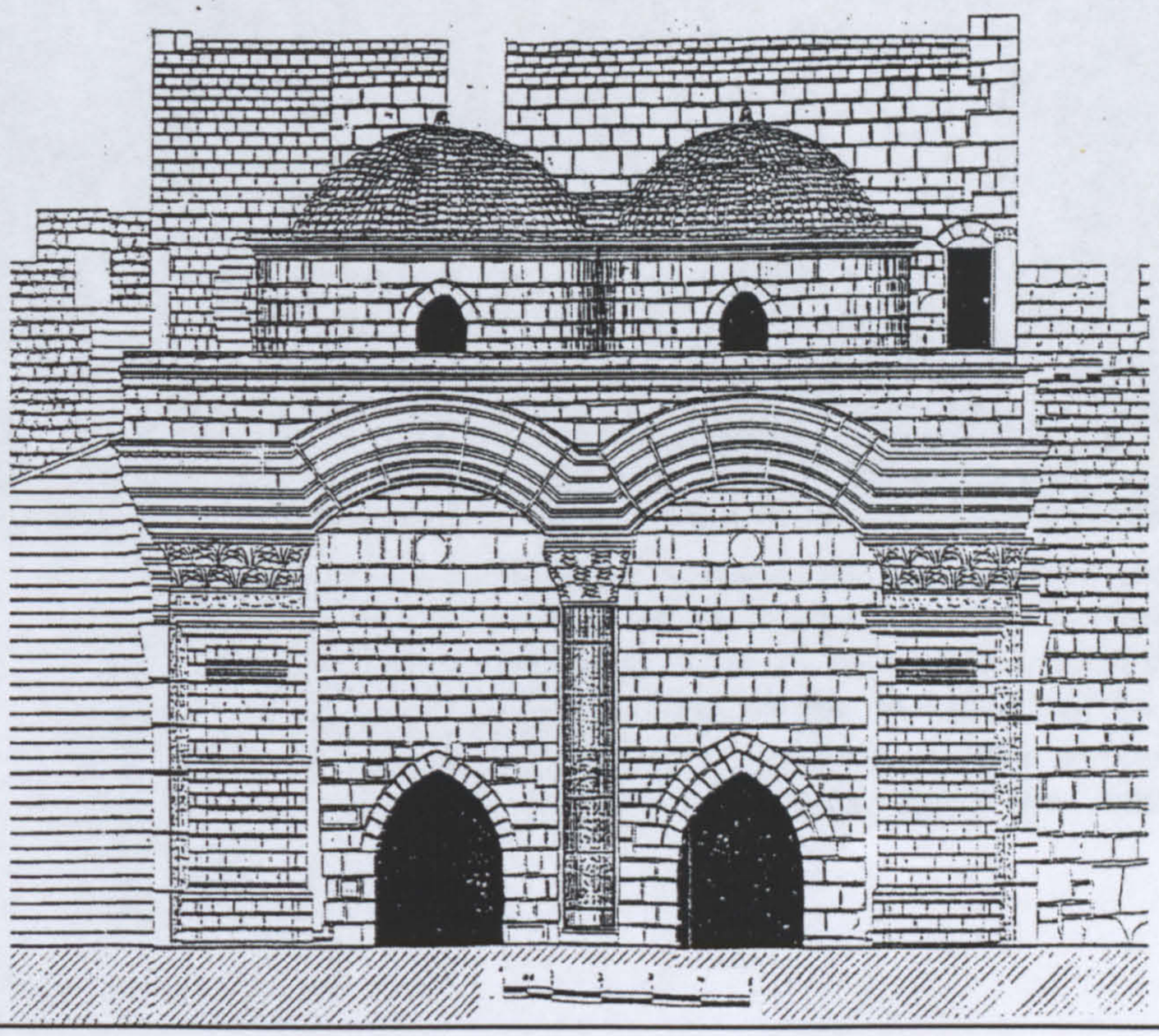


Fig. 6. 28 **Jerusalem: Top picture is the eastern façade of *Bāb al-Rahmah* (or the Golden Gate) and the bottom is the western one as they look today.**

Source: Top: Sharon, 1973, p65; Bottom: Al-Waqf authority in Jerusalem.



Fig. 6. 29 **Jerusalem: Interior perspective looking towards the eastern façade of *Bāb al-Rahmah* or the Golden Gate as it appears today. It shows that the builder of the gate has created a recess on each outer side of the eastern façade in order to reduce the span of the threshold of its openings. Therefore, the arches of the openings had to take a smaller span compared to the span of the arches that carry the domes of the vestibule.**

Source: The researcher.

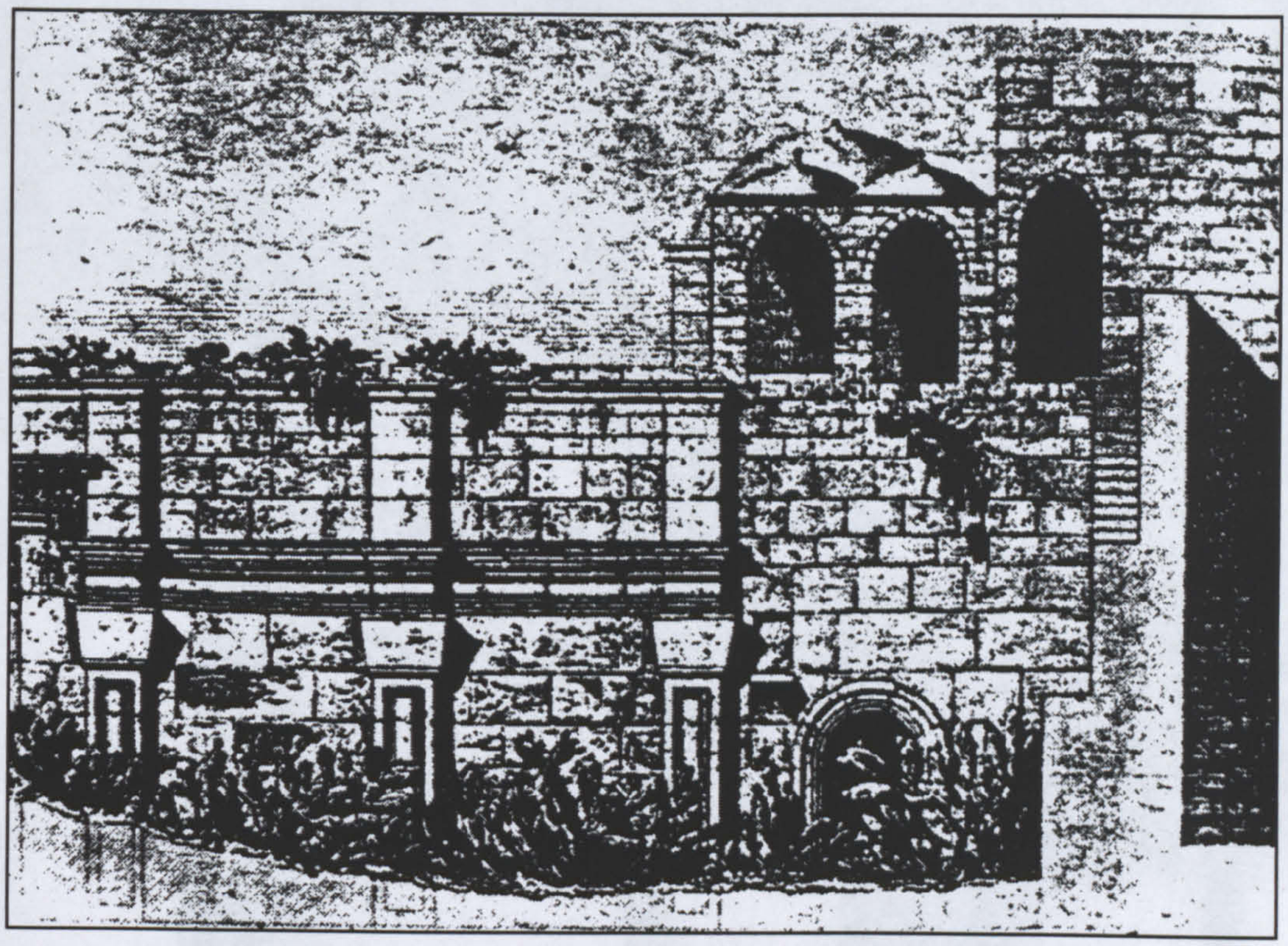


Fig. 6. 30 **Jerusalem: The southern façade of *Bāb al-Rahmah* (or the Golden Gate) in the end of the 19th century.**

Source: Schiller (in Hebrew), no date, p24.



Fig. 6. 31 **Jerusalem: A door with a semicircular arch that pierces the eastern side of the southern façade of *Bāb al-Rahmah* (or the Golden Gate) as it looks today.**

Source: The researcher.

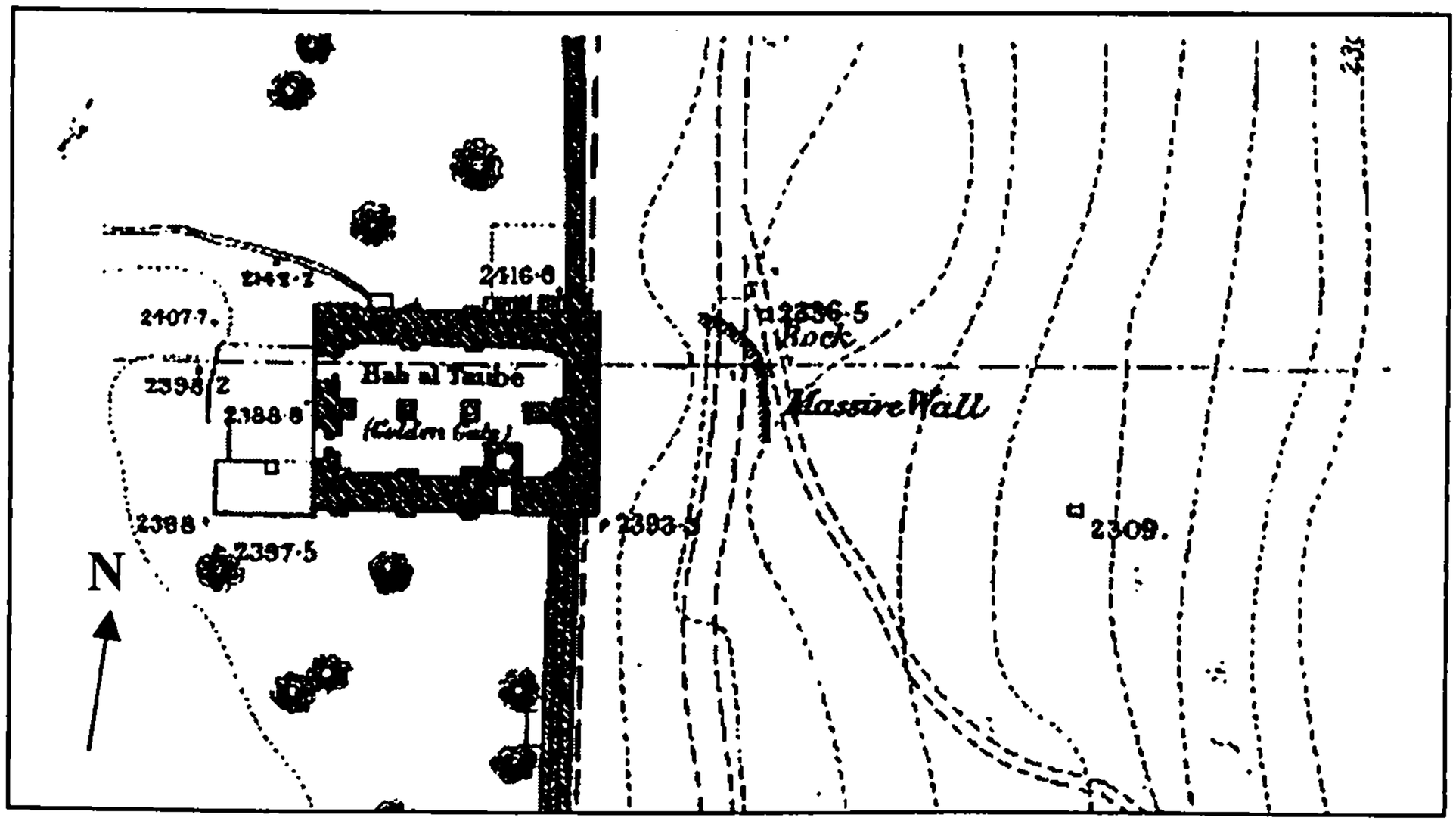


Fig. 6. 32 **Jerusalem: *Bāb al-Rahmah* and the "Massive Wall" to its east, part of the general map of Jerusalem from Warren's excavation.**

Source: Tsafrir, 1990, p281.

important question concerning this gate is the matter of motive. The gate is, in fact, the only direct access from the enclave to the area outside the city of Jerusalem. It serves those coming along or across Kidron Valley from different directions with no need to enter the city first. As the location of the *Bāb al-Rahmah* is at the top of the slope above the Kidron Valley, it required the installation of a ramp or stairway. The massive wall opposite the southern jamb of *Bāb al-Rahmah*, some 15 metres east of the gate, first discovered by Warren, could be associated with the construction of the Gate (see Fig. 6.32). On the basis of the building construction techniques of this massive wall and the mortar used in construction, Tsafrir argues that this wall is actually a low buttress supporting a terrace to carry an approach road to *Bāb al-Rahmah* in the Umayyad period [Tsafrir, 1990, p286].

Towards a better understanding of *Bāb al-Rahmah* as Umayyad construction, two important contributions have been made during the last few decades. The first is the discovery of the upper part of an arch beneath the eastern side of the gate. This was the reason why Fleming expected that another gate of an earlier date could be found if the entire area was excavated [Fleming, 1983, pp.28-30; Giacumakis, 1974, p26]. However, Taha re-examined the arch and suggests that the arch seems to be a water drainage dating to the Umayyad period [Taha, 1999, p111]. The second contribution is the research on the measurements of *Bāb al-Rahmah,* carried out 20 years ago. The result of this research makes it clear that the dimension of the gate corresponds precisely with the diameter of the drum of *Qubbet al-Sakhra* (the Dome of the Rock) [Chen, 1981, pp.171-177]. Significantly, this may well indicate a contemporary use of identical measurement units and architectural language [Rozen Ayalon, 1989, p35]. The Umayyads enriched the gate with floral ornamentation and constructed the gateway in such a monumental form (see Fig. 6.33) for several reasons. Two of them are rehearsed here: -

1- Muslims used to decorate the eastern gate of their buildings; i.e. those gates in the Umayyad palaces to the south of the enclave [Mazar, 1969, p17].

2- Since the early times of Muslim rule over Jerusalem, some Muslims, such as 'Ubadah ibn al-Sāmit, linked the eastern wall of the enclave with the Last Day [Ibn Kathīr, 1994, 4:p396]. According to Ibn Kathīr, this wall is not the wall

mentioned in the Qurānic verse "so a wall will be put up betwixt them, with a gate therein" [57:13], but it was mentioned by some commentators as an example for the clarification of the meaning of the verse [Ibn Kathīr, 1994, 4: p396]. Since that time, this example probably encouraged Muslims to bury their dead immediately outside the eastern wall of the al-Aqsa enclave. In any case, if the name "*al-Rahmah*" (Mercy) truly exists since the construction of the gate, this suggests that the gate is part of an overall concept based on the idea related to the place, specifically the Rock, as that of the Last Day. Then it can be argued that *Bāb al-Rahmah* symbolises a gate in paradise or an entry to Mercy. Could the richness of the floral decoration in many places of *Bāb al-Rahmah* and its monumental form have represented this idea or simply have reflected the gate's function as the main entrance to the enclave from the outside? Regardless which of these concepts are behind the building of *Bāb al-Rahmah*, both are in contrast to Ben-Dov's suggestion that the gate was designed to commemorate Muhammad's miraculous arrival at the enclave [Ben-Dov, 1985, p286]. Why would Ben-Dov identify this place and not, for example, *Bāb al-Nabī* (Gate of the Prophet) which fits his claim much better as a result of its location at the southern *Qiblah* wall, facing Makkah? Ben-Dov supported his suggestion with the late historical source of Mujīr al-Dīn al-'Ulaimī in order to justify his claim that Muslims attached no value whatsoever to the western wall of the enclave. However, early Muslim sources, including Ibn al-Faqīh, make no link between the eastern wall and Muhammad's *Isrā'* (Night Journey), but Ibn al-Faqīh gives an indication of this event, i.e. Muhammad's *Isrā'* (Night Journey) that probably took place somewhere in the area of the south-west angle of the enclave [Ibn al-Faqīh, 1996, p151].

It is probable that the architectural significance of *Bāb al-Rahmah* caused some later historians such as al-'Umarī [al-'Umarī, 1924, 1: p147] and later al-'Ulaimī [al-'Ulaimī, 1995, 2: p29] to link the gate with Muhammad's entry to al-Aqsa enclave as a matter of prestige.

Whatever the construction motive of *Bâb al-Rahmah* might have been, it was built during the early Islamic period, and it is the most significant gate of the enclave.

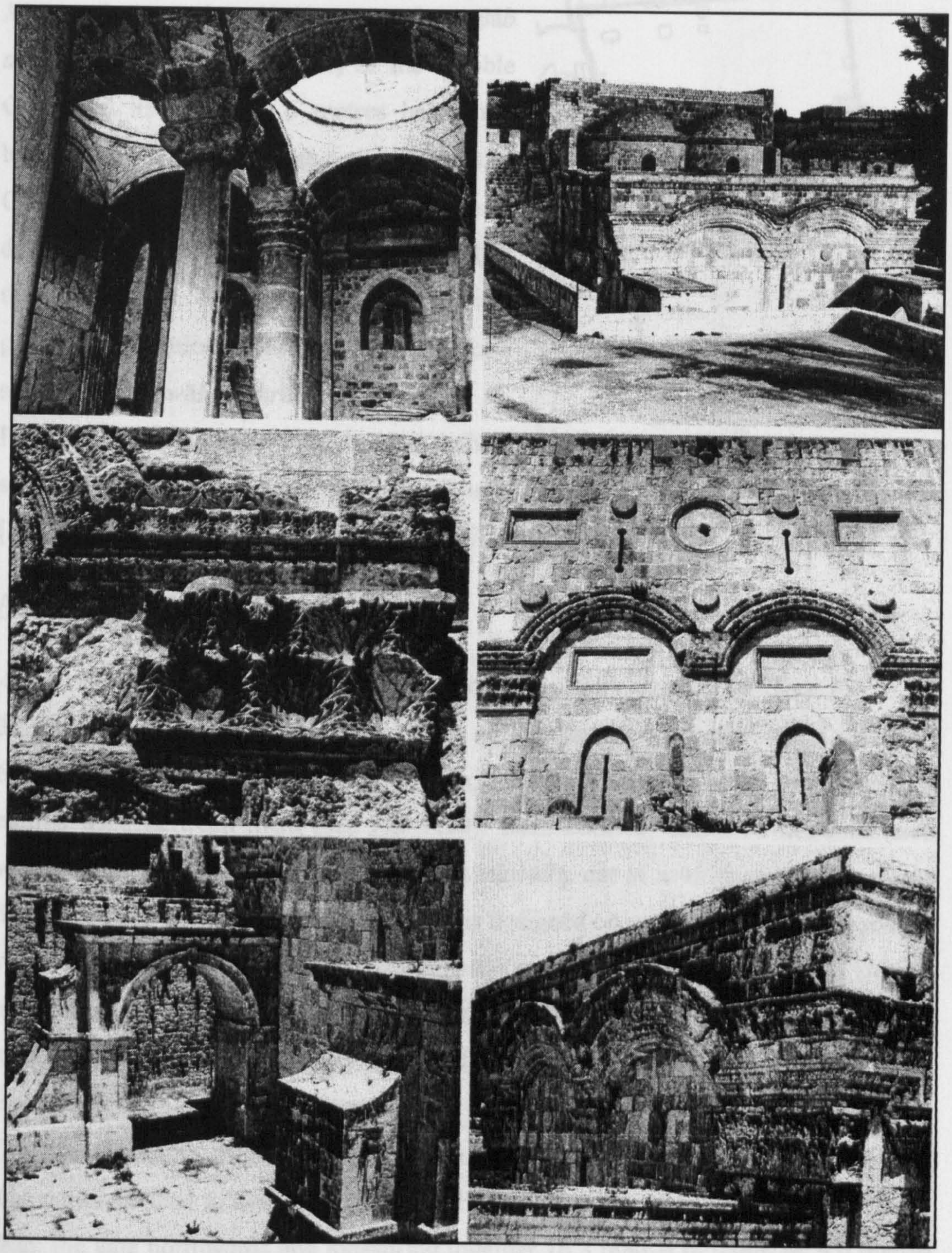
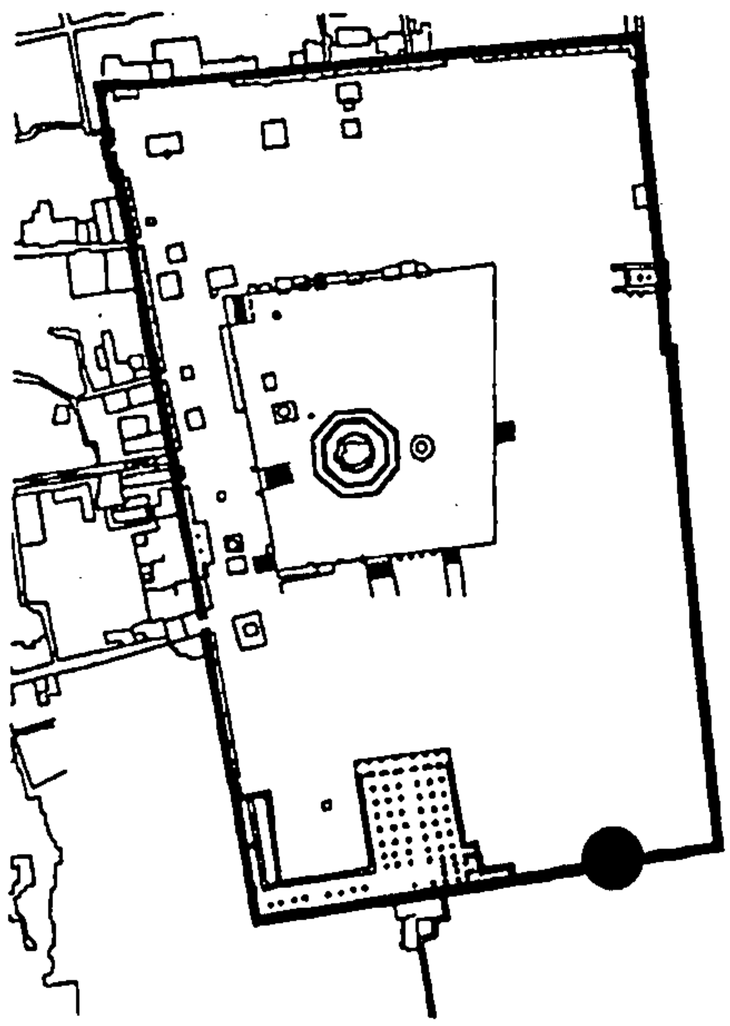


Fig. 6. 33 **Jerusalem: *Bāb al-Rahmah* (or the Golden Gate) today from different positions.**

Source: Sharon, 1973, p69.

Abwāb (the doorways of) Mihrāb (niche of) Mariam or the Triple Gate



Abwāb (the doorways of) *Mihrāb* (niche of) *Mariam* is located at 65.60 metres from *Bāb al-Nabī* (Gate of the prophet) or the Double Gate, and its sill is 11.6 metres below the level of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). As it consists of three doorways, the vast majority of scholars call it the Triple Gate. However, the name of this gate was mentioned in the early Islamic sources as *Abwāb Mihrāb Mariam*. Ibn al-Faqīh and al-Maqdisī would be the earliest scholars to refer to the gate; they listed it under the name of *Abwāb Mihrāb Mariam* [Ibn al-Faqīh, 1996, p151; al-Maqdisī, 1987, p146].

Architecture of *Abwāb Mihrāb Mariam*

Abwāb Mihrāb Mariam forms an underground masonry passageway (see Fig. 6.34, 35, 36, 37). It has three vaults covering an elongated rectangular space (see Fig. 6.38). The gate has three doorways; each measures 4 metres wide, with piers 1.8 metres wide between them (see Fig. 6.39). Each doorway has a semicircular arch with a distinctive chamfer at its external voussoirs, cut at a 45 degree angle across the lower edge [Burgoune, 1992, p110]. It is designed on a proportion of 2:3 between width and height (see Fig. 6.40). Although the arches from the inside, which cover a inner threshold of 2.40 metres in width, are elliptical and have a greater span, they are designed on the same proportion employed in the doorways (see Fig. 6.41, 42). Furthermore, piers of 1.25 metres wide separate them. Thus, as first noted by Conder, the doors might fold back flush with these piers [Warren, 1970, p164]. The openings lead to three aisles covered by barrel vault of a segmental arch, extend from the gate northwards and measuring together 16.3 metres in width by 6.9 metres in height. It is designed on a proportion of 4:7 between the length and height which,

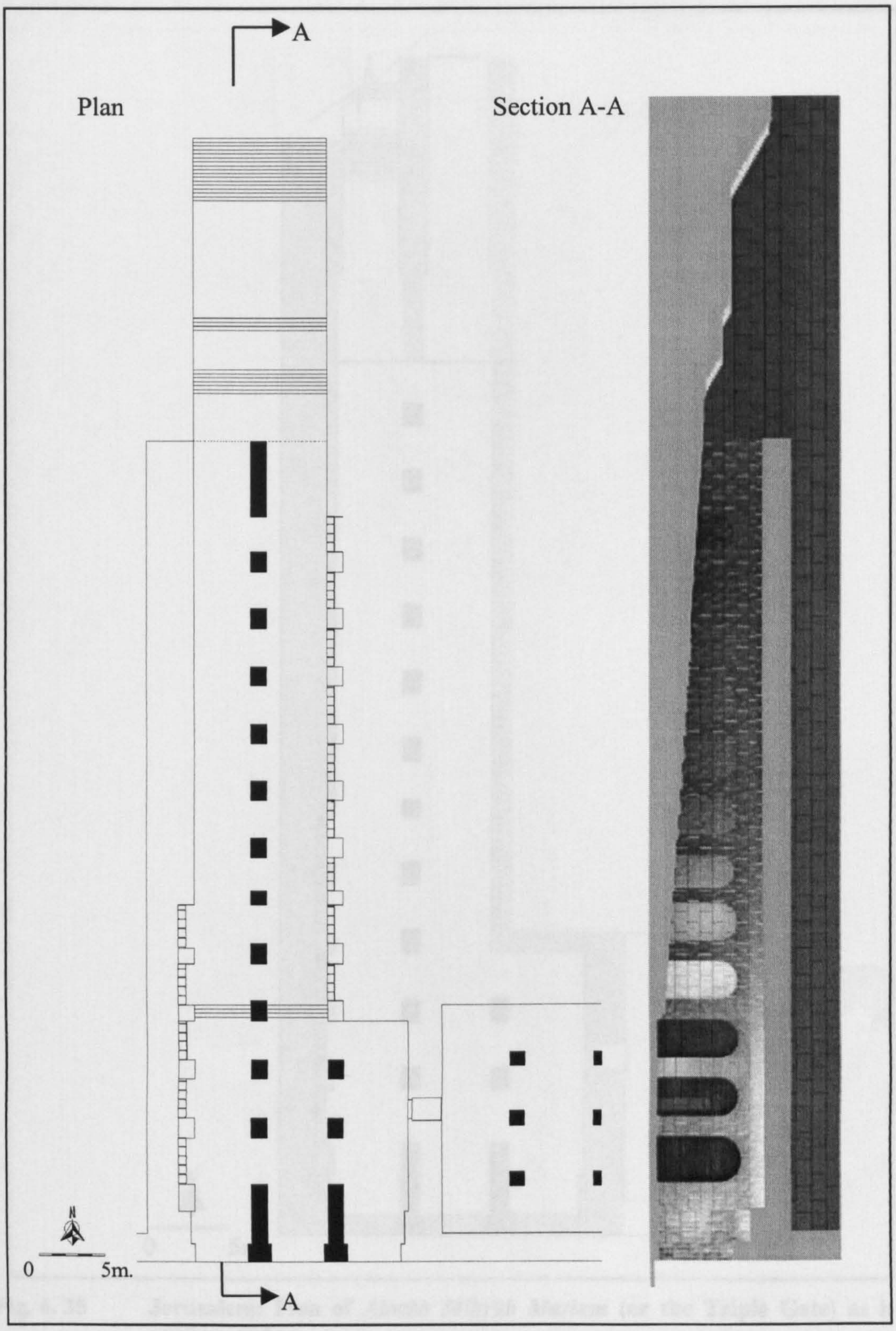


Fig. 6. 34 **Jerusalem: Plan and section of *Abwāb Mihrāb Mariam* (or the Triple Gate) as it may well have looked in the early Islamic period.**

Source: The researcher.

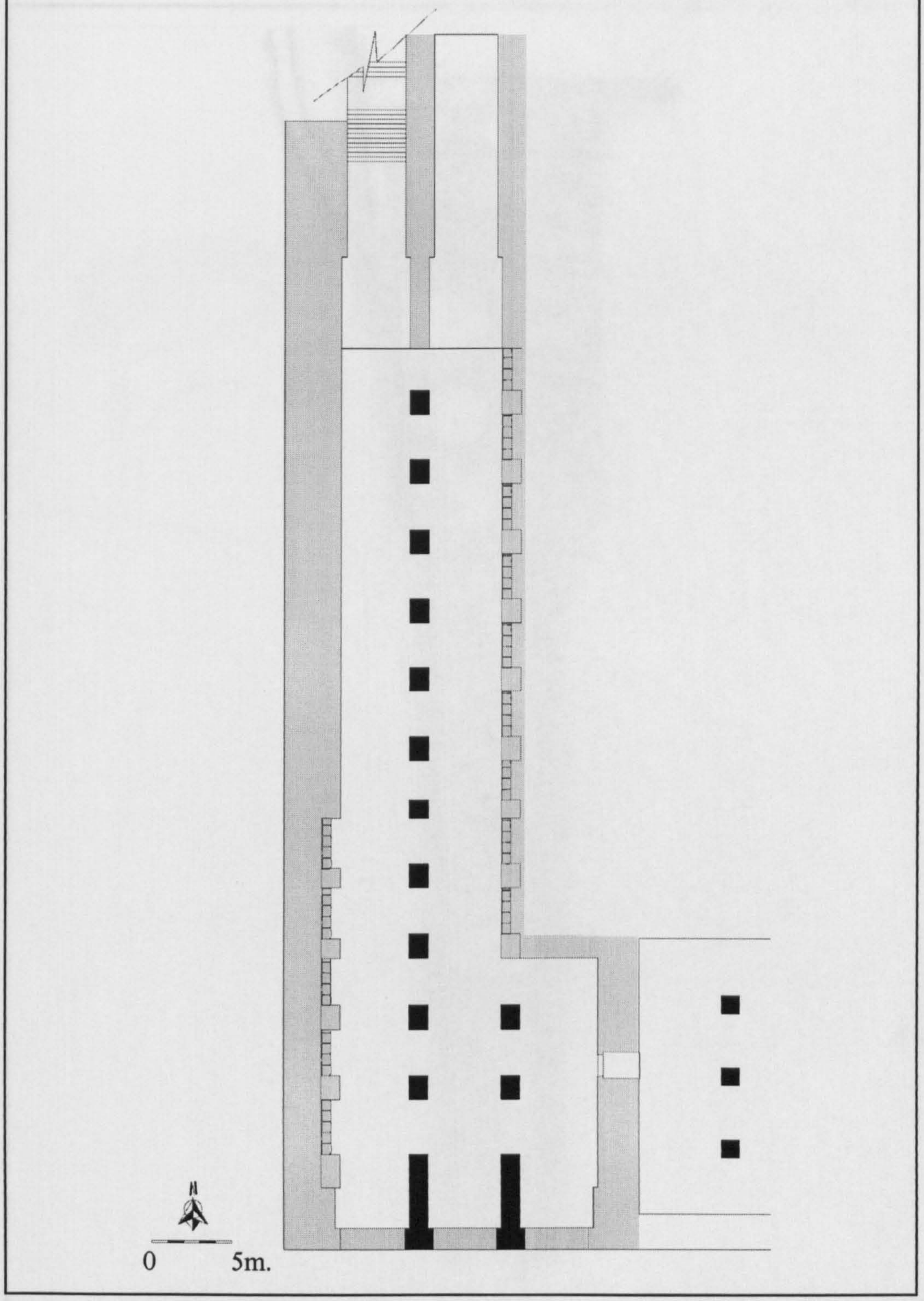


Fig. 6. 35 **Jerusalem: Plan of *Abwāb Mihrāb Mariam* (or the Triple Gate) as it appears today.**

Source: The researcher.

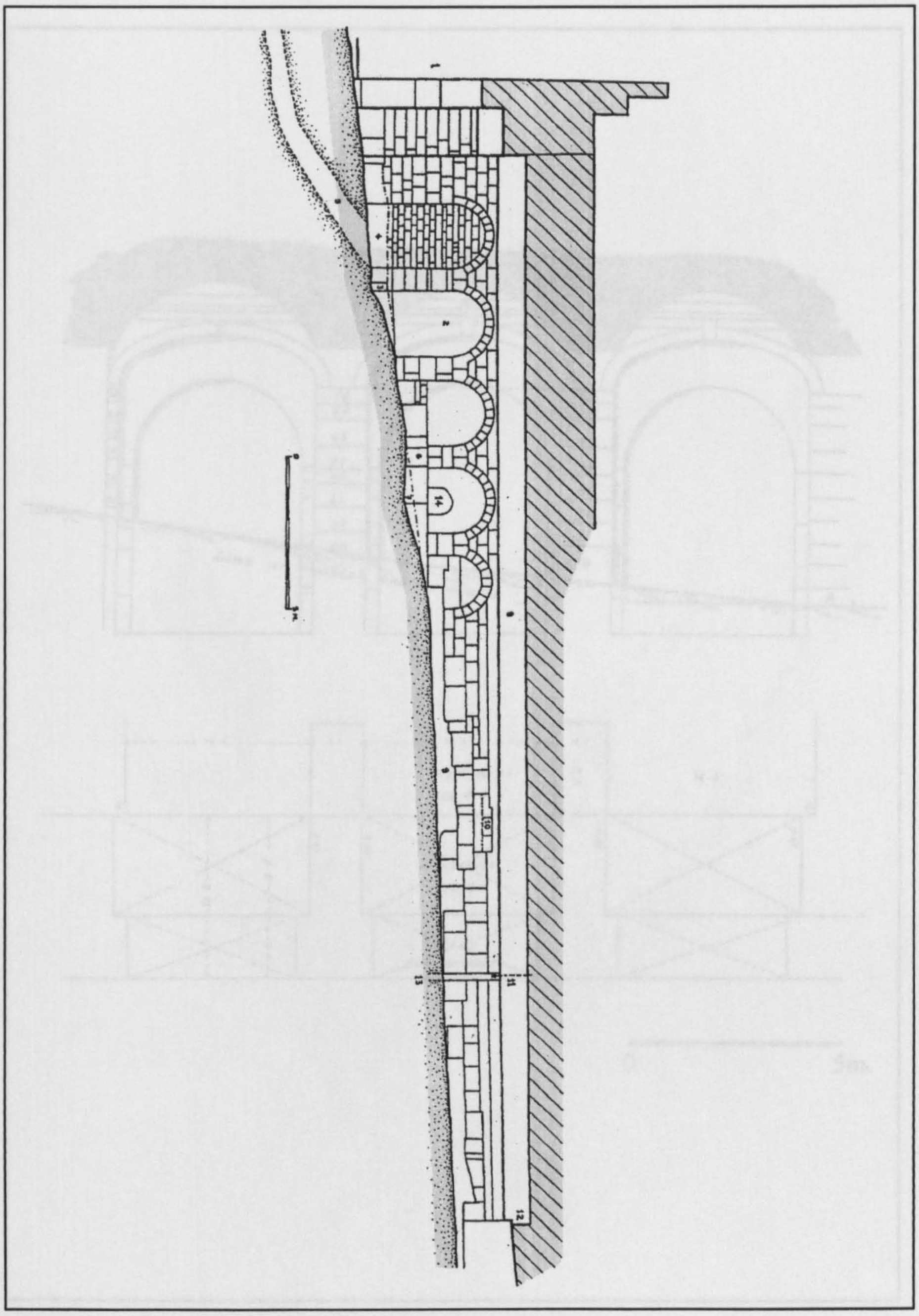


Fig. 6. 36 **Jerusalem: Section of *Abwāb Mihrāb Mariam* (or the Triple Gate) as it appears today.**

Source: Gibson and Jacobson, 1996, p265.

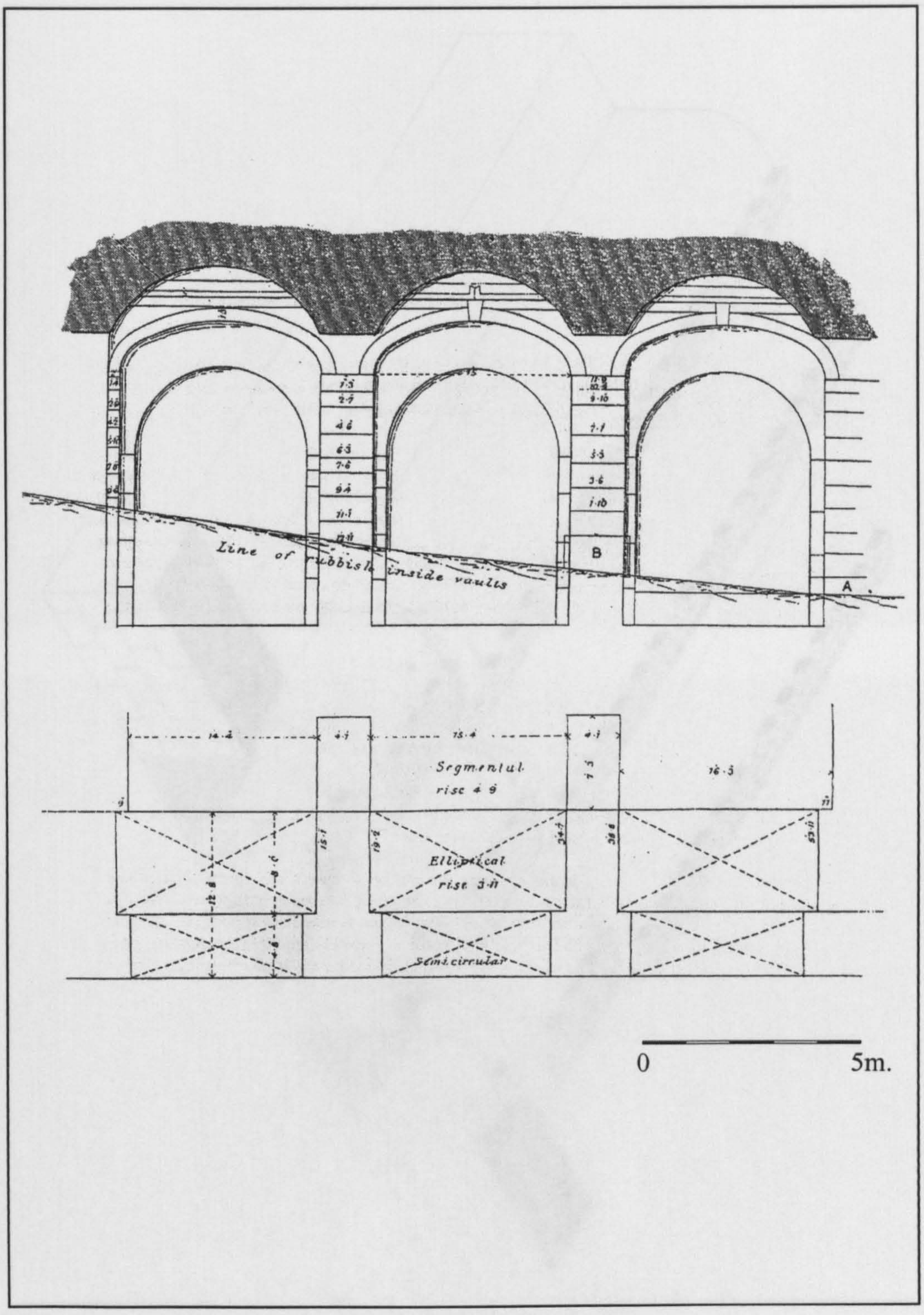


Fig. 6. 37 **Jerusalem: Plan and section of *Abwāb Mihrāb Mariam* (or the Triple Gate) as it appears today.**

Source: Gibson and Jacobson, 1996, p266.

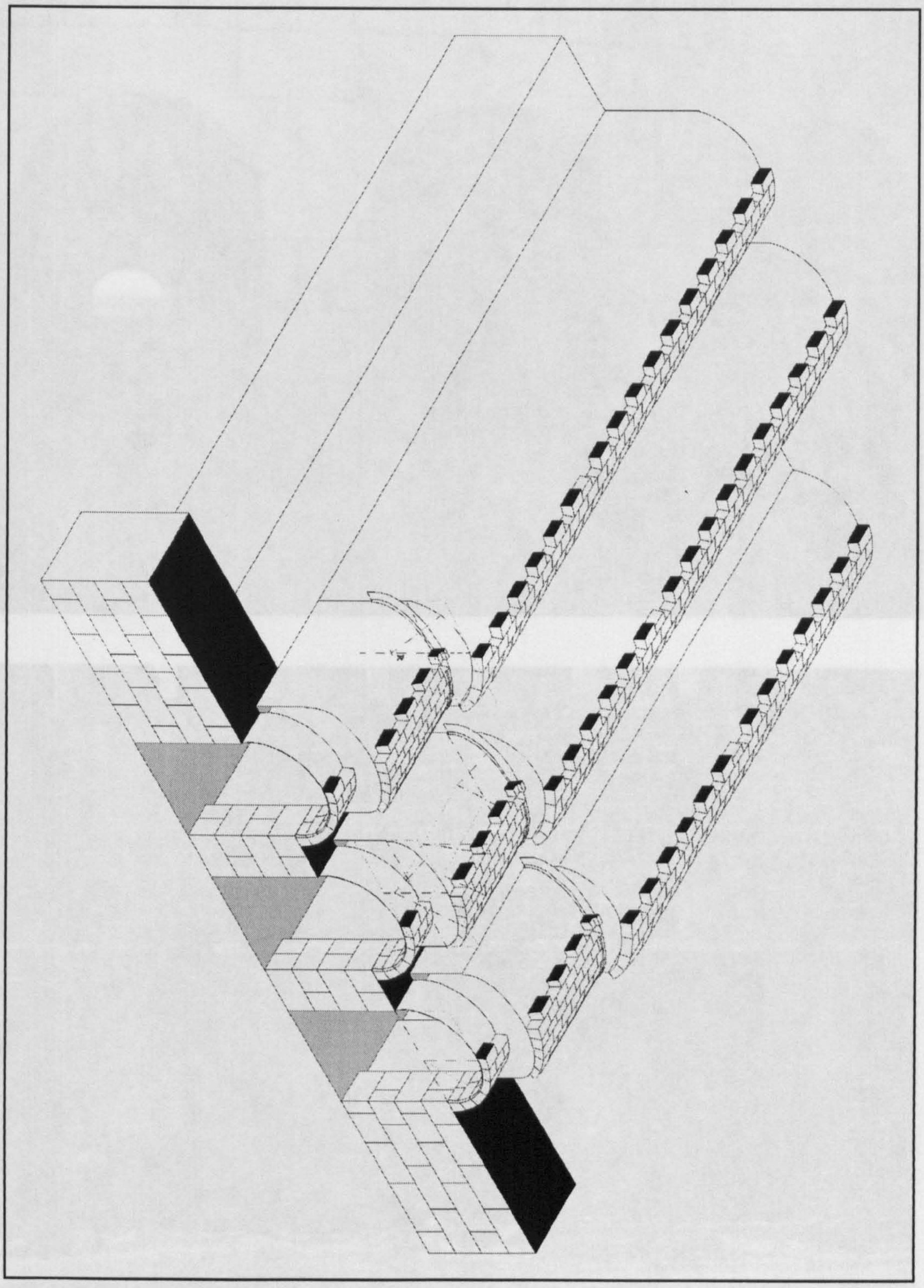


Fig. 6. 38 **Jerusalem: A drawing showing the vaulting arrangement and the building technology of *Abwāb Mihrāb Mariam* (or the Triple Gate) as it looked in the early Islamic period.**

Source: The researcher.

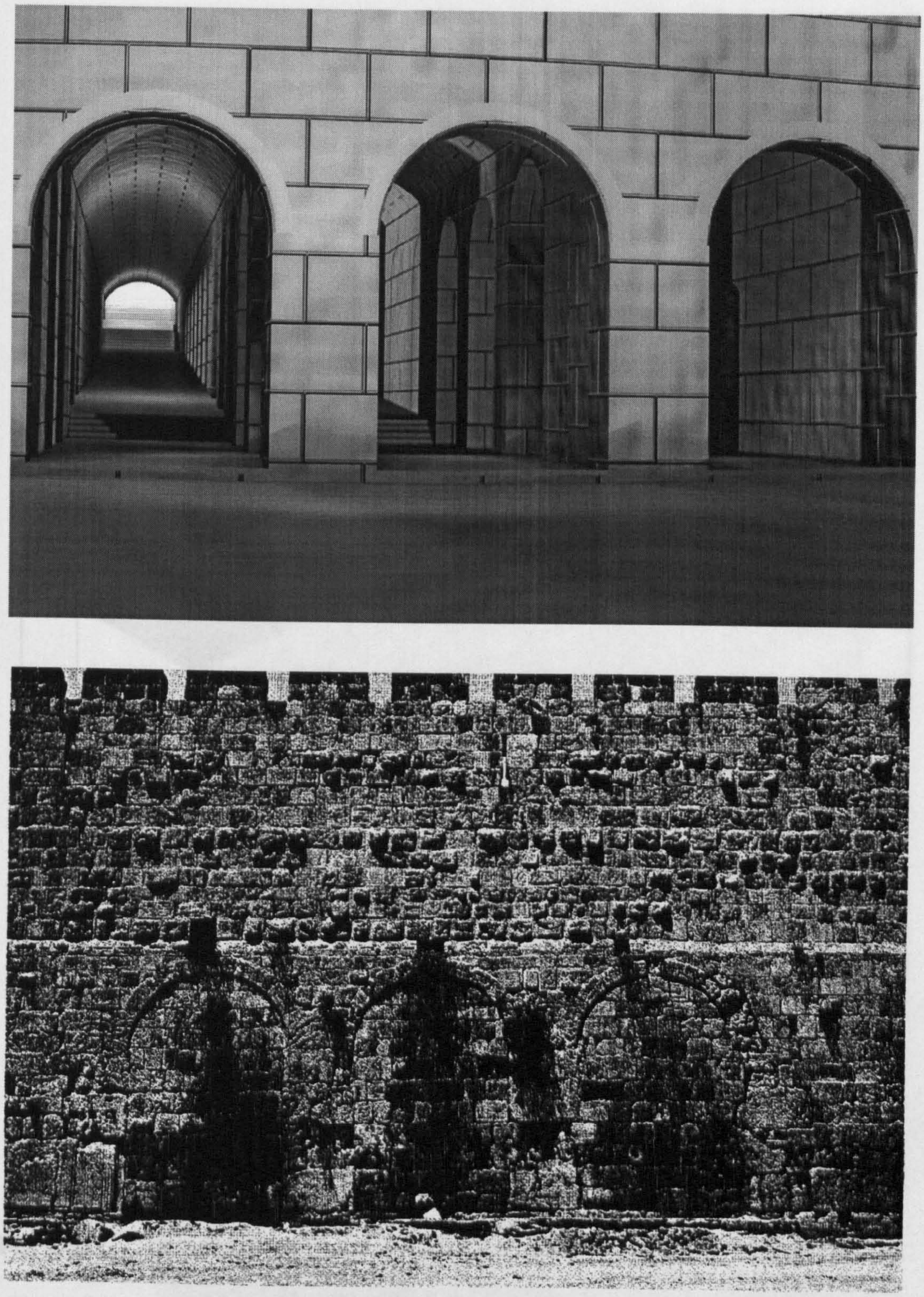


Fig. 6. 39 **Jerusalem: *Abwāb Mihrāb Mariam* (or the Triple Gate); The upper picture represents the gate as it looked in the early Islamic period and the lower picture the gate as it appears today.**

Source: The researcher.

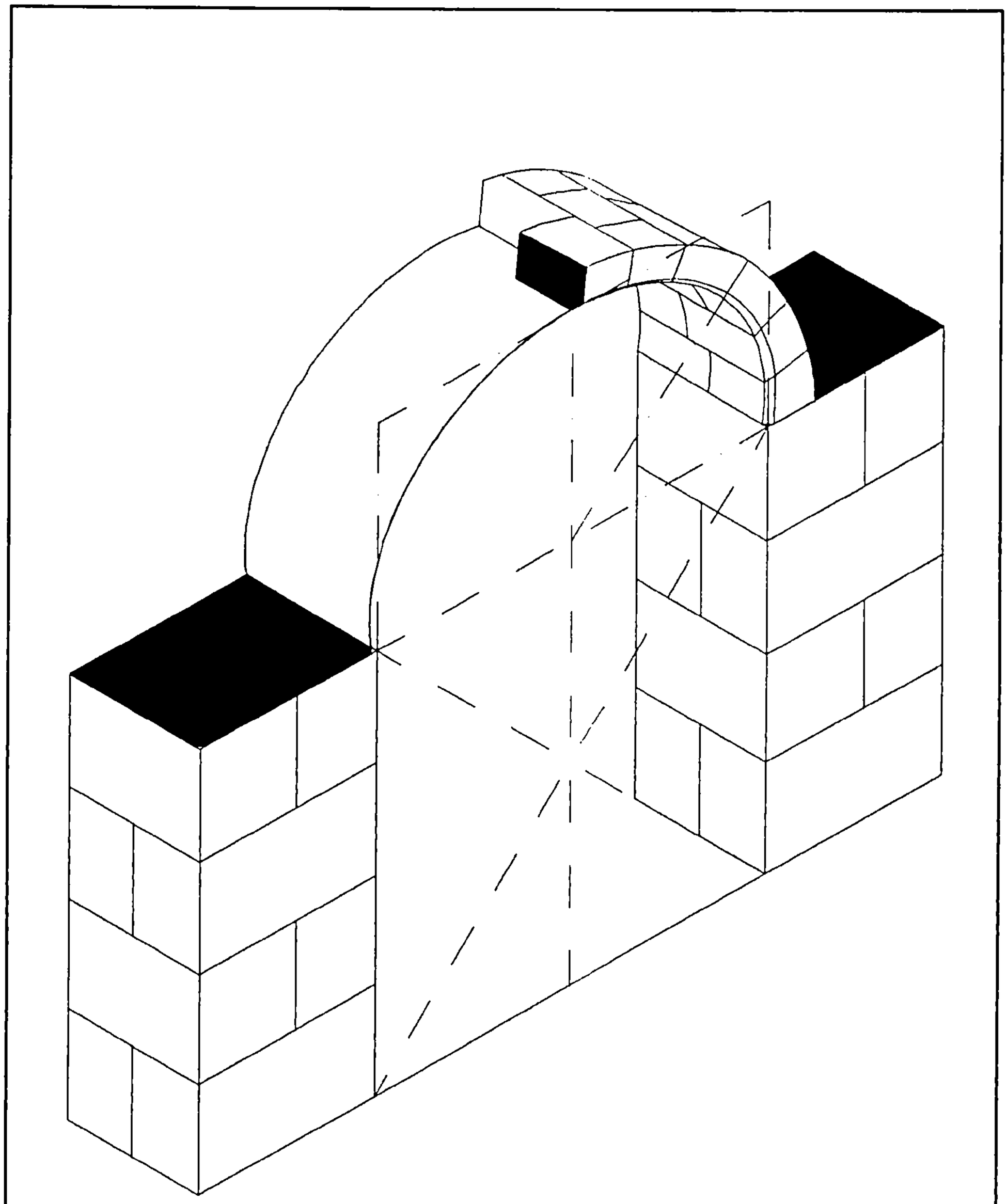


Fig. 6. 40 **Jerusalem: The middle doorway of *Abwāb Mihrāb Mariam* (or the Triple Gate); the picture represents the building technology that is employed in constructing the arch including the proportion of the doorway in the early Islamic period.**

Source: The researcher.

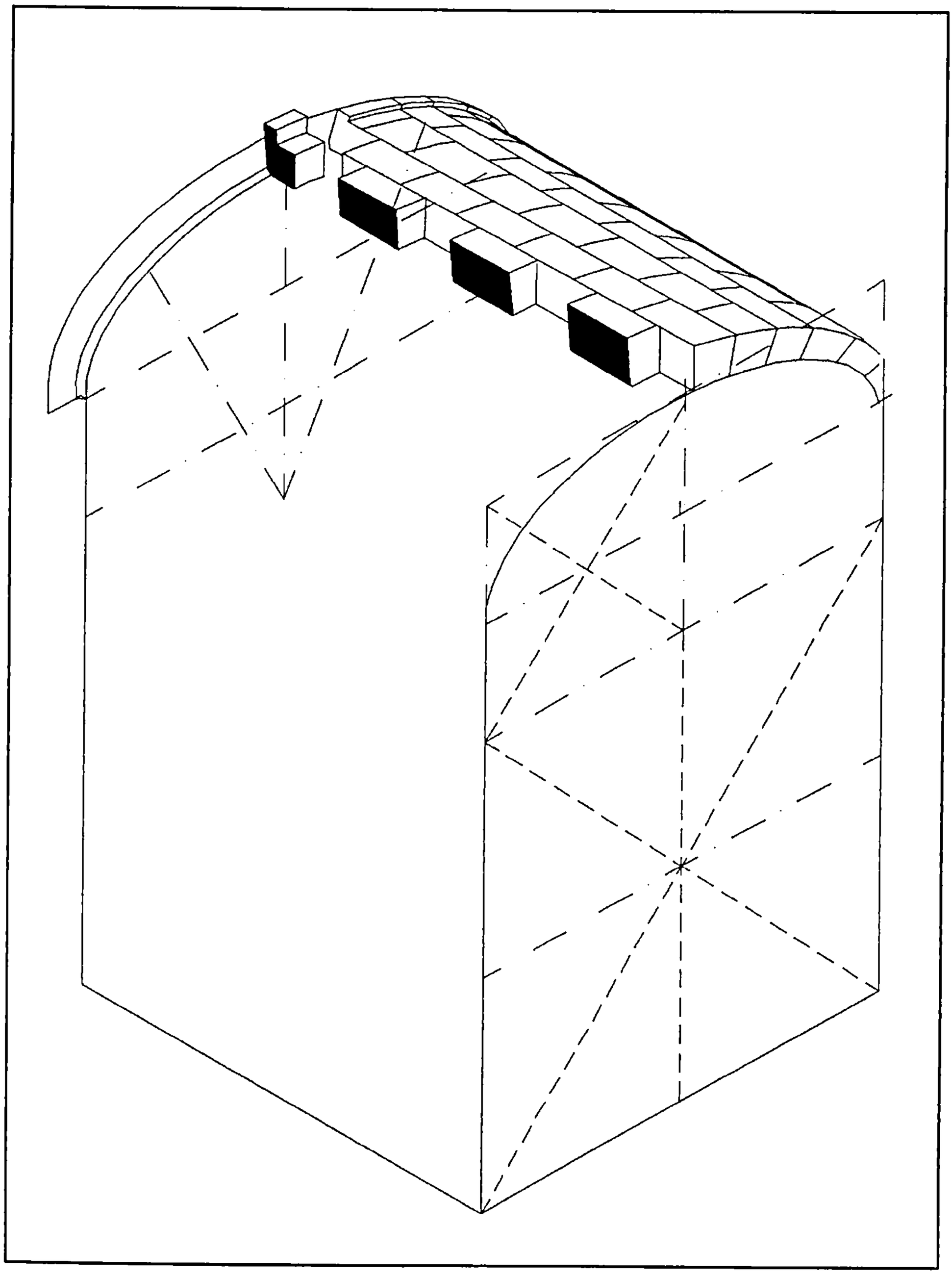


Fig. 6. 41 **Jerusalem: *Abwāb Mihrāb Mariam* (or the Triple Gate); the picture represents the building technology that is employed in constructing the elliptical arch that covering the threshold of the doorways in the early Islamic period.**

Source: The researcher.

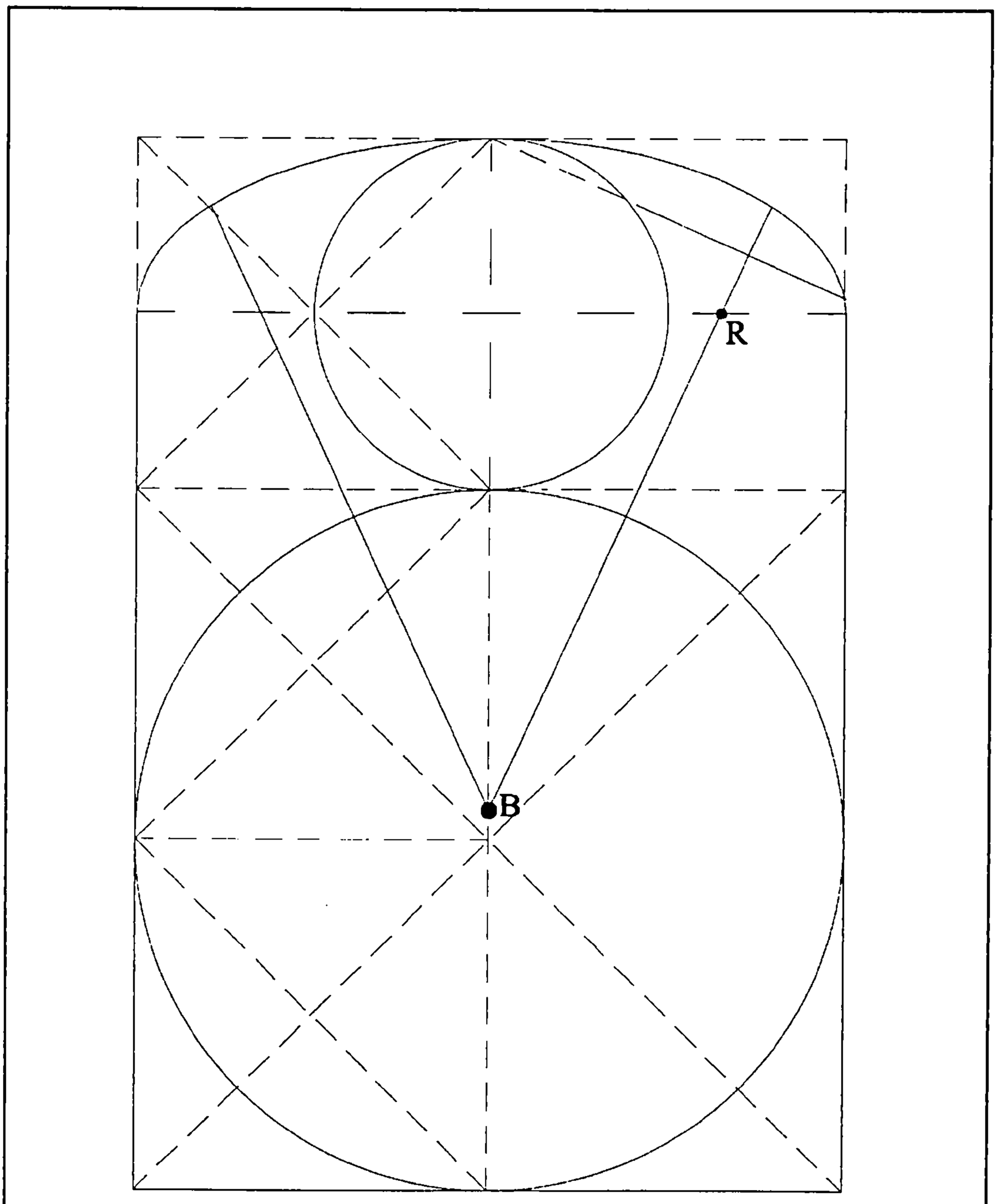


Fig. 6. 42 **Jerusalem: *Abwāb Mihrāb Mariam* (or the Triple Gate); mathematical analysis of the proportion and constructing procedure of the elliptical arch covering the threshold of the doorways in the early Islamic period.**

Source: The researcher.

like its doorways, is generated from the square (see Fig. 6.43). Therefore, this means mathematically that the height would be determined on the basis of the successive progression of the square series of proportion. The ceiling is composed of a finely dressed masonry without mortar. It can be seen that in the middle of the vaults, the masonry courses are relatively small and becoming bigger towards the ends. The vaults rest on the side walls and two parallel rows of piers; the piers measure 1.20 metres in width and are spaced mostly 3 metres apart, supporting a semicircular arch (see Fig. 6.44). Functionally, *Abwāb Mihrāb Mariam* leads up to the level of the enclave. At the eastern side of the passageway, there is a doorway, with a slightly elliptical arch, that leads to the eastern basement of the enclave (see Fig. 6.44). On the other hand, the western side of the passageway is articulated by a blind arcade extending less than 28 metres, while at its extreme end the passage is cut into the rock. The eastern tunnel of *Abwāb Mihrāb Mariam* stops at 18.5 metres from the outer face of the southern wall, and the aisles continue as a double tunnel (see Fig. 6.45). At about 58.5 metres from the same face of the southern wall, the piers and arches of the double tunnel terminate and the wall is built up of very irregular ashlar. Furthermore, after some 77 metres from the southern wall, *Abwāb Mihrāb Mariam*, as it exists today, terminates. Both Melchior De Vogüé and Vincent assume that the three aisles originally ran the entire length of the passage [Melchior De Vogüé, 1864, Pl. CXXVIII; Vincent, 1920, p572]. Warren, Conder and Matson, however, believe that *Abwāb Mihrāb Mariam* was once a Double Gate [Warren, 1970, p415; Matson, 1925, p138]. In fact, the width of *Bāb al-Nabī* (or the double Gate), as it will be discussed next, is 12.5 metres and the double passage of *Abwāb Mihrāb Mariam* is 11.9 metres, and the sill of each is on the same level. These two gates thus correspond to each other in their **length**, **width** and the **inclination** of their ramp; though it seems that the eastern tunnel of the triple passage was not originally extended to the entire length of the tunnels (see Fig. 6.35). At the same time, since the eastern wall of the gateway bears ancient masonry like those ashlars exist in *Bāb al-Nabī*, it is hard to accept Warren and Conder's suggestion that *Abwāb Mihrāb Mariam* was established as a double passage [Warren, 1970, pp.164-165]. Indeed, this observation removes any doubt that the eastern tunnel may have been added

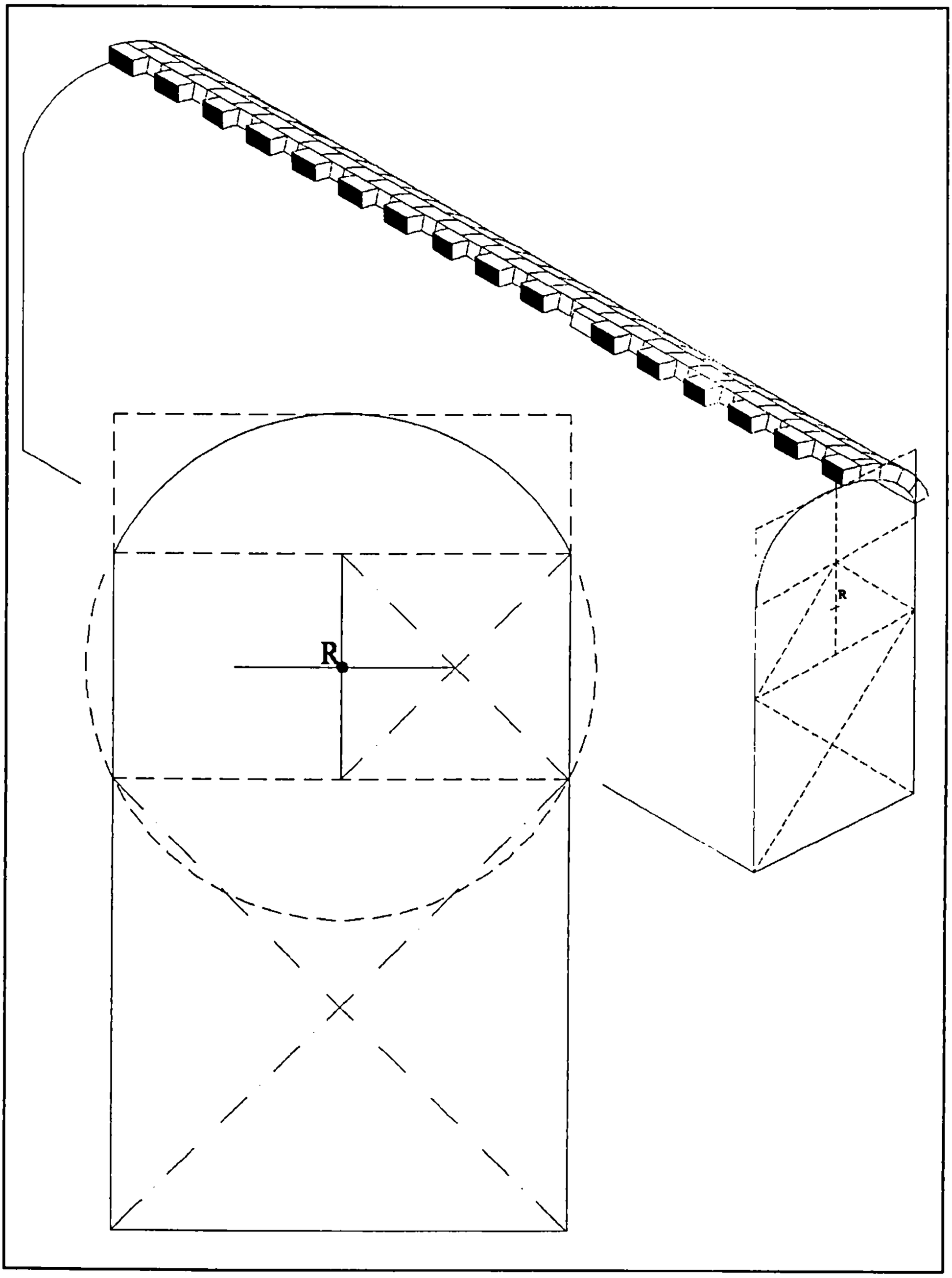


Fig. 6. 43 **Al-Aqsa Mosque: One of the tunnel vaults of *Abwāb Mihrāb Mariam* (or the Triple Gate); the picture represents the building construction technology and mathematical analysis of constructing the vault including its proportion in the early Islamic period. ((R) is the centre of the circle that forms the arch of the vault).**

Source: The researcher.

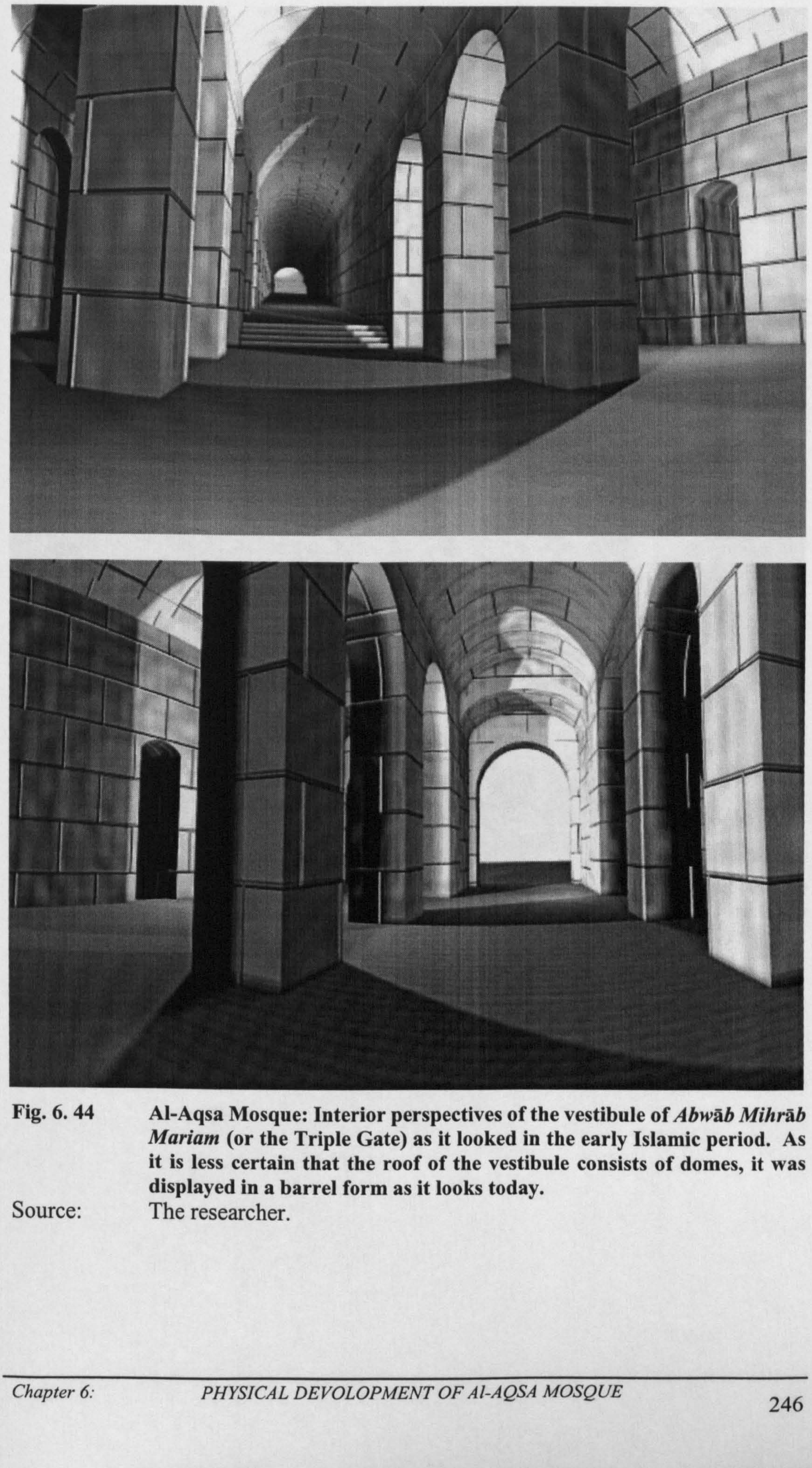


Fig. 6. 44 **Al-Aqsa Mosque: Interior perspectives of the vestibule of *Abwāb Mihrāb Mariam* (or the Triple Gate) as it looked in the early Islamic period. As it is less certain that the roof of the vestibule consists of domes, it was displayed in a barrel form as it looks today.**

Source: The researcher.

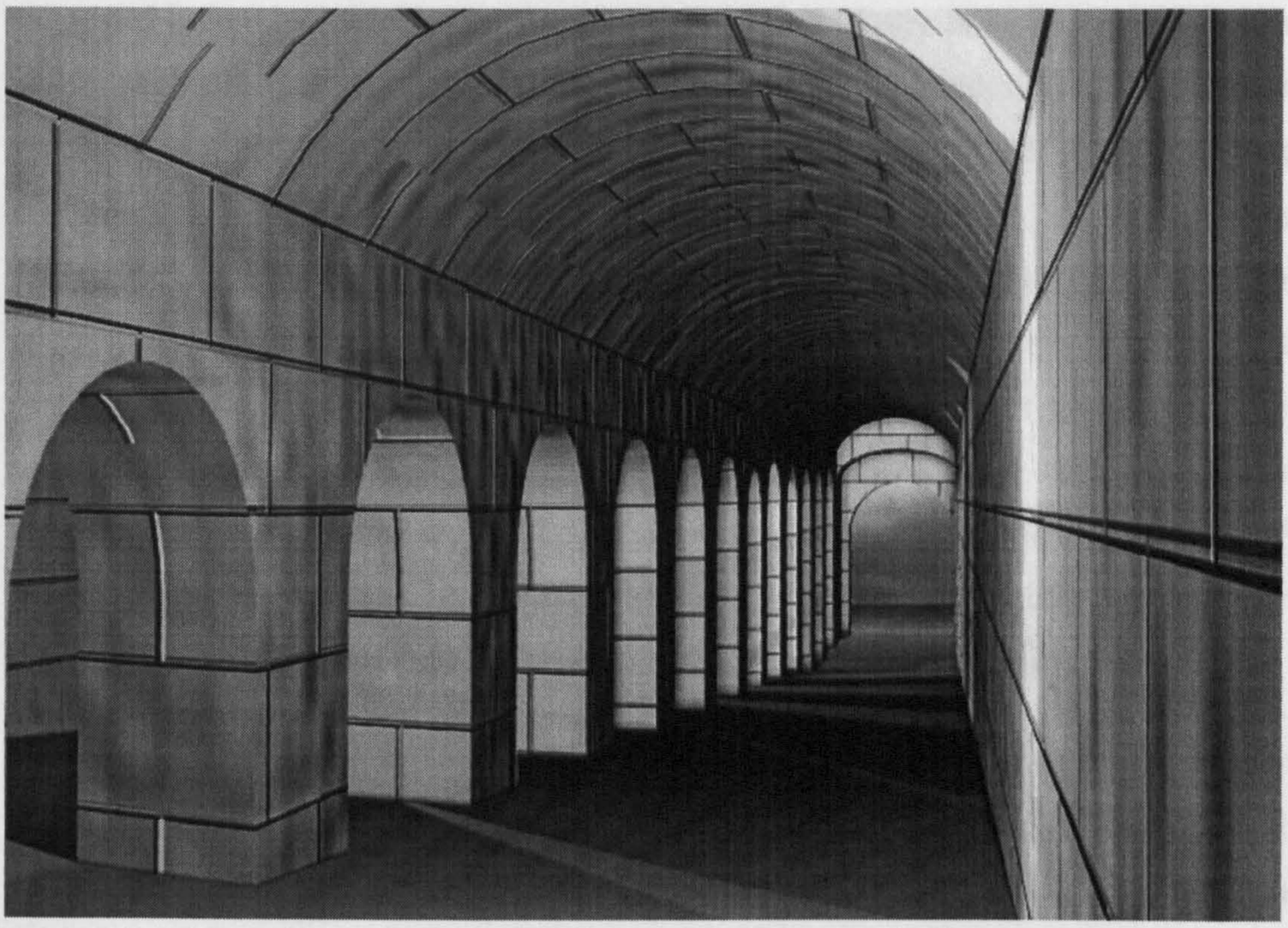


Fig. 6. 45 **Al-Aqsa Mosque: Interior tunnel of *Abwāb Mihrāb Mariam* (or the Triple Gate) as it looked in the early Islamic period. The picture looks inside the passage from north to south.**

Source: The researcher.

later. Another important note to support this point, is the entire width of the *Abwāb Mihrāb Mariam*'s passages including the pillars. The width of the Gate is estimated to be **16.3** metres; so it is the threefold width of each aisle, this indicates that the width would have been divided at the construction of the tunnels, and the third aisles not added later. The question of why there are three tunnels at the southern end of the triple gate and not two, needs to be answered. Like *Bāb al-Rahmah* and *Bāb al-Nabī*, it is probable that *Abwāb Mihrāb Mariam* had originally a vestibule. This was suggested before by Melchior de Vogüé in 1864 AD, and was accepted by Vincent as highly probable [Melchior de Vogüé, 1864, pp.10-11; Vincent, 1920, p571]. This vestibule, if it had existed, would have been destroyed by the severe earthquake that hit Jerusalem in 130AH/ 747AD [Mazar, 1969, p.20]. What can be stated in this discussion is the fact that, unlike other gates of the enclave, *Abwāb Mihrāb Mariam* is constructed adjacent to a huge roofed area, and it is linked with it. This suggests that the number of people that enter *Abwāb Mihrāb Mariam* (the Triple Gate) at one time would be an important reason for creating such a triple form for the Gate with a relatively bigger space. As long as no definite answer concerning the real function of the eastern basement of al-Aqsa enclave has been found, it is difficult to discuss how many people would have required access through the gate at that time.

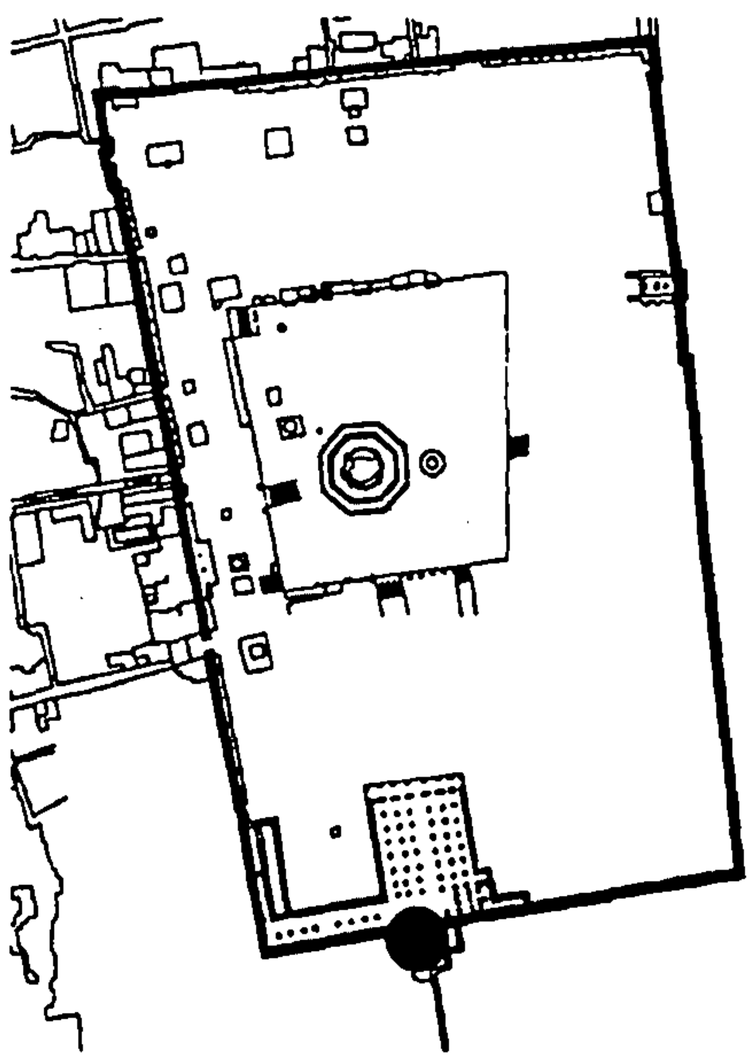
Yet, the form of *Abwāb Mihrāb Mariam* is a complicated question. It is obvious that the Gate serves as an entrance to the enclave, but why was an underground passageway roofed by a tunnel vault extending a long distance from the southern wall of al-Aqsa enclave needed? Of great relevance to this discussion is the series of arches that carry the roof inside both of *Bāb al-Nabī* (or the Double Gate) and *Abwāb Mihrāb Mariam* (or the Triple Gate). Significantly, the arches terminate in the two gates at the same distance from the southern wall. As the *Bāb al-Nabī* requires an arched structure to support al-Aqsa congregation mosque above, it is probable that *Abwāb Mihrāb Mariam* was first conceived in order to create a basement for al-Aqsa Congregation Mosque, but the idea was abandoned after constructing *Abwāb Mihrāb Mariam*.

The date of *Abwāb Mihrāb Mariam*, as it stands today, was a contentious issue

among scholars. Warren and Conder, for example, suggested that it is of "Byzantine" date; i.e. time of the Byzantine emperor Justinian [Warren, 1970, p164; Conder, 1909, p120]. Wilson believed that the Gateway was " built after the removal of the "Great Course", and was of the same age as the arches over the recesses in the western wall of the passage, which are cut out of the solid masonry of an older building" [Wilson, 1880, pp.57-58]. It is evident from the archaeological excavation of Mazar that the restoration of the southern wall of al-Aqsa enclave must be attributed to the early Islamic period [Mazar, 1969, p19]. Hence, it is difficult not to accept the Umayyad date of *Abwāb Mihrāb Mariam* (or the Triple Gate).

Bāb al-Nabī (Gate of the prophet) or the Double Gate

Bāb al-Nabī (Gate of the prophet) is located about 100 metres from the south-western corner of al-Aqsa enclave, and is now hidden by a later structure (see Fig. 6.46). Ibn al-Faqīh (290 AH/ 902AD), al-Maqdisī (375AH/ 985AD) and Khusrū (439AH/ 1047AD) listed the gate under this name [Ibn al-Faqīh, 1996, p151; Al-Maqdisī, 1987, p146; Khusrū, 1983, p64]. According to Khusrū, the gate is given this name because it is believed that Muhammad entered al-Aqsa mosque from it [Khusrū, 1983, p64].



The gateway forms a subterranean elongated tunnel extending more than 77 metres northwards from the southern wall (see Fig. 6.47, 48). Like in *Bāb al-Rahmah*, domes and vaults are important architectural elements in the gate (see Fig. 6.49). Its facade on the south has two doorways of rectangular shape, each measuring 5.15 metres in width (see Fig. 6.50, 51), so since the 19th century the gate has come to be known as the **Double Gate**. On either side of the doorways, there is a marble column, ending up with a carved capital that carries a cubic stone block. The width

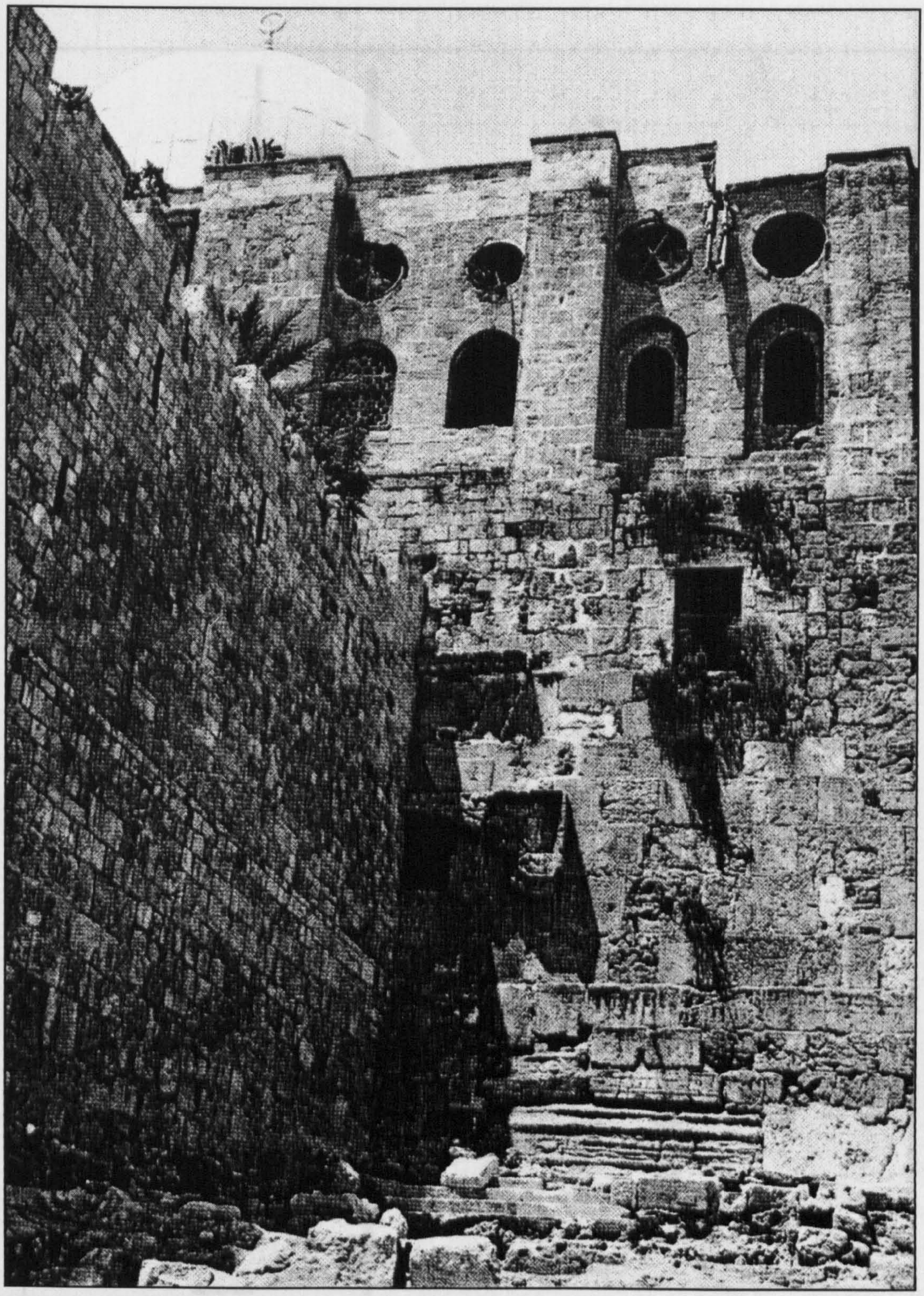


Fig. 6. 46 **Al-Aqsa Mosque: *Bāb al-Nabī* (or the Double Gate) as it looks today from outside.**

Source: Sharon, 1973, p71.

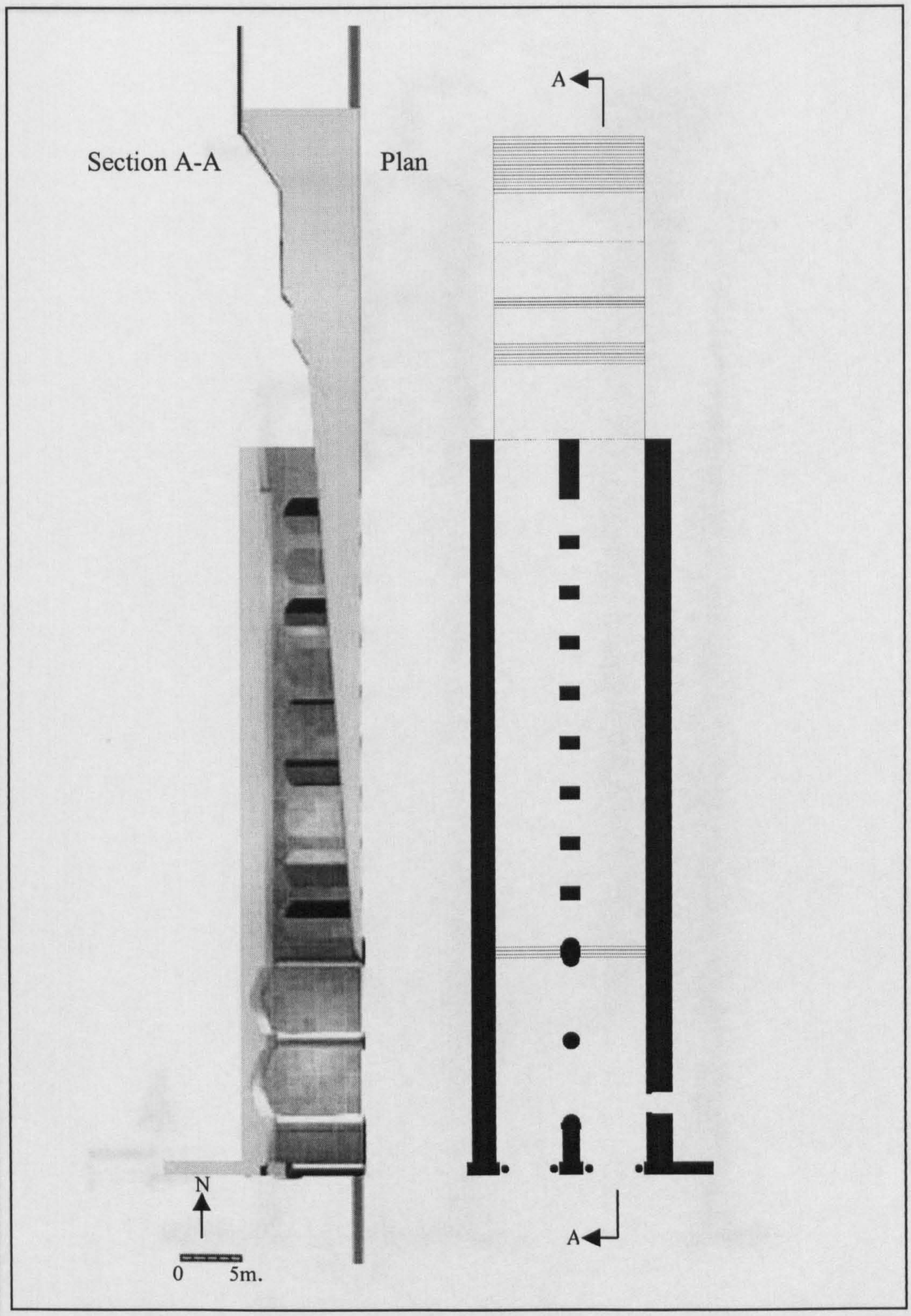


Fig. 6. 47 **Al-Aqsa Mosque: Plan of *Bāb al-Nabī* (or the Double Gate) as it may well have looked in the early Islamic period.**

Source: The researcher.

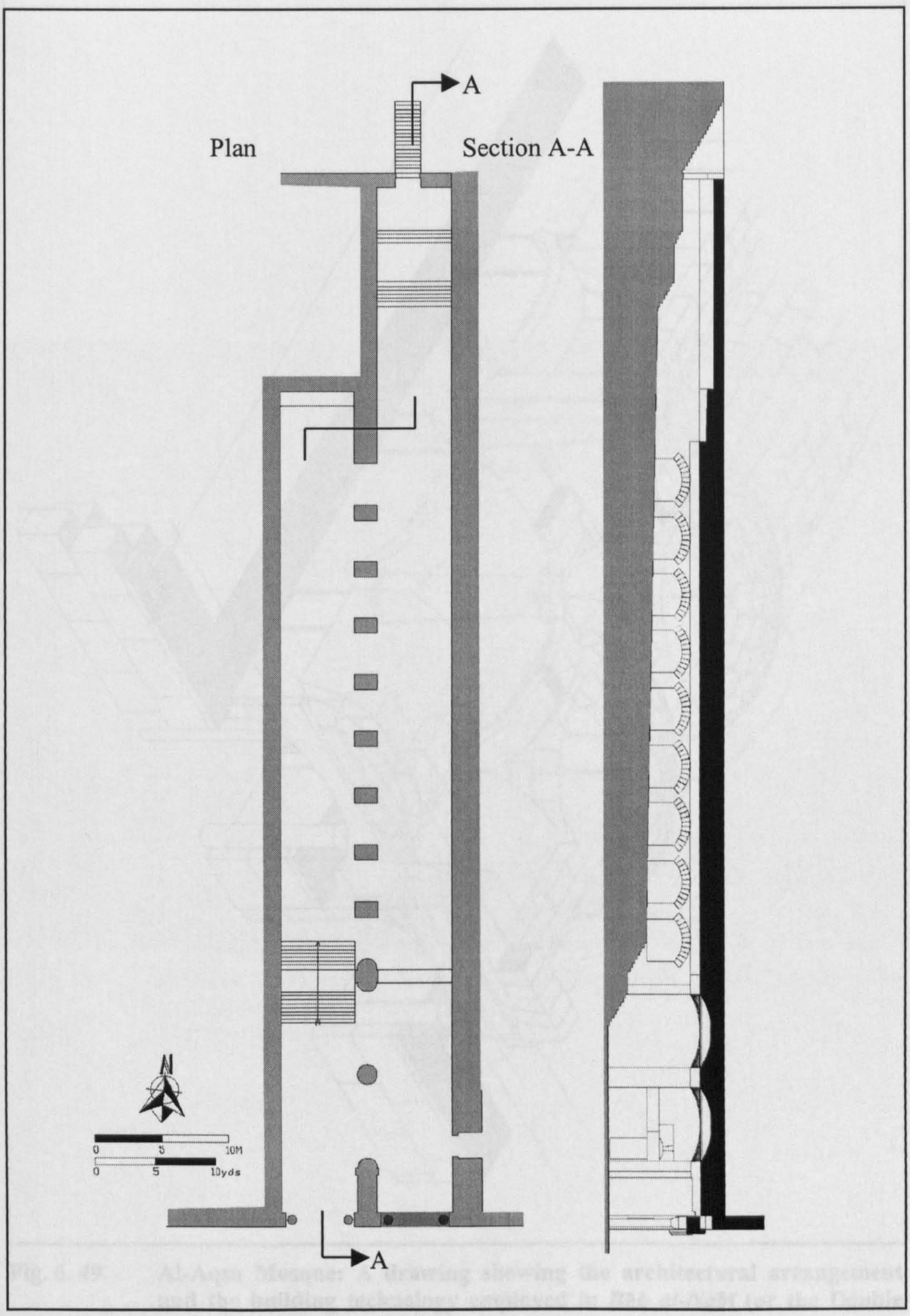


Fig. 6. 48 **Al-Aqsa Mosque: Plan of *Bāb al-Nabī* (or the Double Gate) in the present.**

Source: The researcher.

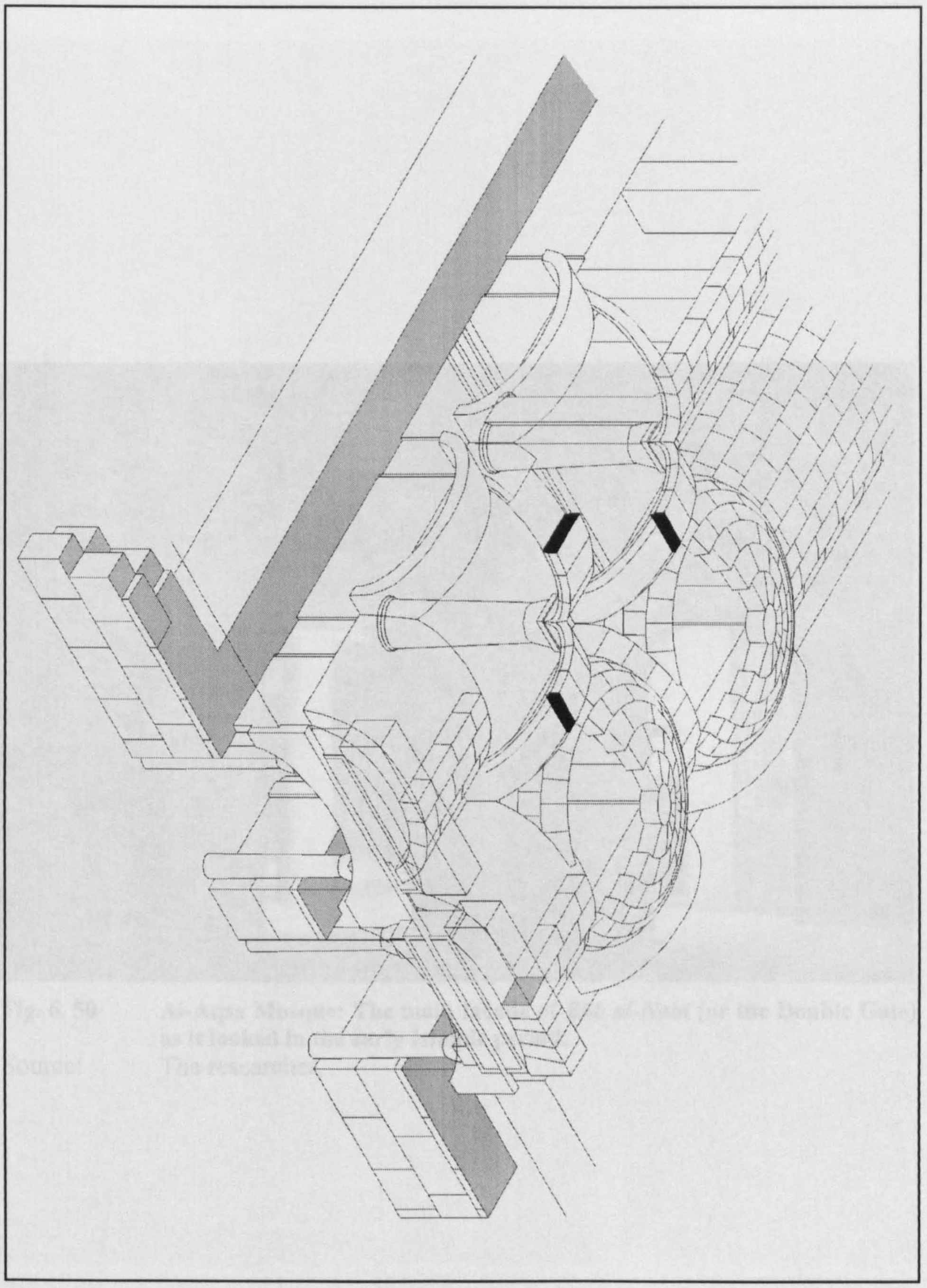


Fig. 6. 49 **Al-Aqsa Mosque: A drawing showing the architectural arrangement and the building technology employed in *Bāb al-Nabī* (or the Double Gate) in the early Islamic period.**

Source: The researcher.

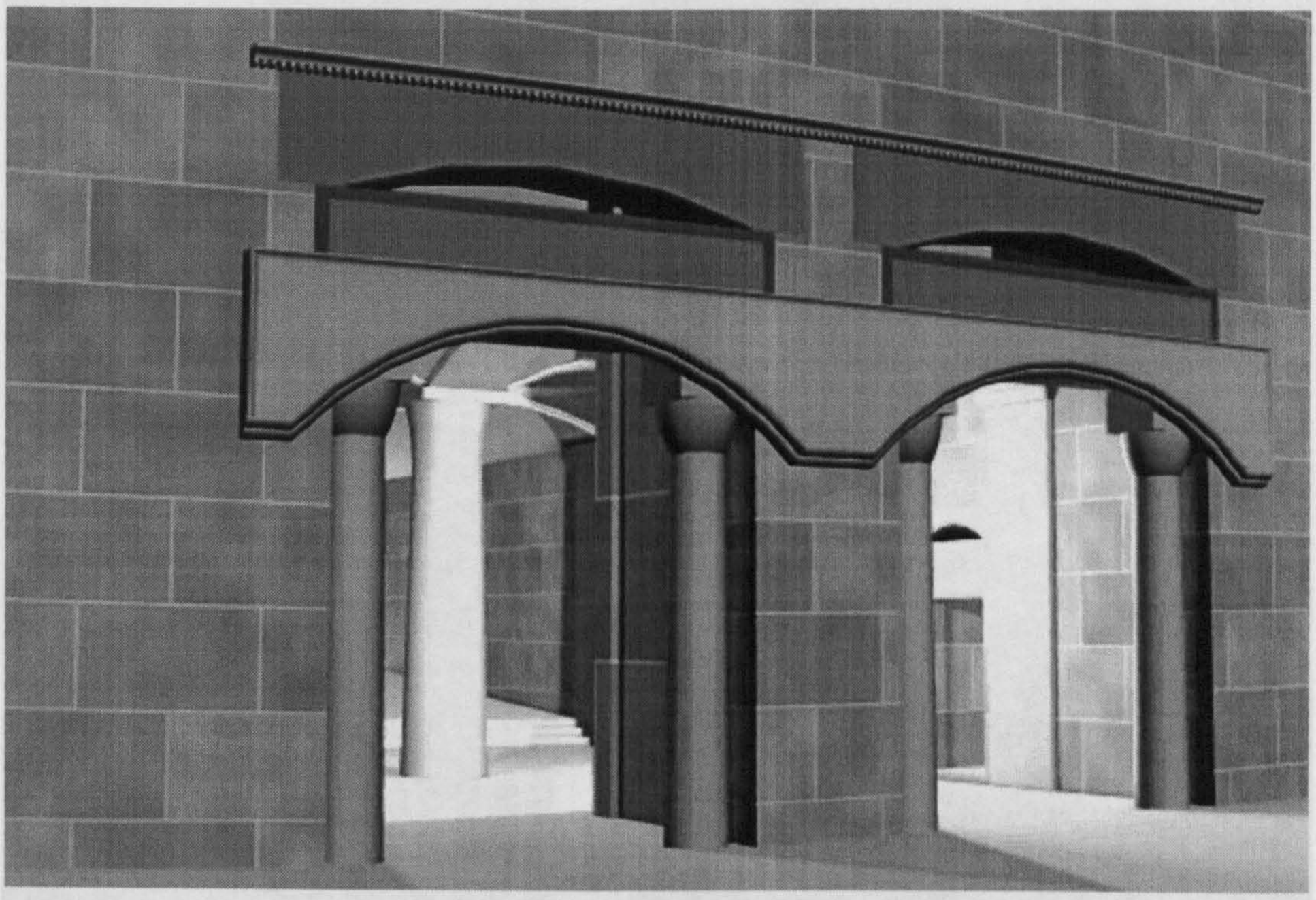


Fig. 6. 50 **Al-Aqsa Mosque: The main facade of *Bāb al-Nabī* (or the Double Gate) as it looked in the early Islamic period.**

Source: The researcher.



Fig. 6. 51 **Al-aqsa Mosque: The southern façade of *Bāb al-Nabī* (or the Double Gate) at present. The picture looks from inside the building that blocks the gate.**

Source: The researcher.

of the doorways is spanned by a flat lintel resting on the columns and its jambs. In front of this lintel, another lintel of a segmental arch was constructed; it has floral engravings (see Fig. 6.52, 53) like those in *Bāb al-Rahmah*. According to Ben-Dov, who examined the gate from the outside, this segmental "arch is in the style of the Muslim period" [Ben-Dov, 1985, p138]. Both of these two lintels are spanned by another segmental arch designed for structural reasons, i.e. to assist in carrying the weight of the wall over the door (see Fig. 6.54). The Gate is constructed on proportions generated from the square. With the help of its sides and diagonals, the builders of *Bāb al-Nabī* were able to determine different heights of the doorways and to delineate its arches (see Fig. 6.54).

The architectural elements of the gate, such as its capitals, are different in style and are taken from ancient buildings. Indeed, such borrowed material can be found in all Umayyad Muslim buildings in al-Aqsa Mosque, and is typical of the early Islamic period.

Bāb al-Nabī (or the Double Gate) leads to a square-domed 12.87 metres wide vestibule. It consists of four shallow hemispherical domes, carried by arches springing from a thick central pillar (see Fig. 6.55, 56). The domes have a shell ornament on the pendentives, some of which still bear stucco ornamentation. The surviving fragments of ornamentation confirm that the domes are very rich in floral and geometrical motives (see Fig. 6.57), and each has its own design. Nevertheless, they share the same style, which shows many classical features. Like the doorways of *Bāb al-Rahmah*, its vestibule follows the proportion generated from the square, and the proportion of 1:1 between length and width or height can be detected easily in the plan and the section of the gate (see Fig. 6.58). Moreover, the arches that carry the domes and those of the vaults have the same proportions as the decorated arch over the doorways which is dated definitely to the early Islamic period by some scholars such as Ben-Dov and Rozen-Ayalon [Ben-Dov, 1985, pp.138, 287; Rozen-Ayalon, 1989, p38]. This indicates that they follow the same mathematical construction for the arch. Could this suggest that the construction or reconstruction of the decorated arches of the doorways had been made simultaneously with the interior arches

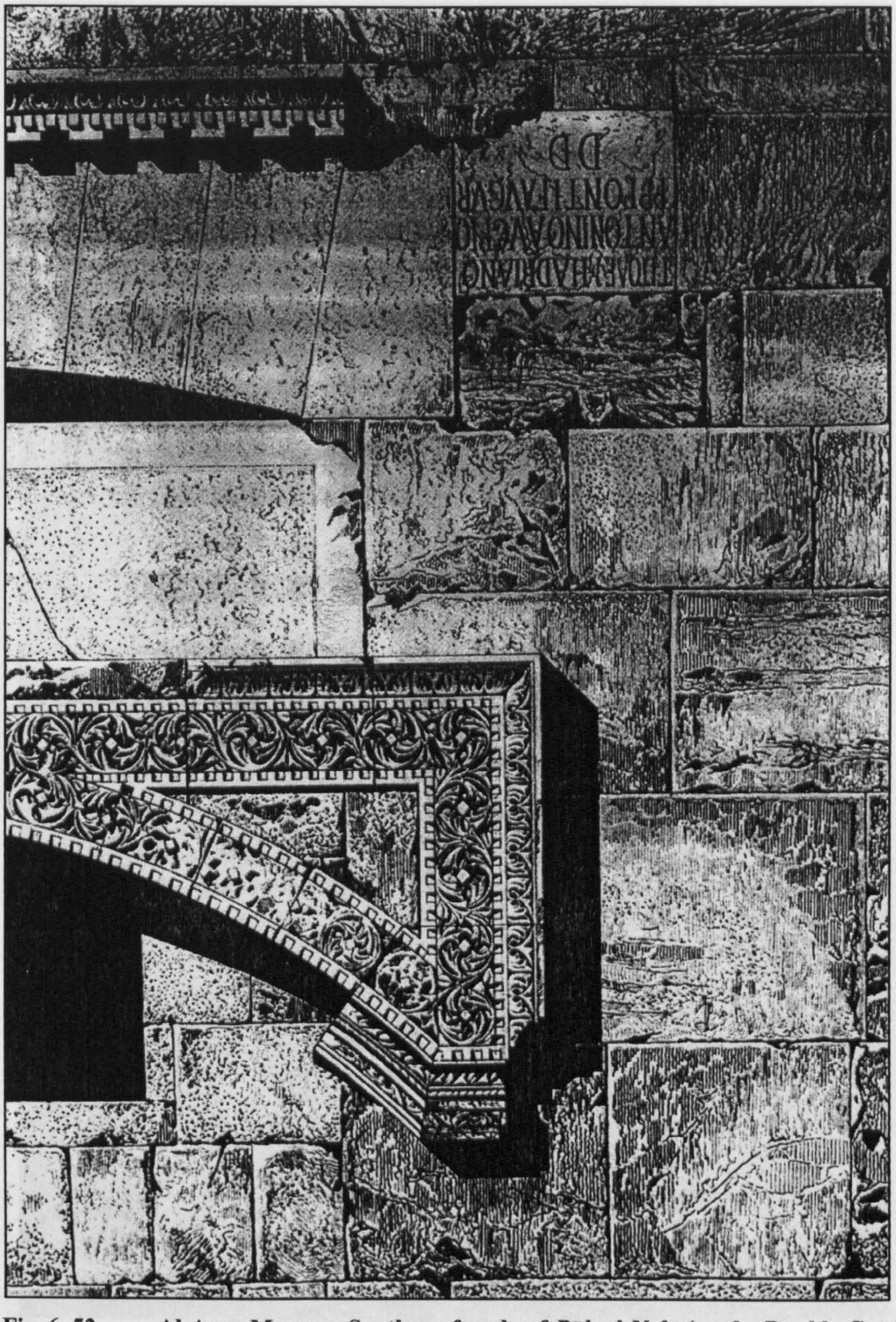


Fig. 6. 52 **Al-Aqsa Mosque: Southern facade of *Bāb al-Nabī* (or the Double Gate) as it looked in the middle of the 19th century AD.**

Source: Melchior de Vogüé, 1864, p156.

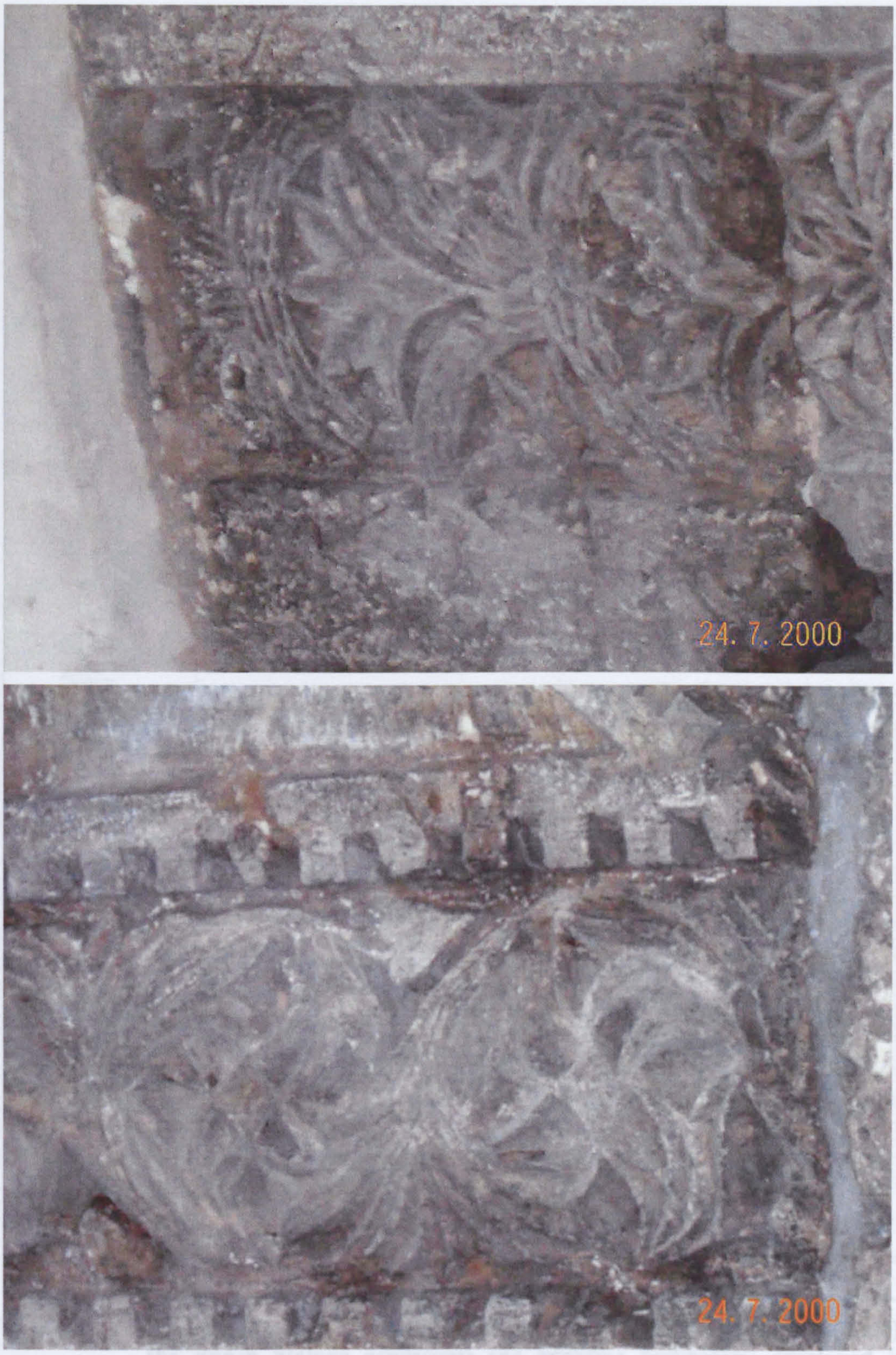


Fig. 6. 53 **Al-Aqsa Mosque: The upper and lower pictures represent some of the floral motifs that exist on the decorated lintel of *Bāb al-Nabī* (or the Double Gate) since the early Islamic period.**

Source: The researcher.

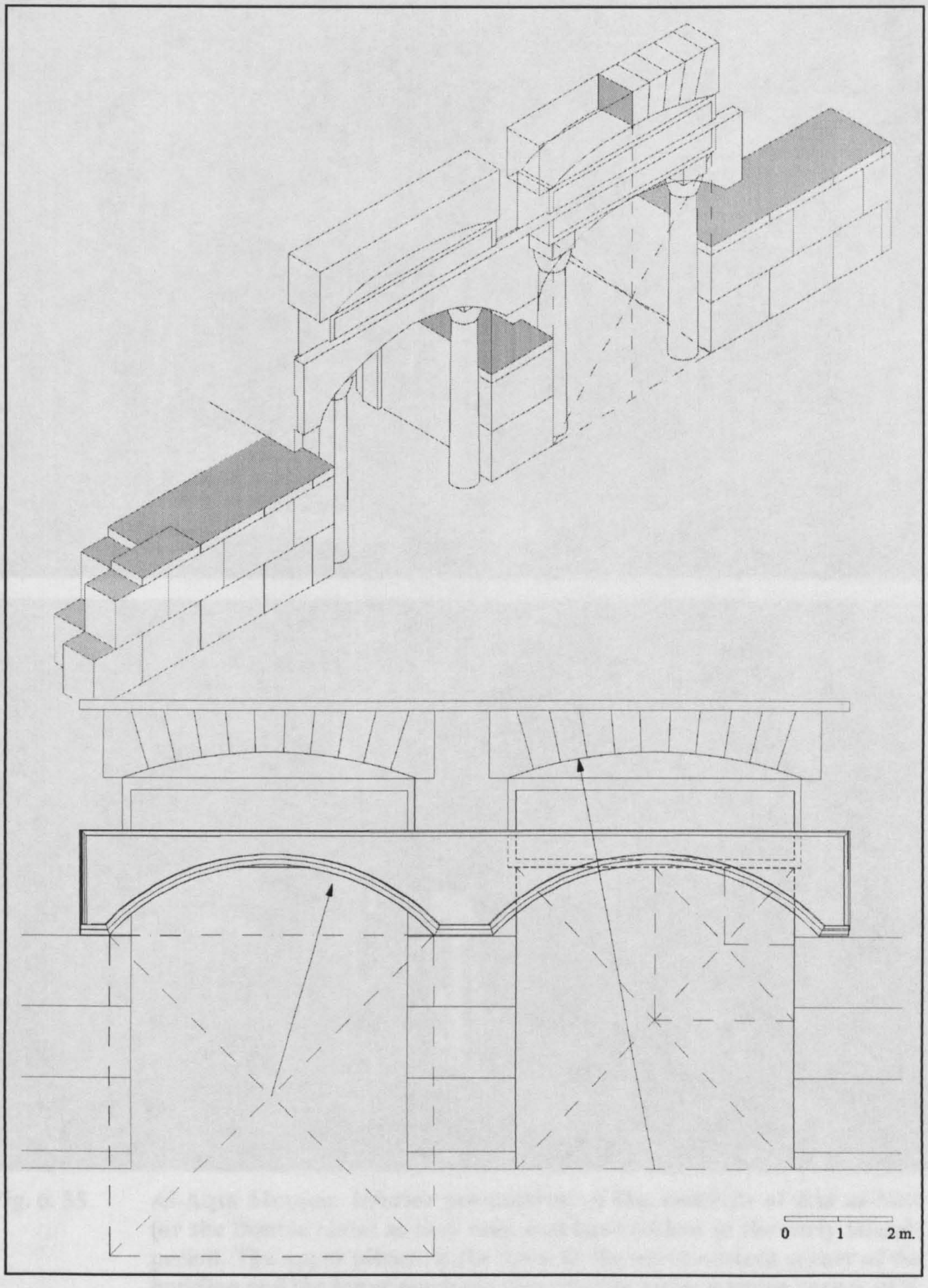


Fig. 6. 54 **Al-Aqsa Mosque: The main facade of *Bāb al-Nabī* (or the Double Gate); the upper picture represents the building technology employed in constructing the doorways and the lower picture analyses the proportion of the doorway as it looked in the early Islamic period.**

Source: The researcher.

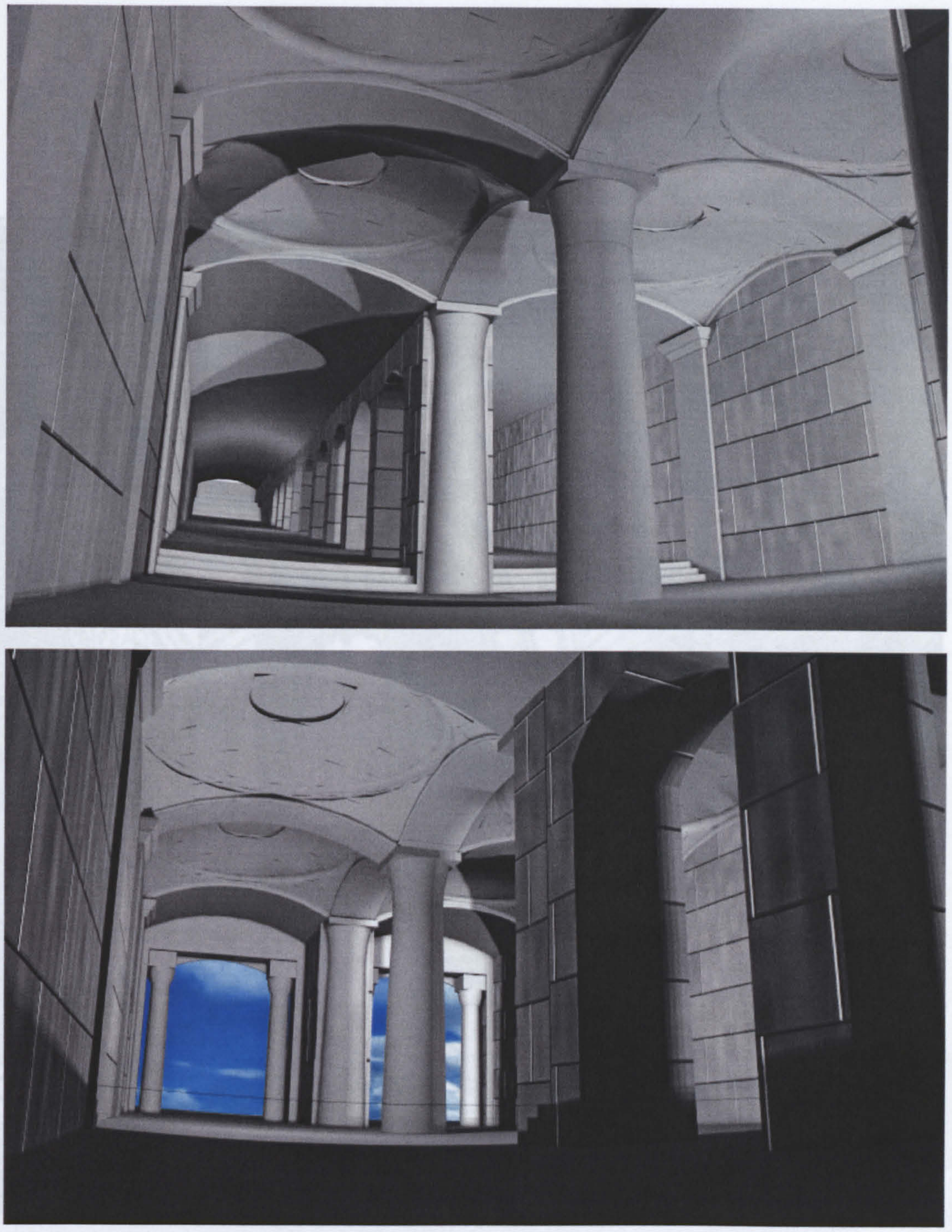


Fig. 6. 55 **Al-Aqsa Mosque: Interior perspectives of the vestibule of *Bāb al-Nabī* (or the Double Gate) as they may well have looked in the early Islamic period. The upper picture looks towards the north-eastern corner of the building and the lower one looks towards the south-western corner of it.**

Source: The researcher.

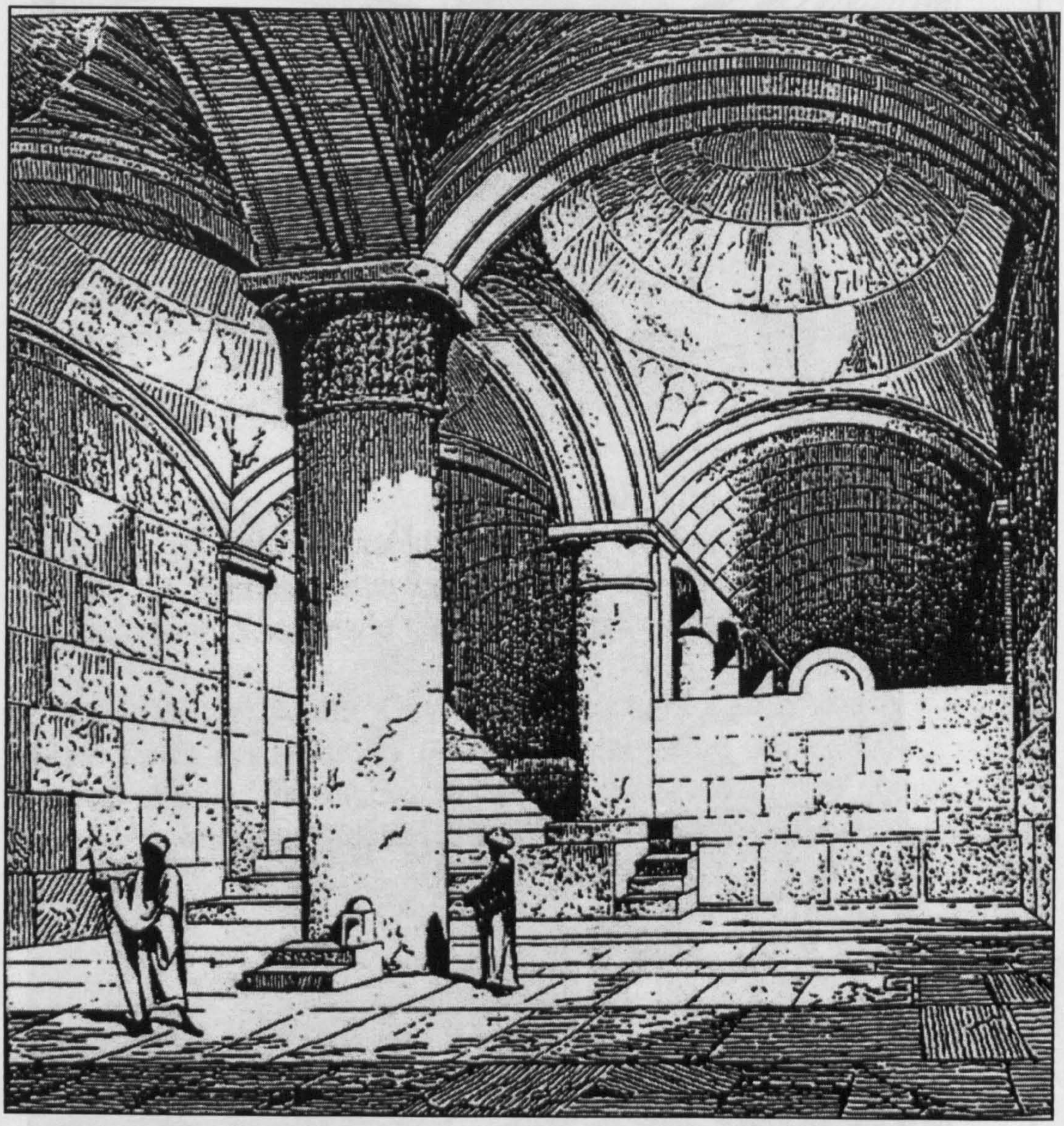


Fig. 6. 56 **Al-Aqsa Mosque: The vestibule and passage behind *Bāb al-Nabī* (or the Double Gate) as it looked in the middle of the 19th century AD.**

Source: Melchior de Vogüé, 1864, plate IV/ Fig.1.

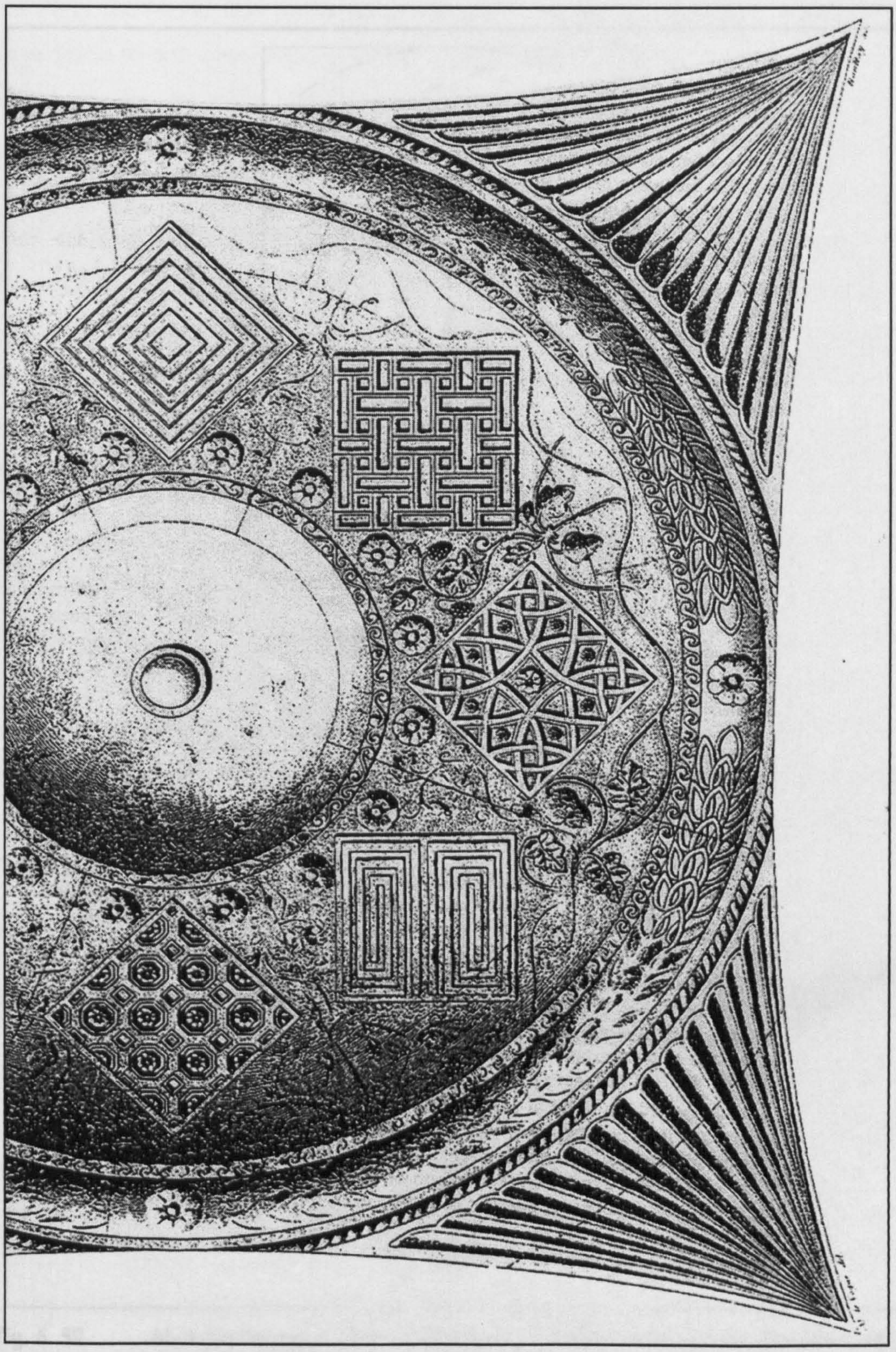


Fig. 6. 57 **Al-Aqsa Mosque: Detail of one of the decorated domes over the vestibule of *Bāb al-Nabī* (or the Double Gate) as it looked in the early Islamic period.**

Source: Melchior de Vogüé, 1864, plate VI.

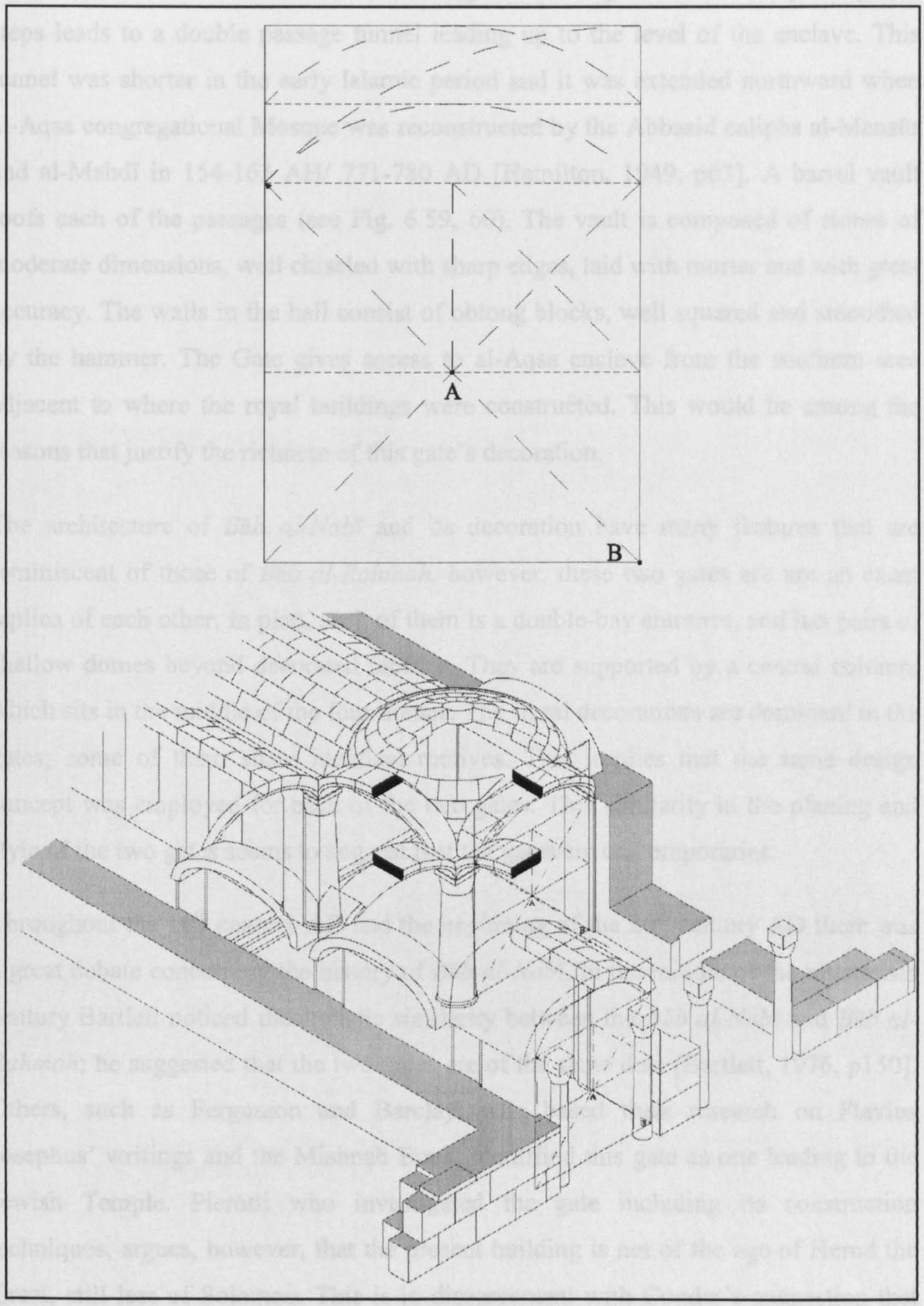


Fig. 6. 58 **Al-Aqsa Mosque: The vestibule of of *Bāb al-Nabī* (or the Double Gate); the picture represents the building technology employed in constructing the domes and vaults including the proportion of their heights in the early Islamic period.**

Source: The researcher.

that carry the domes and vaults inside the gate? Leaving the vestibule by a flight of steps leads to a double passage tunnel leading up to the level of the enclave. This tunnel was shorter in the early Islamic period and it was extended northward when al-Aqsa congregational Mosque was reconstructed by the Abbasid caliphs al-Mansūr and al-Mahdī in 154-163 AH/ 771-780 AD [Hamilton, 1949, p63]. A barrel vault roofs each of the passages (see Fig. 6.59, 60). The vault is composed of stones of moderate dimensions, well chiseled with sharp edges, laid with mortar and with great accuracy. The walls in the hall consist of oblong blocks, well squared and smoothed by the hammer. The Gate gives access to al-Aqsa enclave from the southern area adjacent to where the royal buildings were constructed. This would be among the reasons that justify the richness of this gate's decoration.

The architecture of *Bāb al-Nabī* and its decoration have many features that are reminiscent of those of *Bāb al-Rahmah*, however, these two gates are not an exact replica of each other. In plan, each of them is a double-bay entrance, and has pairs of shallow domes beyond decorated facades. They are supported by a central column, which sits in the middle of the four domes. The floral decorations are dominant in the gates; some of them share identical motives. This implies that the same design concept was employed for each of the two gates. This similarity in the planing and style of the two gates seems to suggest that the gates are contemporaries.

Throughout the 19th century AD and the beginning of the 20th century AD there was a great debate concerning the history of *Bāb al-Nabī*. In the middle of the nineteenth century Bartlett noticed the stylistic similarity between the *Bāb al-Nabī* and *Bāb al-Rahmah*; he suggested that the two gates are of the same date [Bartlett, 1976, p150]. Others, such as Fergusson and Barclay, who based their research on Flavius Josephus' writings and the Mishnah Book, identified this gate as one leading to the Jewish Temple. Pierotti who investigated the gate including its construction techniques, argues, however, that the present building is not of the age of Herod the Great, still less of Solomon. This is in disagreement with Conder's suggestion that the gate, including its roofing system, dates back to the 1st century AD [Conder, 1879, p34]. Pierotti, like Melchior de Vogüé [Melchior de Vogüé, 1864, pp.8-10]

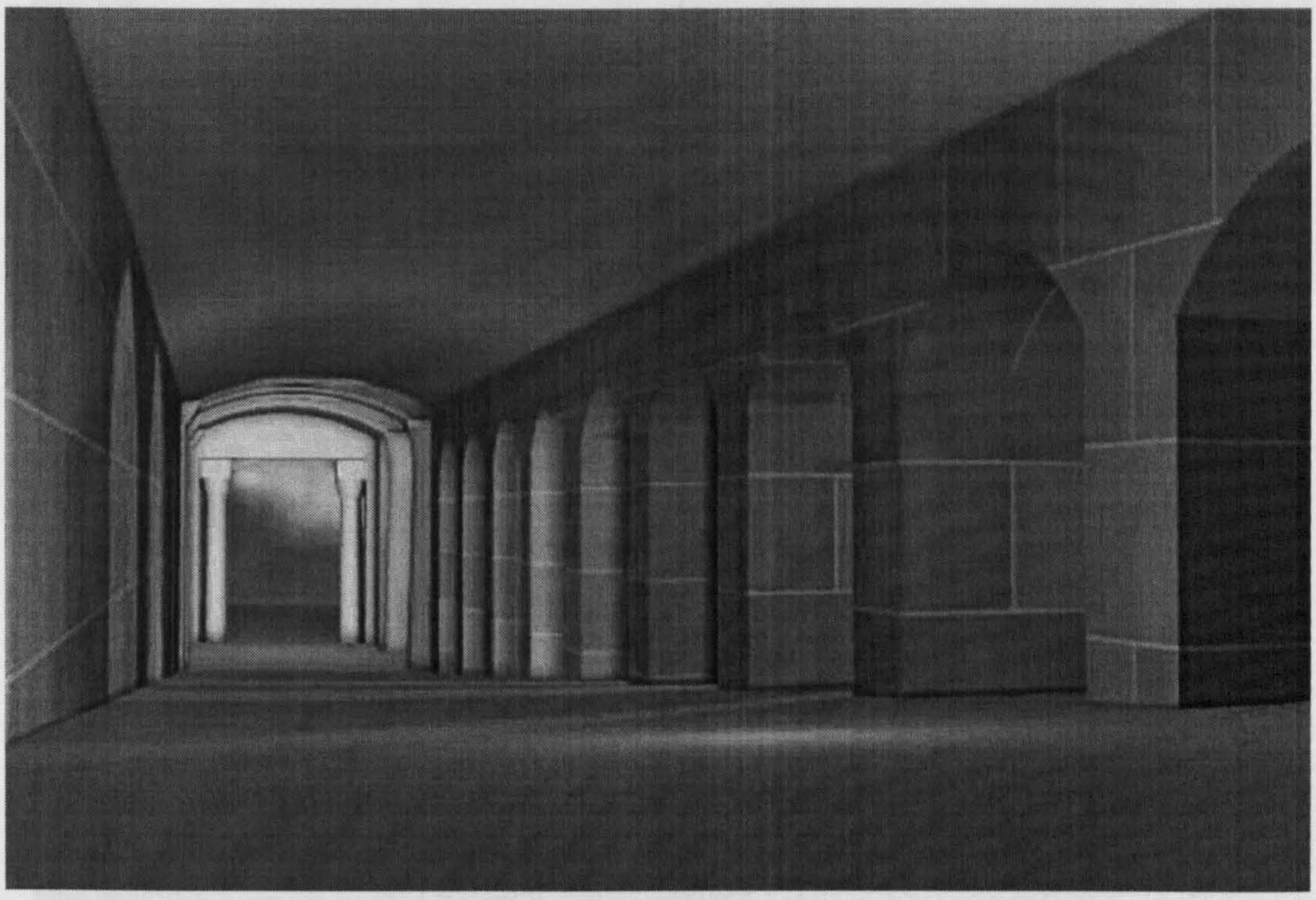


Fig. 6. 59 **Al-Aqsa Mosque: The eastern passage tunnel of *Bāb al-Nabī* (or the Double Gate) leading up to the level of the enclave Gate as it looked in the early Islamic period. The picture looks from inside the tunnel towards the south.**

Source: The researcher.



Fig. 6. 60 **Al-Aqsa Mosque: The eastern passage tunnel of *Bāb al-Nabī* (or the Double Gate) leading up to the level of the enclave as it looks today. The upper picture looks from the inside tunnel towards the south and the lower one looks from inside it towards the north.**

Source: The researcher.

attributed the gate to the middle of the sixth century AD [Pierotti, 1864, pp.150]. But both of them believe that *Bāb al-Nabī* and its passage were constructed on the remains of a 1st century AD gate. Warren examined the double gate in 1876 AD and made very important observations. Among them is the investigation of the possibility of there being a number of vaults similar to those at the south-east angle of the al-Aqsa enclave. After he excavated some parts at the eastern and western walls of the gate, he concluded "there is nothing beyond but made earth" [Warren, 1970, p249].

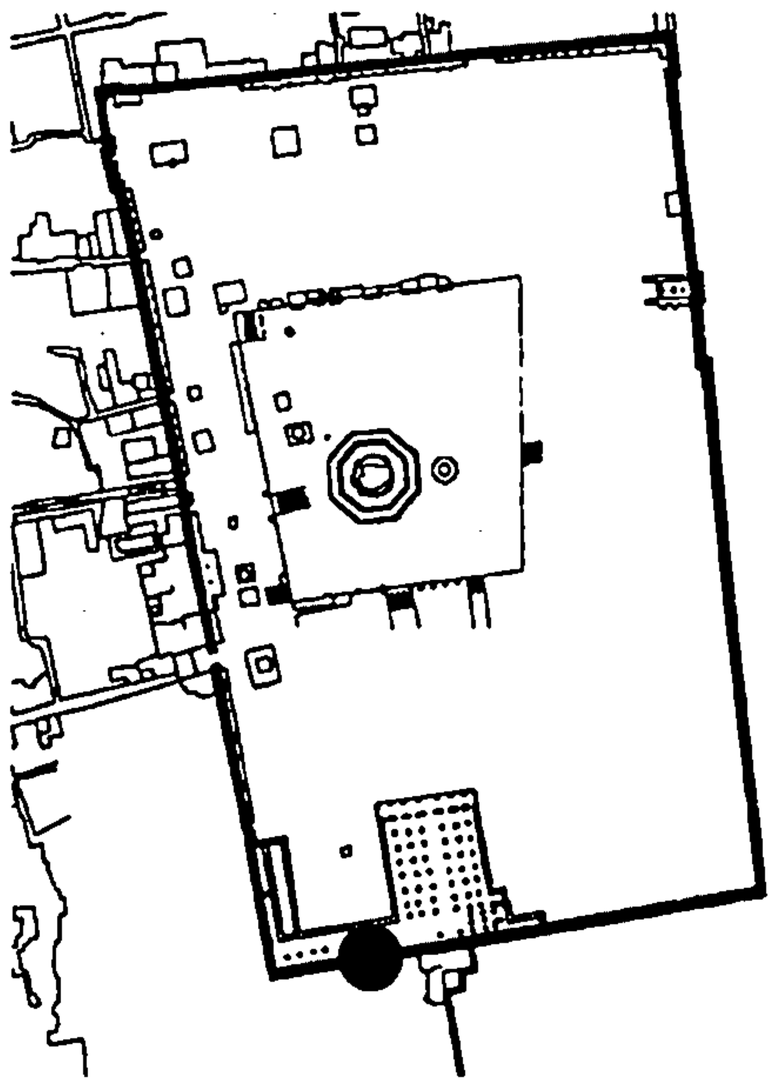
The evidence that the gate has Roman masonry at its jambs made most of the scholars of the 19th century AD and recent ones such as Ben-Dov, Rozen-Ayalon, Burgoyne believe that the gate is of 1st century AD Roman origin, and that it has remained almost intact and was restored by Umayyads [Ben-Dov, 1985, pp.99, 287; Borgoyne, 1992, p110]. Hamilton –who did a detailed study of the structural history of al-Aqsa Mosque– argues that it was probably the builders of the gate who re-used old stones. These existed near at hand, having fallen from the Roman wall, and when those were exhausted, builders continued the construction with smaller materials gathered or quarried elsewhere. He attributed *Bāb al-Nabī* and the large stones with no margins above the Roman stones with margins up to the floor-level of *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque) to a single phase of construction. Indeed, Hamilton highlighted some very important archaeological evidence in his excavation inside *al-Jāmi'* al-Aqsa. He discovered that all of the types of pottery beneath the earliest floor of the mosque, which immediately covered the back of the vaults of *Bāb al-Nabī* (or the Double Gate), have the "characteristic of the latest pre-Islamic and earliest Islamic levels in other areas of Jerusalem" [Hamilton, 1949, p66]. This means archaeologically that the construction of the vault must be attributed to the 7th or early 8th century AD. Moreover, according to him, "amongst these early remains there is a notable absence of all traces of monumental buildings of the Jewish period" [Hamilton, 1949, p65] Therefore, it is doubtful whether the gate can be attributed to a period earlier than the Muslims period not only because of this archaeological evidence but also because in 70 AD the area of al-Aqsa enclave was totally destroyed and continued to be in ruins until the Muslim era in Jerusalem. Even more challenging to the proposal that this gate is of Roman origin is the excavation by Mazar which confirms that the area south of the gate consisted of "minor buildings

on the east and on the west, with a central agricultural area" [Mazar, 1985, pp.463-468: fig.8]. This minor settlement provides no reason to re-build the gate. Moreover, there is no mention of this gate in the early historical reports of the Christian pilgrims that would strengthen the possibility of the construction of the gate during the Byzantine period.

According to Rozen-Ayalon, all comparable examples in the decoration, particularly the rosette motive on the main façade of both *Bāb al-Rahmah* (the Golden Gate) and *Bāb al-Nabī* (the Double Gate), that exist in the artistic tradition of geographical proximity, dated back to the 6^{th}-7^{th} centuries AD [Rozen-Ayalon, 1989, p41]. Moreover, the most significant analogies can be found among Umayyad monuments in the enclave. A well-distinguished example can be seen on carved marble friezes that exist in different places at the circular arcade inside *Qubbet al-Sakhrah* (the Dome of the Rock).

Regardless of the definite history of the origin of *Bāb al-Nabī* (the Double Gate), the style of the floral decoration of the gate and the type of architecture show that the construction or reconstruction of the gate was associated with the establishment of the Umayyad buildings in al-Aqsa enclave. Moreover, it is evident from the excavation of Mazar that the Umayyad buildings to the south of al-Aqsa enclave were constructed together with the laying of the paved street leading up to the *Bāb al-Nabī* wall and the repair of the southern wall of the enclave. This means that *Bāb al-Nabī* itself was also constructed in the Umayyad period [Mazar, 1969, p19]. Indeed, in any event, the gate must have been completed before the work began on the al-Aqsa Mosque above. Therefore, the question of whether the construction of this gate took place prior to the building of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) or at this very time is elusive. It is hard not to accept that in the time of the Umayyad caliph 'Abd al-Malik the gate was part of the walls and that it provided access to the enclave.

The Gate to al-Jāmi' al-Aqsa (al-Aqsa Congregation Mosque).



This gate is located in the southern wall of al-Aqsa enclave, some 8 metres above the level of Umayyad buildings that were discovered on the outside adjacent of the southern wall of the enclave. It is the only means of access into *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) directly from outside the enclave; all other access is through the open courtyards of the enclave.

Ben-Dov discovered the first curving stones of an arch that must have extended from the *Qiblah* wall and connected the mosque with the roof of the two–story Umayyad Palace discovered outside the enclave to the south [Ben-Dov, 1985, p294] (see Fig. 6.61, 62, 63). As the entrance of *al-Jāmi'* (the Congregation Mosque) can be in any one of its walls except the *Qiblah*, Ben-Dov suggests –on the basis of the location of this gate supported by an arch– that it could have only been made for the use of a very eminent person such as a caliph. On that basis, he maintained that the building to the south had been a royal palace [Ben-Dov, 1985, p296].

No historical reference to this gate can be found in the sources. It is more likely that its opening had a semicircular arch observed in many gates of the enclave. Indeed, –on the basis of the excavation by Mazar– this gate must be constructed at the time when the Umayyad buildings at the south of the enclave have been completed. All of the buildings having collapsed as a result of a strong earthquake that hit Jerusalem in 130AH/ 747AD and which were never repaired [Mazar, 2969, p.20].

Bāb Hittah** (Gate of forgiveness) **or Barclay's Gate

This gate is located below present *Bāb al-Maghāribah* (Moroccans Gate), about 90 metres north of the south-west corner of al-Aqsa enclave. Le Strange identified this

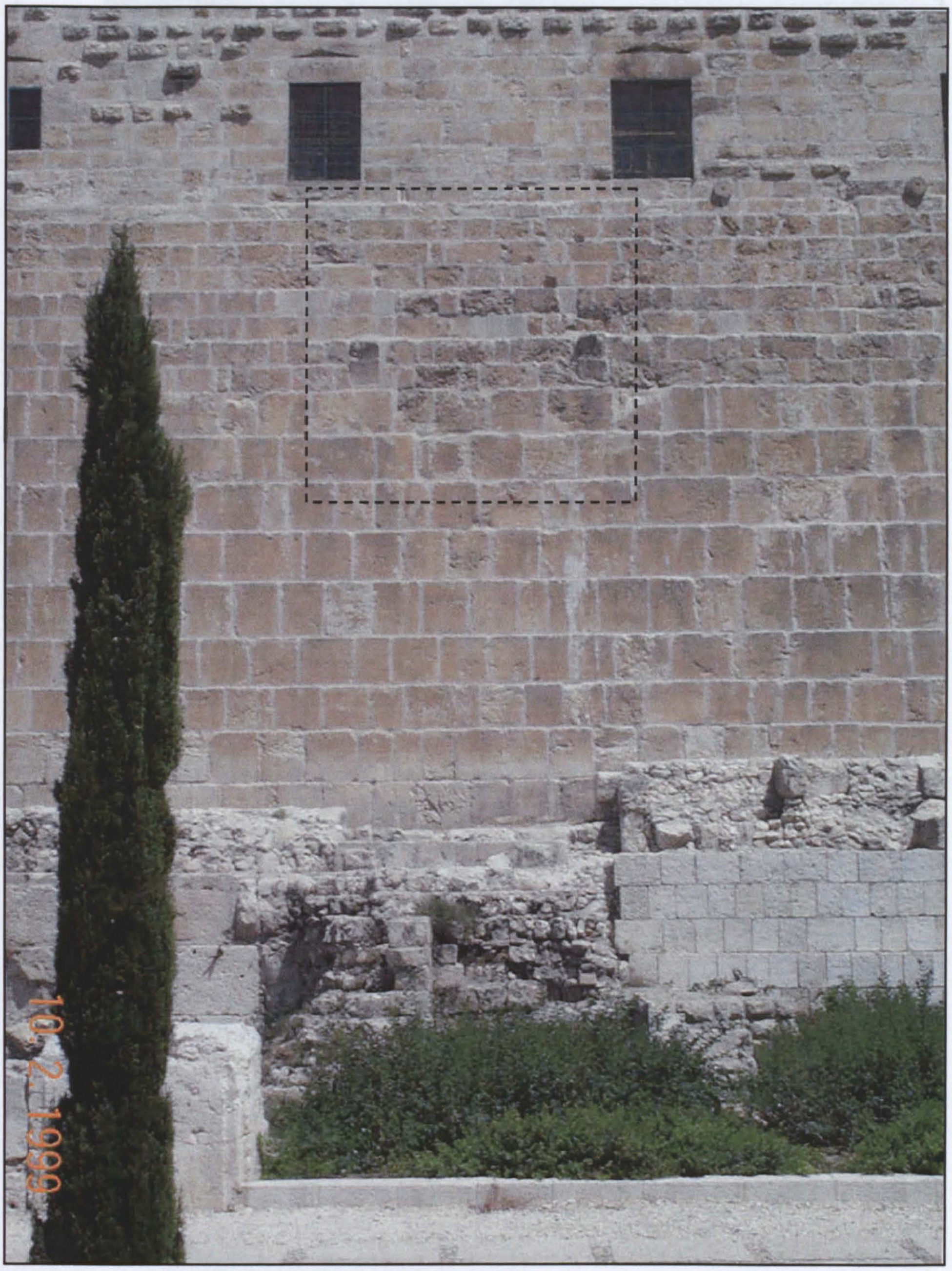


Fig. 6. 61 **Al-Aqsa Mosque: The first curving stones –still surviving today– of the supported arch of the gate that led to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) directly from outside the enclave during the Umayyad period**

Source: The researcher.

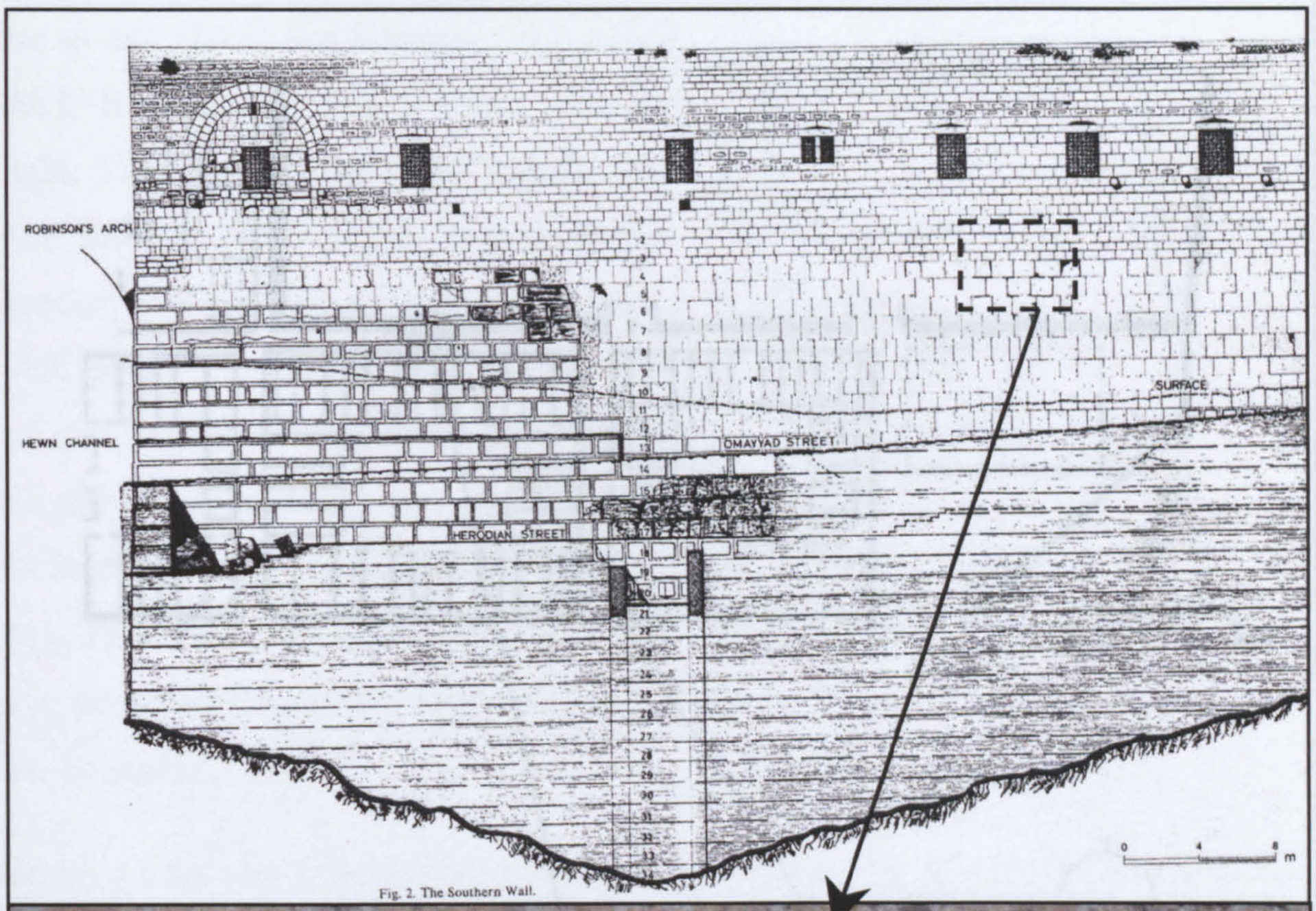


Fig. 2. The Southern Wall.

Fig. 6. 62 **Al-Aqsa Mosque: The Location of the first curving stones –still surviving today– of the supported arch of the gate that in the Umayyad period led to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) directly from outside the enclave.**

Source: Top: Mazar, 1969, 24/ Fig. 2; bottom: the researcher.

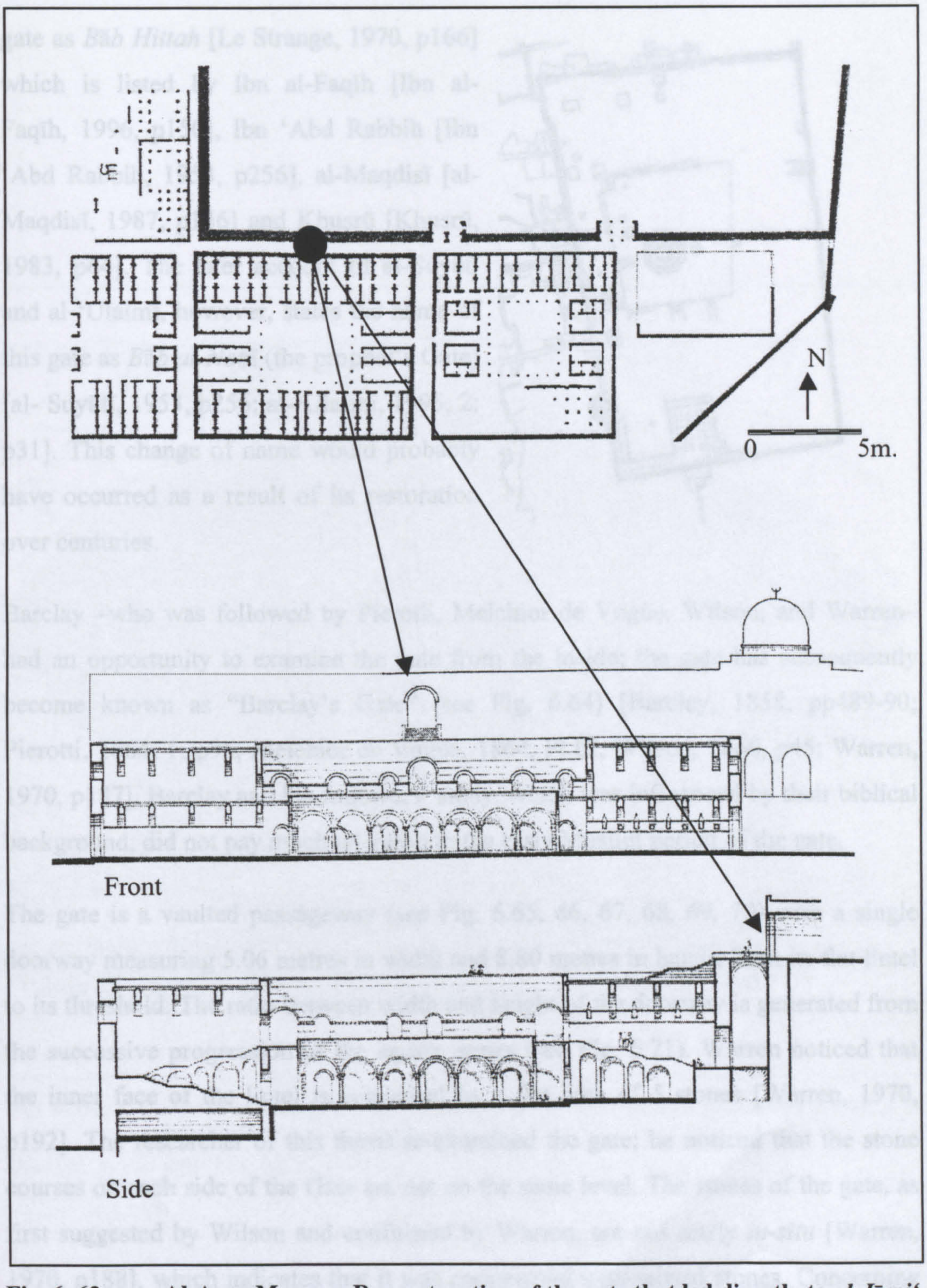
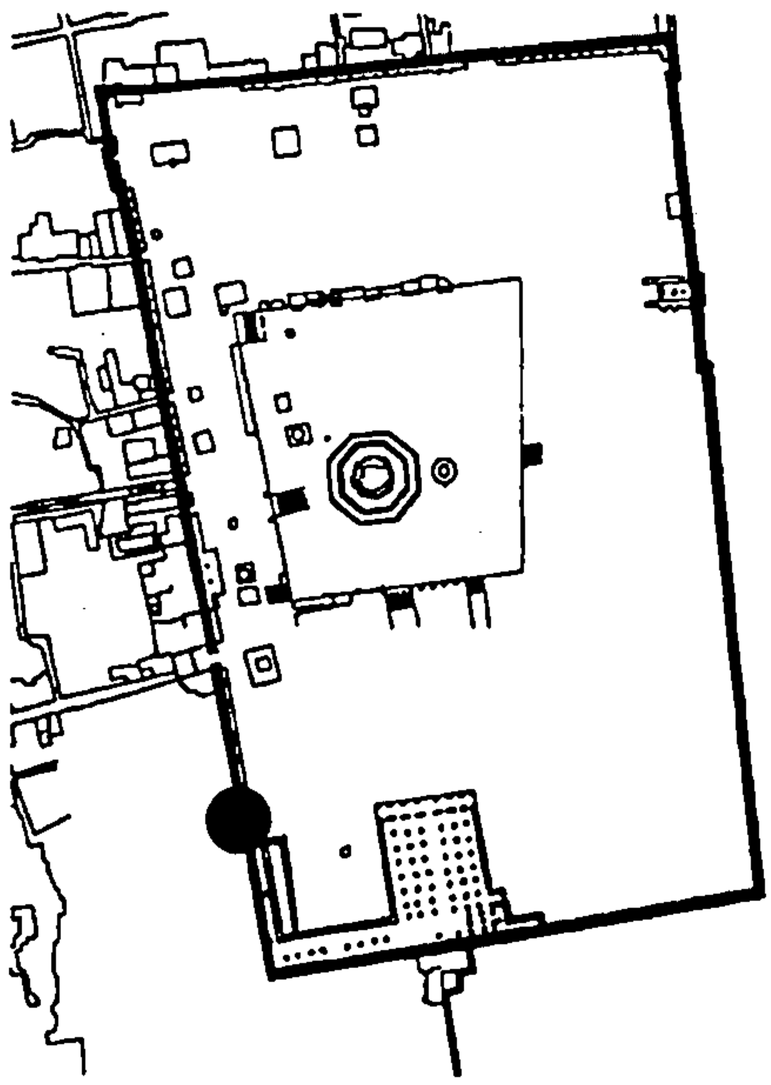


Fig. 6. 63 **Al-Aqsa Mosque: Reconstruction of the gate that led directly to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and linked an Umayyad building located outside the enclave with the Mosque during the Umayyad period.**

Source: Ben-Dov, 1985, p305.

gate as *Bāb Hittah* [Le Strange, 1970, p166] which is listed by Ibn al-Faqīh [Ibn al-Faqīh, 1996, p150], Ibn 'Abd Rabbih [Ibn 'Abd Rabbih, 1953, p256], al-Maqdisī [al-Maqdisī, 1987, p146] and Khusrū [Khusrū, 1983, p64]. The later account of al-Suyūtī and al-'Ulaimī, however, states the name of this gate as *Bāb al-Nabī* (the prophet's Gate) [al- Suyūtī, 1953, p256; al-'Ulaimī, 1995, 2: p31]. This change of name would probably have occurred as a result of its restoration over centuries.



Barclay –who was followed by Pierotti, Melchior de Vogüé, Wilson, and Warren– had an opportunity to examine the gate from the inside; the gate has subsequently become known as "Barclay's Gate" (see Fig. 6.64) [Barclay, 1858, pp489-90; Pierotti, 1864, 1: p96, Melchior de Vogüé, 1864, Pl.III; Wilson, 1866, p45; Warren, 1970, p187]. Barclay and his followers' study, which was influenced by their biblical background, did not pay much attention to the early Muslim period of the gate.

The gate is a vaulted passageway (see Fig. 6.65, 66, 67, 68, 69, 70) with a single doorway measuring 5.06 metres in width and 8.80 metres in height from its flat lintel to its threshold. The ratio between width and height of the doorway is generated from the successive progression of the square series (see Fig. 6.71). Warren noticed that the inner face of the lintel is concealed by a flat arch of 5 stones [Warren, 1970, p192]. The researcher of this thesis re-examined the gate; he noticed that the stone courses on each side of the Gate are not on the same level. The stones of the gate, as first suggested by Wilson and confirmed by Warren, are not really *in-situ* [Warren, 1970, p188], which indicates that it was constructed with reused stones. Concerning the history of this gate before the early Islamic period, it is useless to speculate because there is no clear evidence.

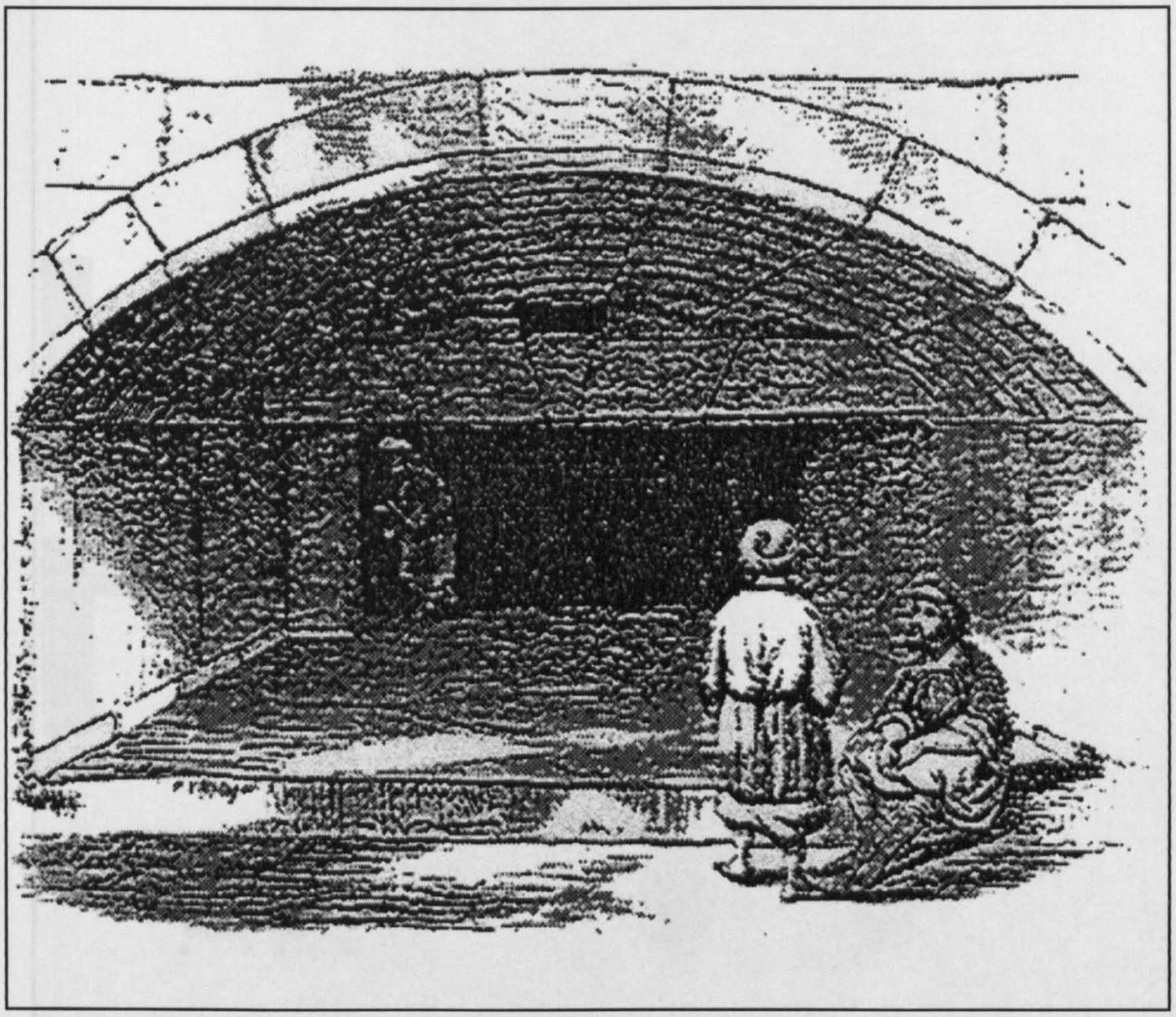


Fig. 6. 64 **Al-Aqsa Mosque: *Bāb Hittah* (or Barclay's Gate) from inside which it is known today as *al-Burāq* Mosque.**

Source: Barclay, 1858, p490.

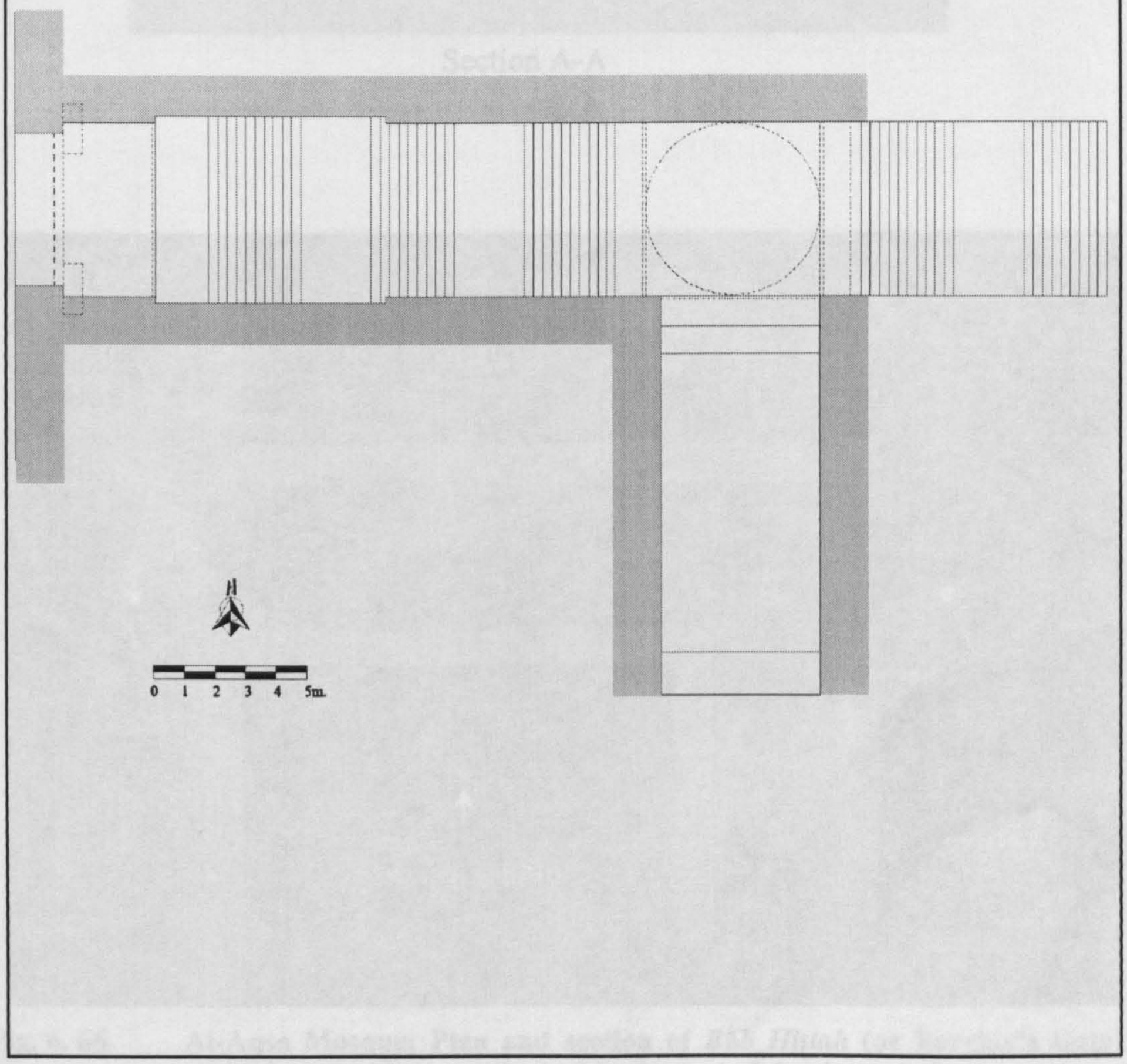
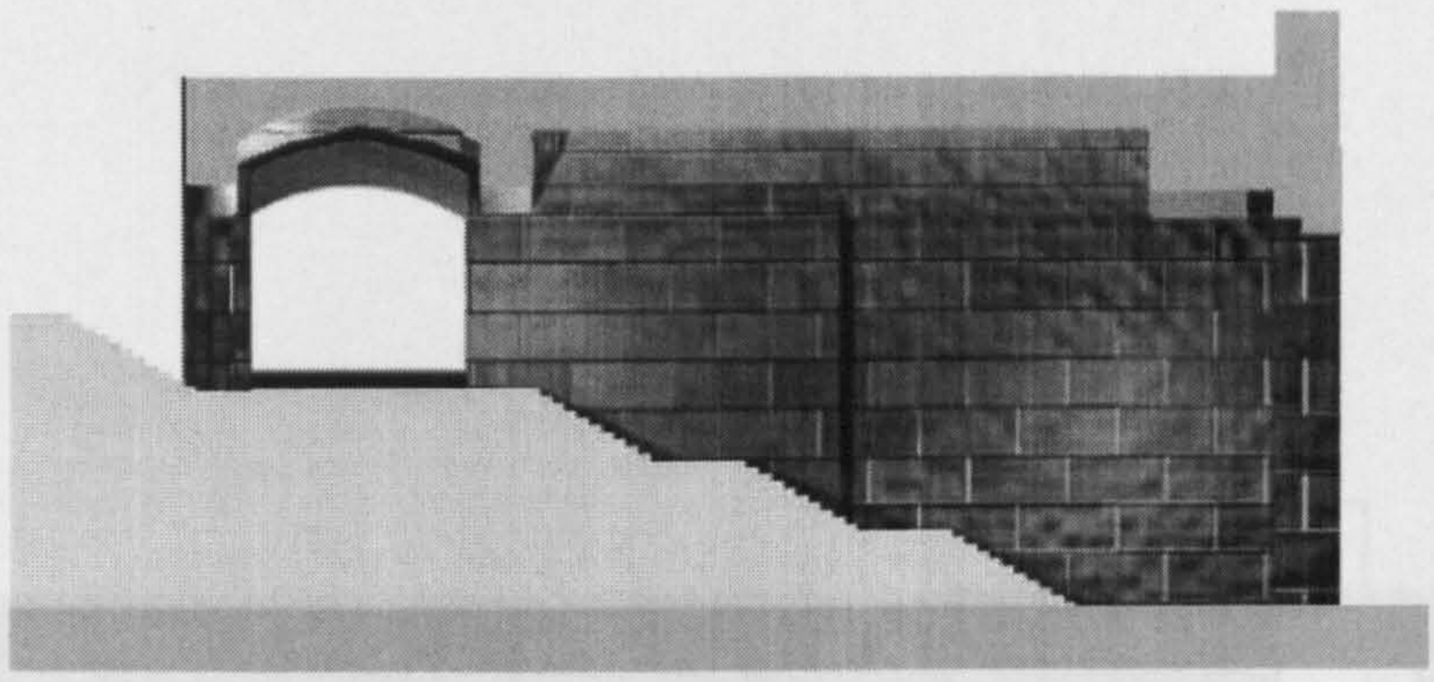


Fig. 6. 65 **Al-Aqsa Mosque: Plan of *Bāb Hittah* (or Barclay's Gate) and its passageway as it looked in the early Islamic period.**

Source: The researcher.



Section A-A

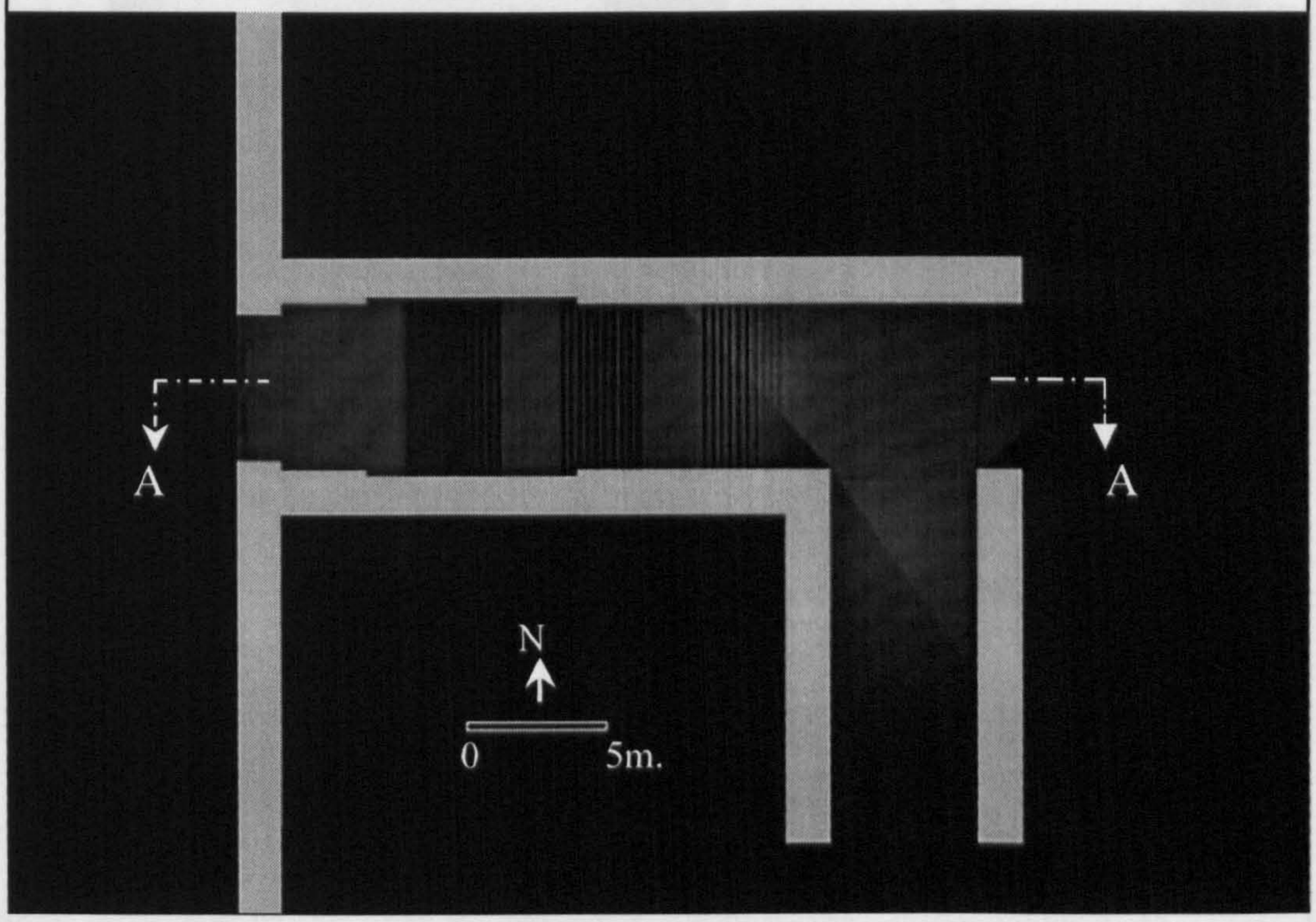


Fig. 6. 66 **Al-Aqsa Mosque: Plan and section of *Bāb Hittah* (or Barclay's Gate) and its passageway as it looked in the early Islamic period.**

Source: The researcher.

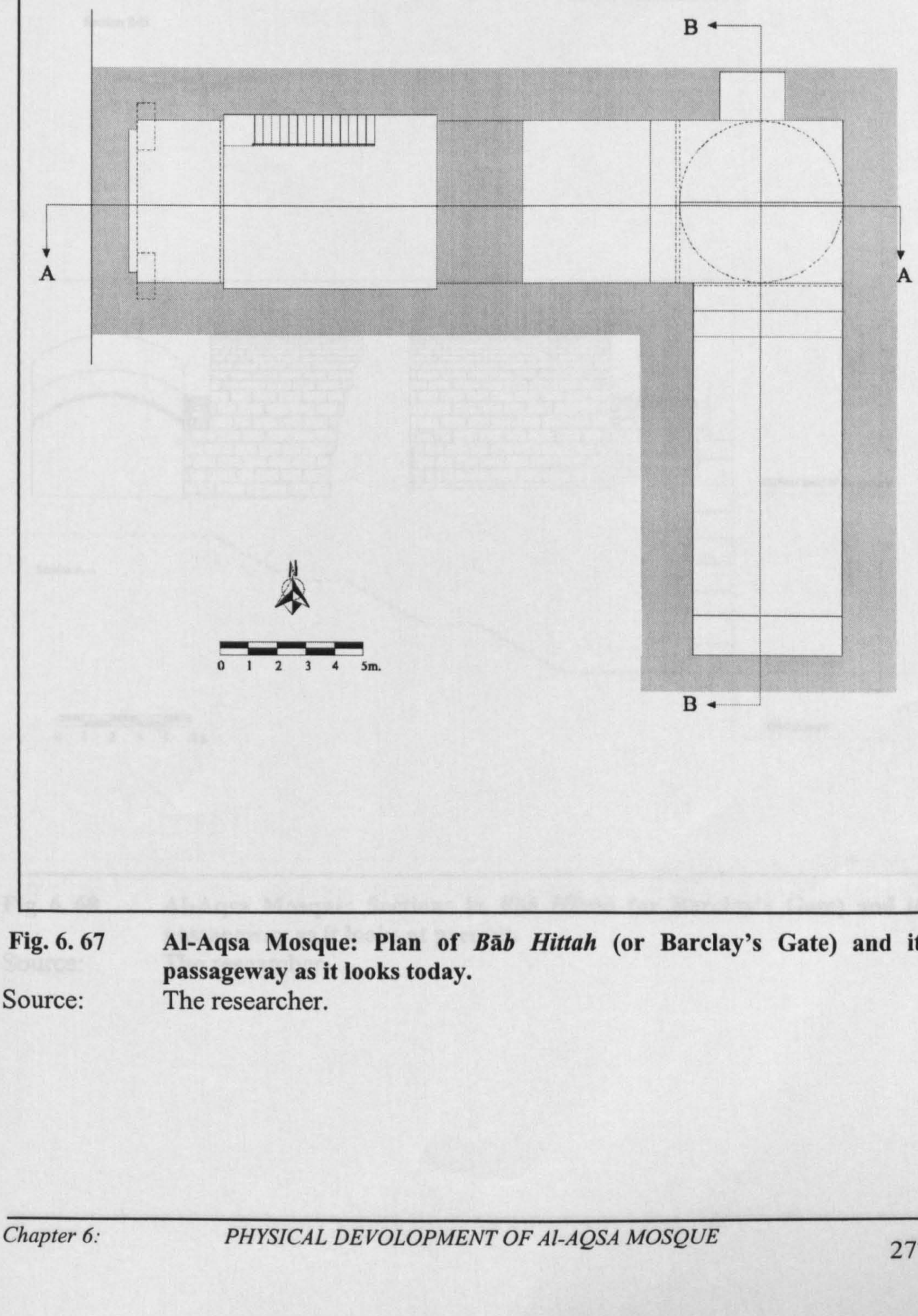
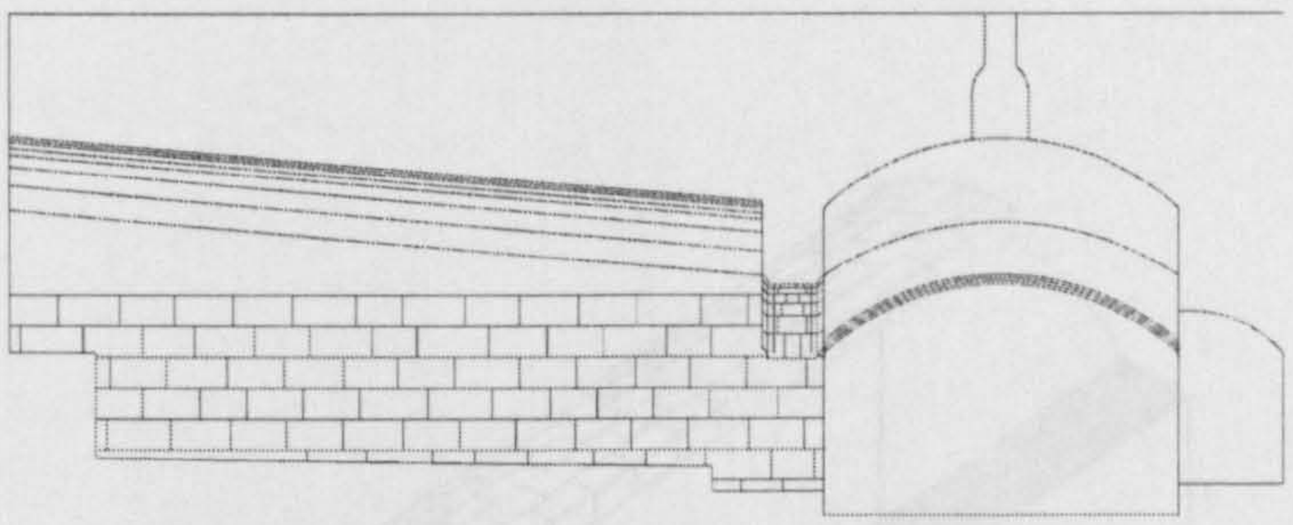


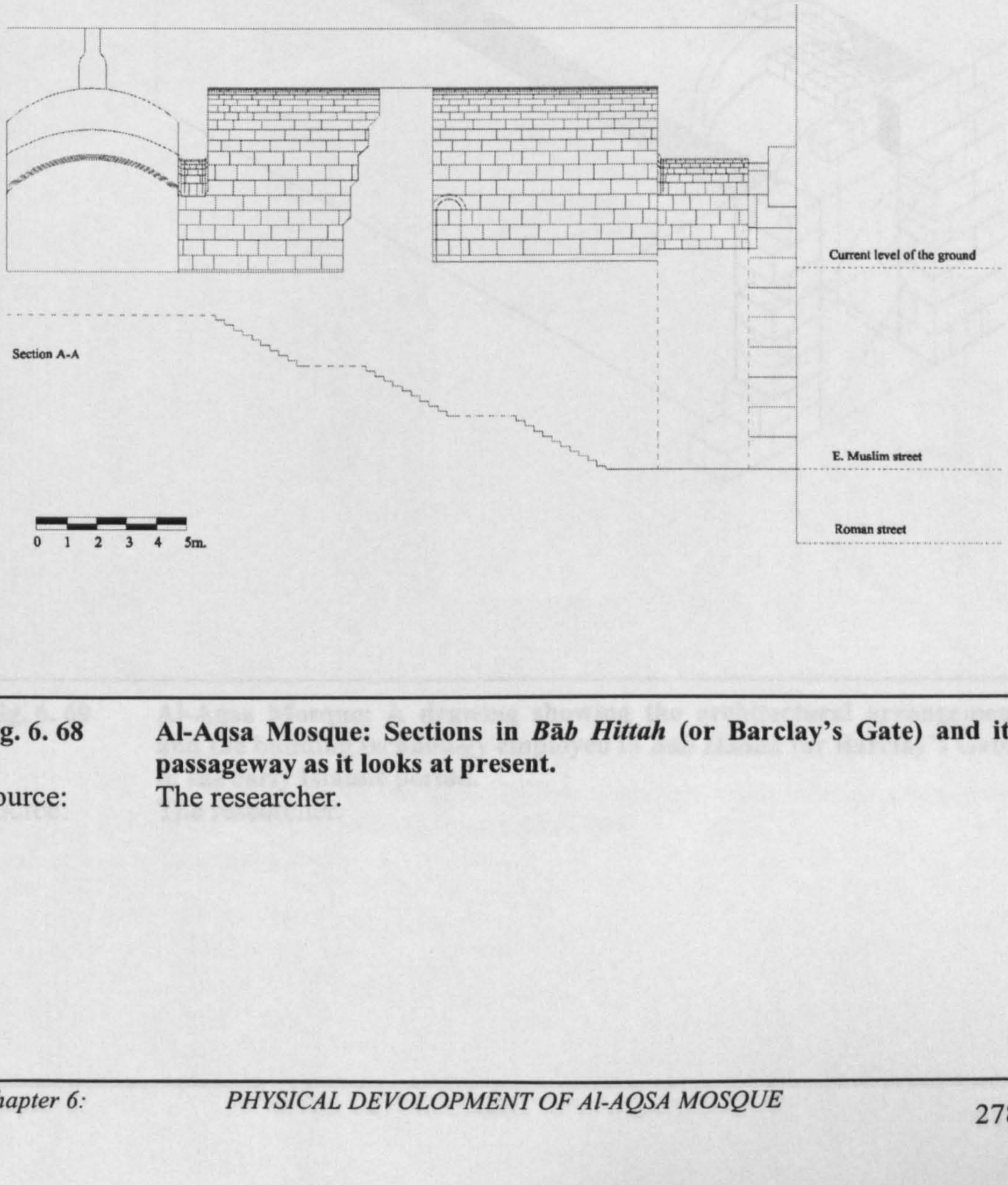
Fig. 6. 67 **Al-Aqsa Mosque: Plan of *Bāb Hittah* (or Barclay's Gate) and its passageway as it looks today.**

Source: The researcher.



Section B-B

0 1 2 3 4 5m.



Section A-A

0 1 2 3 4 5m.

Fig. 6. 68 **Al-Aqsa Mosque: Sections in *Bāb Hittah* (or Barclay's Gate) and its passageway as it looks at present.**

Source: The researcher.

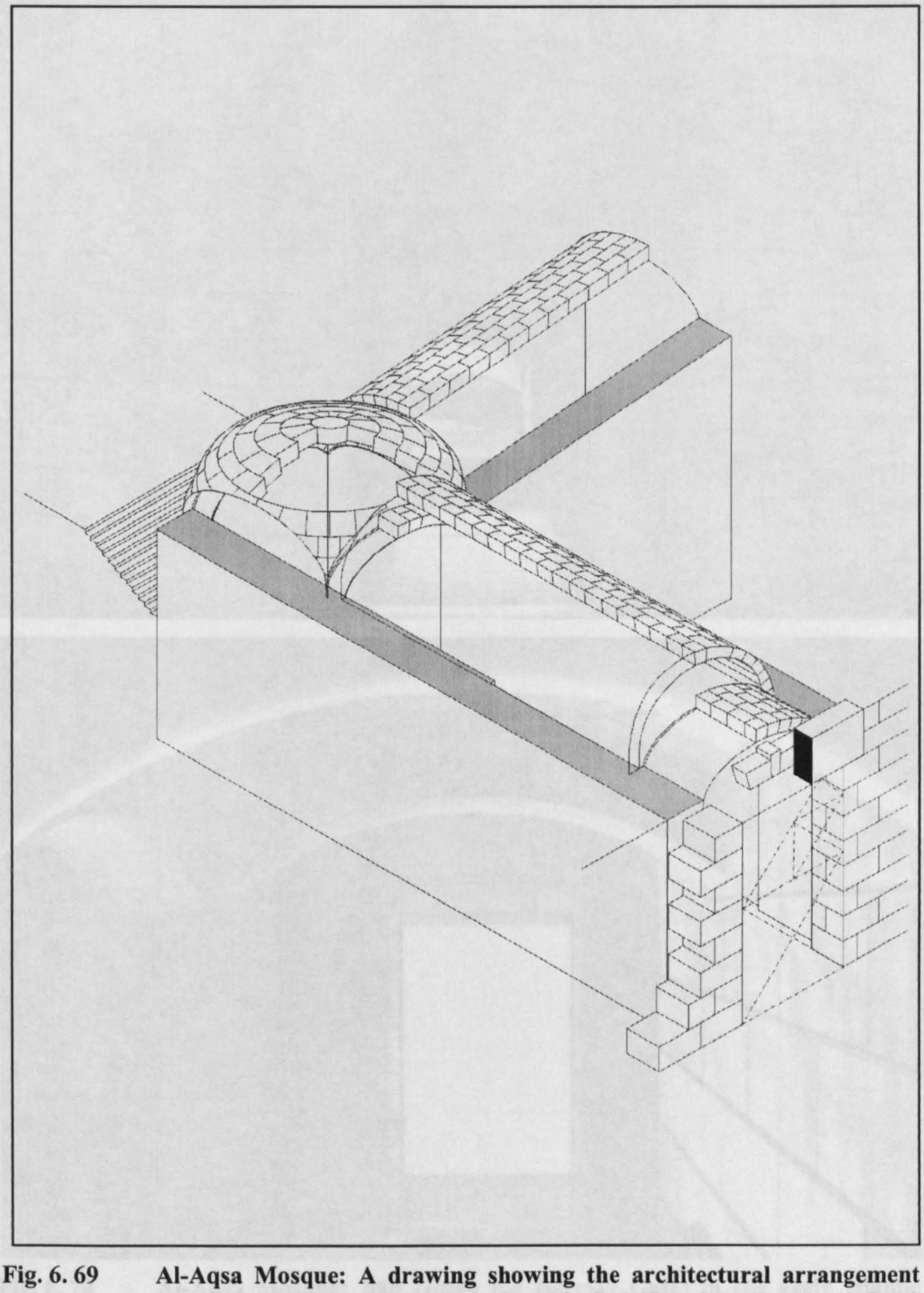


Fig. 6. 69 **Al-Aqsa Mosque: A drawing showing the architectural arrangement and the building technology employed in *Bāb Hattah* (or Barclay's Gate) in the early Islamic period.**

Source: The researcher.

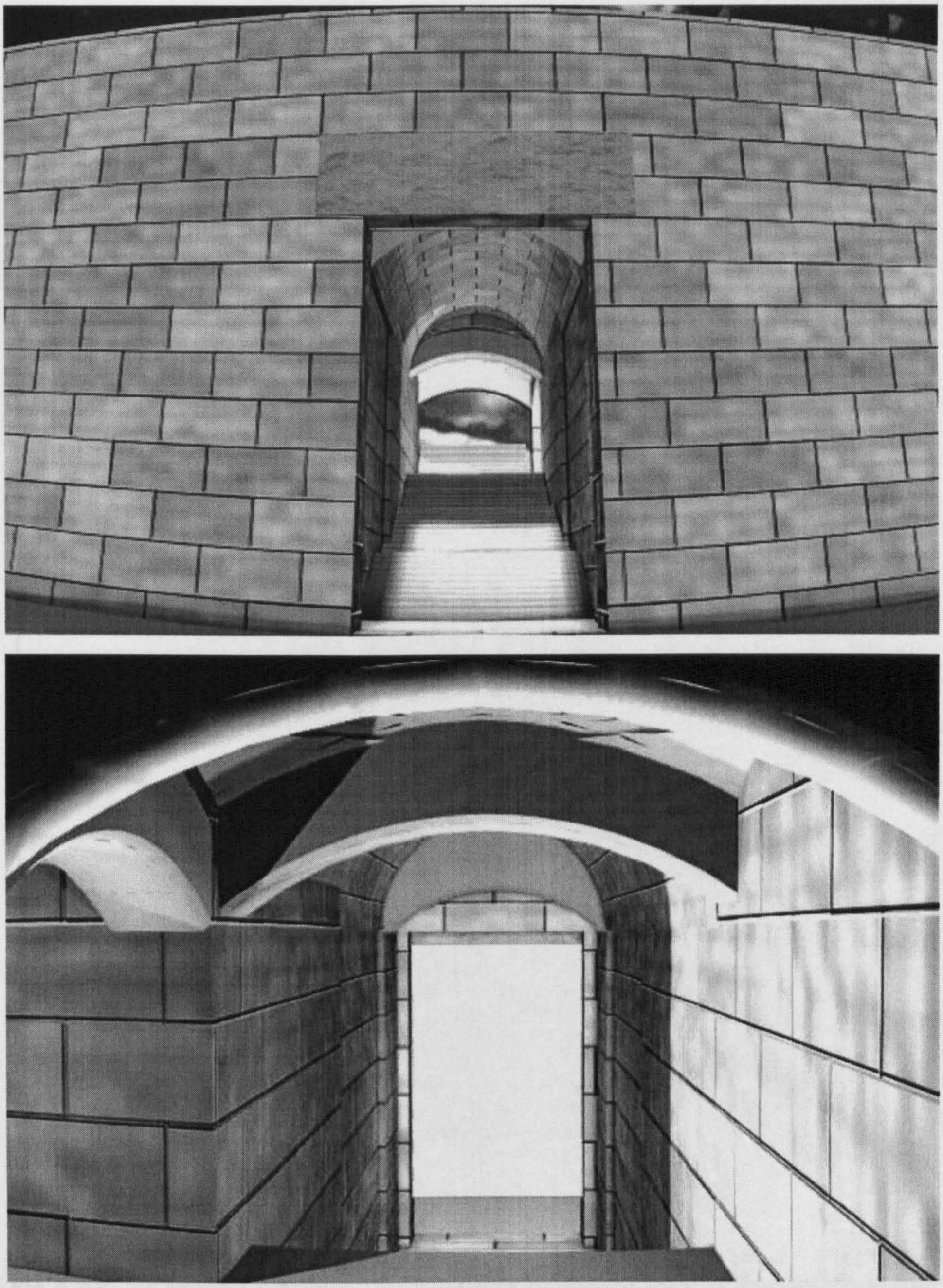


Fig. 6. 70 **Al-Aqsa Mosque: *Bāb Hittah* (or Barclay Gate) in the early Islamic period; the upper picture is for the main façade of the gate looking from the west towards the east; the lower picture is an interior perspective inside the gate looking from east to west.**

Source: The researcher.

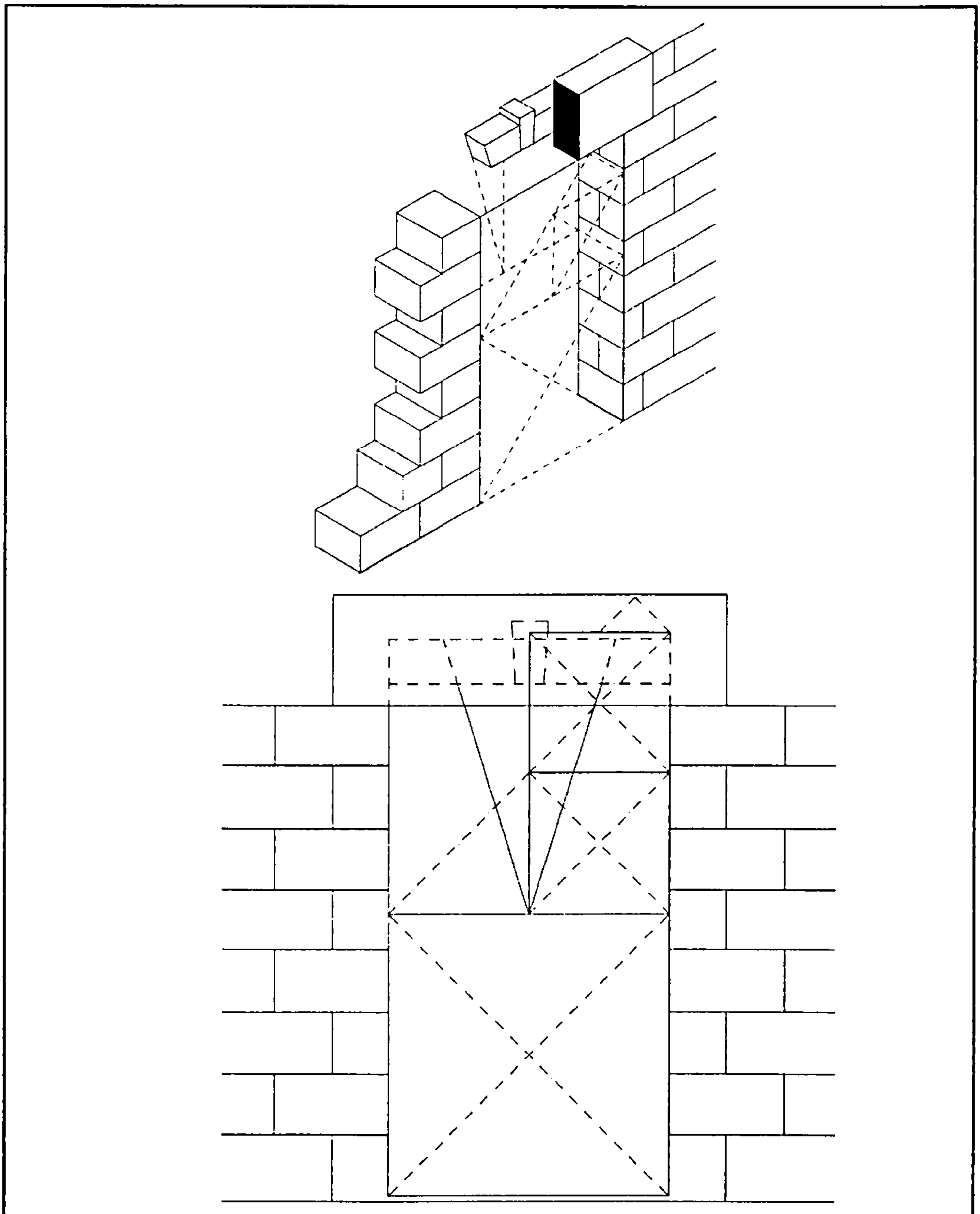


Fig. 6. 71 **Al-Aqsa Mosque: The main facade of *Bāb Hittah* (or Barclay's Gate) as it looked in the early Islamic period; the upper picture represents the building technology employed in constructing the doorway and the lower picture analyses the proportion of the doorway.**

Source: The researcher.

From an archaeological point of view, this gate certainly served as an entrance to al-Aqsa Mosque in the early Islamic period. This view emerged after Ben-Dov uncovered a sewage channel outside the western wall of al-Aqsa Mosque that runs close to the threshold of this gate under the street that was level with the threshold. Since the pavement and the channel date back to the early Islamic period, this gate must have been in use in the Umayyad period [Ben-Dov, 1985, p142].

The gate leads to the level of the enclave through a passageway of two intersected wings; it forms an inverted L-shape in plan. The line of the passage runs eastward some 24.50 metres at right angles from the gate, and then it continues some 13 metres to the south parallel to the western wall of the enclave (see Fig. 6.65).

More than one type of roofing can be distinguished in the passage (see Fig.6.69). Adjacent to the Gate, there is a segmental barrel vault with a chamfered edge spanning an adjacent space measuring 5.76 metres in width and rising 1.20 metres. It has been delineated with the help of the radius of the circle that circumscribes the square (see Fig.6.72). This vault is followed by another vault of a hemispherical barrel shape for the passage, measuring 6.20 metres in width and rising 3.10 metres high (see Fig.6.73). At the meeting point of the E-W and N-S passages, a shallow dome was used to cover the junction; originally it possibly rests on the side walls and on three distinct segmental arch of chamfered edges, two of them still surviving today. According to Burgoyne, the chamfered edge is a distinctive feature of all Umayyad gates leading to the enclave [Burgoyne, 1992, p111]. It can be noticed that the arches and the dome have also been constructed with the help of the diagonals of the square that equals their span (see Fig.6.74). As for the covering of the other wing, a vault has been used over the entire space. According to Gibson and Jacobson, who examined the place a few years ago, this vault is of an elliptical shape [Gibson & Jacobson, 1996, p63].

The gate passage was in use until some time after 985 AD [Burgoyne, 1992, p109] when it was then blocked and changed into a cistern adjacent to the mosque known as *al-Burāq* [Burgoyne, 1992, p109].

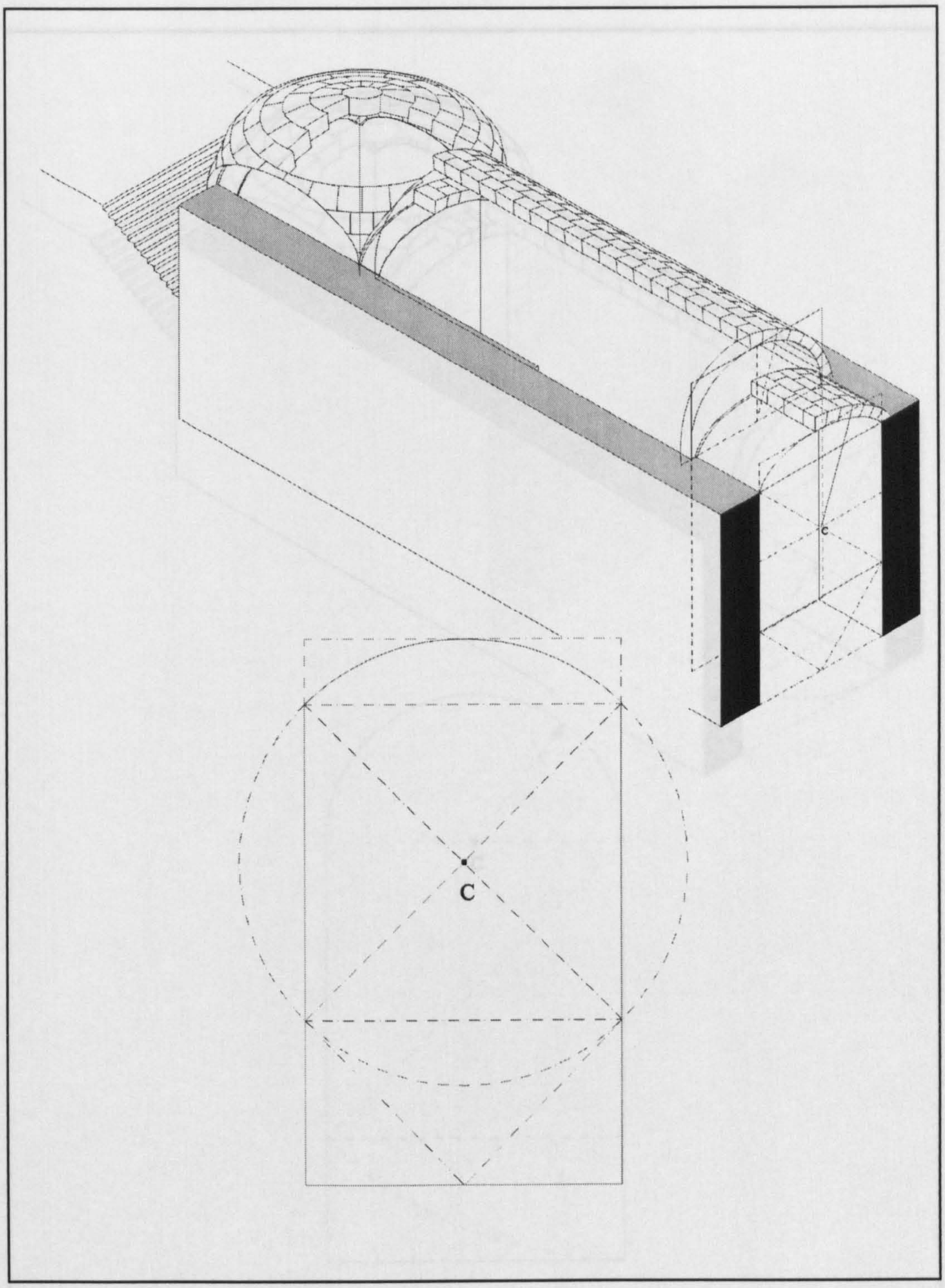


Fig. 6. 72 **Al-Aqsa Mosque: *Bāb Hittah* (or Barclay Gate) as it looked in the early Islamic period; the upper picture illustrates the building technology employed in constructing the first vault adjacent to the doorway and the lower picture analyses the proportion of the vault.**

Source: The researcher.

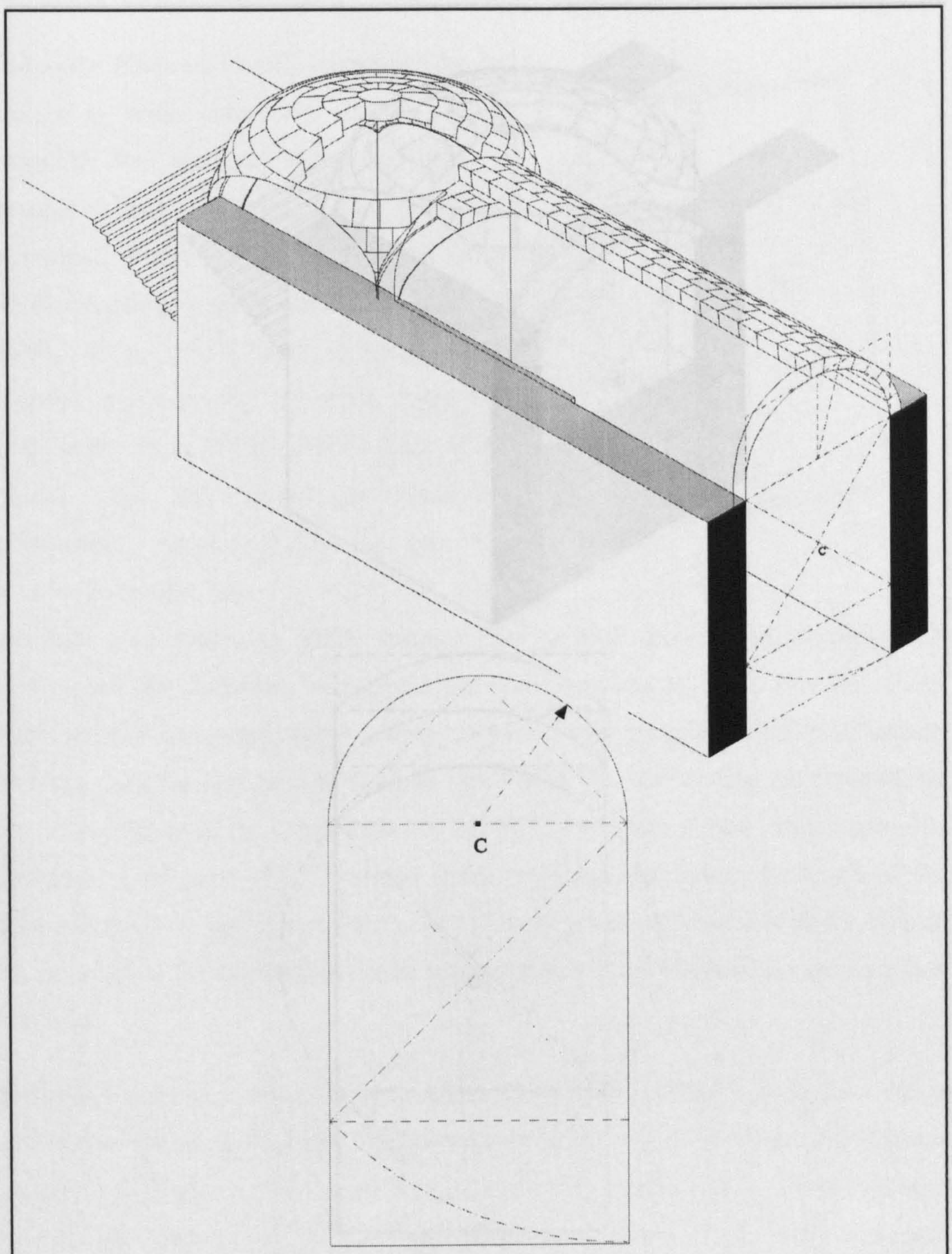


Fig. 6. 73 **Al-Aqsa Mosque: *Bāb Hittah* (or Barclay Gate) as it looked in the early Islamic period; the upper picture represents the building technology employed in constructing the barrel vault of the gate and the lower picture analyses the proportion of the vault.**

Source: The researcher.

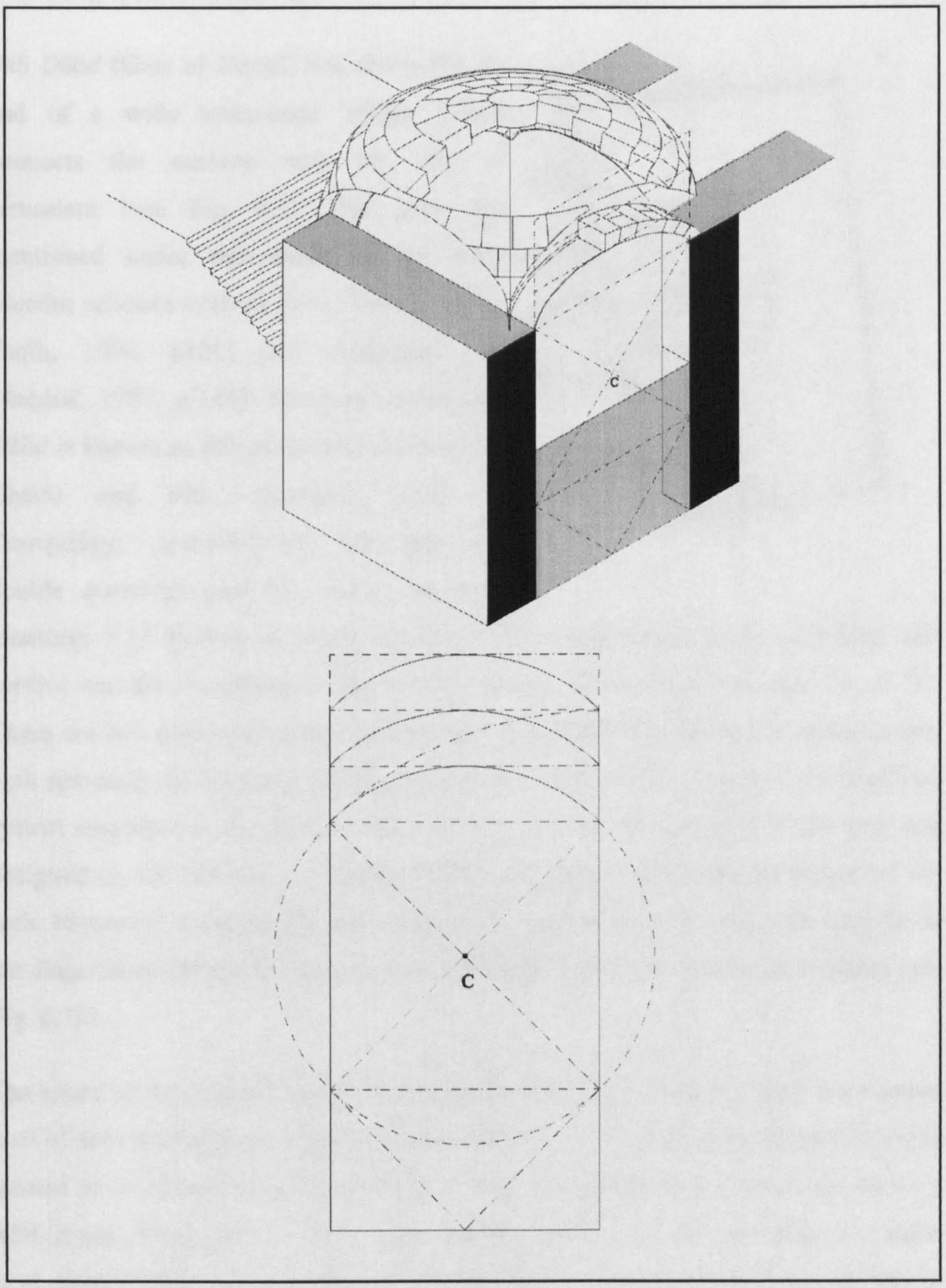
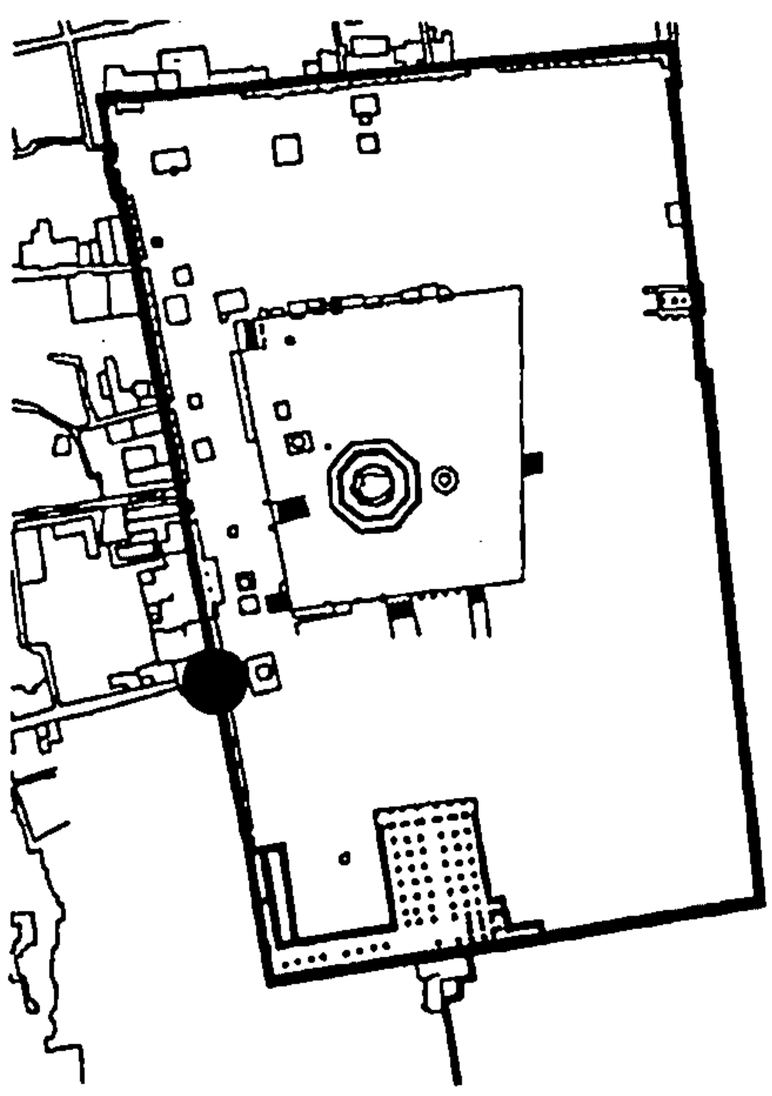


Fig. 6. 74 **Al-Aqsa Mosque: *Bāb Hittah* (or Barclay Gate) as it looked in the early Islamic period; the upper picture represents the building technology employed in constructing the dome and its arches of the gate and the lower picture analyses the proportion of them.**

Source: The researcher.

Bāb Dāūd *(Gate of David)*



Bāb Dāūd (Gate of David) lies above the far end of a wide transversal bridge, which connects the enclave with the city of Jerusalem (see Fig. 6.1). The gate was mentioned under this name by the early Muslim scholars such as Ibn al-Faqīh [Ibn al-Faqīh, 1996, p151] and al-Maqdisī [al-Maqdisī, 1987, p.146]. However, today *Bāb Dāūd* is known as *Bāb al-Silsilah* (Gate of the Chain) *and Bāb al-Sakīnah* (Gate of Tranquility). Architecturally, the gate has double doorways (see Fig. 6.75, 76), each measures 5.15 metres in width; traces of the original semicircular openings still survive and the chamfered voussoirs of its arches are distinguished (see Fig. 6.77). There are two segmental arches immediately inside the external semicircular arches, both spanning the threshold of the gate (see Fig. 6.78). Concerning the proportional system employed in the construction of the gate, it can be noticed that the gate was designed on the ratio of 1:1 between width and height excluding the height of the arch. Moreover, it seems that the arches of the gate were delineated with the help of the diagonal of the square that can be constructed over the width of the opening (see Fig. 6.78).

The result of the archaeological excavation of Ben-Dov and Bahat along the western wall of the enclave threw some light on the history of the gate. It confirms that it was located in an elevated position above the main street located adjacent to the western wall [Bahat, 1994, p178]. This necessitated the construction of the bridge that leads to al-Aqsa enclave through this gate. As the bridge, which will be discussed later in this chapter, has been constructed or reconstructed in the early Islamic period, it can be concluded that *Bāb Dāūd* was established at the same time as the construction of the bridge.

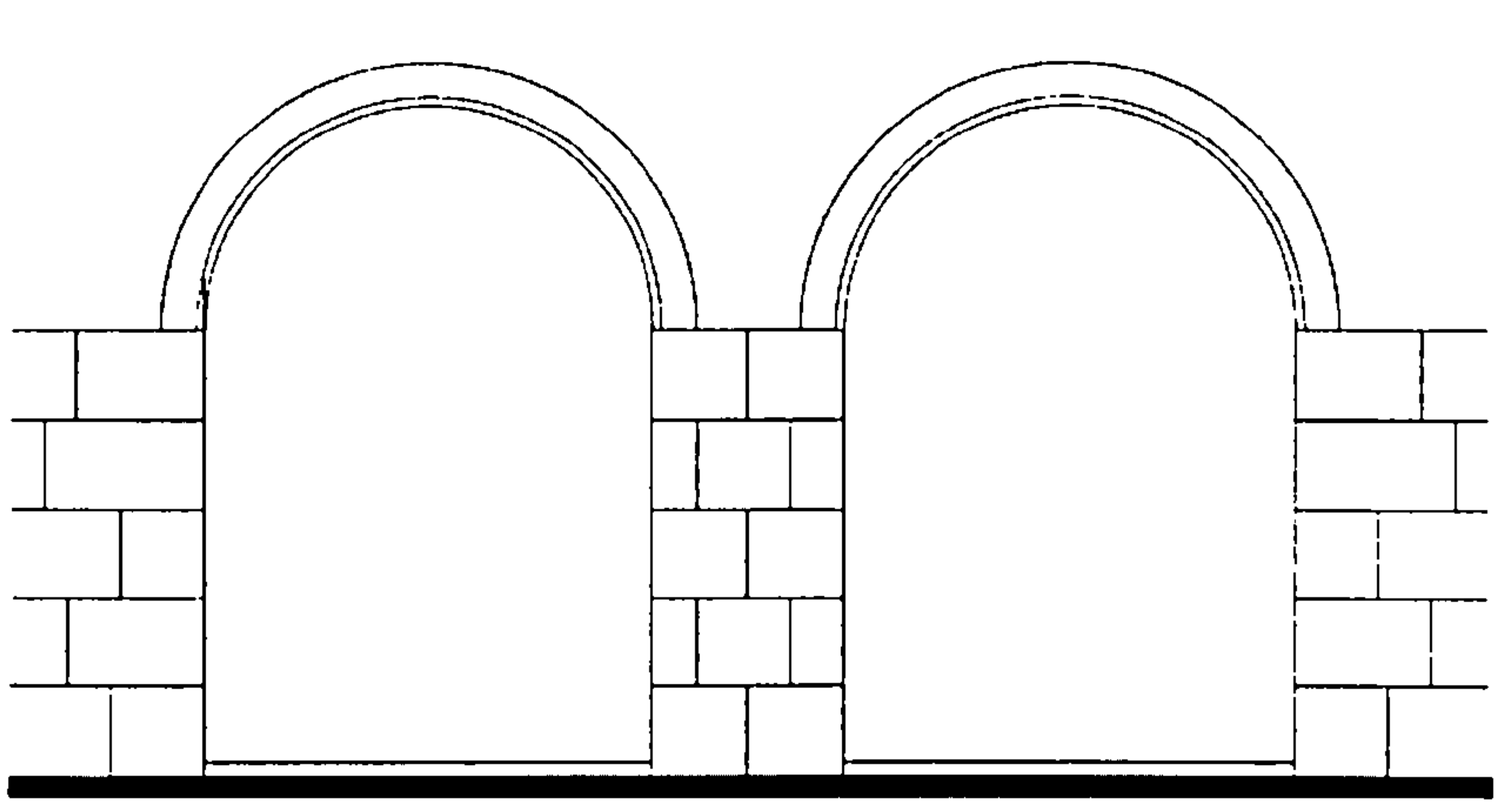






Fig. 6. 75 **Al-Aqsa Mosque: Plan and elevation of *Bāb Dāūd* (Gate of David) as it looked in the early Islamic period.**

Source: The researcher.

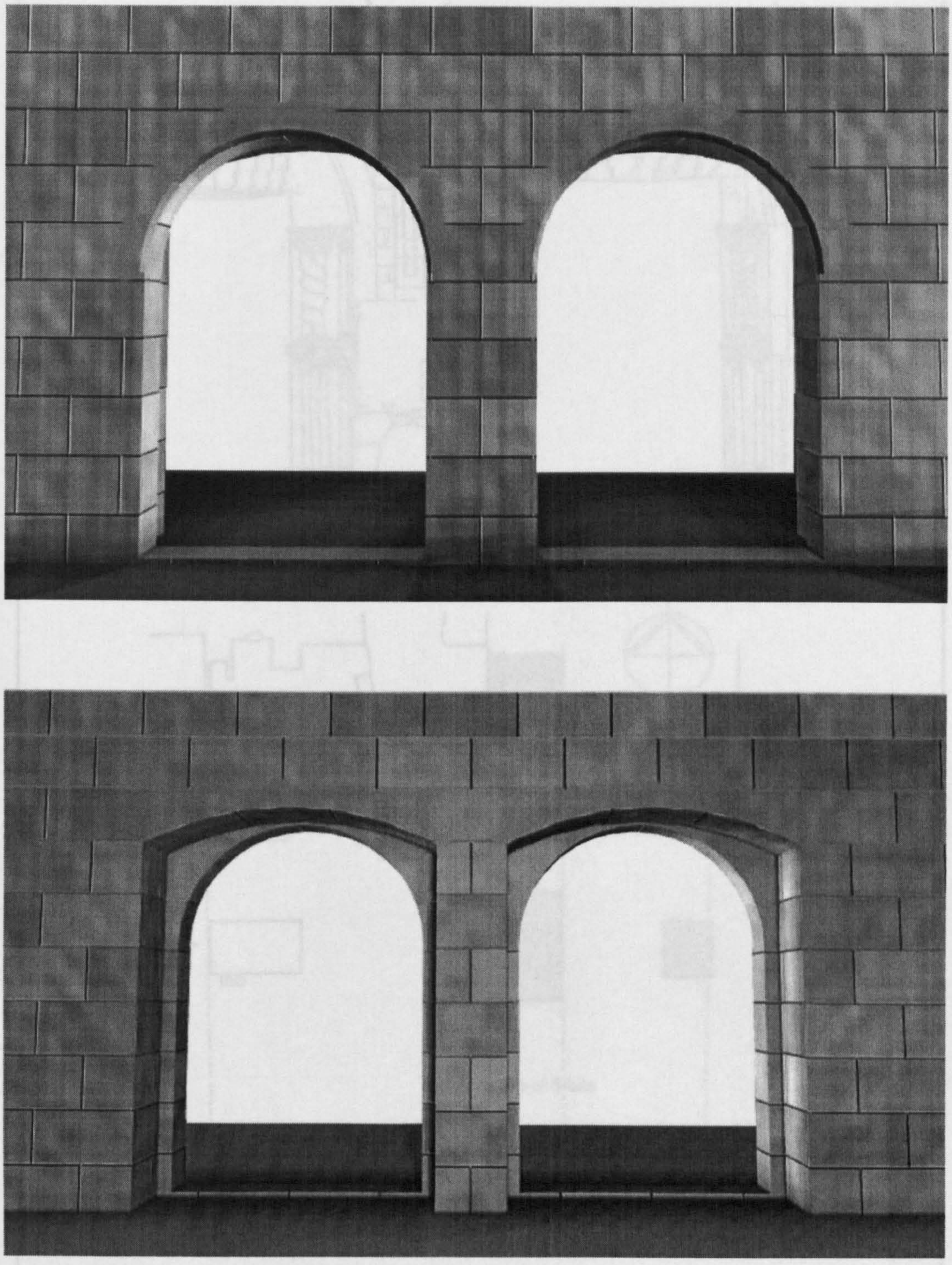
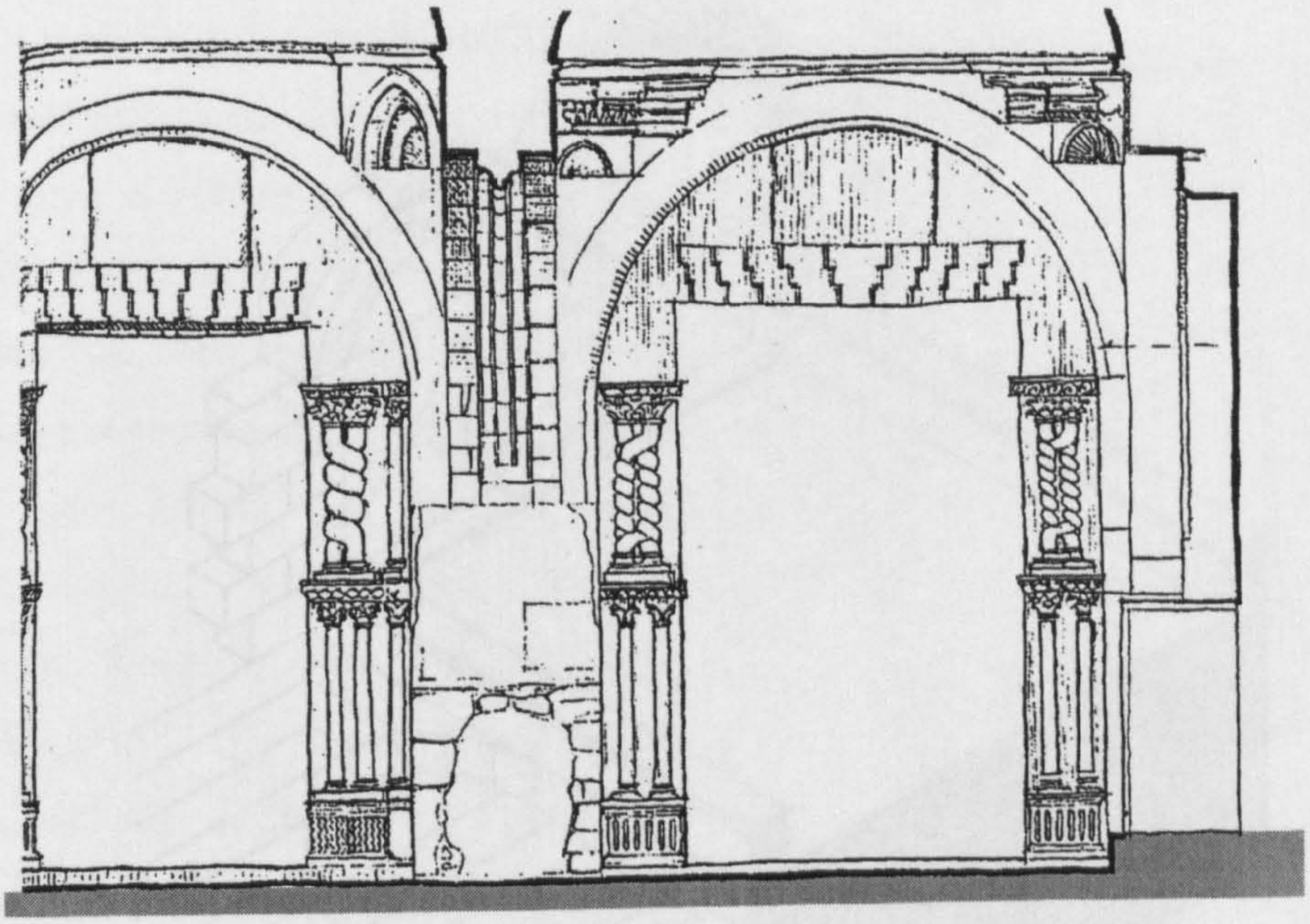


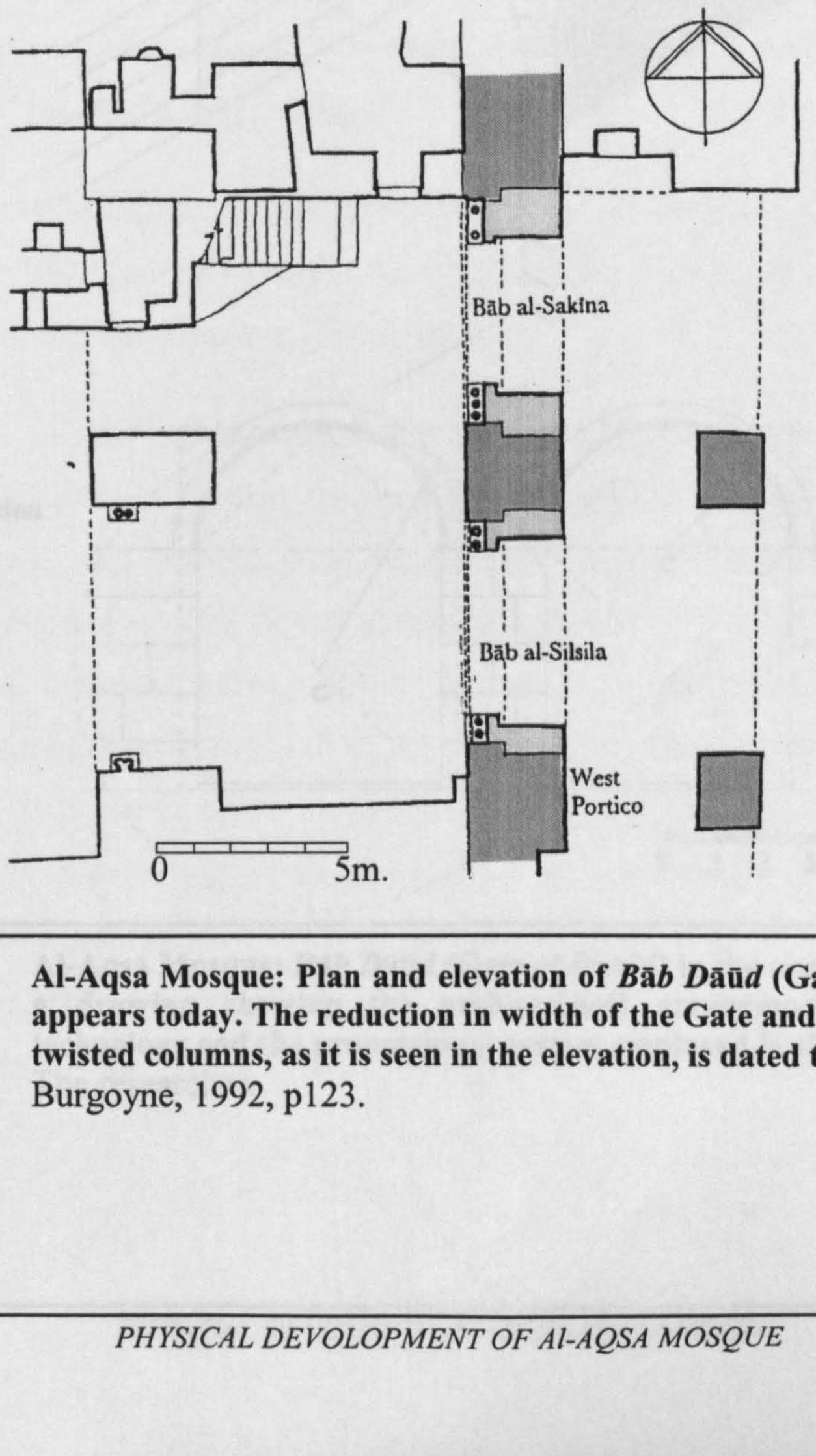
Fig. 6. 76 **Al-Aqsa Mosque: *Bāb Dāūd* (Gate of David) as it looked in the early Islamic period; the upper picture represents the main façade of the gate looking from the west towards the east; the lower picture represents the gate from inside the enclave, looking from east to west.**

Source: The researcher.



Elevation

0 1 2 3 4 5m.



Plan

0 5m.

Fig. 6. 77 **Al-Aqsa Mosque: Plan and elevation of *Bāb Dāūd* (Gate of David) as it appears today. The reduction in width of the Gate and the finding of the twisted columns, as it is seen in the elevation, is dated to Mamlūk period**

Source: Burgoyne, 1992, p123.

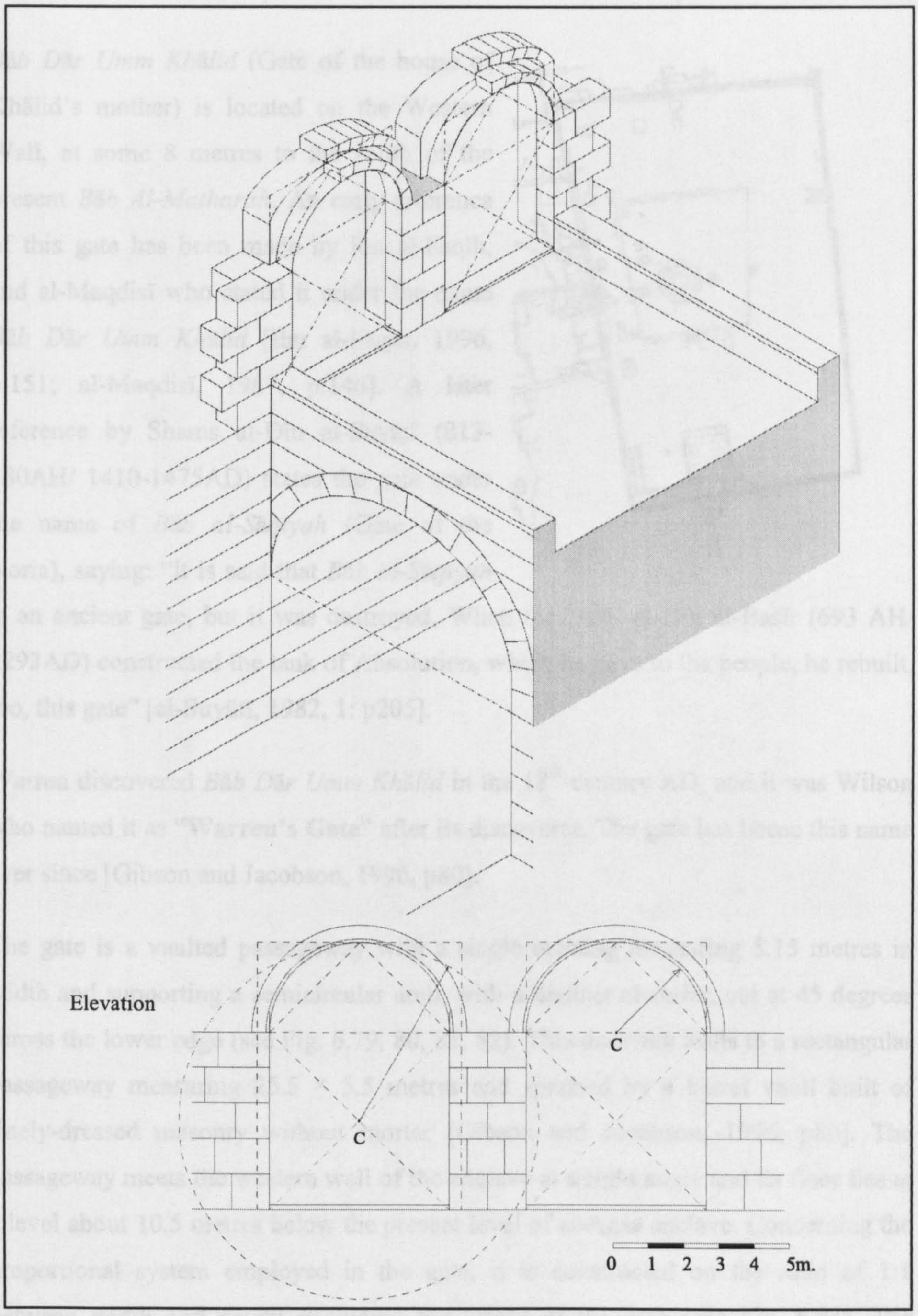
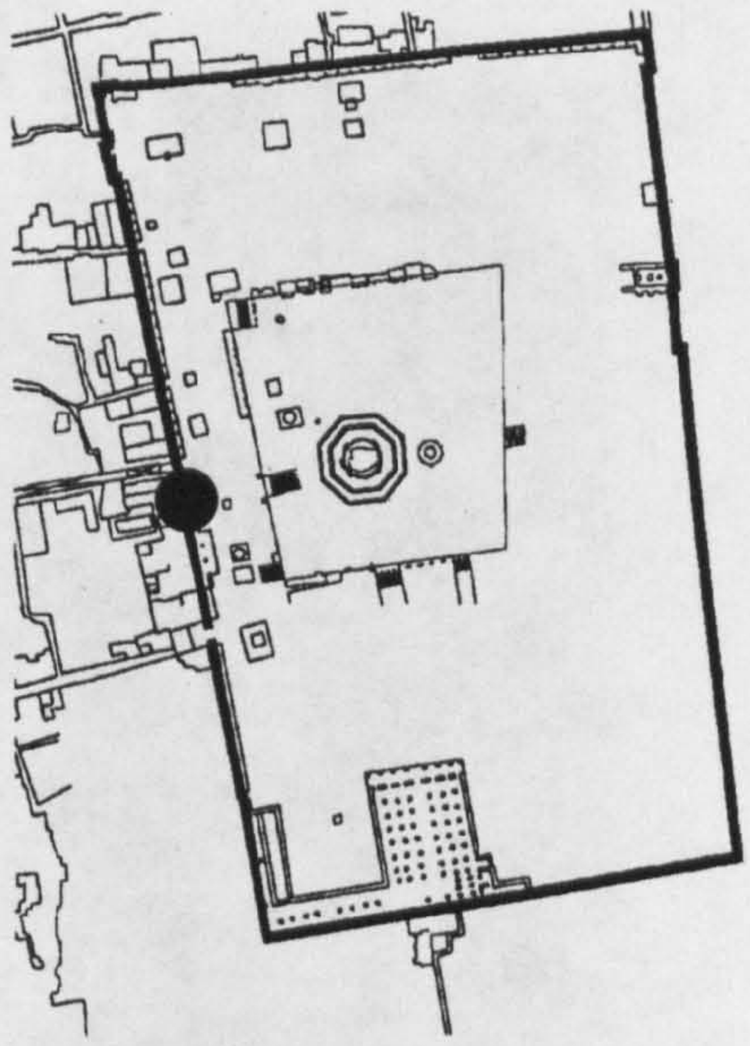


Fig. 6. 78 **Al-Aqsa Mosque: *Bāb Dāūd* (Gate of David) in the early Islamic period; a drawing showing the architectural arrangement, the building technology and the proportional system employed in the gate.**

Source: The researcher.

Bāb Dār Umm Khālid *(Gate of the House of Khālid's Mother)* ***or Warren's Gate***



Bāb Dār Umm Khālid (Gate of the house of Khālid's mother) is located on the Western Wall, at some 8 metres to the south of the present *Bāb Al-Matharah*. An early reference of this gate has been made by Ibn al-Faqīh, and al-Maqdisī who stated it under the name *Bāb Dār Umm Khālid* [Ibn al-Faqīh, 1996, p.151; al-Maqdisī, 1987, p.146]. A later reference by Shams al-Dīn al-Suyūtī (813-880AH/ 1410-1475AD) states the gate under the name of *Bāb al-Sāqiyah* (Gate of the Noria), saying: "It is said that *Bāb al-Sāqiyah* is an ancient gate, but it was destroyed. When the 'Alā' al-Dīn al-Basīr (693 AH/ 1293AD) constructed the tank of Absolution, which he gave to the people, he rebuilt, too, this gate" [al-Suyūtī, 1982, 1: p205].

Warren discovered *Bāb Dār Umm Khālid* in the 18th century AD, and it was Wilson who named it as "**Warren's Gate**" after its discoverer. The gate has borne this name ever since [Gibson and Jacobson, 1996, p80].

The gate is a vaulted passageway with a single opening measuring 5.15 metres in width and supporting a semicircular arch, with a distinct chamfer, cut at 45 degrees across the lower edge (see Fig. 6.79, 80, 81, 82). This doorway leads to a rectangular passageway measuring 25.5 × 5.5 metres and spanned by a barrel vault built of finely-dressed masonry without mortar [Gibson and Jacobson, 1996, p80]. The passageway meets the western wall of the enclave at a right angle and its floor lies at a level about 10.5 metres below the present level of al-Aqsa enclave. Concerning the proportional system employed in the gate, it is constructed on the ratio of 1:1 between width and height excluding the height of the arch (see Fig. 6.83). The gateway experienced several changes; its doorway was blocked up as well as the opposite side of the passageway, and converted into a cistern. According to

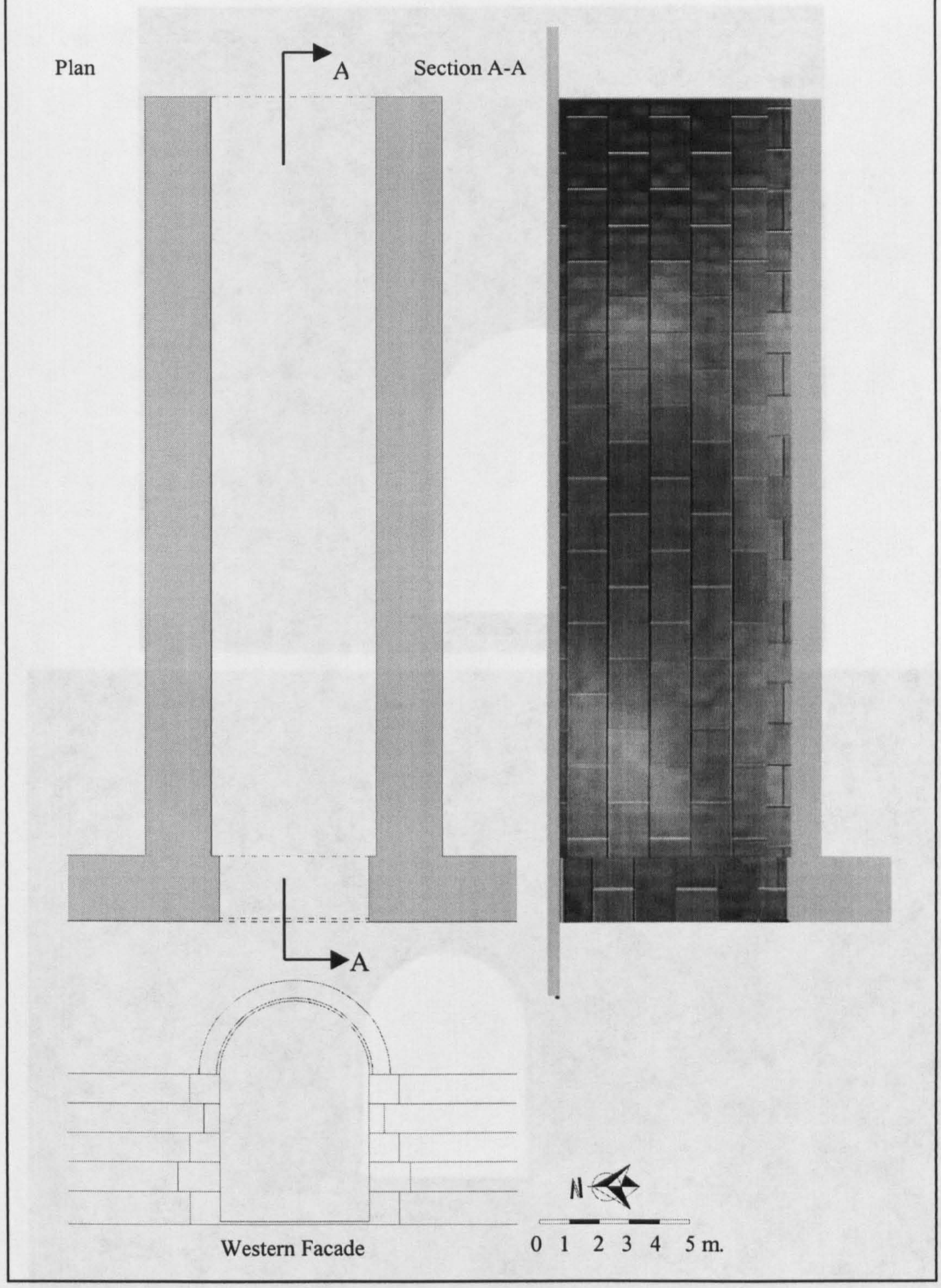


Fig. 6. 79 **Al-Aqsa Mosque: Plan, section and elevation of *Bāb Dār Umm Khālid* (or Warren's Gate) as it may well have looked in the early Islamic period.**

Source: The researcher.

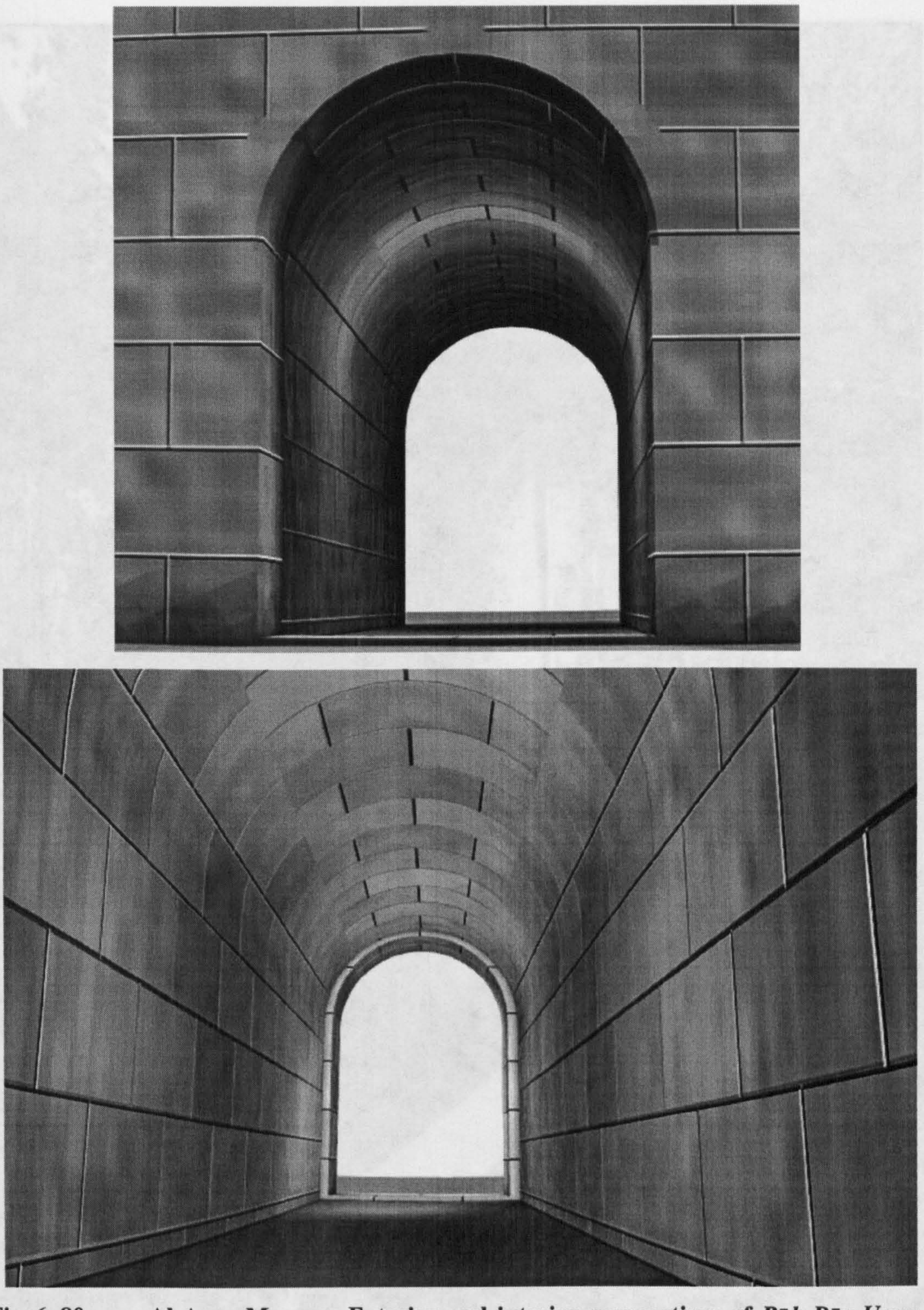


Fig. 6. 80 **Al-Aqsa Mosque: Exterior and interior perspectives of *Bāb Dār Umm Khālid* (or Warren's Gate) as they may well have looked like in the early Islamic period. The upper picture looks towards the east and the lower one looks towards the west**

Source: The researcher.



Fig. 6. 81 **Al-Aqsa Mosque: The surviving arch of the façade of *Bāb Dār Umm Khālid* (or Warren's Gate) as it looks today.**

Source: Bahat, 1994, p182.

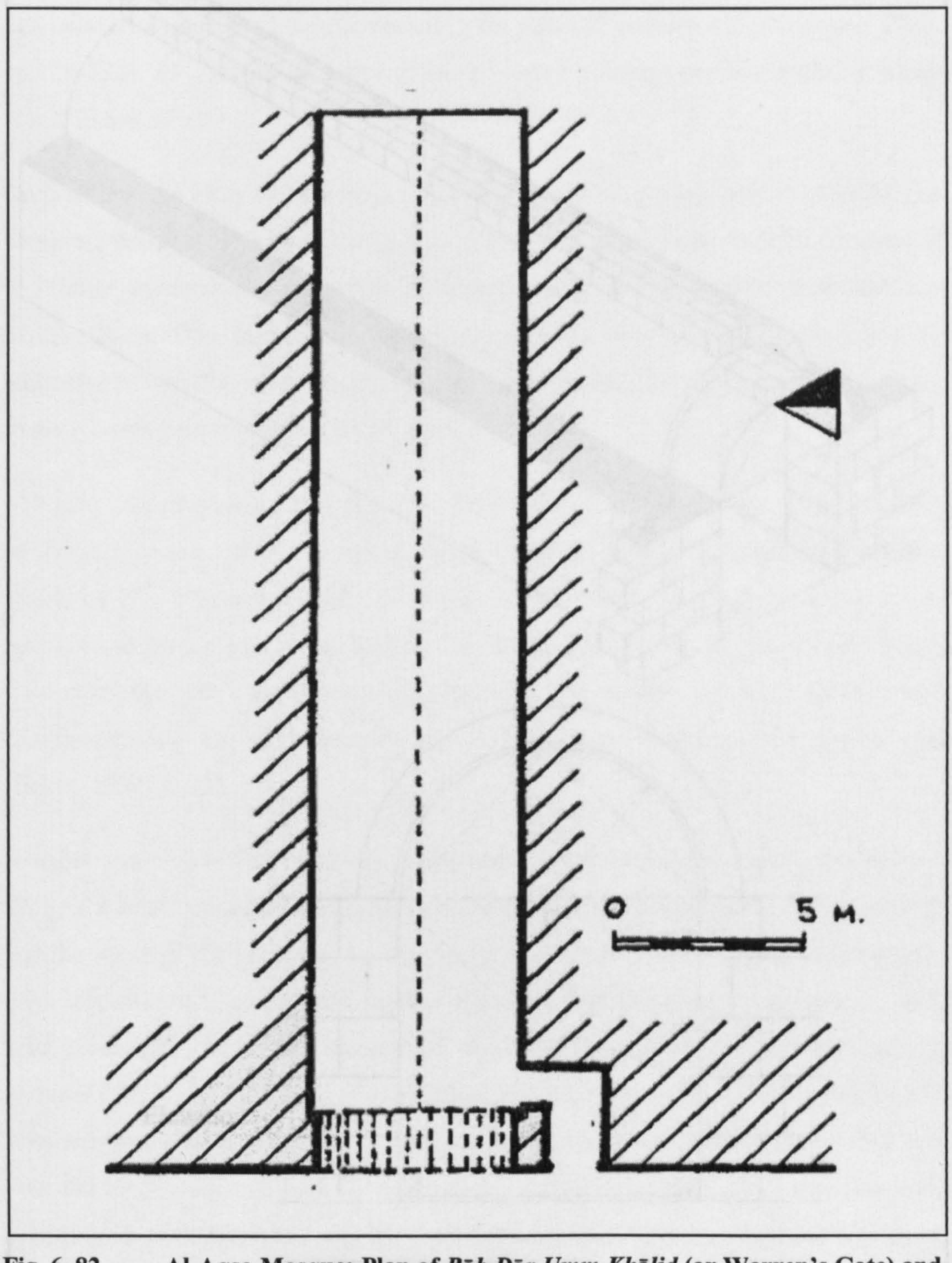


Fig. 6. 82 **Al-Aqsa Mosque: Plan of *Bāb Dār Umm Khālid* (or Warren's Gate) and its passageway as it looks today.**

Source: Ben-Dov, 1983, p144.

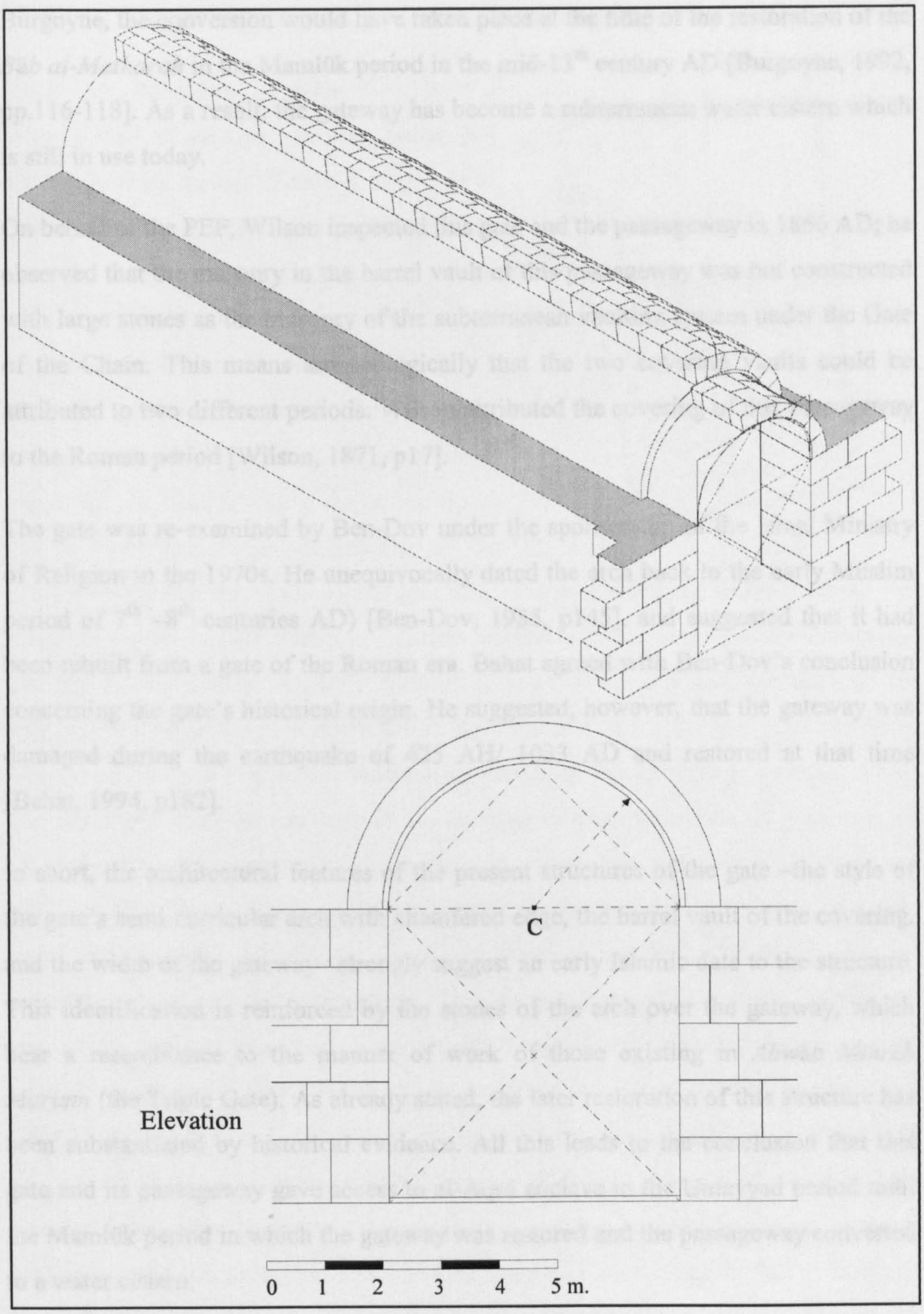


Fig. 6. 83 **Al-Aqsa Mosque: *Bāb Dār Umm Khālid* (or Warren's Gate) in the early Islamic period; a drawing showing the architectural arrangement and the building technology employed in the gate.**

Source: The researcher.

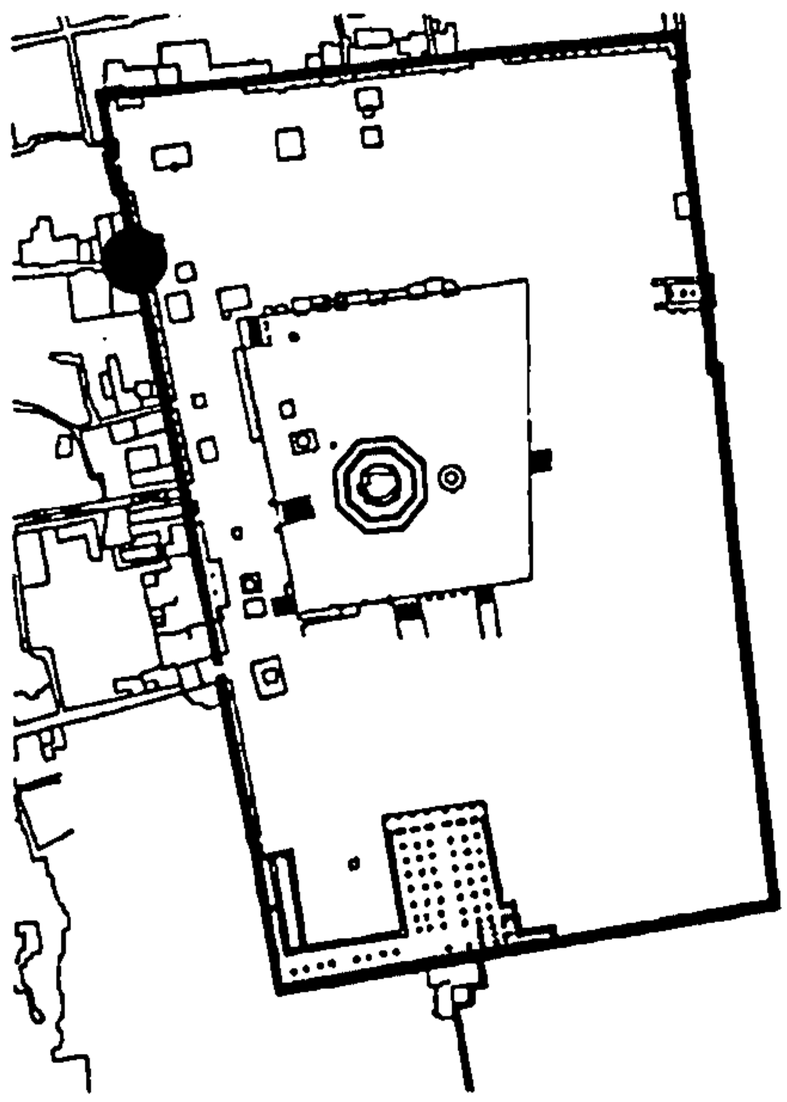
Burgoyne, the conversion would have taken place at the time of the restoration of the *Bāb al-Matharah* in the Mamlūk period in the mid-13th century AD [Burgoyne, 1992, pp.116-118]. As a result, the gateway has become a subterranean water cistern which is still in use today.

On behalf of the PEF, Wilson inspected this gate and the passageway in 1866 AD; he observed that the masonry in the barrel vault of this passageway was not constructed with large stones as the masonry of the subterranean vaulting system under the Gate of the Chain. This means archaeologically that the two covering vaults could be attributed to two different periods. Wilson attributed the covering of this passageway to the Roman period [Wilson, 1871, p17].

The gate was re-examined by Ben-Dov under the sponsorship of the Israel Ministry of Religion in the 1970s. He unequivocally dated the arch back to the early Muslim period of 7th –8th centuries AD) [Ben-Dov, 1985, p145], and suggested that it had been rebuilt from a gate of the Roman era. Bahat agreed with Ben-Dov's conclusion concerning the gate's historical origin. He suggested, however, that the gateway was damaged during the earthquake of 425 AH/ 1033 AD and restored at that time [Bahat, 1994, p182].

In short, the architectural features of the present structures of the gate –the style of the gate's semi-curricular arch with chamfered edge, the barrel vault of the covering, and the width of the gateway– strongly suggest an early Islamic date to the structure. This identification is reinforced by the stones of the arch over the gateway, which bear a resemblance to the manner of work of those existing in *Abwāb Mihrāb Mariam* (the Triple Gate). As already stated, the later restoration of this structure has been substantiated by historical evidence. All this leads to the conclusion that this gate and its passageway gave access to al-Aqsa enclave in the Umayyad period until the Mamlūk period in which the gateway was restored and the passageway converted to a water cistern.

(Gate of) Maghārat Ibrāhīm (Gate of Abraham's Cave).

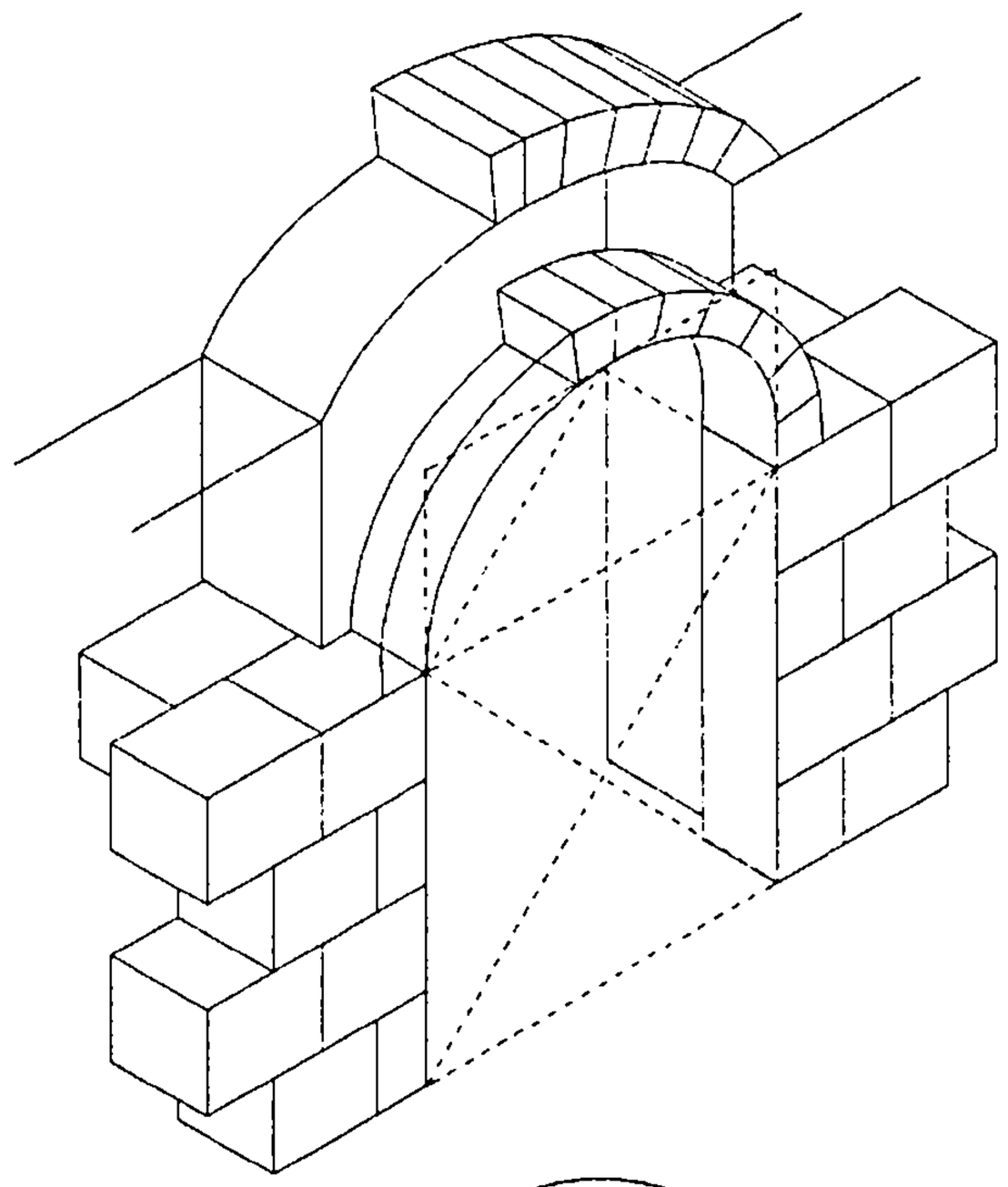


(Gate of) *Maghārat Ibrāhīm* lies in the western wall of al-Aqsa enclave, about 100 metres from its far end. Today it is known as *Bāb al-Nāzir* (Inspector's Gate). The gate has a single opening, measuring at the outside approximately 3.90 metres in width and supporting a semicircular arch (see Fig. 6.84). The inner opening is about 0.40 metre larger (to accommodate the doors) and supports a segmental arch. Concerning the proportional system employed in the architecture of the gate, it seems that the width of the gate was used as a reference in determining the height of the gate with the help of a simple method of derivation based on the square (see Fig. 6.85). Today *Maghārat Ibrāhīm* shows that the original inner arch of the gate had been mantled as a result of the development of the enclave after the early Islamic period (see Fig. 6.86). Fortunately, traces of the springings have survived. The striking feature in this gate is the absence of chamfering on its voussoirs in comparison with the pattern of the gates that have semicircular arches [Burgoyne, 1992, p113]. This absence of chamfering may have resulted from a masonry replacement of the arch during a later construction activity adjacent to the gate including its restoration over centuries. If so, the width and the proportion of the gate may well have been preserved. Interestingly, the jambs of the gate consist of ashlar (with stone courses 0.89-1.19 metre high), very similar in size and appearance to the gates located in the northern wall of the enclave, specifically, *Bāb al-Hāshmī* (with courses 0.89-1.05 metre high) and *Bāb al-Asbāt* (0.92-1.01 metre high) which will be discussed next. The similarity in the stone manner suggests that these three gates are contemporary in construction. The historical reference of the gate by Ibn al-Faqīh in 913 AD [Ibn al-Faqīh, 1996, p151] strongly supports the existence of the gate in the early Islamic period.

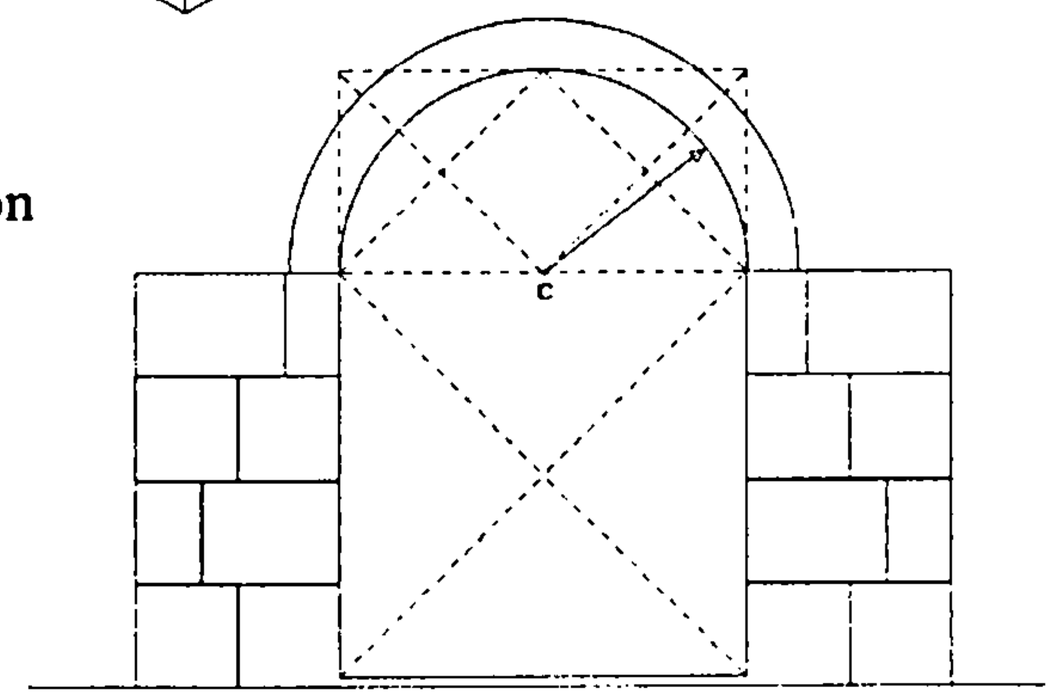


Fig. 6. 84 **Al-Aqsa Mosque: (Gate of) *Maghārat Ibrāhīm* (Gate of Abraham's cave) from outside the enclave as it may well have looked in the early Islamic period.**

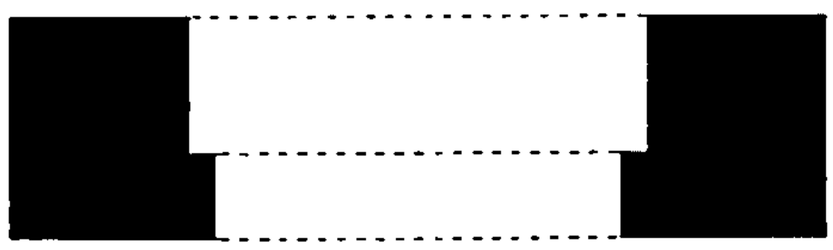
Source: The researcher.



Elevation



Plan





0 1 2 3 4 5m.

Fig. 6. 85 **Al-Aqsa Mosque: (Gate of) *Maghārat Ibrāhīm* (Gate of Abraham's cave) as it may well have looked in the early Islamic period; the upper picture represents the building technology employed in constructing the doorway and the lower picture represents the plan and elevation of the doorway and analyses its proportion.**

Source: The researcher.

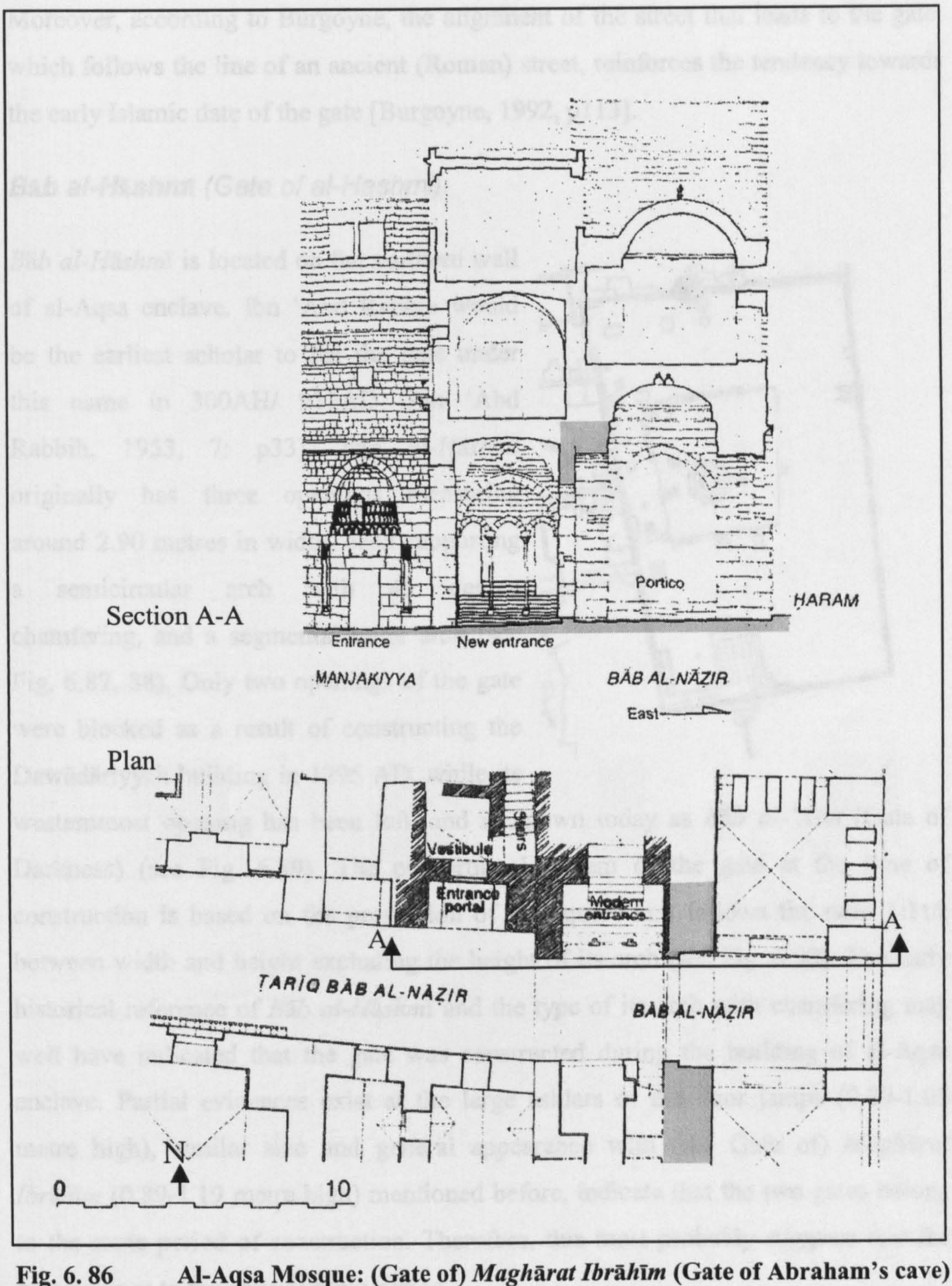


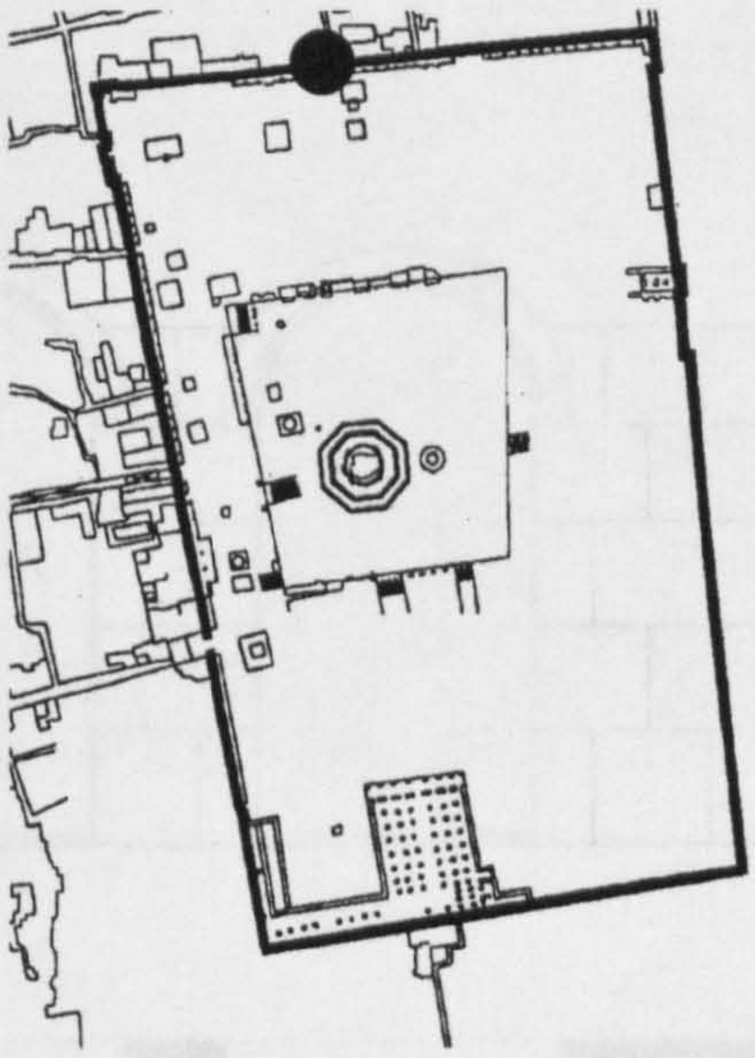
Fig. 6. 86 **Al-Aqsa Mosque: (Gate of) *Maghārat Ibrāhīm* (Gate of Abraham's cave) as it looks today; the upper picture represents a vertical section in the gate and the lower picture represent the plan of the gate.**

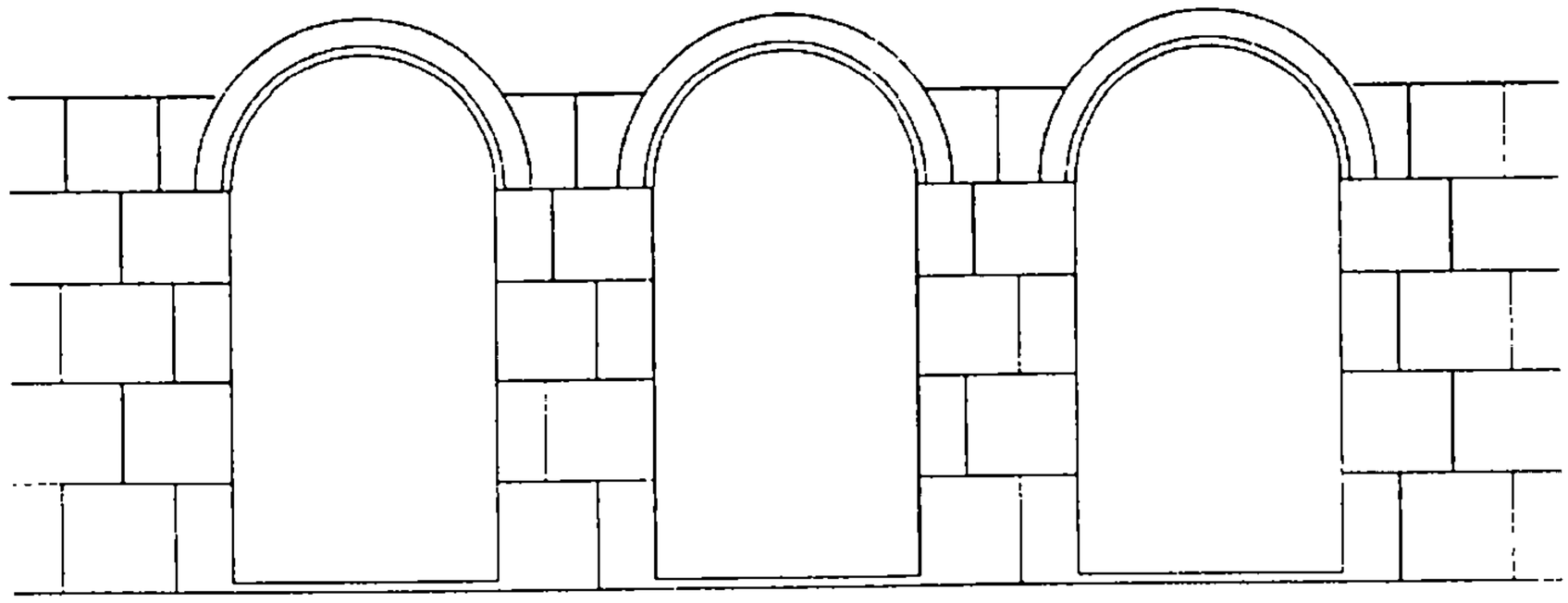
Source: After Burgoyne, 1987, pp.388, 393.

Moreover, according to Burgoyne, the alignment of the street that leads to the gate, which follows the line of an ancient (Roman) street, reinforces the tendency towards the early Islamic date of the gate [Burgoyne, 1992, p113].

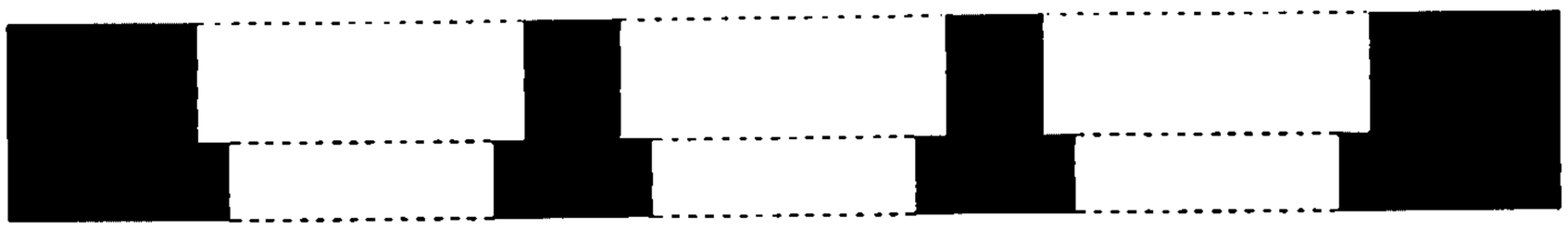
***Bāb al-Hāshmī** (Gate of al-Hashmi).*

Bāb al-Hāshmī is located on the northern wall of al-Aqsa enclave. Ibn 'Abd Rabbih would be the earliest scholar to list the gate under this name in 300AH/ 912AD [Ibn 'Abd Rabbih, 1953, 7: p33]. *Bāb al-Hāshmī* originally has three openings measuring around 2.90 metres in width, each supporting a semicircular arch with 45 degree chamfering, and a segmental inner arch (see Fig. 6.87, 88). Only two openings of the gate were blocked as a result of constructing the Dawādāriyyah building in 1295 AD, while its westernmost opening has been left, and is known today as *Bāb al-'Atm* (Gate of Darkness) (see Fig. 6.89). The proportional system of the gate at the time of construction is based on the proportion of the square and follows the ratio 1:1 1/2 between width and height excluding the height of its arch (see Fig. 6.90). The early historical reference of *Bāb al-Hāshmī* and the type of its arch with chamfering may well have indicated that the gate was constructed during the building of al-Aqsa enclave. Partial evidences exist at the large ashlars of the door jamps (0.89-1.05 metre high), similar size and general appearance with (the Gate of) *Maghārat Ibrāhīm* (0.89-1.19 metre high) mentioned before, indicate that the two gates belong to the same period of construction. Therefore, this most probably suggests that the gate belongs to the early Islamic period.





Elevation



Plan

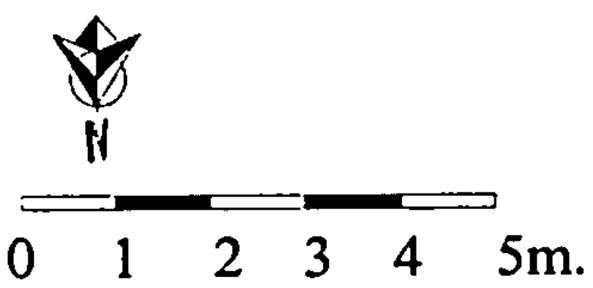
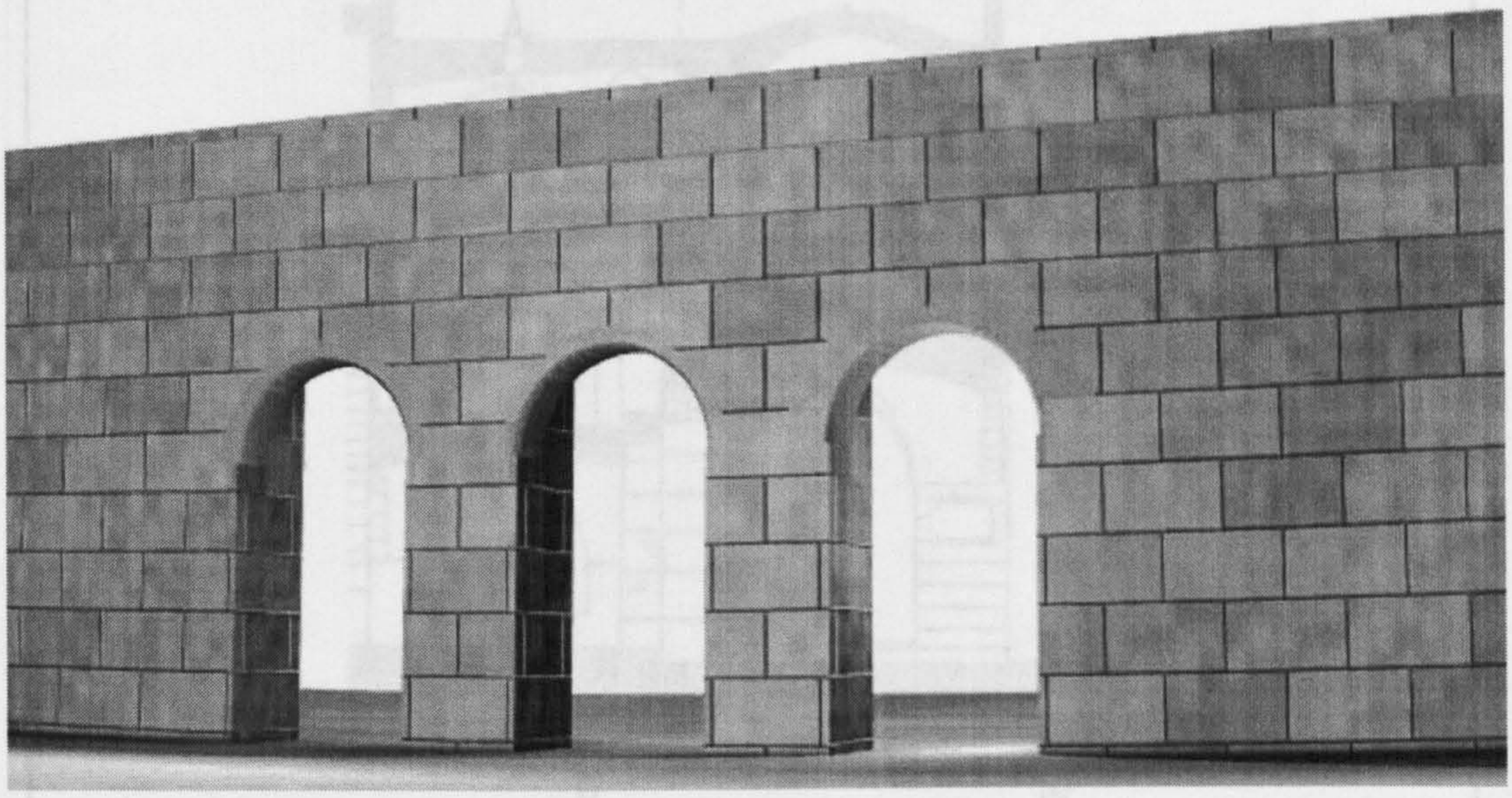


Fig. 6. 87 **Al-Aqsa Mosque: Plan of *Bāb al-Hāshmī* (Gate of al-Hashmi) –present *Bāb al-'Atm*– as it may well have looked in the early Islamic period.**

Source: The researcher.



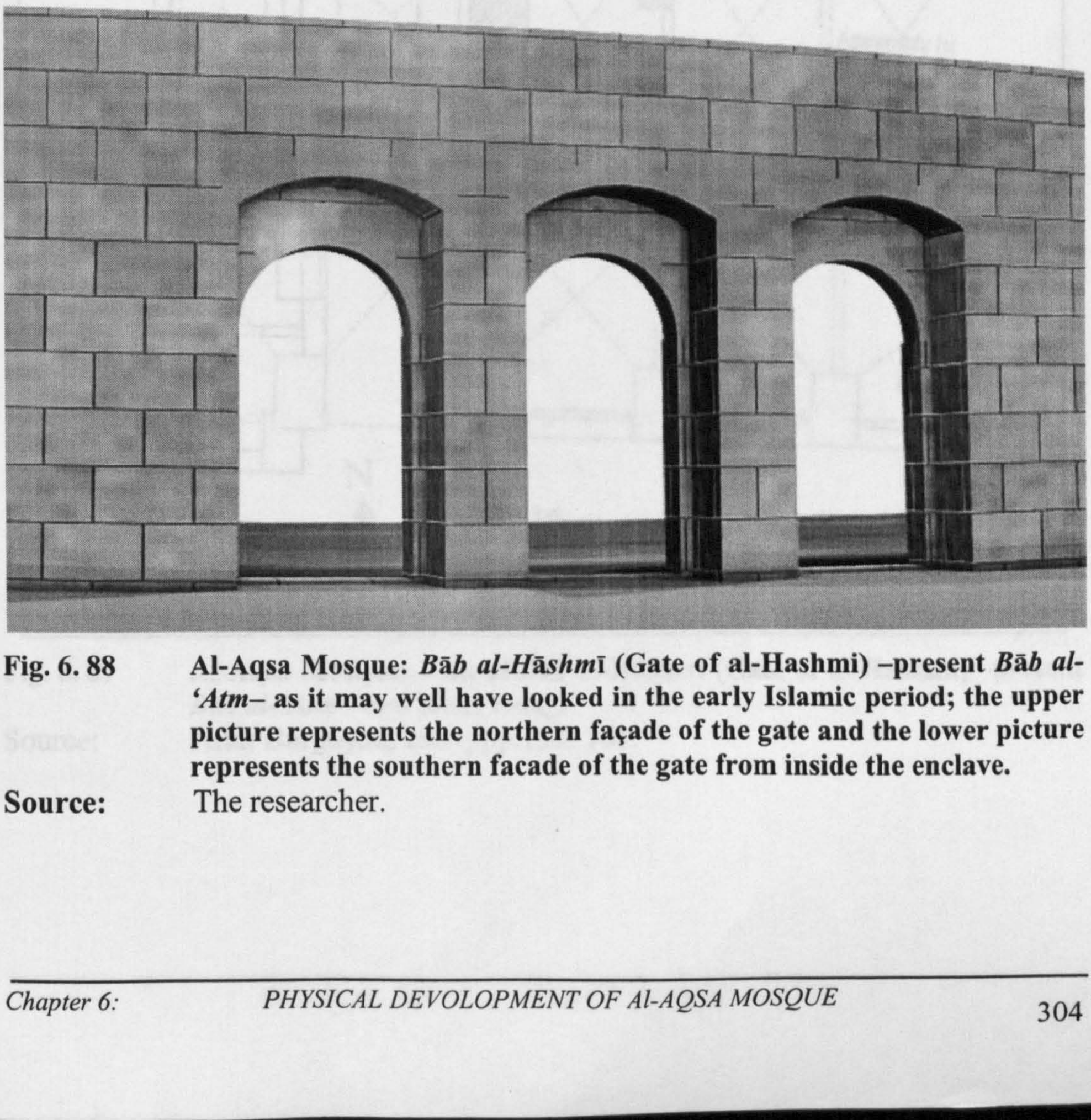
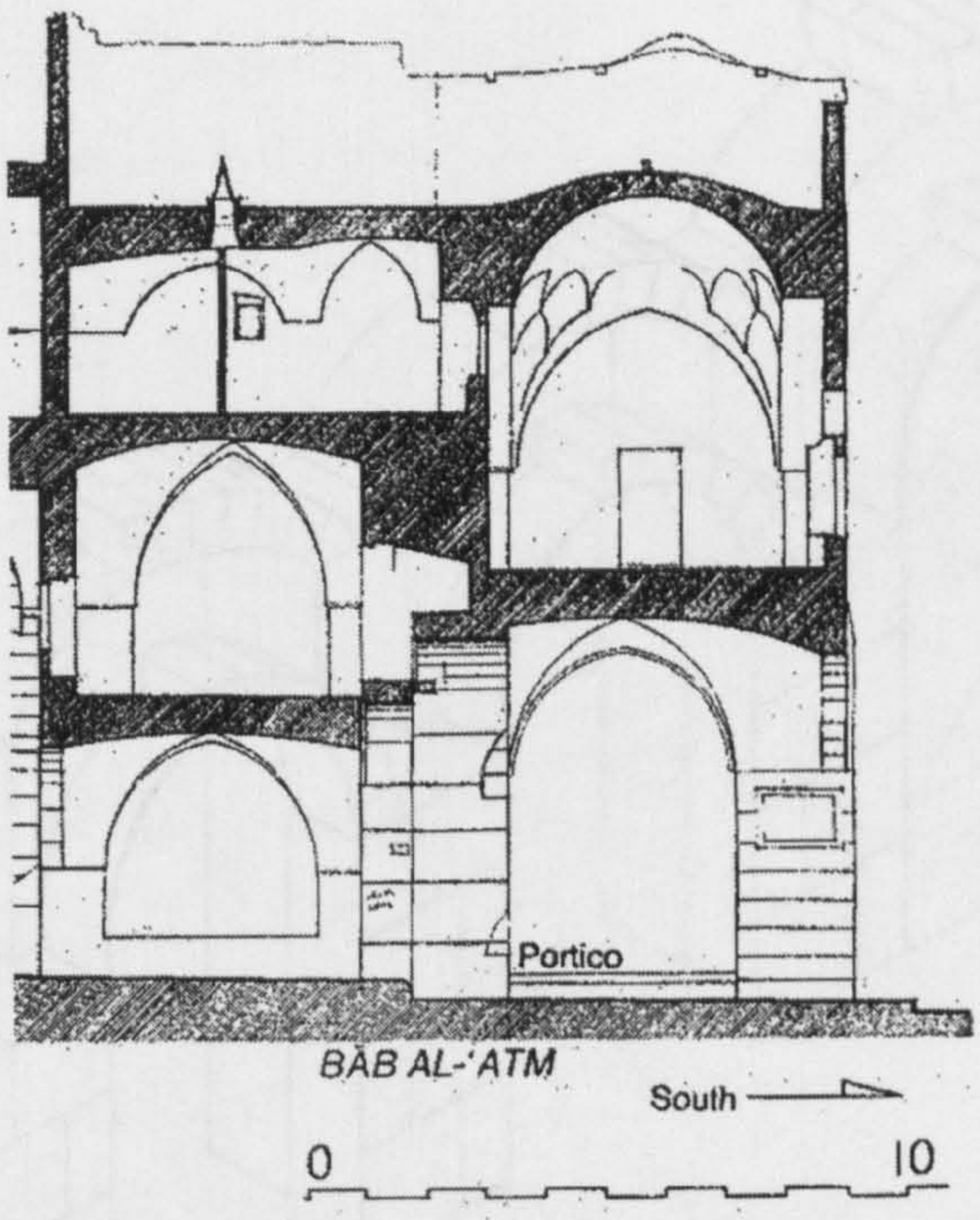


Fig. 6. 88 **Al-Aqsa Mosque: *Bāb al-Hāshmī* (Gate of al-Hashmi) –present *Bāb al-'Atm*– as it may well have looked in the early Islamic period; the upper picture represents the northern façade of the gate and the lower picture represents the southern facade of the gate from inside the enclave.**

Source: The researcher.

Section A-A



Plan

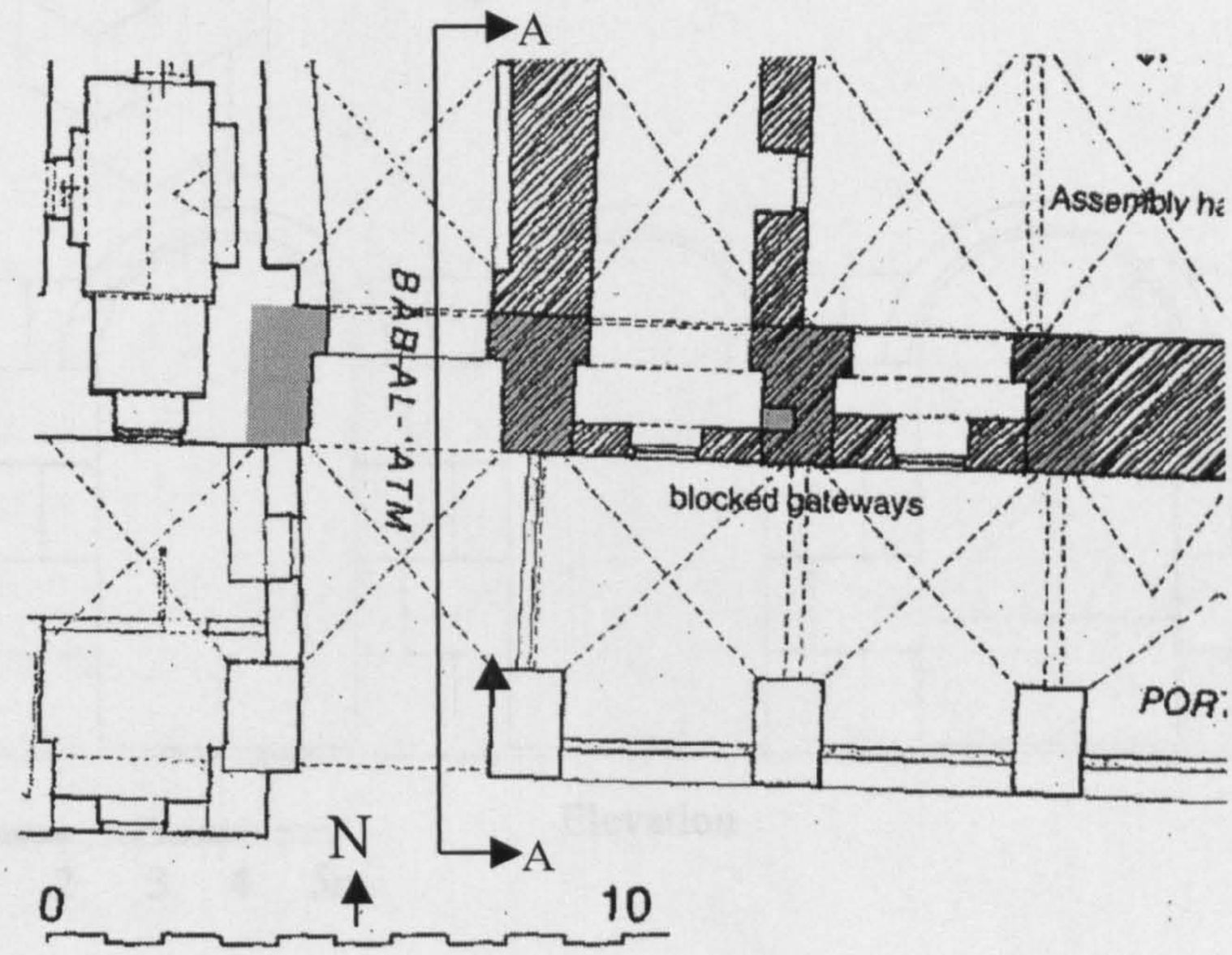


Fig. 6. 89 **Al-Aqsa Mosque: Plan of *Bāb al-Hāshmī* (Gate of al-Hashmi) –present *Bāb al-'Atm*– as it looks today.**

Source: After Burgoyne, 1987, pp.159, 161.

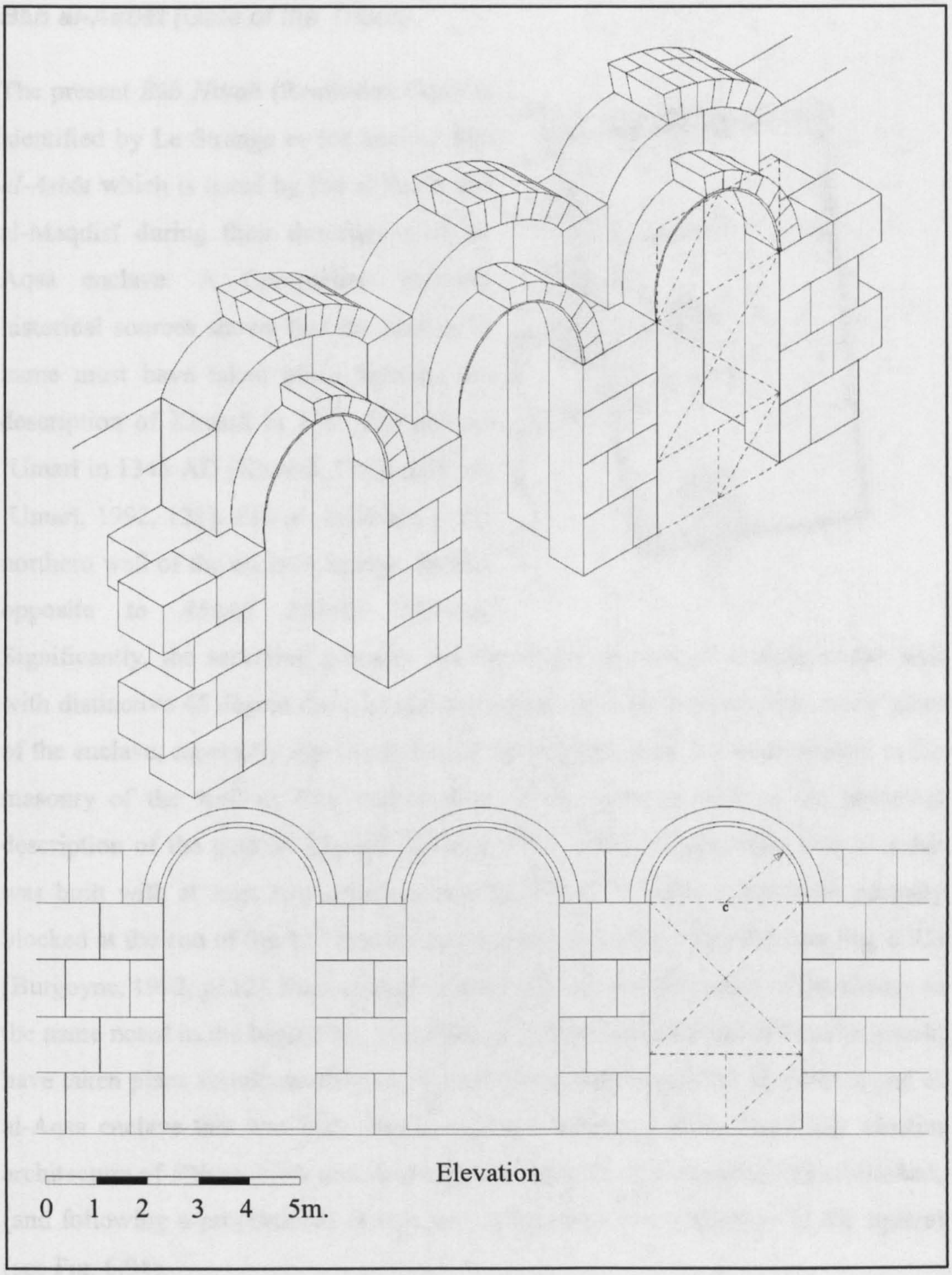
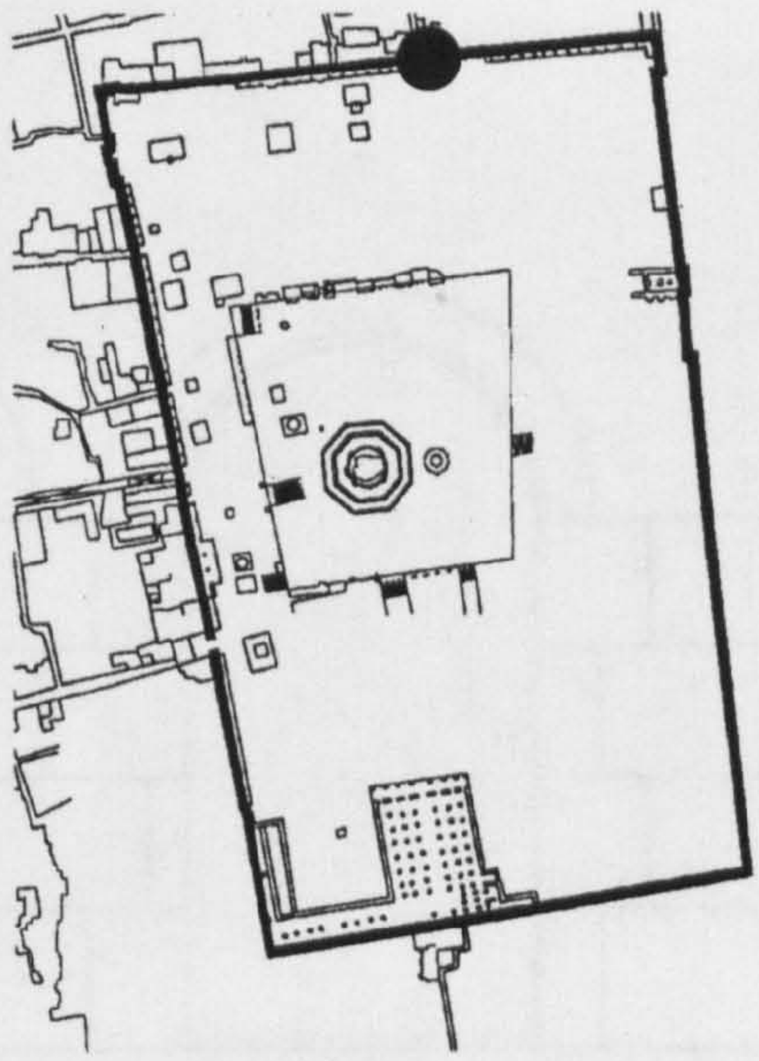


Fig. 6. 90 **Al-Aqsa Mosque: *Bāb al-Hāshmī* (Gate of al-Hashmi) *–present Bāb al-'Atm–* as it may well have looked in the early Islamic period; the upper picture represents the building technology employed in constructing the doorway and the lower picture represents an elevation of the gate and analyses its proportion.**

Source: The researcher.

Bāb al-Asbāt *(Gate of the Tribes).*

The present *Bāb Hittah* (Remission Gate) is identified by Le Strange as the ancient *Bāb al-Asbāt* which is listed by Ibn al Faqīh and al-Maqdisī during their description of al-Aqsa enclave. A Comparison between historical sources shows that the change of name must have taken place between the description of Khusrū in 1047 AD and al-'Umarī in 1345 AD [Khusrū, 1983, p.59; al-'Umarī, 1992, 121]. *Bāb al-Asbāt* lies in the northern wall of the enclave; almost directly opposite to *Abwāb Mihrāb Mariam*.



Significantly, the surviving gateway has the single opening of a semicircular arch with distinctive 45 degree chamfer and segmental inner arch observed at many gates of the enclave, especially *Bāb al-Hāshmī*. Evidence that there is a vertical joint in the masonry of the wall at 1.20 metres west of this gate as well as the historical description of the gate by Khusrū [Khusrū, 1983, p59], suggests that *Bāb al-Asbāt* was built with at least two openings (see Fig. 6.91, 92). But it has been partially blocked at the end of the 13th century AD and left as a single opening (see Fig. 6.93) [Burgoyne, 1992, p112]. Such change in the form reminds the reader of the change in the name noted in the beginning. Therefore, it is possible that these alterations would have taken place simultaneously and it can be concluded that *Bāb al-Asbāt* is one of al-Aqsa enclave that was built during the early Islamic period. The Early Muslim architecture of *Bāb al-Asbāt* and its dimension coincide with those of *Bāb al-Hāshmī*, (and following a proportional system that is based on the proportion of the square) (see Fig. 6.94).

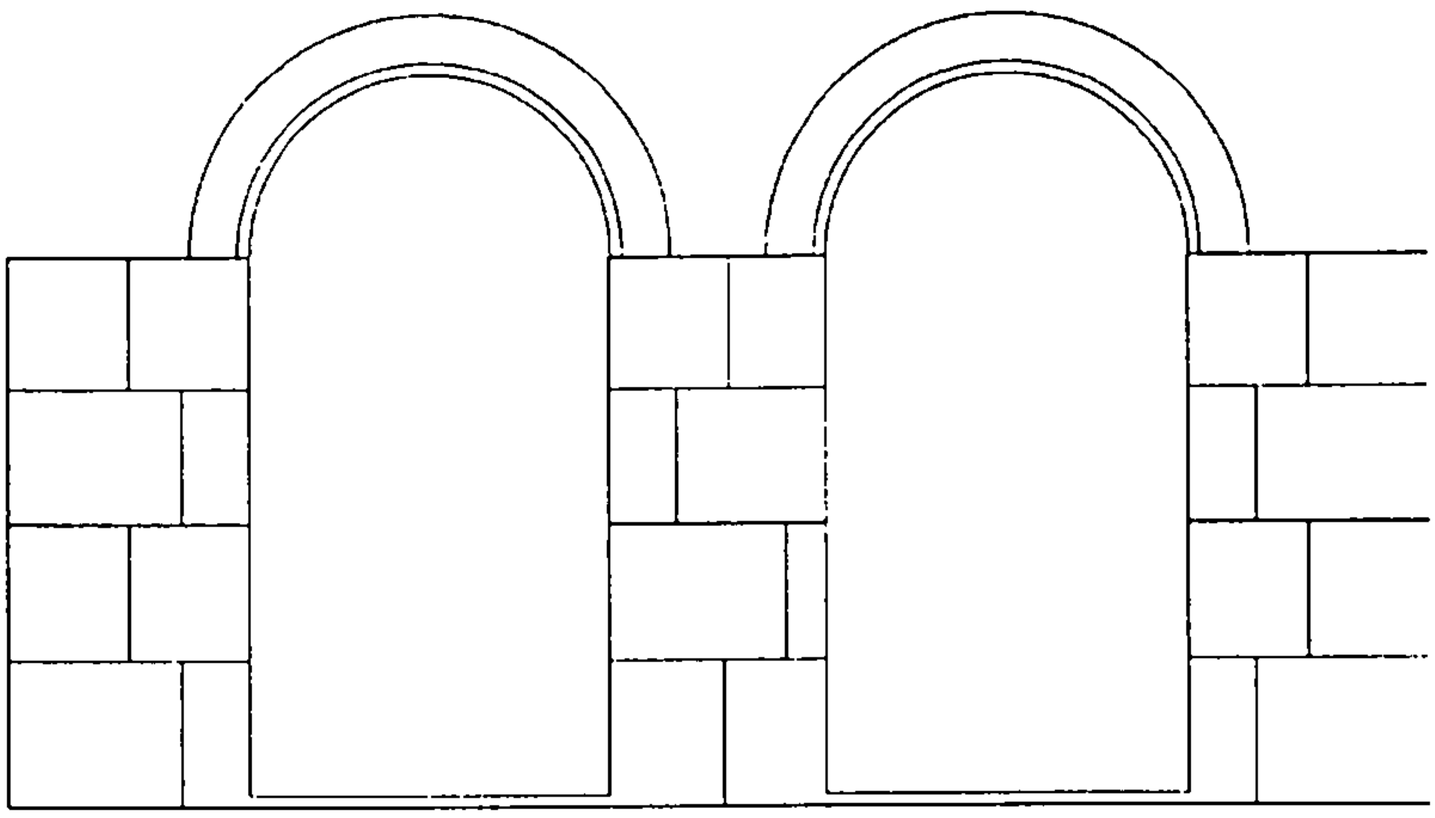


Fig. 6. 91 **Al-Aqsa Mosque: Plan and elevation of *Bāb al-Asbāt* (Gate of the Tribes) –present *Bāb Hittah*– as it may well have looked in the early Islamic period.**

Source: The researcher.

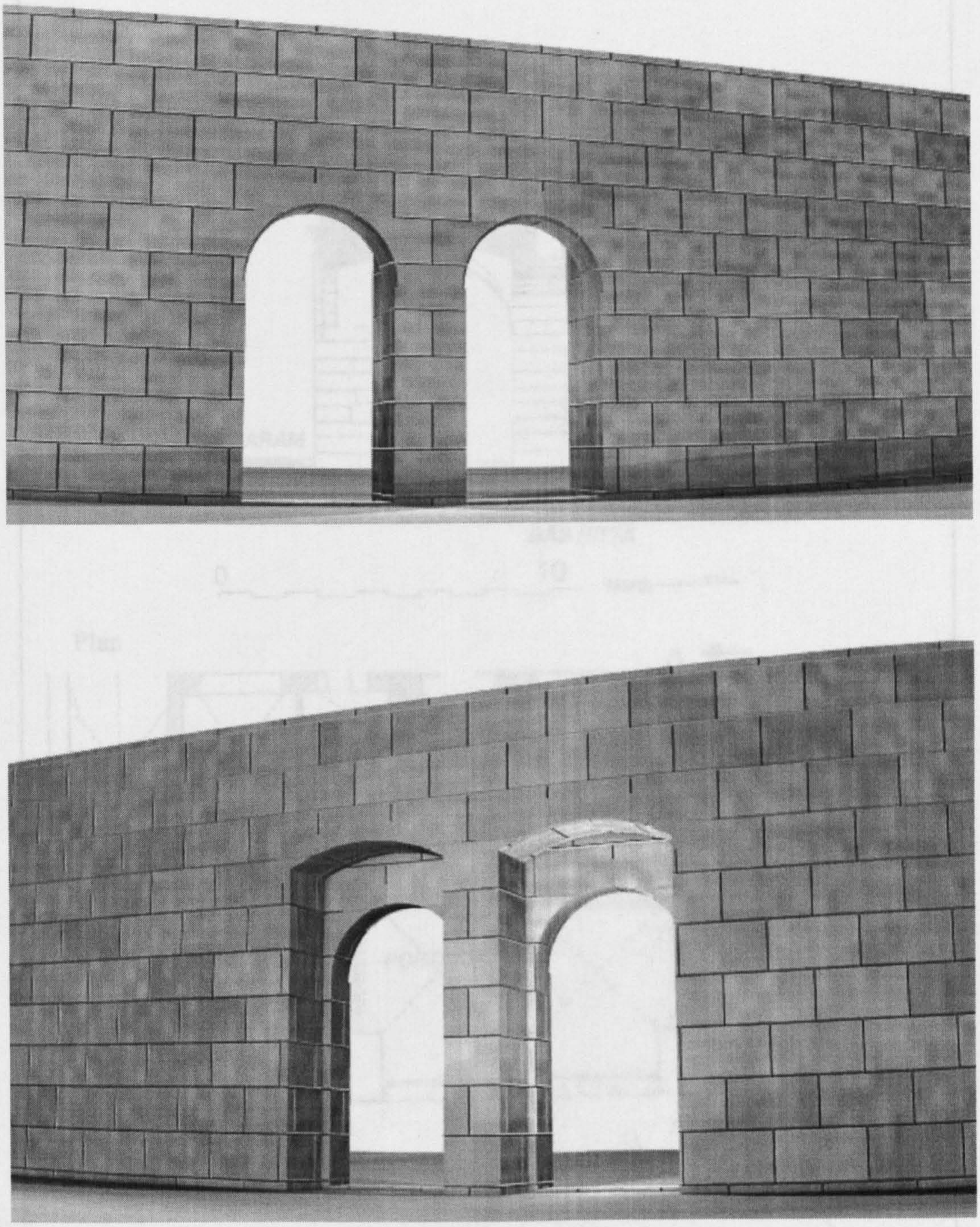


Fig. 6. 92 **Al-Aqsa Mosque: *Bāb al-Asbāt* (Gate of the Tribes) –present *Bāb Hittah*–as it may well have looked in the early Islamic period; the upper picture represents the northern façade of the gate and the lower picture represents the southern facade of the gate from inside the enclave.**

Source: The researcher.

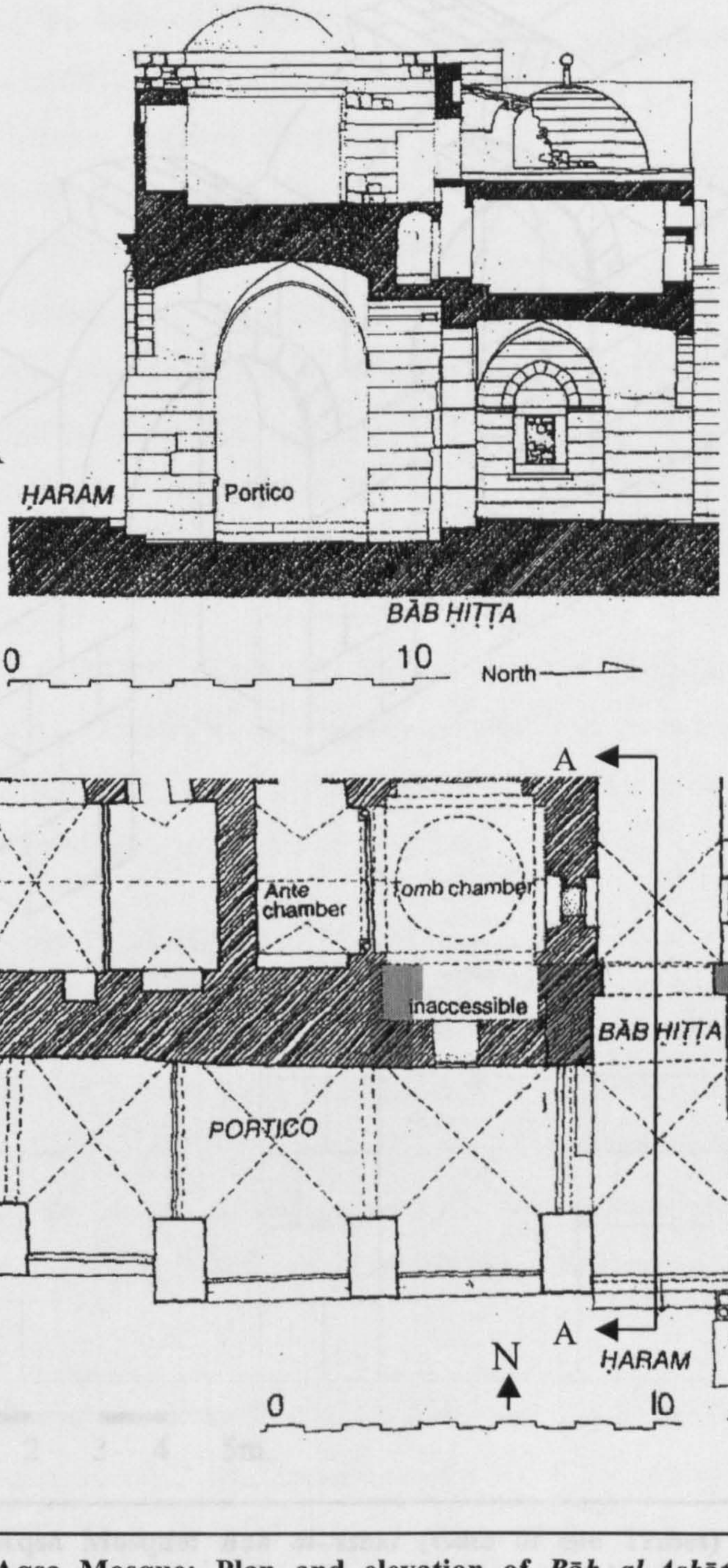


Fig. 6. 93 **Al-Aqsa Mosque: Plan and elevation of *Bāb al-Asbāt* (Gate of the Tribes) –present *Bāb Hittah*– as it looks today.**

Source: After Burgoyne,1987, p172.

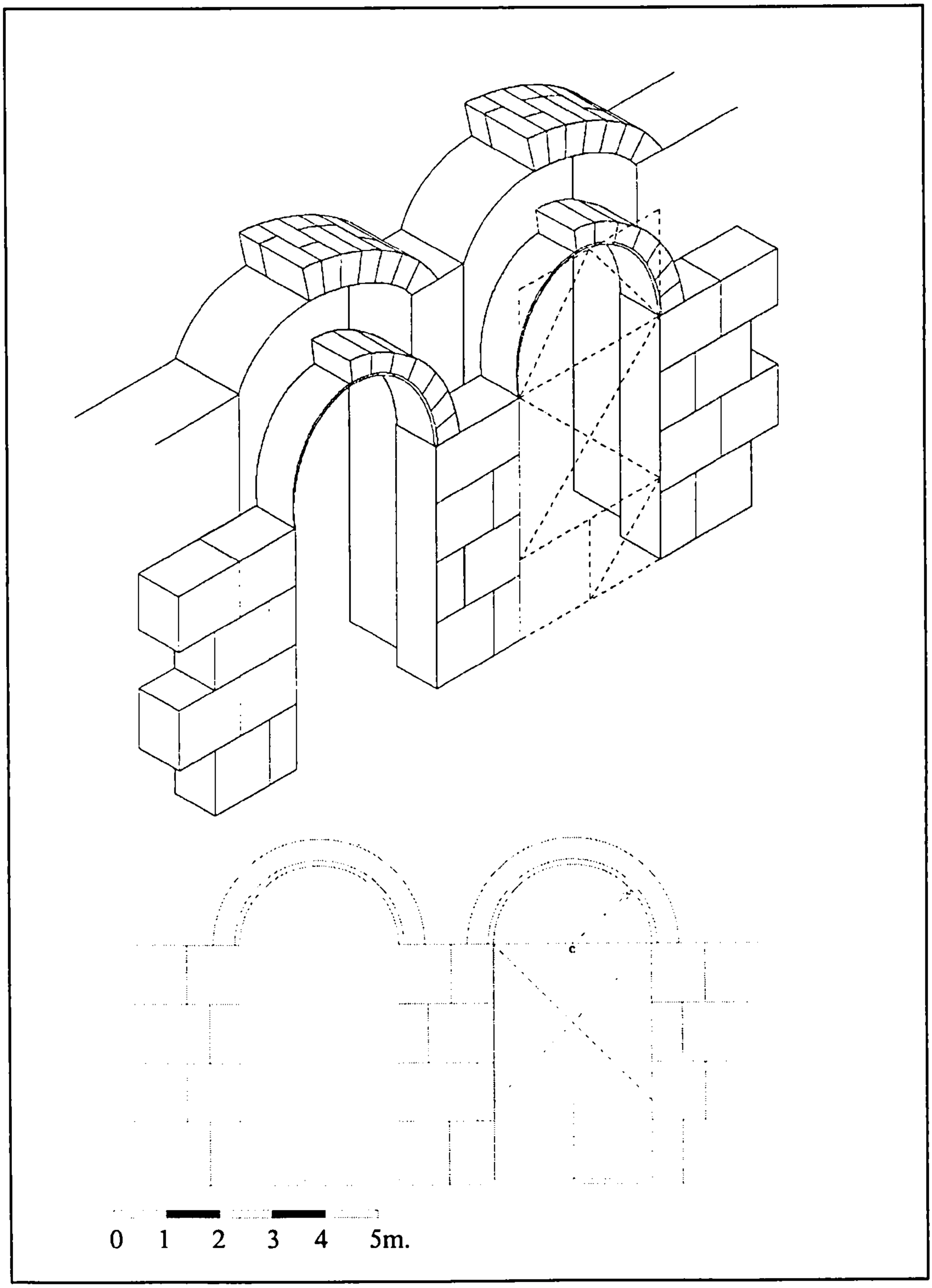
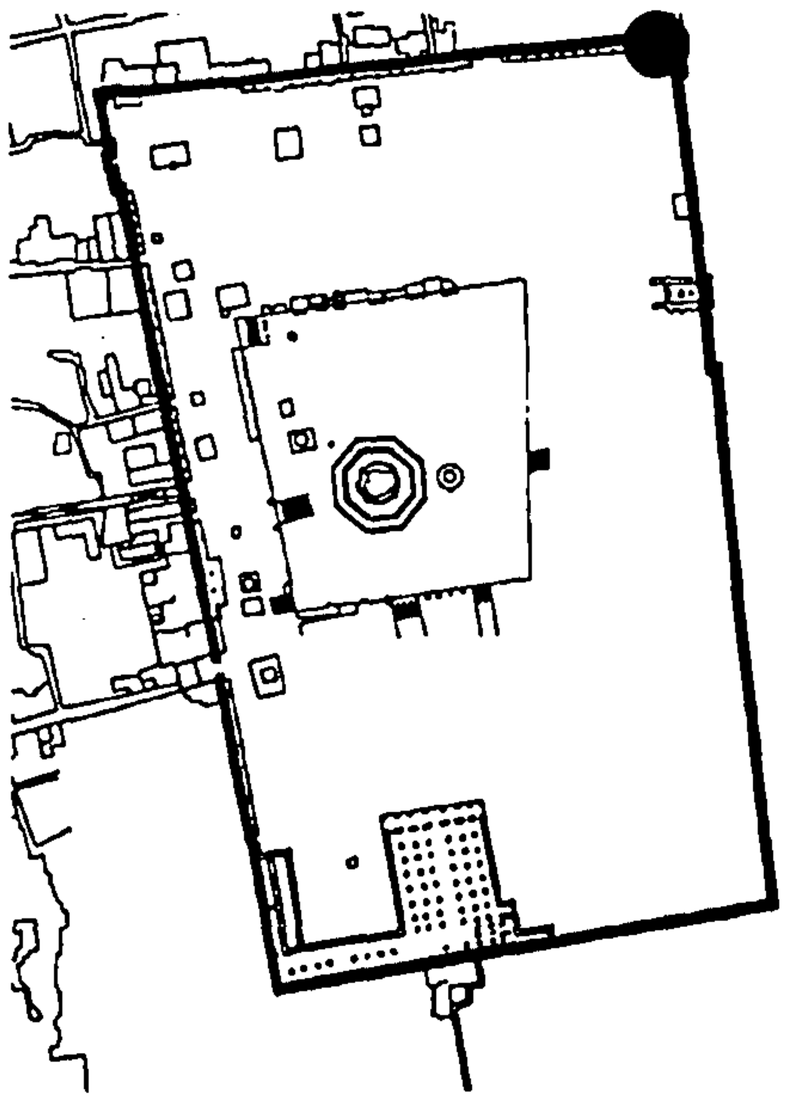


Fig. 6. 94 **Al-Aqsa Mosque: *Bāb al-Asbāt* (Gate of the Tribes) –present *Bāb Hittah*– as it may well have looked in the early Islamic period; the upper picture represents the building technology employed in constructing the doorway and the lower picture represents an elevation of the gate and analyses its proportion.**

Source: The researcher.

Mihrāb Zakariyyā ((The Gate of) Zakariyyā's niche)



Mihrāb Zakariyyā ((the Gate of) Zakariyyā's niche) lies in the eastern end of the northern wall of al-Aqsa enclave. Burgoye identified the gate as *Bāb Birkat Banī Isra'īl (*Gate of the Pool of Israel) [Burgoyne, 1992, p120] which is listed by al-Maqdisī. According to Le Strange, this name represents the present *Bāb al-Asbāt* (Gate of the Tribes) [Le Strange, 1970, p108]. Regardless of the fact that the name of (the Gate of) *Mihrāb Zakariyyā* has disappeared today, its early historical reference suggests that the gate would have been in use in the early Islamic period. In fact, the surviving gate, as it looks today, was in use later, and gives little information about the history of the gate. So it is better to leave the discussion on this gate open for further archaeological and historical investigation.

Appraisal of the Gates of al-Aqsa Mosque

A description of the gates of al-Aqsa enclave, including their architecture in the early Islamic period, indicates that the gates correspond with each other in many features and characteristics. They share many repeated artistic floral motifs, some of which are identical. No human or animal configuration had been pictured or carved in any gate in the enclave, so the decorative elements are confined to the floral and geometrical patterns.

Architecturally, *Bāb al-Rahmah* (or the Golden Gate) and *Bāb al-Nabī* (or the Double Gate) have the most significant architecture among all of the gates of the enclave. They have many features in their art and architecture that are reminiscent of one another: similar plan of double passageways and similar architectural arrangement of paired domes beyond a decorated facade. This resonates well with the contention that the same design concept has been employed in each.

Three measuring values were repeated in delineating the width of doorways in the gates, **2.81** metres, **3.90** metres and **5.15** metres; there are small differences of 0.10 metre or less between some of the gates for each value, that could be the result of errors in measuring the doorways. All of the doorways in the gates of the enclave follow one of these three values and indeed share many other identical repeated units. For example, several of the gates of smaller width, such as *Bāb al-Hāshmī* (Gate of al-Hashmi) and *Bāb al-Asbāt* (Gate of the Tribes), share a similar width **3.30** metres of inner threshold and a similar height **4.30** metres for the doorways. Of the gates with a width of **3.90** metres, such as *Bāb al-Rahmah* (or the Golden Gate) and *Abwāb Mihrāb Mariam* (or the Triple Gate), these share a similar width **10.67** metres (between the northern wall and southern wall of *Bāb al-Rahmah*); the same width can be found at the double tunnels in *Abwāb Mihrāb Mariam*. Of the gates with a width of **5.15** metres, the inner width of the threshold of *Bāb al-Nabī* (or the Double Gate) (**5.70** metres) is identical to the inner width of the inner threshold of *Bāb Hittah* (or Barclay Gate). Many other analogies can be established between gates and their design in size, width, and architectural arrangements, all of which would indicate a standardisation in measurement units and a common architectural language. However, the three different measuring criteria used in the dimensions of the gates of the enclave do not necessarily indicate the use of two different measurement units in building the gates, nor highlight different periods of building or rebuilding of the gates, but they may well reflect the number of people who enter the gates. In any event, these analogies lead to the conclusion that the gates of the enclave reflect a use of architectural language and standards in that period.

The number of people visiting the enclave has changed in comparison to what it was intended to be in the early Islamic period. The gate of the eastern wall of the enclave was blocked some time ago as were those of the southern wall and some of the western wall. Those gates that are still in use today experienced changes; some of them have been blocked partially, others been reduced in width. The following table indicates the location of each gate of the enclave discussed before, including their earliest and modern names (see Table 6.1). While the next two tables illustrate some of the principal dimensions of the gates and their main architectural type and features.

Table 6.1 **Gates of al-Aqsa Mosque in the early Islamic Period.**

Description

No.	Location	Earliest name listed by Ibn-al-Faqīh (290AH/ 902AD)	Modern name
1-	On the eastern-wall	*Bāb al-Rahmah*	The Golden Gate
2-	On the southern-wall	*Abwāb Mihrāb Mariam*	The Triple Gate
3-	On the southern-wall	*Bāb al-Nabī*	The Double Gate
4-	On the southern-wall	The Gate to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) (unknown name)	Does not exist in present
5-	On the western-wall	*Bāb Hittah*	Barclay's Gate
6-	On the western-wall	*Bāb Dāūd*	*al-Sakīnah* and *al-Silsilah*
7-	On the western-wall	*Bāb Dār Umm Khālid*	Warren Gate
8-	On the western-wall	*Magharat Ibrāhīm*	*al-Nāzir*
9-	On the northern-wall	*Bāb al-Hāshmī*	*al-'Atm*
10-	On the northern-wall	*Bāb al-Asbāt*	*Hittah*
11-	On the northern-wall	*Mihrāb Zakariyyā*	*al-Asbāt*

Table 6.2 **Dimensions of Gates of al-Aqsa Mosque in the early Islamic Period.**

Description

No.	Name of the gate	Width of doorway in metres	Width of the inner threshold of the doorway in metres	Width of the tunnels in metres	Height of doorway excluding the height of its arch in metres
1-	*Bāb al-Rahmah*				
	Eastern facade	**3.90**	4.30 at the middle and 4.61 at the end	10.67 (double)	(390*2) 7.80
	Western facade	4.68	4.61	10.67 (double)	8.02
2-	*Abwāb Mihrāb Mariam*	**4.00**	4.60	16.3 for the triple tunnel and 10.67 for the double tunnel	4.00
3-	*Bāb al-Nabī*	5.15	5.70	12.87 (double)	5.88
4-	The Gate to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) (unknown name)	---	---	---	---
5-	*Bāb Hittah*	5.06	5.76	6.20 (single)	8.80
6-	*Bāb Dāūd*	5.15	5.70	---	5.15
7-	*Bāb Dār Umm Khālid*	5.15		5.50 (single)	5.15
8-	*Magharat Ibrāhīm*	**3.90**	4.30	---	3.90
9-	*Bāb al-Hāshmī*	2.81	3.30	---	4.30
10-	*Bāb al-Asbāt*	2.81	3.30	---	4.30
11-	*Mihrāb Zakariyyā*	---	---	---	---

Table 6.3 **Type of architecture of the gates of al-Aqsa in the early Islamic Period.**

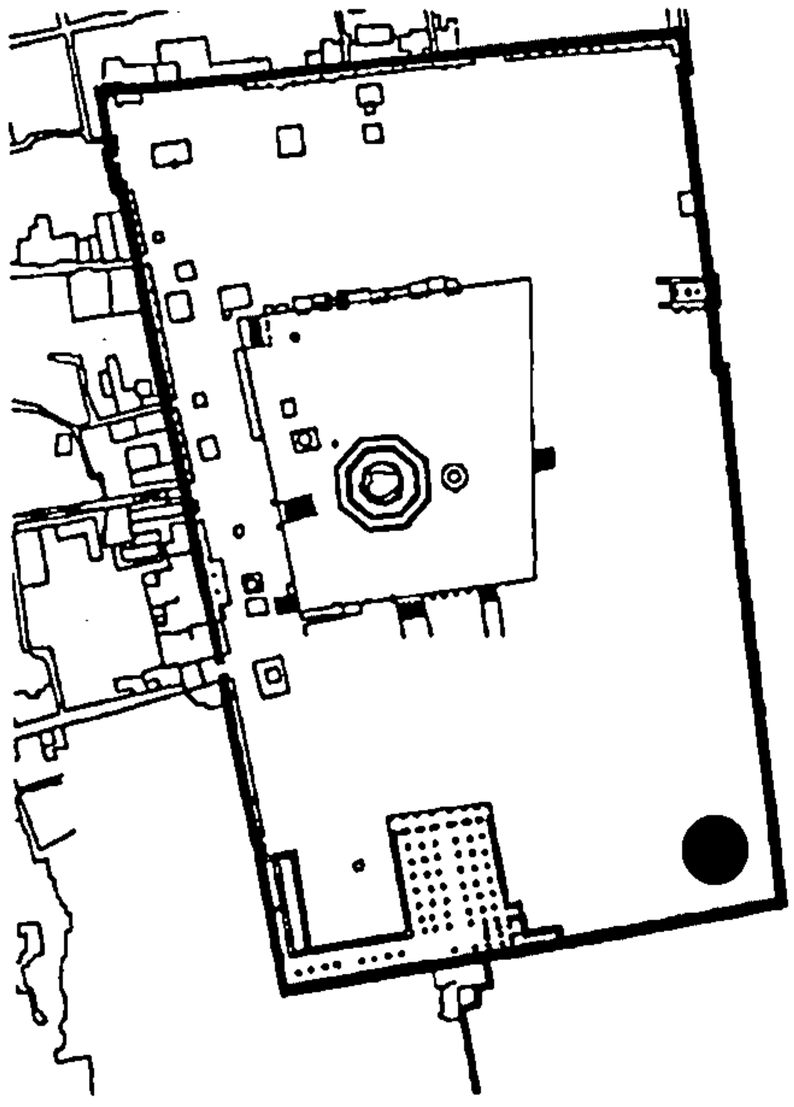
Description

No.	Name of the gate	Form	Pattern of gate	Outer arch of the doorway	Inner arch of the doorway
1-	*Bāb al-Rahmah*				
	Eastern facade	Gatehouse	Double	Semicircular	Elliptical
	Western facade			Elliptical	Elliptical
2-	*Abwāb Mihrāb Mariam*	Gatehouse	Triple	Semicircular	Elliptical followed by segmental
3-	*Bāb al-Nabī*	Gatehouse	Double	Segmental	5.88
4-	The Gate to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) (unknown name)	Simple gate form	Single	---	---
5-	*Bāb Hittah*	Gatehouse	Single	Flat lintel	Segmental
6-	*Bāb Dāūd*	Simple gate form	Double	Semicircular	Segmental
7-	*Bāb Dār Umm Khālid*	Gatehouse	Single	Semicircular	---
8-	*Magharat Ibrāhīm*	Simple gate form	Single	Semicircular	Segmental
9-	*Bāb al-Hāshmī*	Simple gate form	Triple	Semicircular	Segmental
10-	*Bāb al-Asbāt*	Simple gate form	Double	Semicircular	Segmental
11-	*Mihrāb Zakariyyā*	Simple gate form	---	Semicircular	Segmental

What has been discussed so far encourages an examination of the other installations used in the enclave at that time.

6.4.2 The South-Eastern Basement of al-Aqsa Mosque.

The south-eastern basement of the enclave occupies the south-eastern corner of al-Aqsa enclave. It is known today as "Solomon's stables". In fact, this name existed in the history of Jerusalem since the time of the Crusades when the Knight Templars used this part of the enclave as stables for their horses [Le Strange, 1970, p159]. So many of the piers in the basement are pierced at the corners to form tethers for the horses.



Architecture

The south-eastern basement is a vaulted substructure beneath the south-east corner of al-Aqsa enclave. It is constructed out of reused material, and extends 79 metres from east to west and 57 metres from north to south (see Fig. 6.95, 96). The basement is formed by 13 barrel-vaults that are slightly pointed in their present appearance. This shape could be their original form or could have been originally semicircular but acquired the slightly pointed shape as a result of their restoration over centuries. The vaults are directed north-south, and set up on 88 piers which are arranged in 12 rows of arcades formed by semicircular arches (see Fig. 6.97, 98, 99). There is a series of small slots at the meeting points of the vaults with the arcades (see Fig. 6.98) and some of them are pointed towards the bottom (see Fig. 6.99). These slots measure nearly 0.30 metre by 0.30 metre, and are set at regular intervals of 0.60 metre. It is probable that they were used to support wooden beams. As the openings are too large and regular for the purpose of centering required in constructing the vaults, they probably created to establish a wooden level for a platform or loft.

The topography below the basement inclines towards the eastern wall of the enclave as well as to its south-eastern corner, so the height of the vaults is increasing eastward. Another important observation in the vaults of the basement is their span. They range between 3 metres at the east part of the basement, and 7.20 metres in the middle of it (see Fig. 6.100). This variation in the span, which increases towards the middle and decreases at the eastern side of the basement, could not be made randomly; the higher the vaults become the narrower they are designed. Structurally, the wider the span of the vault becomes, the bigger the vertical force becomes, and the higher the vaults become the greater the bending moment on the support of the vaults becomes. As the cross section of the piers that carry the vaults of the basement are nearly the same; this suggests that the designer of the enclave created this arrangement of the vaults for structural reasons, i.e. to resist horizontal stress. If this is so, then the designers or the builders at that time had some practical experience and general idea of how loads work and how the vertical and the horizontal forces are distributed in buildings. Of course, there were no calculations then as in today's

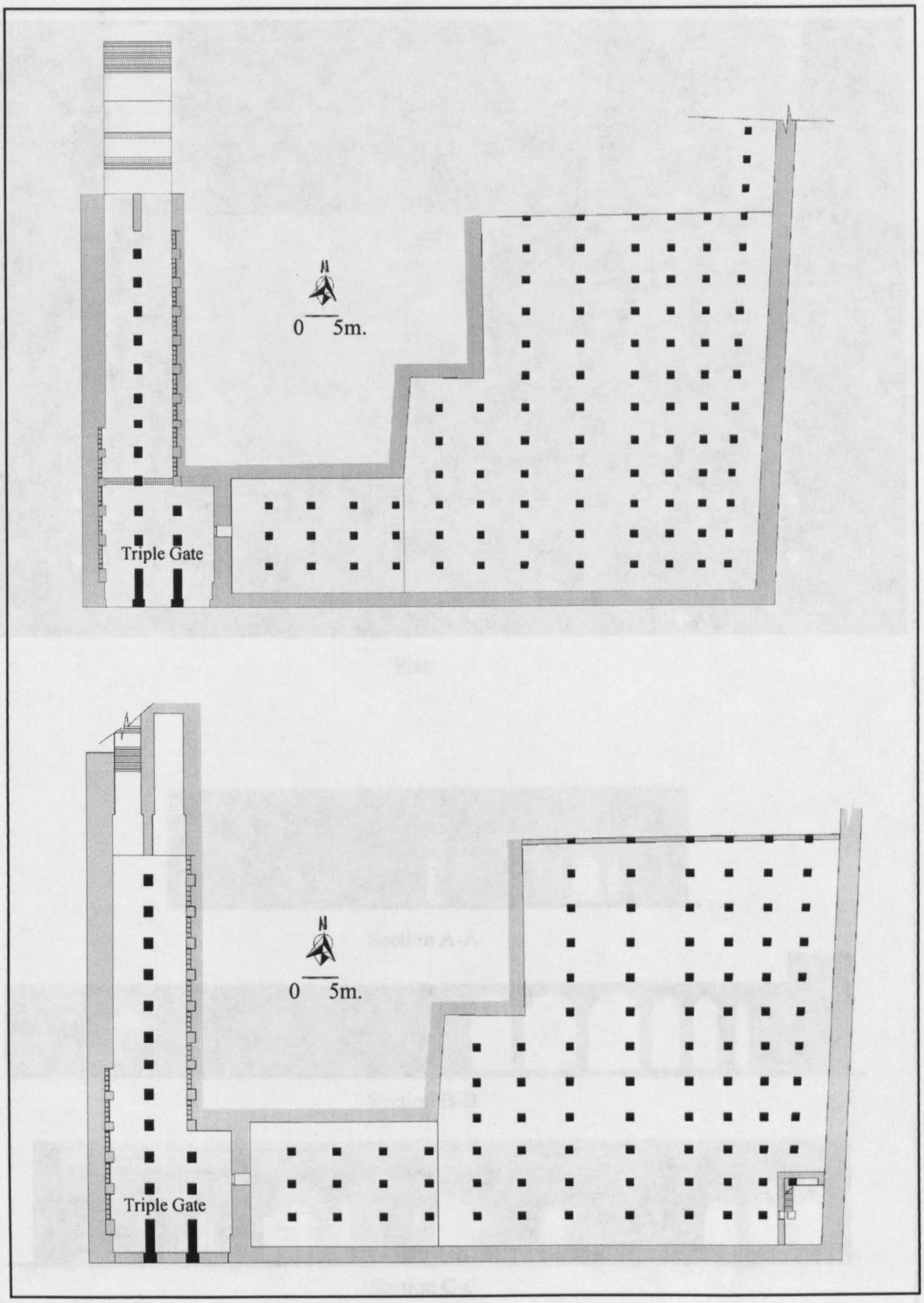
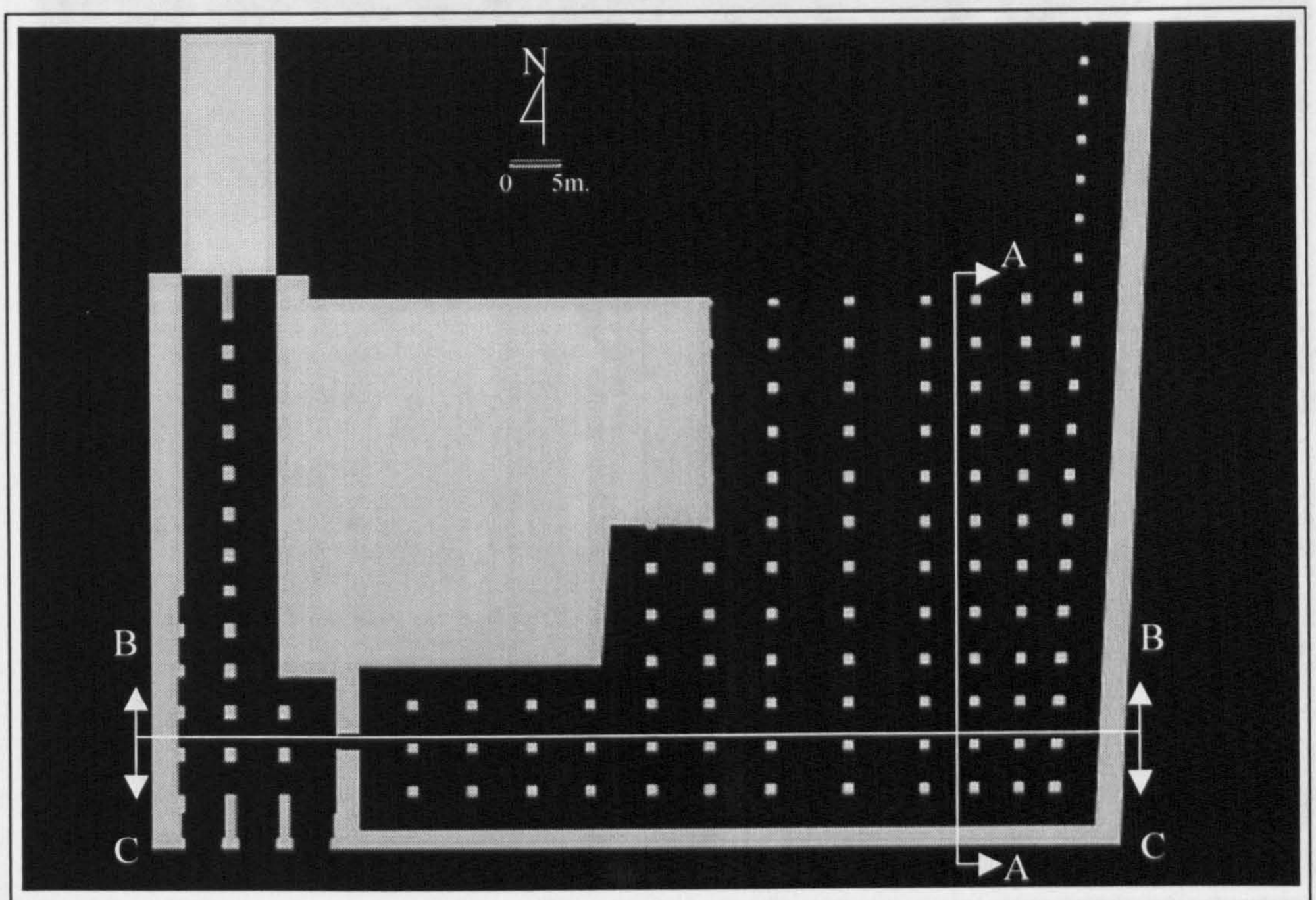
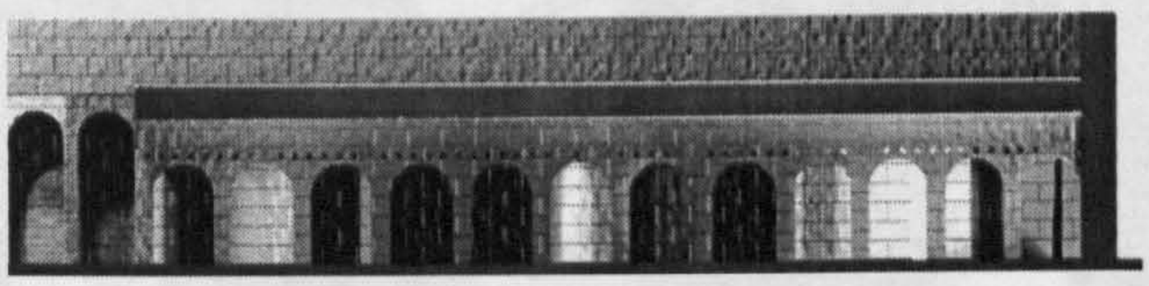


Fig. 6. 95 **Al-Aqsa Mosque: Plan of the south-eastern basement of al-Aqsa enclave. The top picture represents the plan as it looked in the early Islamic period while the bottom one represents the present plan.**

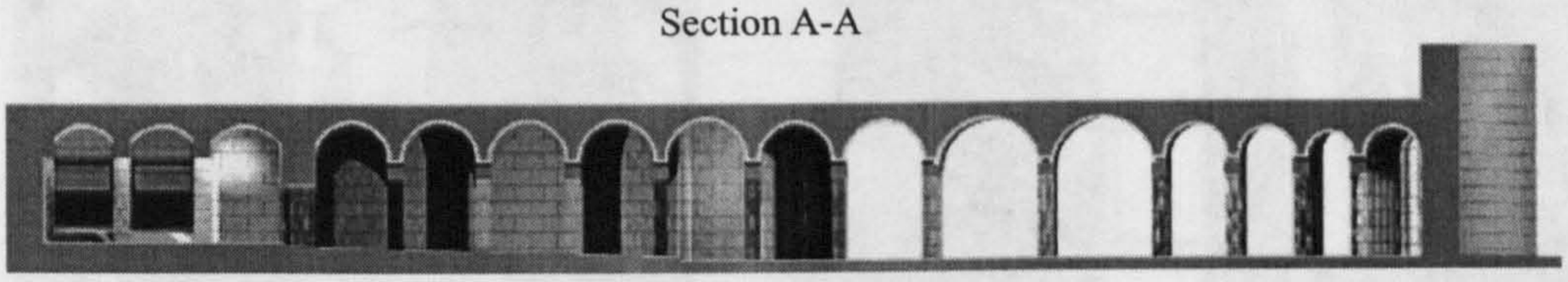
Source: The researcher.



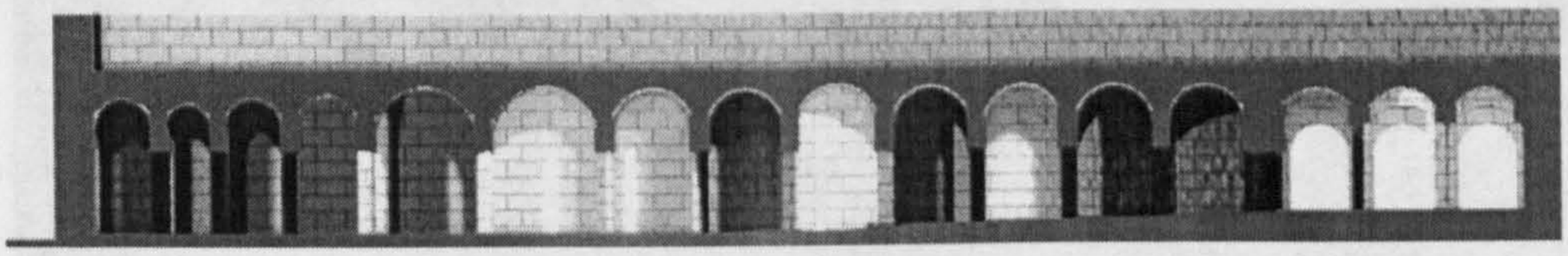
Plan



Section A-A



Section B-B



Section C-C

Fig. 6. 96 **Al-Aqsa Mosque: Plan and sections of the south-eastern basement of al-Aqsa enclave as it looked in the early Islamic period.**

Source: The researcher.

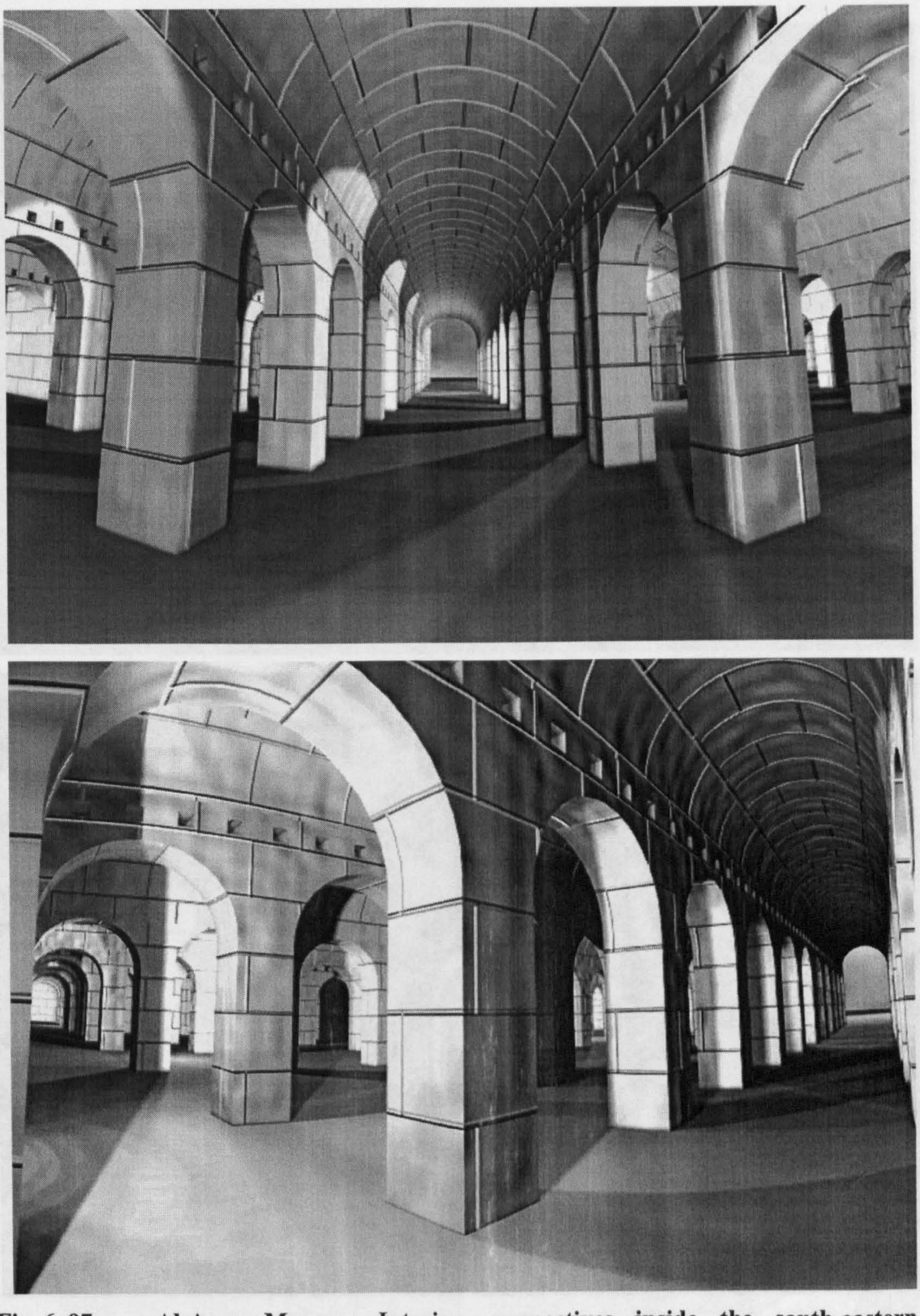


Fig. 6. 97 **Al-Aqsa Mosque: Interior perspectives inside the south-eastern basement of al-Aqsa enclave as they looked in the early Islamic period – the upper picture looking towards the north and the lower one looking towards the north-west.**

Source: The researcher.

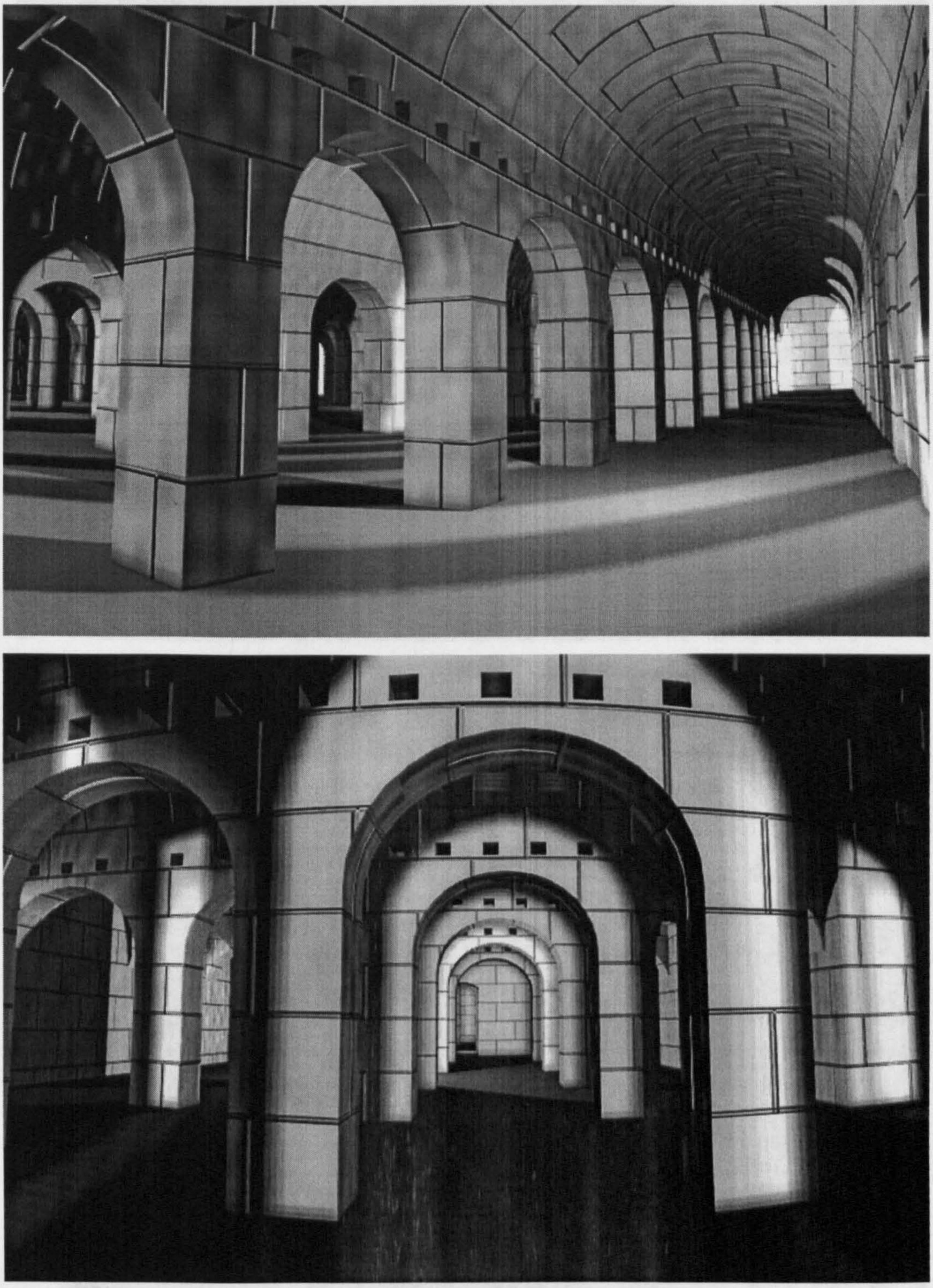


Fig. 6. 98 **Al-Aqsa Mosque: Interior perspectives inside the south-eastern basement of al-Aqsa enclave as they looked in the early Islamic period – the upper picture looking towards the south and the lower one looking towards the west.**

Source: The researcher.



Fig. 6. 99 **Al-Aqsa Mosque: Interior perspectives inside the south-eastern basement of al-Aqsa enclave as it looks today –the upper picture looking towards the east and the lower one looking towards the north-east.**

Source: The researcher.

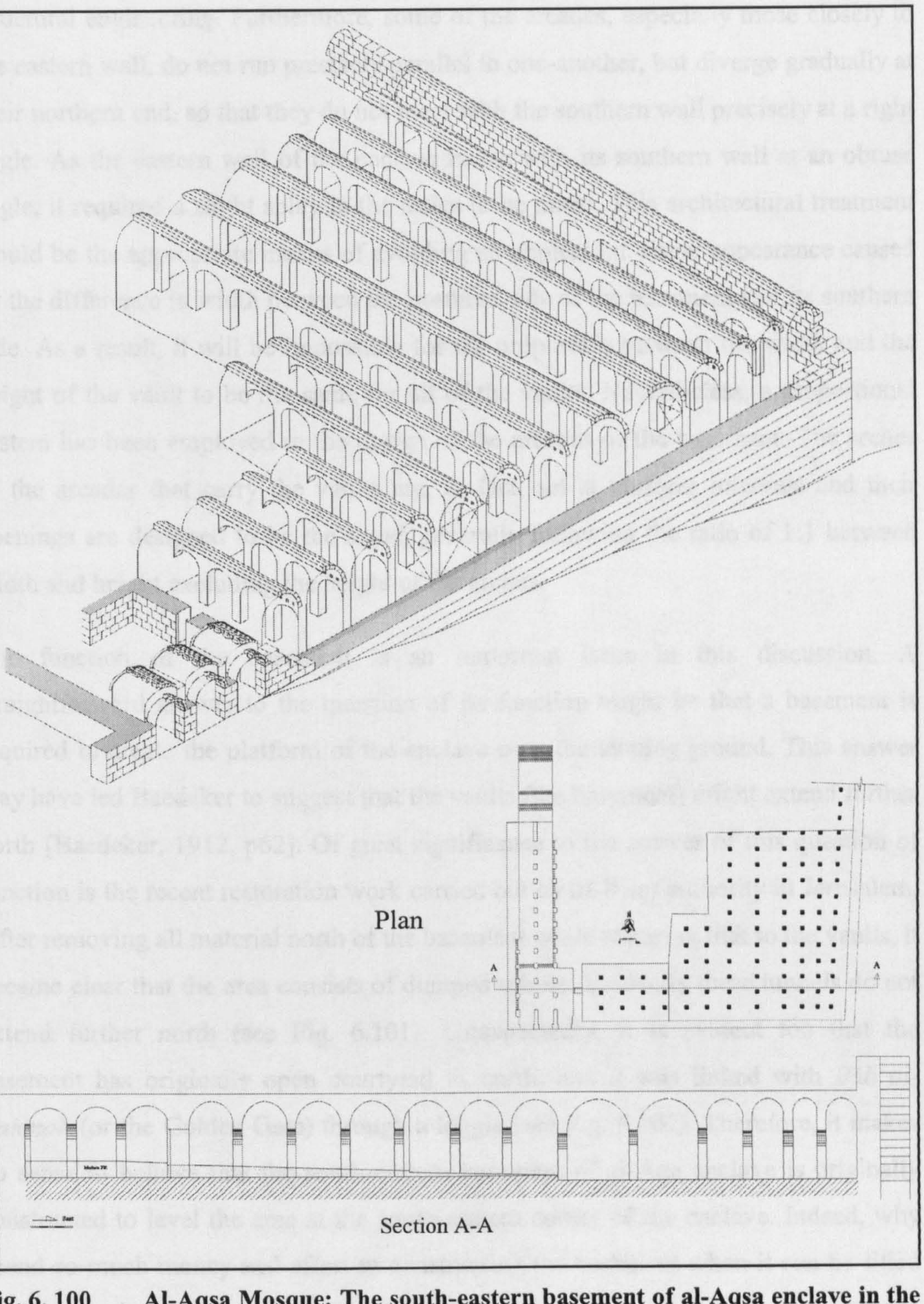


Fig. 6. 100 **Al-Aqsa Mosque: The south-eastern basement of al-Aqsa enclave in the early Islamic period. The top picture represents the architectural arrangement and building technology employed in the basement while the bottom one represents a plan and section that clarify variety of spaces that separated the arcades inside the basement.**

Source: The researcher.

structural engineering. Furthermore, some of the arcades, especially those closely to the eastern wall, do not run precisely parallel to one-another, but diverge gradually at their northern end, so that they do not meet with the southern wall precisely at a right angle. As the eastern wall of the enclave meets with its southern wall at an obtuse angle, it required a slight splay in the aisles to be made. This architectural treatment would be the appropriate means of avoiding an unpleasant visual appearance caused by the difference in width between the northern side of the basement and its southern side. As a result, it will be impossible for the proportion between the width and the height of the vault to be the same for all of the vaults. Nevertheless, a proportional system has been employed in the design of the arcades of the basement. The arches of the arcades that carry the vaults are, in fact, set at uniform intervals and their openings are designed to be the same; generally following the ratio of 1:1 between width and height excluding the height of the arches.

The function of the basement is an important issue in this discussion. A straightforward answer to the question of its function might be that a basement is required to create the platform of the enclave over the sloping ground. This answer may have led Baedeker to suggest that the vaults (the basement) might extend further north [Baedeker, 1912, p62]. Of great significance to the answer of this question of function is the recent restoration work carried out by *al-Waqf* authority in Jerusalem. After removing all material north of the basement while restoring link to the vaults, it became clear that the area consists of dumped rubble. Evidently these tunnels do not extend further north (see Fig. 6.101). Unexpectedly, it is evident too that the basement has originally open courtyard to north, and it was linked with *Bāb al-Rahmah* (or the Golden Gate) through a loggia (see Fig. 6.102). Therefore, it makes no sense to believe that the south-eastern basement of al-Aqa enclave is originally constructed to level the area at the south-eastern corner of the enclave. Indeed, why spend so much money and effort in constructing the basement when it can be filled in. Hence, the question why the south-eastern basement of al-Aqsa enclave was constructed and what its function was, is still, unanswered.

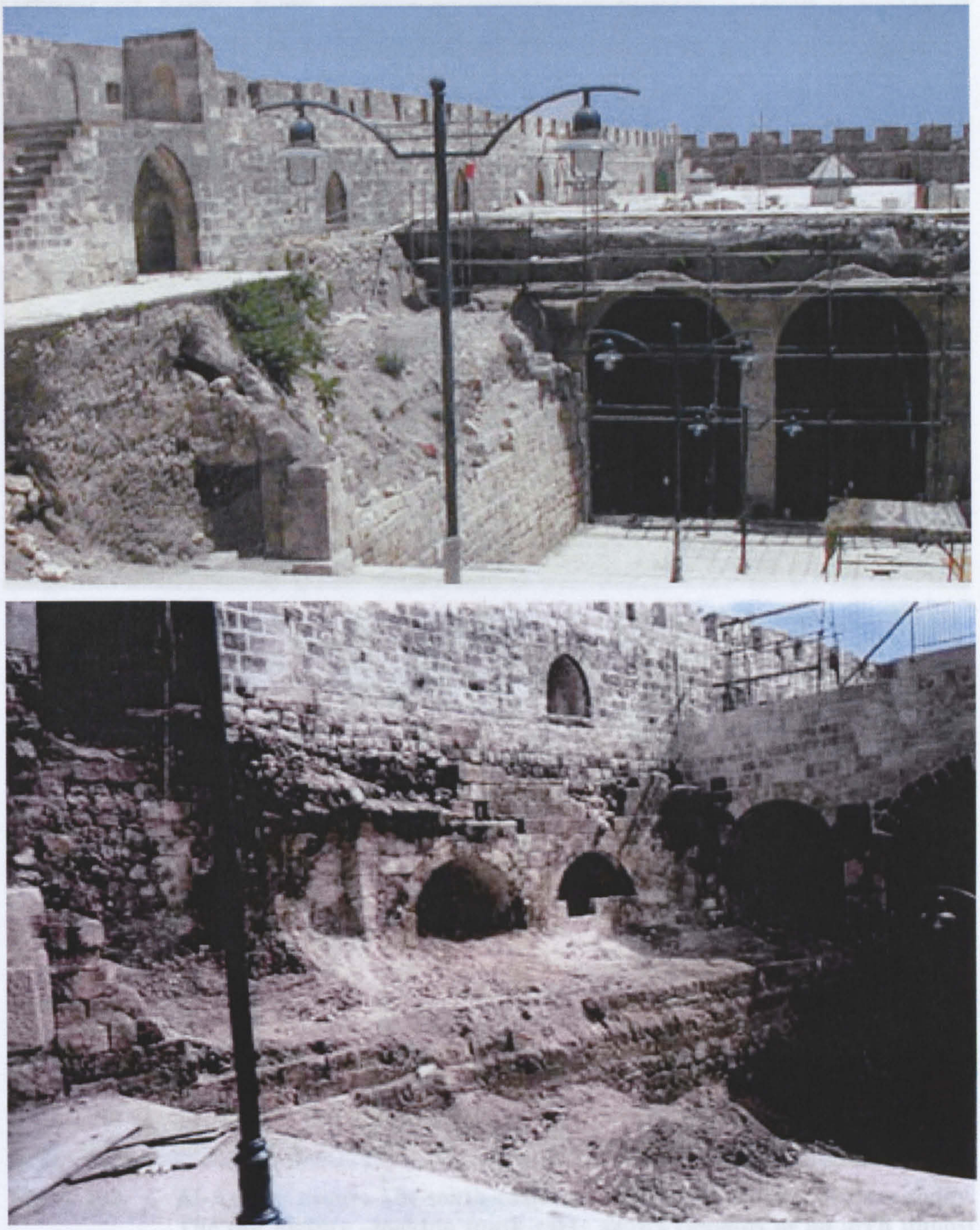


Fig. 6. 101 **Al-Aqsa Mosque: The south-eastern basement of al-Aqsa enclave today. The top picture –looking south– represents the northern side of the basement after revealing the fill blocking it, while the bottom –looking south-east–represents parts of ancient traces of the eastern side of the loggia that have been revealed so far.**

Source: The researcher.



Fig. 6. 102 **Al-Aqsa Mosque: The south-eastern basement of al-Aqsa enclave today. The top picture –looking south-east– shows remains of an arch impost projecting out of the eastern vault of the basement –at the right corner of the picture; it was discovered recently by *al-Waqf* authority in Jerusalem which links the basement with a loggia. The bottom picture – looking north– shows a slightly pointed transversal arch of the loggia adjacent to the eastern wall of the enclave at the time of discovery, which unfortunately collapsed some time after its discovery and no longer exists.**

Source: The researcher.

Although no answer could be expected to be readily found in literature, some probable explanations have been put forward here, based on the researcher's observations: -

1- During the recent restoration work by *al-Waqf* authority and even before, the researcher inspected the floor of the south-eastern basement, aiming at revealing what kind of floor had existed. The floor is composed of compact greyish soil, with no traces of stone slabs or at least compacted rubble pavement, so it is probable that the floor had never been paved. This suggests that the basement would not have been built for religious purposes, viz. not like the monuments in the enclave such as *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and *Qubbet al-Sakhrah* (the Dome of the Rock), which are all paved with stone slabs.

2- The basement is linked with the two biggest Gates in the enclave; *Bāb al-Rahmah* in the north and *Abwāb Mihrāb Mariam* in the west; this indicates that the basement had something to do with the visitors of the enclave. It is probable that the basement was used originally as a stable for horses much earlier than generally understood. Indeed, the slots that exist in the vaults of the basement greatly reinforces the stable suggestion because these slots are contemporary with the construction of the vaults and are not created by Knight Templars. The slots suggest that the basement might have once consisted of two levels. This second level, if it had existed, would be relatively low and might have been used to store hay for the horses.

3- Furthermore, it can be seen that the substructure tunnels of the south-eastern basement stop at **the same distance** from the southern wall as the arcades of the tunnels of both *Bāb al-Nabī* and *Abwāb Mihrāb Mariam* (**57.5** metres from the southern wall). This could indicate that both the gates and the basement were designed on a macro scale and constructed in relation to each other, probably for the same reason. If this was the case, the basement might have been intended to support a building over it for some purpose, i.e. the basic scheme could have been to build the whole southern part of the enclave, but the idea was abandoned after constructing the basement and the gates.

Before moving on to the next discussion, it is important to look again at the slightly pointed arches that are present in the architecture of the enclave in the south-eastern basement and in its adjacent loggia. The mathematical construction of this type of arch indicates that it was constructed from two centres (C′) created by a slight move of the mid-point of the span of the arch (C) on each side (see Fig. 6.103). It was noted before that this slight pointed type could have originally been semicircular; this suggestion is based on the absence of this type of arch in the earlier remains that still survive in other places of the enclave. Moreover, this type of arch is not a convincing pointed arch.

On the other hand, it could be argued that these vaults were originally constructed to be slightly pointed, because the form was repeated in another place located near Jerusalem and it belongs to the same period. The form was discovered in the water cistern in the in the city of *Ramlah*, located more that thirty kilometres north-west of the city of Jerusalem. This structure dates from the 8th century [Ibn al-Faqīh, 1996, p152]. This type of arch has, in fact, a structural advantage over the semicircular arch in carrying burdens because it has a slightly different thrust, i.e. its lateral stress is smaller. In any event, if this form is not really original and ancient why is it found in another place close to Jerusalem? Could this form have resulted erroneously from the construction techniques based on reusing building construction materials that are reworked? If so, why is it not present in other places of the enclave that have the same manner of construction with reused materials? Therefore, the second hypothesis of an original pointed arch is more probable than the first.

Dating of the construction

As for the date of this substructure, it has been disputed among the 19th and early 20th century AD scholars. Three main periods have been suggested: -

1- Roman period (Herod the Great) was suggested by Catherwood and accepted by Williams. His suggestion was based on speculation that the piers of the vaults correspond to the colonnades of the Royal *Stoa* of the Jewish Temple.

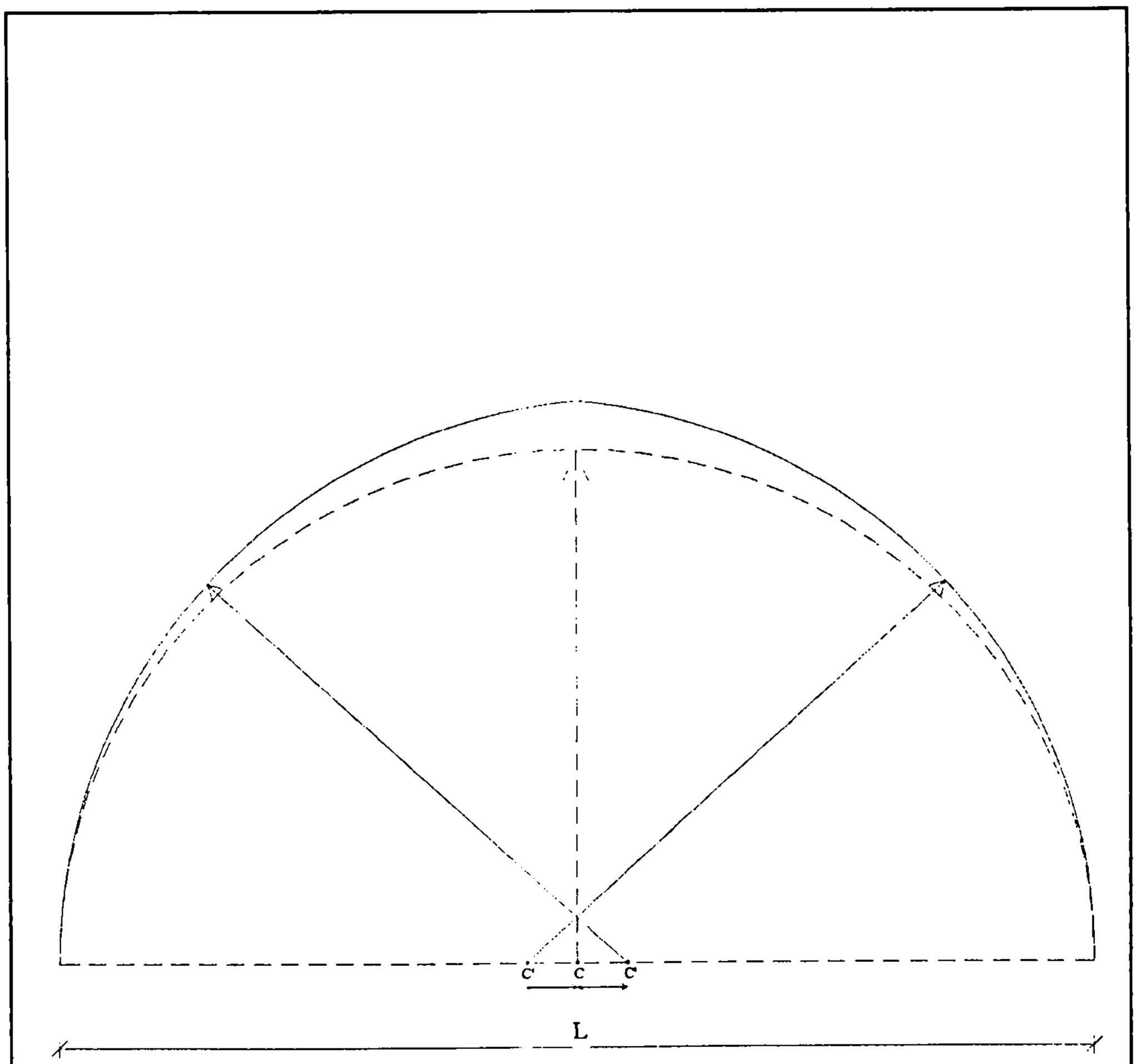


Fig. 6. 103 **Al-Aqsa Mosque: The mathematical construction of the slightly pointed arch at the south-eastern basement of al-Aqsa enclave as it looks today.**

Source: The researcher.

2- Byzantine period (time of Justinian) was suggested by scholars such as Fergussion, Pierotti, Warren, Conder and Schick based on their erroneous identification that the *Nea* Church of Justinian stood on the southern side of the enclave.

3- Early Islamic period (Umayyad) was suggested by Melchior de Vogüé, Wilson and Busink on the basis that the original Roman vaults were of enormous size and had been replaced by this substructure which has more than one style of its stone.

Wilson and Warren, who examined the construction techniques and masonry used in the south-eastern basement, suggested that it is contemporaneous with the adjacent vaults of *Abwāb Mihrāb Mariam* [Wilson, 1866, p38; Warren, 1970, p164]. From the archaeological point of view, if they are really contemporary, one has to consider a single period of construction for the eastern basement of the enclave and *Abwāb Mihrāb Mariam*. Moreover, Conder and Warren highlighted an archaeological observation which plays a significant role in dating the eastern basement of al-Aqsa enclave; they noticed that 'the floor (of the basement) is somewhat above the bed of the "Great Course" (Roman Masonry of the 1st century)' [Warren, 1970, p163]. This means that these vaults are of a **later date** than the epoch of drafted Roman stones. This theory can be reinforced by the remains of the ancient impost of a vault that exists in the south-eastern basement (see Fig. 6.104, 105). According to Gibson and Jacobson, the arch resembles to some extent the Roman Robinson's arch at the south-east corner of the enclave, though it is thought to be the remains of the first century [Gibson & Jacobson, 1996, p277]. In fact, this vault is different in span, height and siting to those vaults that exist in the basement of the enclave. If this is really a trace of a 1st century AD vaulting system, it would lead us to conclude that **the location of the vaults' piers has been modified, and the basement has been re-designed from scratch.**

Important evidence is in favour of an early Islamic date. It is relevant to the discussion and weakens if not totally undermines the Byzantine dating of the



Fig. 6. 104 **Al-Aqsa Mosque: The south-eastern basement of al-Aqsa enclave as it looks today. The picture –looking north– represents the surviving traces of an ancient Roman impost of an arch, which has totally different scale, and siting than those forming the basement. .**

Source: The researcher.



Fig. 6. 105 **Al-Aqsa Mosque: The south-eastern basement of al-Aqsa enclave as it looks today. The picture –looking north-west– represents the surviving traces of an ancient Roman impost of an arch, which has a totally different scale, and siting than those forming the basement.**

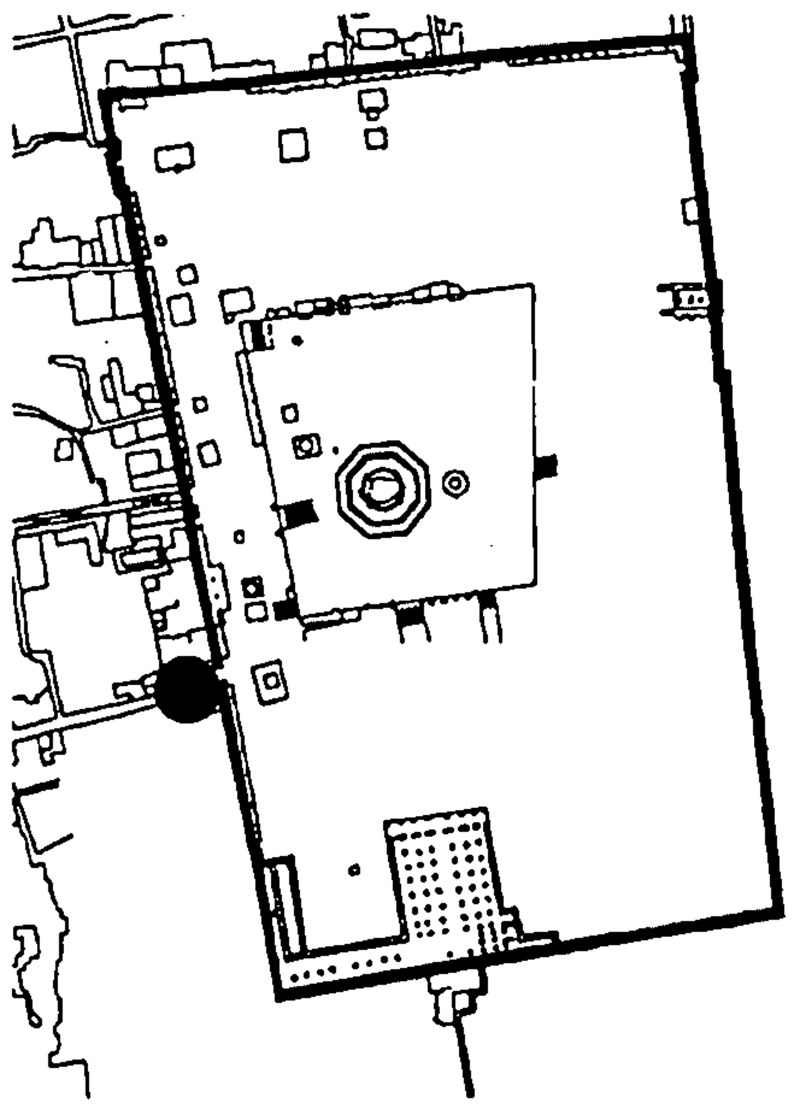
Source: The researcher.

basement. It is the discovery of an early Islamic paved street, traced for 70 metres, running along the outside of the southern wall of al-Aqsa enclave leading up to *Bāb al-Nabī* and *Abwāb Mihrāb Mariam*. This street is dated definitely to be Umayyad [Mazar, 1969, p17], and lies exactly above the Roman street that is dated back to the first century. But none of the levels between the two streets represents a Byzantine street.

The discussion above and a fore-mentioned arguments lead us to accept the early Muslim date for the construction of the south-eastern basement of al-Aqsa enclave.

6.4.3 Wilson's Arch

Some 180 metres north of the south-western corner of al-Aqsa enclave, is a vaulted subterranean arch of huge dimensions (see Fig. 6.106), one impost of which rests on the western wall of the enclave. It is 12.80 metres wide, and is thought to be the first eastern arch of the complex of vaults supporting a bridge that crosses the Tyropoeon Valley [Avigad, 1976, p16, Bahat, 1994, p177]. Although Tobler discovered this arch in the 19th century AD, it is known as Wilson's arch because Wilson is the first one who gave particular attention to its importance during his examination of the al-Aqsa enclave in 1864 [Warren, 1970, p195].



The arch carries a causeway (the street of the chain) that leads to the al-Aqsa enclave, and ends at the two doorways of *Bāb DāūD* (or Gate of David), known today as *Bāb al-Salām* (Gate of Peace) and *Bāb al-Silsilah* (Gate of Chain), originally with a semicircular arch [Burgoyne, 1992, p123]. The arch joins another series of parallel vaults extending westwards from the arch below the street of the chain (see

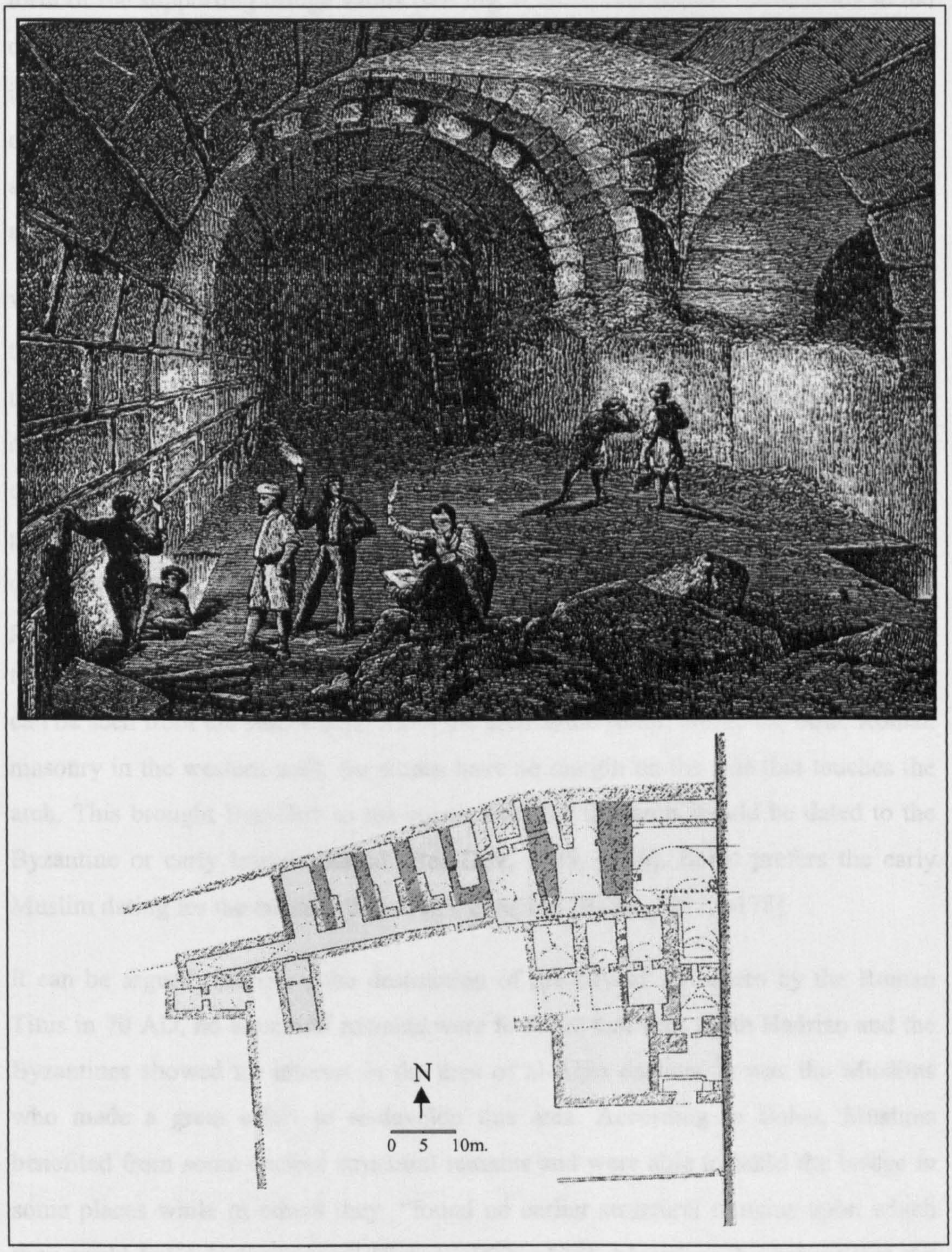


Fig. 6. 106 **Al-Aqsa Mosque: Top: Wilson's arch as it looks today; bottom: plan of the arch and its adjacent successive series of vaults as it looks today, the black shaded areas in the plan are the surviving early Muslim remains.**

Source: Top: Warren, 1876, p369; bottom: after Burgoyne, 1987, p236.

Fig. 6.107). The architecture of the bridge is distinguished by a double overlapping form of the supporting bridge vaults (see Fig. 6.108). This double overlapping in the design of the bridge seems to be made for a structural purpose. The width of this arch is indeed quite significant, because it is identical to the width of the double passage of *Bāb al-Nabī* (or the Double Gate), which is **12.87** metres. If they are really from a single period of construction, it can be suggested that there might have been a **standardisation** to the width of the passages.

Warren suggested –on the basis of some historical sources– that in the Middle Ages the arch spanned the street from the Damascus Gate in the north to the Dung Gate in the south [Warren, 1970, p195]. The ancient history of this arch is still open to debate. According to Warren, this arch "as it now stands cannot be earlier than the 5th or 6th century" AD [Warren, 1970, p195]. Hamilton in 1931 AD excavated some parts of this complex at its western end; he suggested an early Muslim dating of the complex [Bahat, 1992, p177]. Ben-Dov also believes that this arch, including its piers, is intact early Muslim construction. He argues that "stones were removed from two or three of its courses along a 15 metres stretch" [Ben-Dov, 1985, p176]. This can be seen from the stones adjacent to the arch at the south; unlike the other Roman masonry in the western wall, the stones have no margin on the side that touches the arch. This brought Ben-Dov to the conclusion that this arch should be dated to the Byzantine or early Islamic period [Ben-Dov, 1985, p176]. Bahat prefers the early Muslim dating for the construction of this complex [Bahat, 1992, p178].

It can be argued that since the destruction of the city of Jerusalem by the Roman Titus in 70 AD, no structural remains were found at that spot. Both Hadrian and the Byzantines showed no interest in the area of al-Aqsa enclave. It was the Muslims who made a great effort to re-develop this area. According to Bahat, Muslims benefited from some ancient structural remains and were able to build the bridge in some places while in others they "found no earlier structural remains upon which they could build in this space" [Bahat, 1992, p178]. Moreover, he argues that the architecture of the bridge, the rhythm and height of the vaults spacing, were determined by Muslim architects [Bahat, 1992, p178].

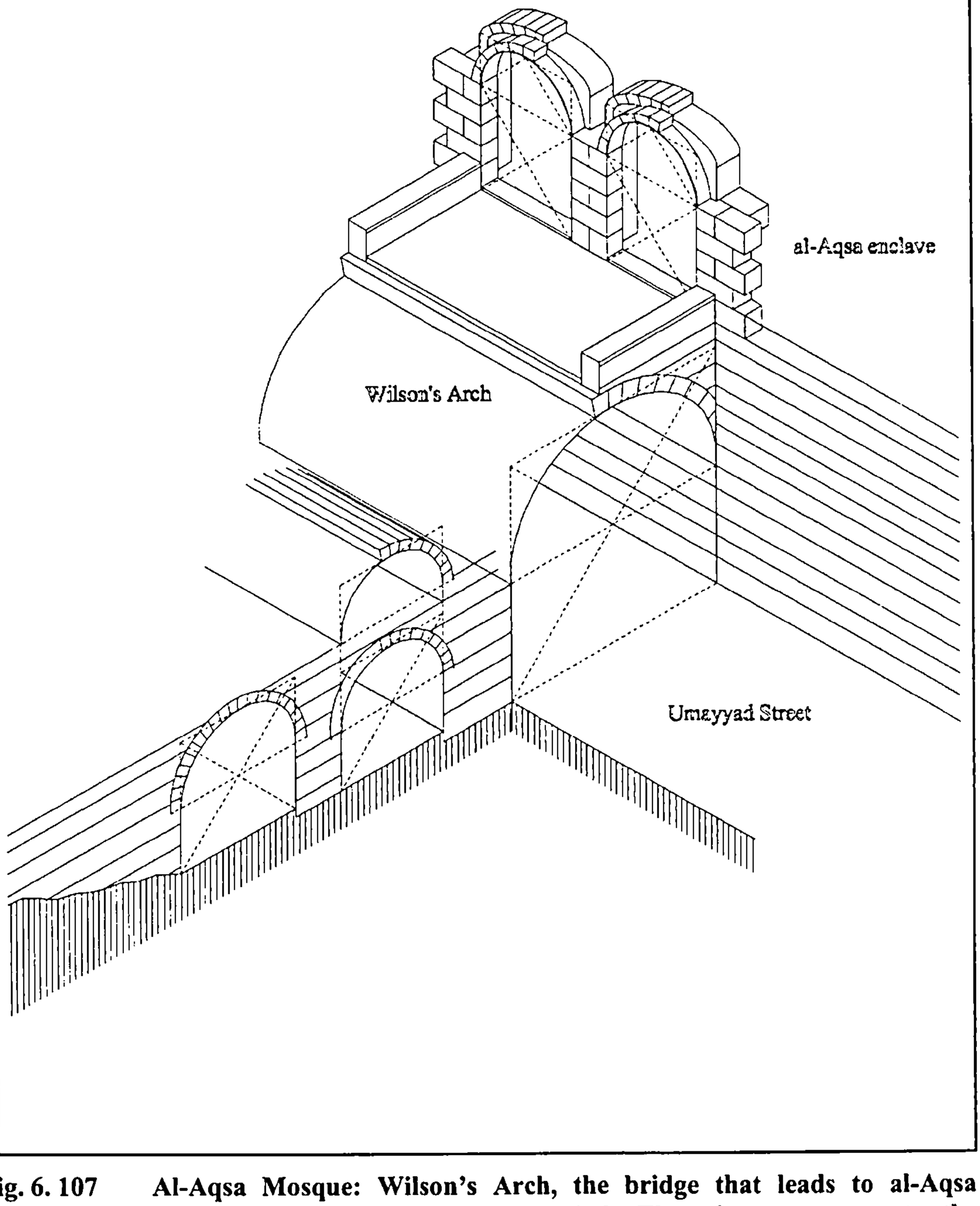


Fig. 6. 107 **Al-Aqsa Mosque: Wilson's Arch, the bridge that leads to al-Aqsa enclave in the early Islamic period. The picture represents the architectural arrangement and building technology employed in constructing the bridge of the enclave.**

Source: The researcher.

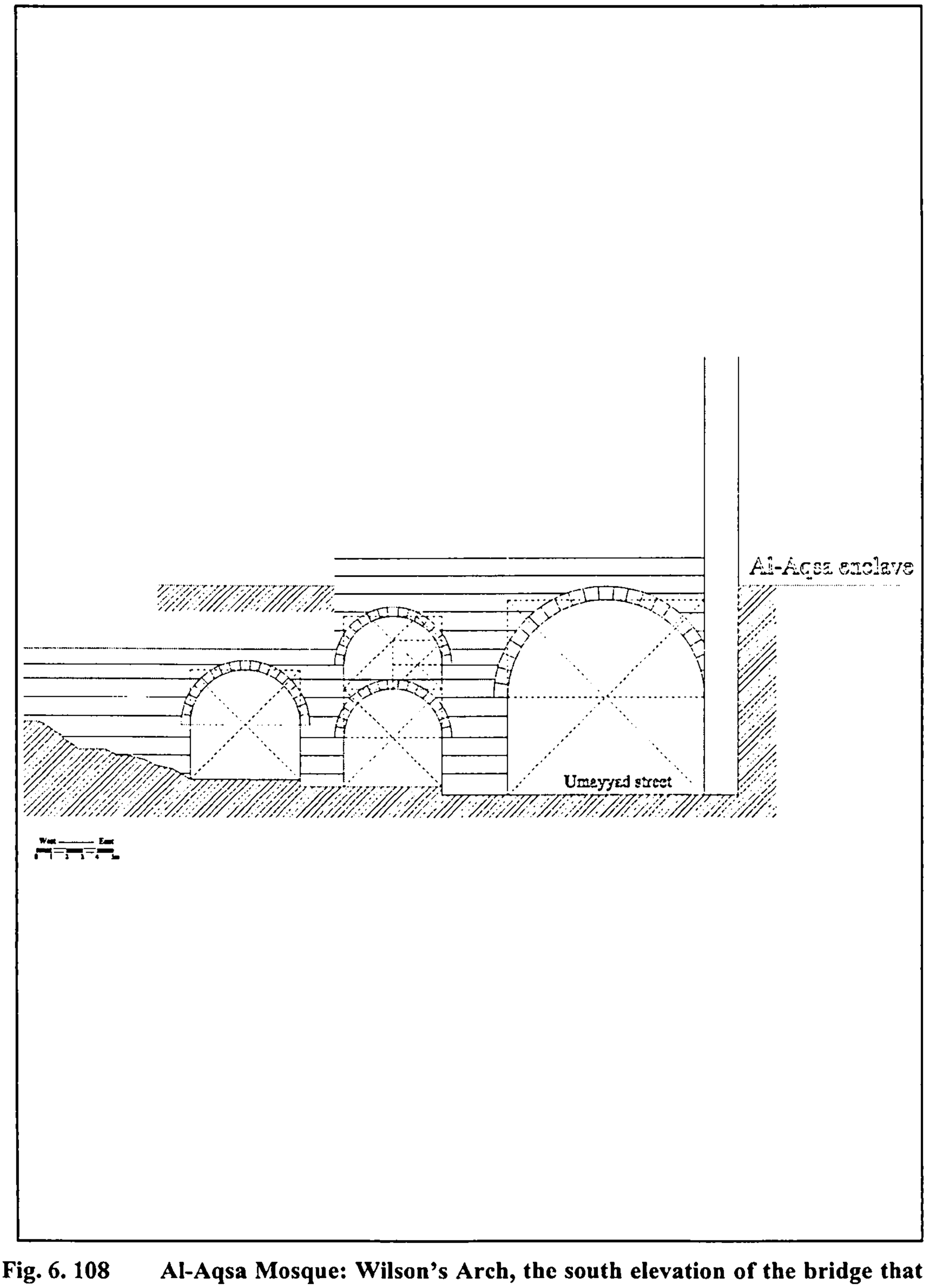


Fig. 6. 108 **Al-Aqsa Mosque: Wilson's Arch, the south elevation of the bridge that leads to al-Aqsa enclave in the early Islamic period. The picture illustrates the double overlapping and the variations in the height of the vaults that create a rhythm in the architecture of the bridge.**

Source: The researcher.

In short, the distinctive variations in the topography of the enclave made the architects of the early Islamic period suggest a link between Jerusalem at the western hill and the level of the enclave. This crosses the valley adjacent to the western wall of the enclave no need to go down to the main street level, which goes along the western wall of the enclave. This solution necessitated the builders at that time building a huge vault that spans the width of the main street below. As to the west of the main street, the builders are unconstrained; they built a series of vaults on more than one level to reach the level of al-Aqsa enclave. This conclusion fits Hamilton's early Muslim dating for the construction of the complex of vaults – it especially fits the historical sources concerning Jerusalem which indicate a total destruction of the enclave before the early Islamic period and large-scale construction in and around al-Aqsa enclave after that time.

6.5 SUMMARY AND CONCLUSION

The physical development of the al-Aqsa enclave in the early Islamic period indicates that great efforts were invested into a major scheme of construction in Jerusalem. The location, which is revered by the three monotheistic religions, were the starting point for initiating the project, while the variations in the topography was among the important issues that confronted its builders. The level of the early gates of the enclave confirms that the level for some areas in and around its enclosure has been raised in comparison to today's level. Two examples illustrate this. From inside the enclave, the area in front of the south-eastern basement is raised up to the same height of the vaults of the basement. From outside the enclave, the area alongside the western wall was filled as a result of the concentration of rubble over centuries, while outside the eastern wall of the enclave there is a slight rise in level.

The surviving remains in the enclave –which have been discussed so far, (some of which are very significant as they are still intact at our time)– date to the end of the 7^{th} century and early 8^{th} century AD. They indicate the practice of reusing stones and ancient elements that belonged to destroyed buildings in Jerusalem. They are reworked in order to fit their new place and design. Indeed, these reworked stones and architectural elements, which are various in their styles and types, are employed

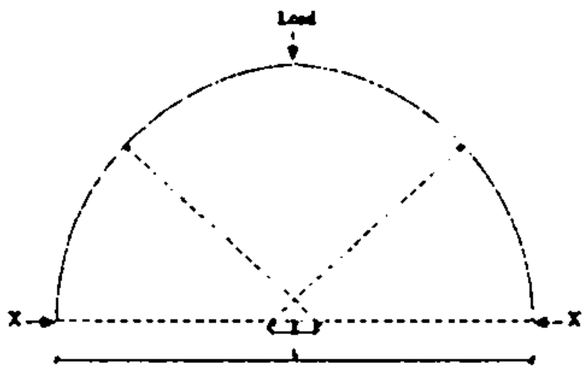
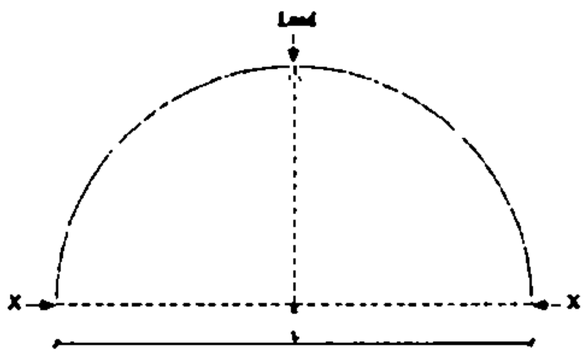
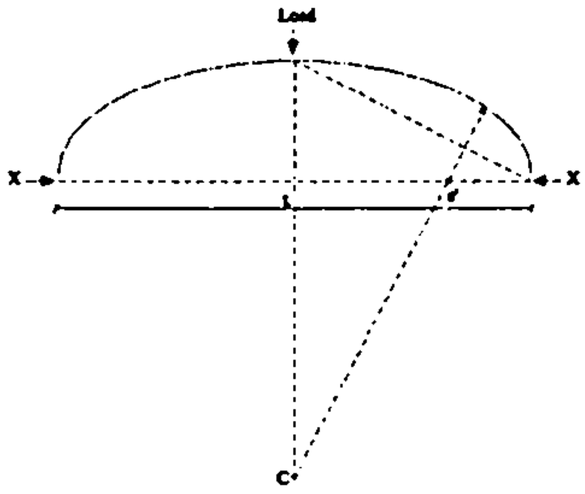
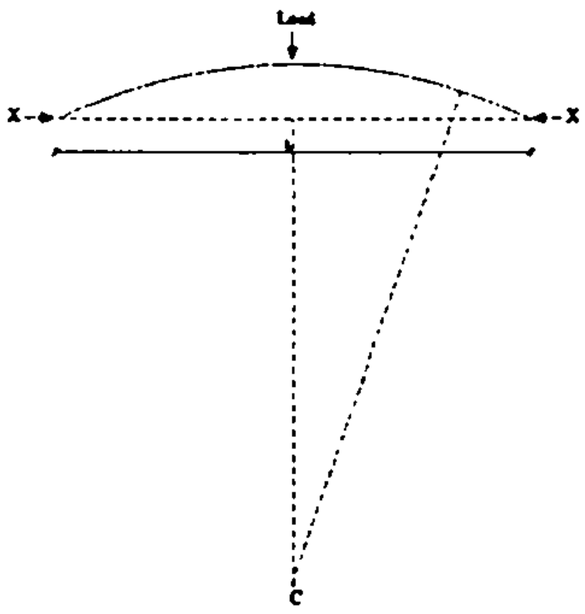
in constructing or reconstructing different parts of the enclave. A distinctive feature in all of these reused elements is the absence of any artistic characters contrary to Islam, eg. animal figures or carving emblems of a cross. These, if they had existed on some of the reused columns and capitals, must have been removed at that time. Nevertheless, these reused elements still preserve many of their original classical features and therefore reflect these styles to some extent in the art and architecture of the enclave at that time.

Semicircular and flattened shapes have been used in constructing arches, vaults or domes of the enclave in the early Islamic period. These shapes are, in fact, distinguished in the precedent of Roman architecture and were abundantly in use in the local architecture of Palestine; this will be discussed in great detail in chapter eight. However, new shapes were distinguished in the architecture of the enclave in the early Islamic period; the elliptical shape and the slightly pointed arch. The elliptical shape can be found only in three architectural elements: arches, vaults and domes; the use of the slightly pointed arch is limited to the arches and vaults only. The use of a variety of shapes in these architectural elements could be attributed to a structural purpose and thrust; the more flattened the arch shape becomes the closer to horizontal the direction of the thrust will be, so the vertical force at the supports of the arch will be bigger (see Table 6.4). Indeed, the shape of the arch is principally dictated by the height and width of the space it covers as well as the proposed load that it carries.

The diversity of shapes used indicates different methods and techniques of building construction. This expertise in practical construction employed in building al-Aqsa enclave cannot come about by chance but has been commonly used in Jerusalem and Palestine before. However, the distinctive elliptical and the slightly pointed shapes seem to have originated in the architecture of Historical Syria at that time. According to the literature available to the researcher and to archaeological discoveries so far, these shapes had no analogies in architecture preceding the 7th century AD whether in Palestine or Europe. Therefore, it is hard to resist the conclusion that these shapes have been developed in the early Islamic period.

Table 6.4 **Structural analysis of the arches in al-Aqsa enclave.**

Description

Type of arch	Illustration	Strength of the arch	Horizontal force (X)
1- Slightly pointed arch		Strong ↑	Small ↑
2- Semicircular arch			
3- Elliptical arch			
4- Segmental arch		Weak ↓	Big ↓

Notes: **L= Span of the arch, C, c'= centres of arches, X= the lateral force at the supports of the arches.**

Two design concepts were repeated several times in building the gates of the enclave; the simple gate form and the gatehouse form. The simple form is an entrance, no more than a penetration of the wall. In the gatehouse the simple form is developed into a passageway or tunnel. For these two concepts three patterns can be distinguished for the gates: single, double and triple. In fact, these types are used today as names of some gates of the enclave. The single gate pattern has one doorway and leads to a single passageway, while the double or triple pattern indicates two or three doorways and leads to a double or triple passageway. Although

the gates of the enclave are designed to follow one of these two basic concepts, they are not exact replicas of one another. The major difference lies in their very location and relationship with the inside and outside of the enclave, i.e. private or public use, underground passageway or overground and so on.

The use of chamfering on the voussoirs of arches in the enclave, especially in those semicircular and flattered patterns, distinguishes the architecture of the enclave of the early Islamic period from a later period.

The character of monumental or big scale can generally be noticed in the size of the access of the enclave at that time, some of which manifested the character clearly in their facades. The doorways at that time are wider and higher in comparison to the later gates. Could this change in the scale of the gates indicate a change in the volume and type of function? Could some of the gates, such as *Bāb al-Rahmah* (or the Golden Gate), have been originally designed to allow people with their camels or horses to enter the enclave, whereas later gates restricted access to people only?

The character of standardization in the planning of the monuments, which is highlighted in the discussion of the gates above, would also exist in other places of the enclave. It could be reinforced by the dimension of the span of the Wilson's arch (12.80 metres) that corresponds precisely, with the width of *Bāb al-Nabī* (or the Double Gate) (12.80 metres). This indicates the possible contemporary use of identical standards not only for the gates of al-Aqsa enclave but also in architecture at that time in general.

Possibly which is very interesting in the overall design concept of the enclave but which has never been raised before is the possibility that the Umayyads intended at the beginning of their construction work to roof all of the southern area adjacent to the southern wall of the enclave, as they had been doing in the Mosque of the Prophet in Madinah and the Great Mosque in Damascus. The archaeological investigations for the length of the tunnels of southern gates and for those of the south-eastern basement of the enclave including the type their roofing system may well suggest this idea. But this concept, if had existed, was abandoned before the building of al-Aqsa congregational Mosque. If this was indeed the true case, could

the building of *Qubbet al-Sakhrah* (the Dome of the Rock) in the enclave be the reason for amending the original design concept of the enclave; or could this possible amendment have been made because of the general design concept in the enclave which was mentioned by al-Muqdisī for constraining the relation between the siting of *Qubbet al-Sakhrah* and *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). This relationship based on the idea of centrality [al-Muqdisī, 1987, p146]?

All of these discussions lead to the conclusion that the architectural project initiative in al-Aqsa enclave at that time implies sustainable ideas and creative concepts employed in sacred Muslim architecture, reflecting appropriate structural solutions, economic investments of using construction materials, fast implementation, impressive resultant forms, and overall management. This indicates the the type, style and character of the architecture of the enclave at that time. Indeed, this discussion requires an exploration of the early Islamic Monuments of al-Aqsa Mosque and this will be done in the next chapter of this thesis.

CHAPTER SEVEN

ARCHITECTURE AND MEANING OF THE EARLY ISLAMIC MONUMENTS OF AI-AQSA MOSQUE:

This chapter investigates the architecture of the early Muslim monuments of al-Aqsa Mosque and the reasons behind their construction within their cultural context and in response to religious needs.

As a result of the overall planning of the al-Aqsa Mosque in the early Islamic period, several buildings were established in the 7th and early 8th centuries AD in different places of the enclave. These monuments were intended to accommodate particular functions. Consequently, different forms have resulted; they do, however, share the same architectural style.

7.1 INTRODUCTION

The construction of the Muslims' house of prayer in al-Aqsa enclave was the first step in developing early Muslim Architecture in Jerusalem. Fifty years later, Muslims added more buildings in al-Aqsa Mosque, among them *Qubbet al-Sakhrah* (the Dome of the Rock), which all scholars acknowledge to be the most beautiful masterpiece built at that period. Regarding these buildings a number of questions arise which need to be answered:

- At what location are the early Islamic monuments in al-Aqsa Mosque constructed and why?
- When was the construction of these buildings carried out and why?
- What sort of buildings were established in the enclave and why?
- What kind of building materials and construction technologies were used and why?
- What type of architecture was used and what building relationships comprise the group?
- What kind of Muslim identity is presented in the early Muslim architecture at the enclave?

To answer these questions[1] the historical and archaeological background of these early Islamic buildings will be examined and the nature of their architecture will be investigated. The discussion will be based on historical, archaeological and architectural evidence.

[1] Another important question that will be examined and answered in the next chapter is what sources/ precedents did the builders of the Muslim monuments draw on?

7.2 THE MUSLIM HOUSE OF PRAYER OF AL-AQSA MOSQUE

In her study, *The Early Islamic Monuments of al-Haram al-Sharīf* (1989 AD) Rosen-Ayalon drew attention to the location of the early Muslim house of prayer in al-Aqsa enclave. She did not, however, go into any depth in her study. According to her, scarcity of information is the reason why scholars do not discuss this house of prayer in detail [Rozan-Ayalon, 1989, p5]. In this section an attempt is made to investigate this very early Muslim house of prayer by using some analytical urban studies based on historical information.

Although the early Islamic historical source of al-Wāqidī mentions that 'Umar established a mosque in the eastern part of al-Aqsa enclave, it does not give any details regarding the architecture and the planning of this mosque. This house of prayer is, in fact, regarded by al-Wāqidī as **'Umar's Mosque** [al-Wāqidī, no date, 1: p314]. The French Christian pilgrim Arculf is the only one who made a relatively detailed description of 'Umar's Mosque which existed before the large-scale Umayyad restoration of al-Aqsa enclave including the construction of their palaces. His description, dated 50 AH/ 670 AD, is quite significant as it states: -

> "the Saracens have now erected a square house of prayer, in a rough manner, by raising beams and planks upon some remains of old ruins: it is their place of worship, and it is said that it will hold about three thousand men" [Wright, No date, p1].

7.2.1 The Location of 'Umar's Mosque

Some western scholars such as Matson [Matson, 1925, p121] confuse the location of 'Umar's Mosque with the location of *Qubbet al-Sakhrah* (the Dome of the Rock) which are not the same. This confusion was caused by the Crusaders who erroneously called *Qubbet al-Sakhrah* 'Umar's Mosque [Baedeker, 1912, p53]. According to Rynolds-Ball the location of 'Umar's Mosque was attached to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) to the south of the enclave [Rynolds-Ball, 1901, p37].

Yet, historical descriptions of al-Wāqidī and Arculf are somewhat ambiguous regarding the exact location of this building. According to Rosen-Ayalon the historical "reference to the eastern wall (of the city of Jerusalem) is very vague" [Rosen-Ayalon, 1989, p4], because it is not clear whether that wall represents the eastern wall of the city or the eastern wall of the enclave. Abu 'Ubaid mentions that the location of 'Umar's Mosque was determined by the *Qiblah*, at the southern wall of the enclave [Abu 'Ubaid,1986, p168]. Thus it could be expected that the location of 'Umar's Mosque was the same as that of the present southern congregation building. This is supported by several considerations, some of which are highlighted by the argument of Rosen-Ayalon: -

1- The southern wall of the enclave provides a convenient *Qiblah.*

2- The early historical stories such as those by al-Wāqidī and Abu 'Ubaid and al-Maqdisī show that 'Umar refused to build his mosque on the Rock where *Qubbet al-Sakhrah* is now standing and he proceeded to a location immediately south of the Rock.

3- The southern end of al-Aqsa enclave would have provided quantities of construction materials from existing ruins. This, in fact, corresponds to Arculf's mention of the location of the early Muslims' house of prayer concerning ruins. Moreover, early Muslim archaeological evidence suggests the location of the house of prayer was at the place of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in al-Aqsa enclave.

4- There is no such phenomenon in the early Islamic period supporting the conception that Muslims transferred the location of their early house of prayer in al-Aqsa enclave during any restoration or rebuilding. Instead Muslims used to enlarge the mosques at their original site rather than relocate them.

All this leads to the conclusion that the location of 'Umar's Mosque is closely associated with that of the present *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) to the south of al-Aqsa enclave.

It is necessary to recall that at the time of the Muslims' conquest of Jerusalem the enclave was in ruins and the basement at the southern part of the enclave would not have existed before the 8th century AD. Therefore, **the level of 'Umar's Mosque in al-Aqsa enclave must have been the same as that of *Bāb al-Nabī* (or the Double Gate)**; i.e. more than six metres lower than the floor of the present *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque).

7.2.2 The Architecture of 'Umar's Mosque

According to Arculf, the construction of 'Umar's Mosque used wood for the beams and planks, and this makes it difficult to find physical archaeological evidence for this mosque. The interesting feature in this very early Muslim architecture in al-Aqsa Mosque is the material of the **building itself**, which is quite surprising. The ancient architecture of Palestine is characterised by stonework, using marble columns and arching techniques rather than wooden structures. A wooden building would, therefore, be somewhat different from buildings found in Palestine during that period. So the question arises where the Muslims imported this architecture from. This question leads back to the Prophet's Mosque in Madīnah, which was constructed in exactly the same way as described by Arculf: with wooden beams and planks. Frishman argues that the Prophet's Mosque in Madīnah formed the basis for the subsequent development of the architecture of the Mosque for Muslims [Frishman, 1994, p30]. The Prophet's Mosque at that time was a square open space. It was surrounded by a wall, less than 7 cubits in height, its foundations made from stones, the upper part of sun-dried clay bricks. Tree trunks were used as the mosque's columns at the southern area of the mosque, to support a roof made of palm trunks filled in with mud [Briggs, 1922, p18, 21] (see Fig. 7.1).

Arculf's description states that 'Umar's Mosque had a square shape, which corresponds to the shape of the Prophet's Mosque in Madīnah. **If his figure of 3,000 men is truly accurate and not exaggerated**, it is possible to calculate roughly the area of the mosque and obtain a general indication of what the size of the early Muslim house of prayer in al-Aqsa enclave was.

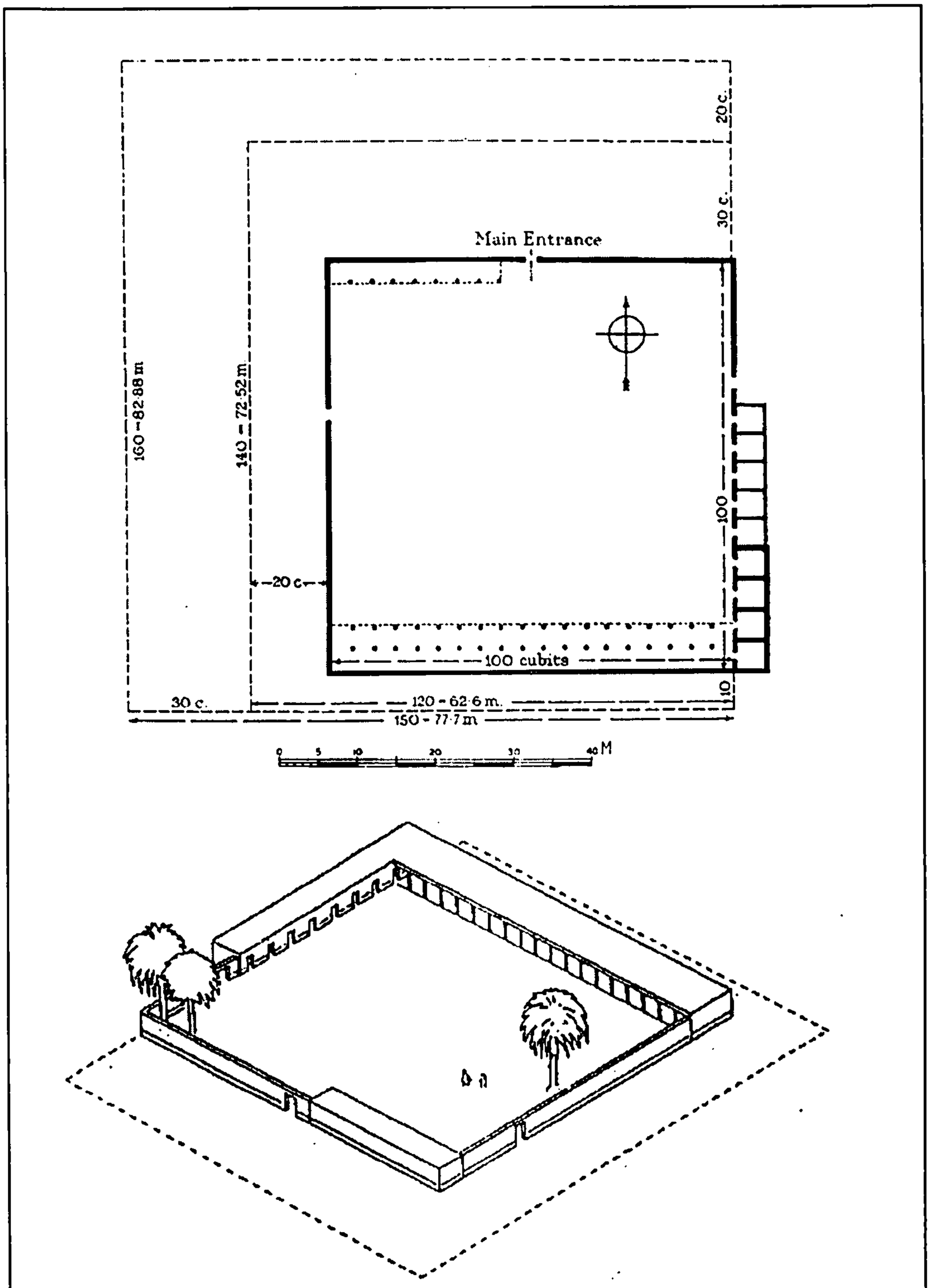


Fig. 7. 1 **The Prophet's Mosque in Madīnah at the time of the Muslims' conquest of Jerusalem.**

Source: Top: Grabar, 1973, p233/ plate 22. Bottom: Frishman, 1994, p32.

The size of the Mosque depends on the number of people congregating, the area required for a Muslim praying is estimated to be around 0.77 square metre (70cm. × 110cm.) (see Fig. 7.2). This means that 3000 people require an area around 2310 square metre. This mosque would accordingly measure 48 × 48 metres and this size corresponds approximately with **the area of the Prophet's Mosque in Madīnah** [Creswell, 1969, 1: p8] and also the **area of *Qubbet al-Sakhrah*** (see Table 7.1). This also equates to more than 0.6 of the total area of the present *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in al-Aqsa enclave.

Table 7.1 **Estimated areas of some early Muslim monuments**

Description		
No.	**The early Islamic monuments**	**The total Area in square metres**
1-	The Prophet's Mosque in Madīnah	(100×100 cubits) = 2683 (if the cubit = 0.518 metre). (100×100 cubits) = 2057 (if the cubit = 0.4535 metre).
2-	'Umar's Mosque in al-Aqsa enclave.	2310
3-	*Qubbet al-Sakhrah* in al-Aqsa enclave	2050

From table 7.1 it can be argued that the area of the 'Umar's Mosque in al-Aqsa enclave adopts the concept of the Prophet's Mosque in Madīnah. This presumption is supported by the architecture of this house of prayer as described by Arculf, which also corresponds with the Prophet's Mosque in Madīnah. Yet the question remains why the dimensions of 'Umar's Mosque and *Qubbet al-Sakhrah* are so similar? This question leads to two possible answers:

1- 'Umar's Mosque would be the *Qubbet al-Sakhrah*.

2- The area of *Qubbet al-Sakhrah* was based on the floor area of 'Umar's Mosque.

Regarding the first proposal, more questions arise: why transfer 'Umar's Mosque to another location? and why change the plan of this house of prayer from square to

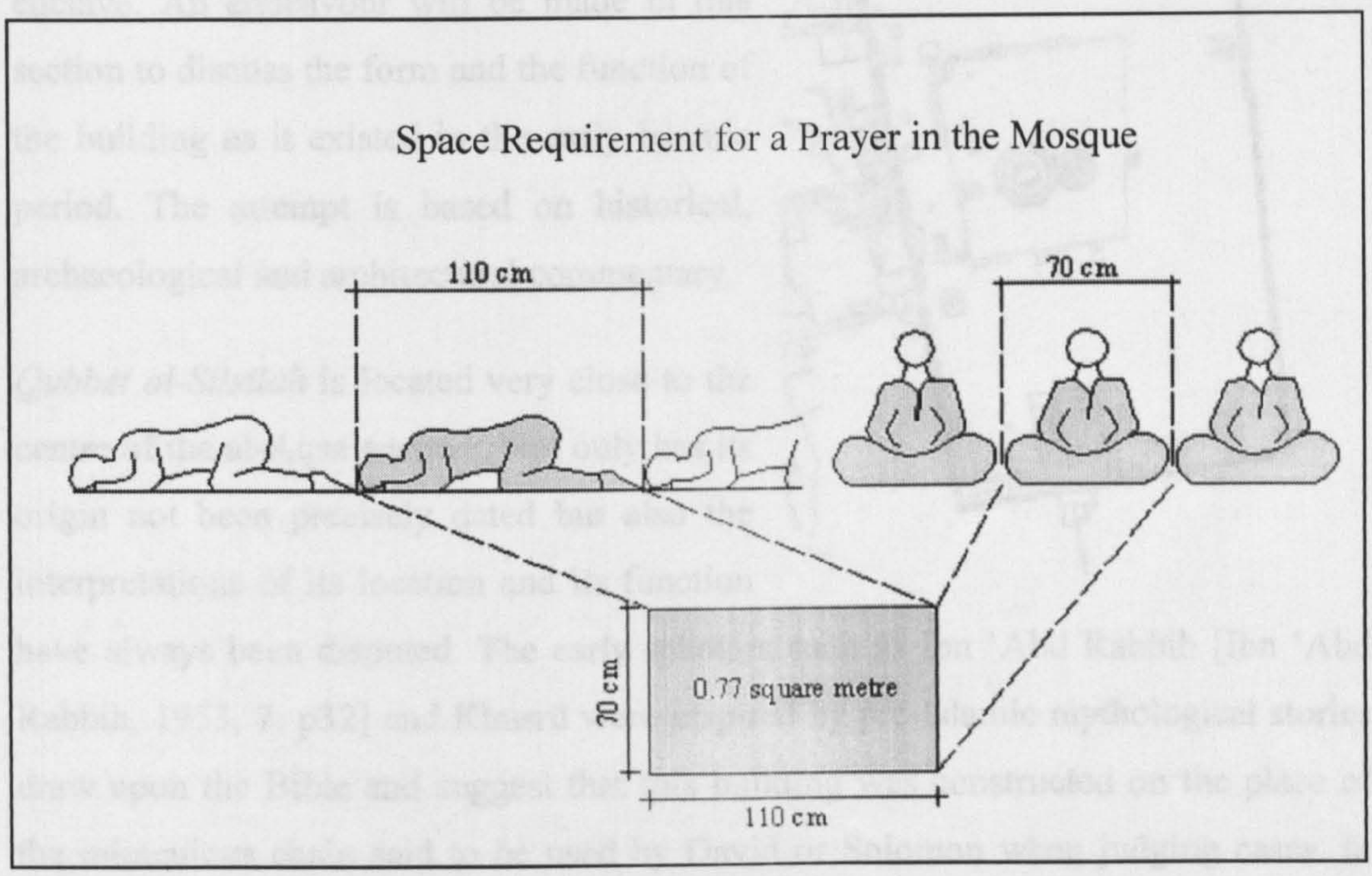


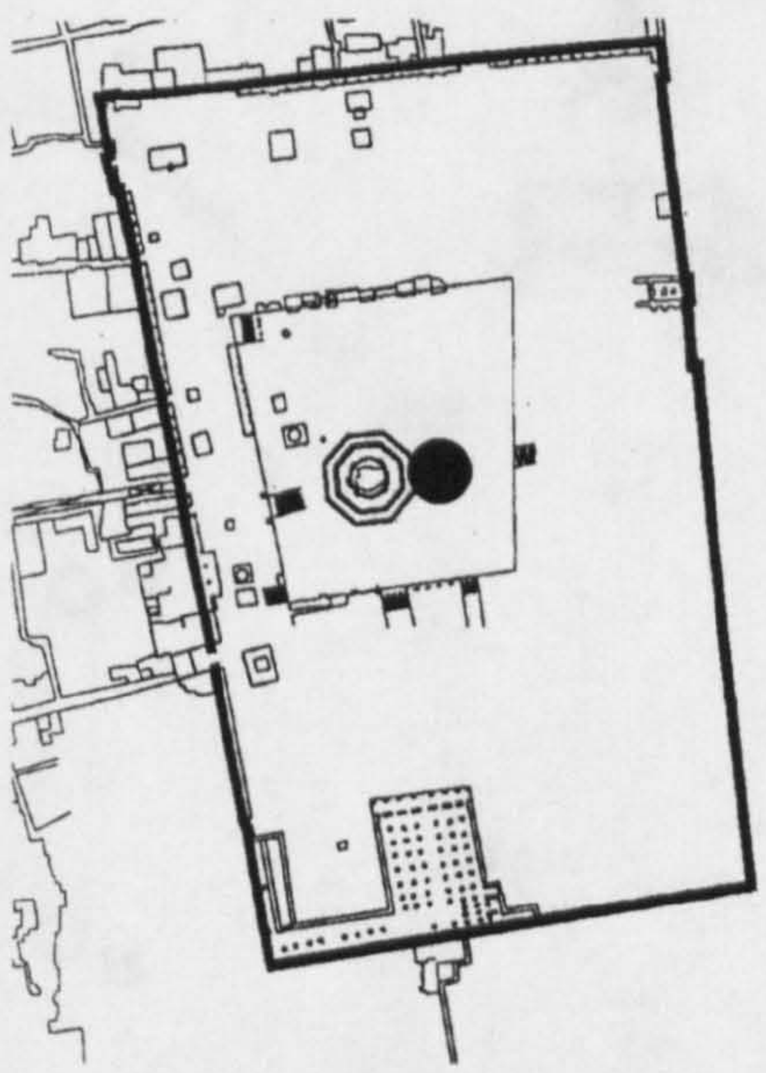
Fig. 7. 2 **Sketch indicating the space requirement for praying in the Mosque.**

Source: The researcher.

octagon? The plan of *Qubbet al-Sakhrah*, and its location as described by the historical sources mentioned above, make it difficult to accept the proposal that 'Umar's Mosque is *Qubbet al-Sakhrah* or that the later monument was constructed at the place of the former. This in turn reinforces the second contention.

7.3 *QUBBET AL-SILSILAH* (The Dome OF THE CHAIN)

Qubbet al-Silsilah (the Dome of the Chain) is one of the charming monuments of al-Aqsa enclave. An endeavour will be made in this section to discuss the form and the function of the building as it existed in the early Islamic period. The attempt is based on historical, archaeological and architectural commentary.



Qubbet al-Silsilah is located very close to the centre of the al-Aqsa enclave. Not only has its origin not been precisely dated but also the interpretations of its location and its function have always been disputed. The early scholars such as Ibn 'Abd Rabbih [Ibn 'Abd Rabbih, 1953, 7: p32] and Khusrū were inspired by pre-Islamic mythological stories draw upon the Bible and suggest that this building was constructed on the place of the miraculous chain said to be used by David or Solomon when judging cases. In one way or another the name can be expected to signify an event associated with the place. It is possible but not clearly established that the actual meaning of the name of *al-Silsilah* (the Chain) refers to eschatological activities at the Rock as believed by Muslims and this requires research in itself.

An early historical manuscript by 'Abd al-Malik Ibn Habīb (238 AH/ 852 AD) has been discovered recently that clearly states that it was 'Abd al-Malik who built *Qubbet al-Silsilah* [Rosen-Ayalon, 1989, p27].

The edifice is very interesting in its form and its spatial definition. It is an open stone structure with two concentric colonnades (see Fig. 7.3, 7.4, 7.5). The inner colonnade

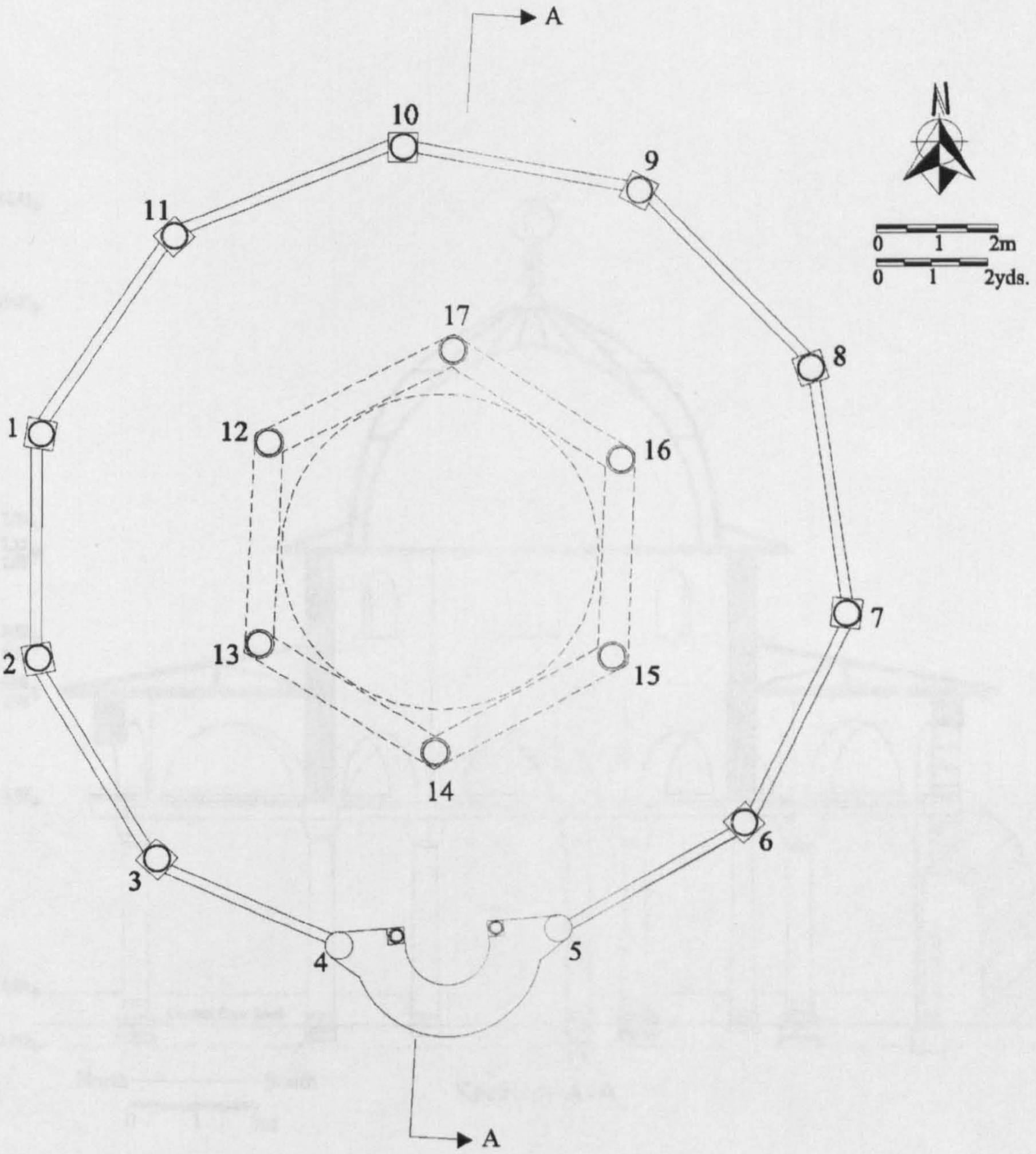
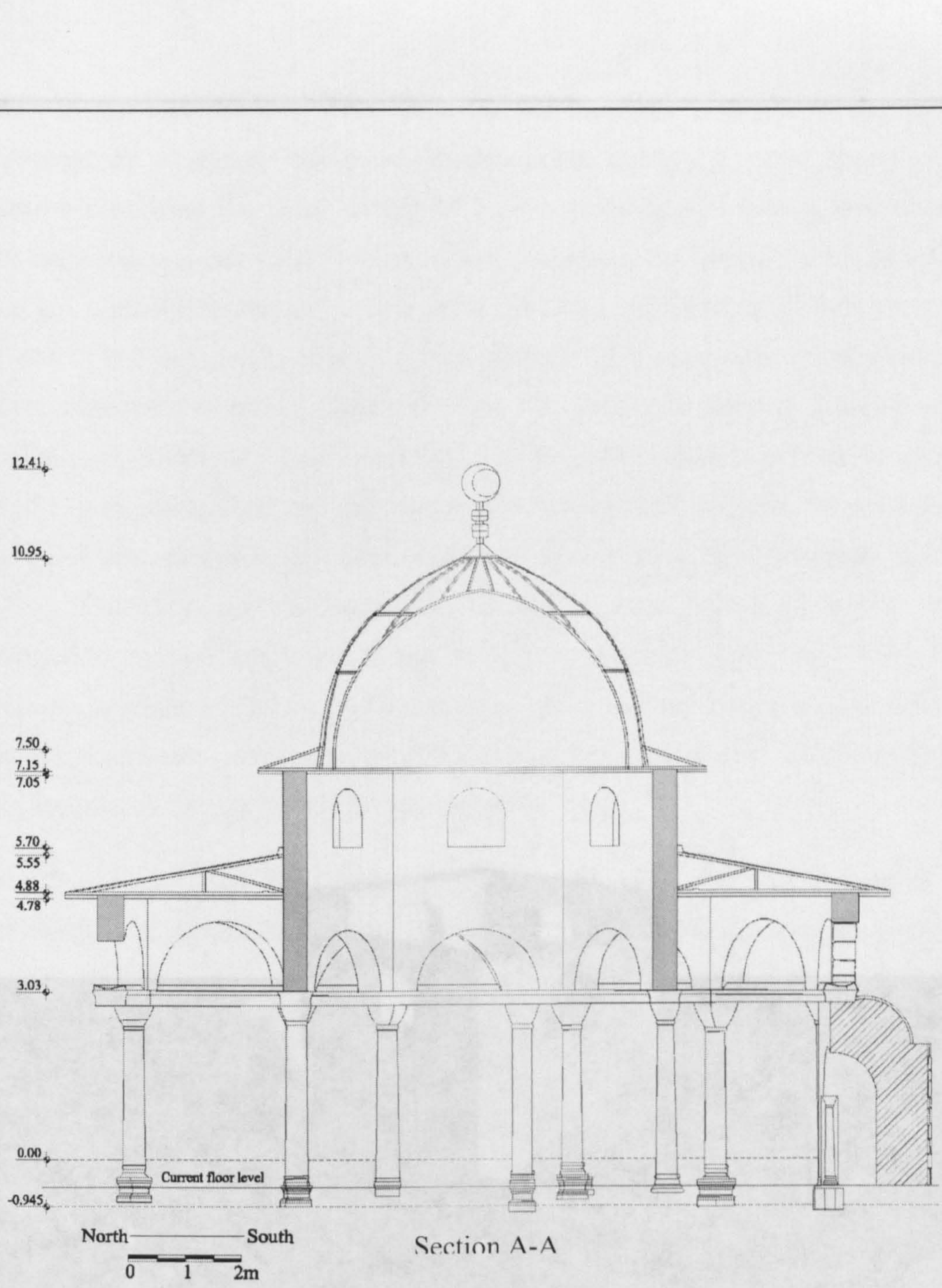


Fig. 7. 3 **Al-Aqsa Mosque: Plan of *Qubbet al-Silsilah* (The Dome of the Chain) as it looks today.**

Source: The researcher.



Section A-A

Fig. 7. 4 **Al-Aqsa Mosque: Cross section of *Qubbet al-Silsilah* (The Dome of the Chain) as it looks today.**

Source: The researcher.

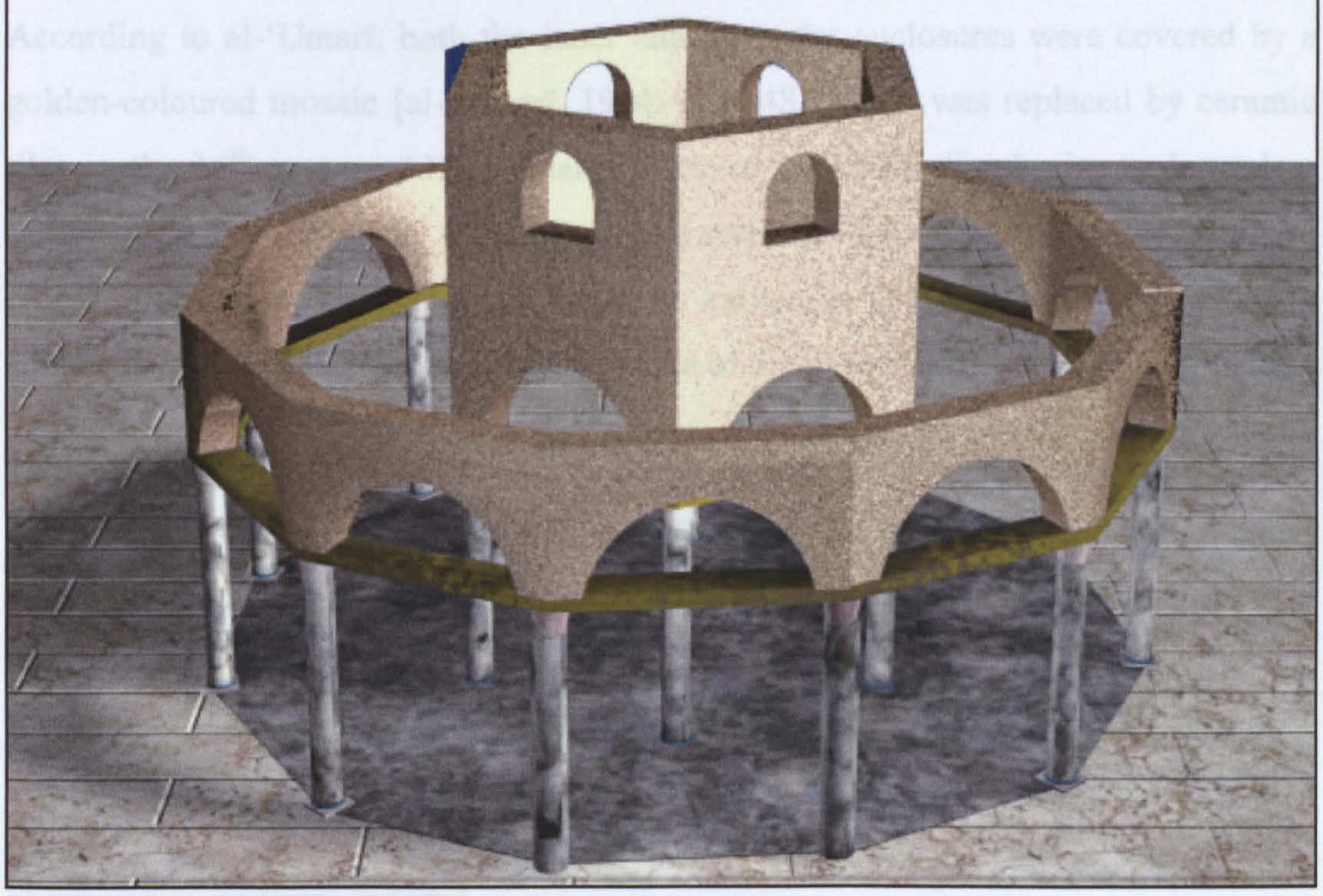


Fig. 7. 5 **Al-Aqsa Mosque: A three-dimensional computer model of *Qubbet al-Silsilah* (The Dome of the Chain) shows the two concentric enclosures of the building.**

Source: The researcher.

has six marble columns with round-headed arches carrying a hexagonal drum which is covered by a slightly elongated wooden dome covered by lead sheets. Six windows penetrated the drum, supported by the round-headed arches; they could have been designed not mainly for aesthetical appearance but basically for functional reasons, i.e. stimulating air circulation inside the dome and allowing the light to enter the drum. The hexagon is encircled by a polygon of eleven columns, supporting almost semi-circular arches (see Fig. 7.6, 7.7, 7.8), and carrying a monopitch wooden roof, covered by lead sheets (see Fig. 7.9). The columns in both the inner and the outer enclosures are tied by wooden tie-beams directly on the columns' capitals. These decorated tie–beams not only give a pleasing appearance to the building but they are also employed for a structural reason, following the construction method employed in the enclave at that time (see Fig. 7.10). All seventeen columns of *Qubbet al-Silsilah* can be seen at once from any point. These columns, their bases and capitals are different in styles; they have, in fact, been taken from abandoned ancient Roman and Byzantine buildings[2].

According to al-'Umarī, both the inner and the outer enclosures were covered by a golden-coloured mosaic [al-'Umarī, 1924, 1: p148] which was replaced by ceramic tiles in the 16th century AD, and later removed by *al-Waqf* authority in Jerusalem during their restoration in al-Aqsa enclave over the last decade. On the south of *Qubbet al-Silsilah*, there is a prayer-recess known as al-Khadr in 290AH/ 903AD [Ibn al-Faqīh, 1996, p151]. It blocks one side of the monument.

Qubbet al-Silsilah is 1/3 of the height, 1/14 of the surface area and nearly 1/27 of the cubic contents of *Qubbet al-Sakhrah* (The Dome of the Rock). The following values represent important measurements of the plan and elevation of this edifice (Table 7.2 and 7.3).

---

[2] The Persian invasion of Jerusalem in 614 AD brought with it severe destruction of many Christian churches in the city. Many columns, bases and capitals of these buildings became, among other sources, building materials for Muslim buildings of the enclave. The ruins of the New Church of Mary, constructed in Jerusalem by the order of Byzantine Emperor Justinian in the 5th century AD, exemplifies these building material sources [Ben-Dov, 1985, p241].

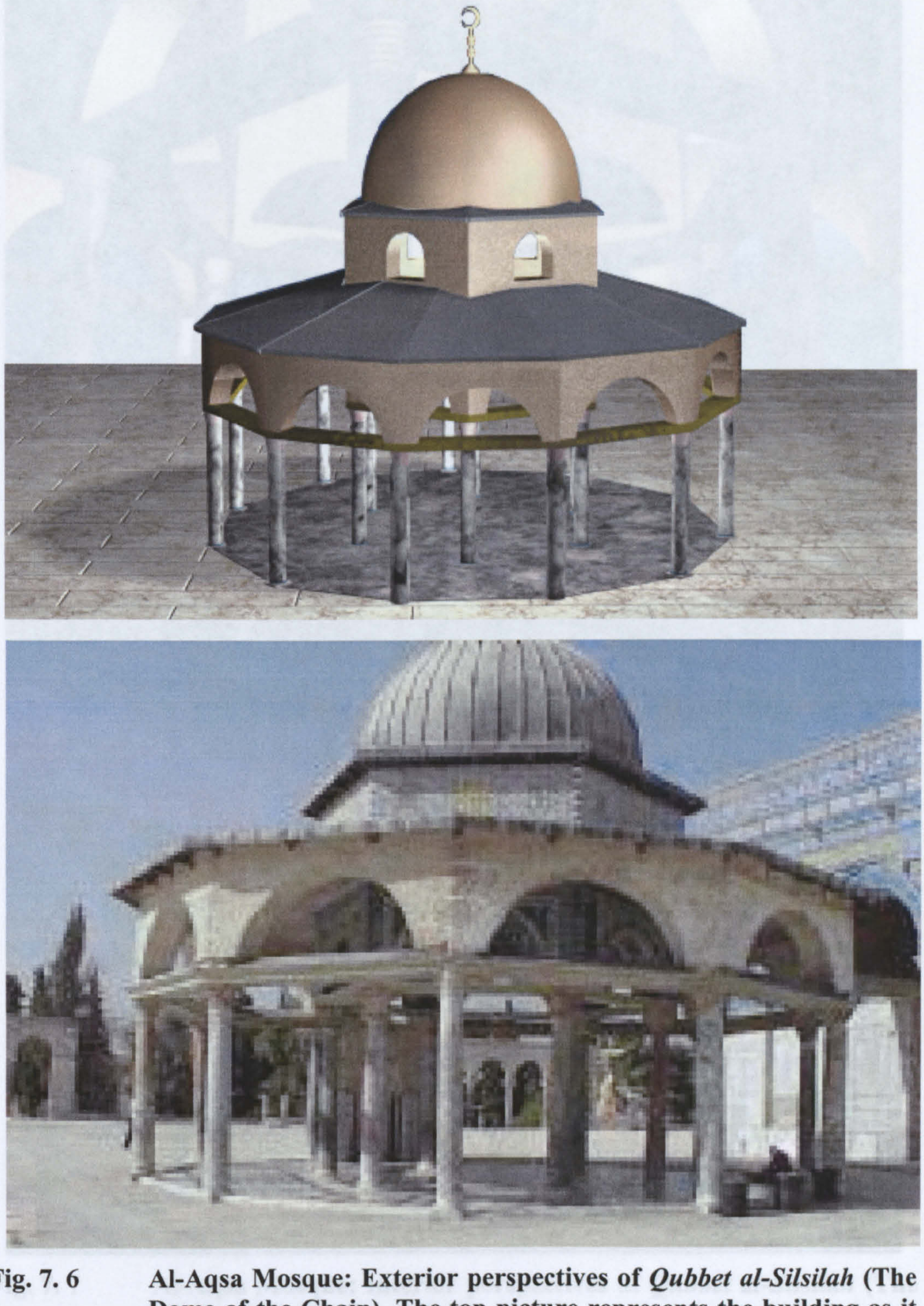


Fig. 7. 6 **Al-Aqsa Mosque: Exterior perspectives of *Qubbet al-Silsilah* (The Dome of the Chain). The top picture represents the building as it may well have looked in the early Islamic period looking towards the north and the bottom one shows the building as it is today looking towards the south-west.**

Source: The researcher.



Fig. 7. 7 **Al-Aqsa Mosque: Interior perspectives of *Qubbet al-Silsilah* (The Dome of the Chain). The top picture represents the building as it may well have looked in the early Islamic period looking towards the north while the bottom one shows the building as it is today looking towards the north-west.**

Source: The researcher.

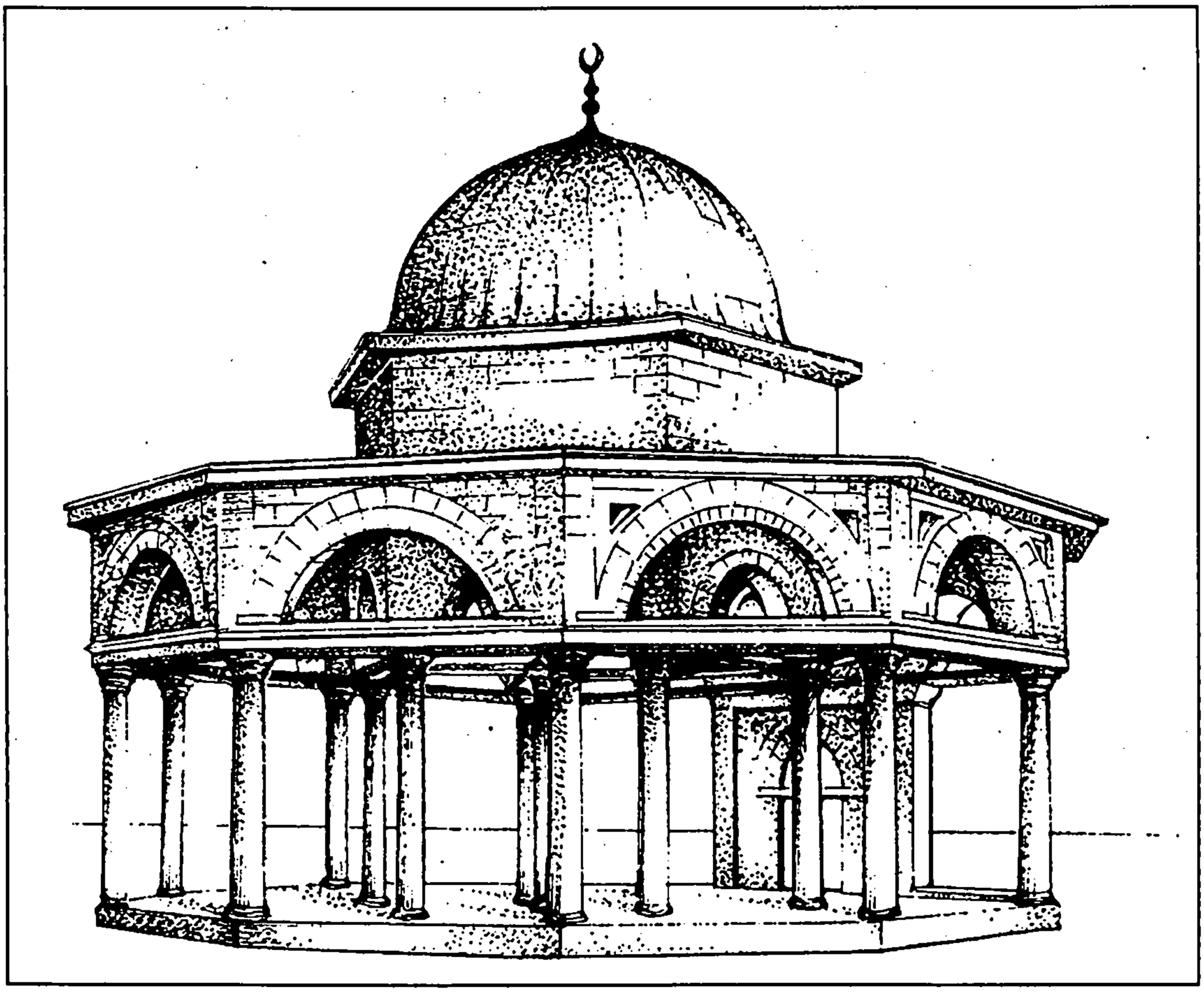


Fig. 7. 8 **Al-Aqsa Mosque: Perspective of *Qubbet al-Silsilah* (The Dome of the Chain) as illustrated by Croyanker in 1993 AD before the restoration of the building in 2000 AD.**

Source: Croyanker (in Hebrew), 1993, p445.

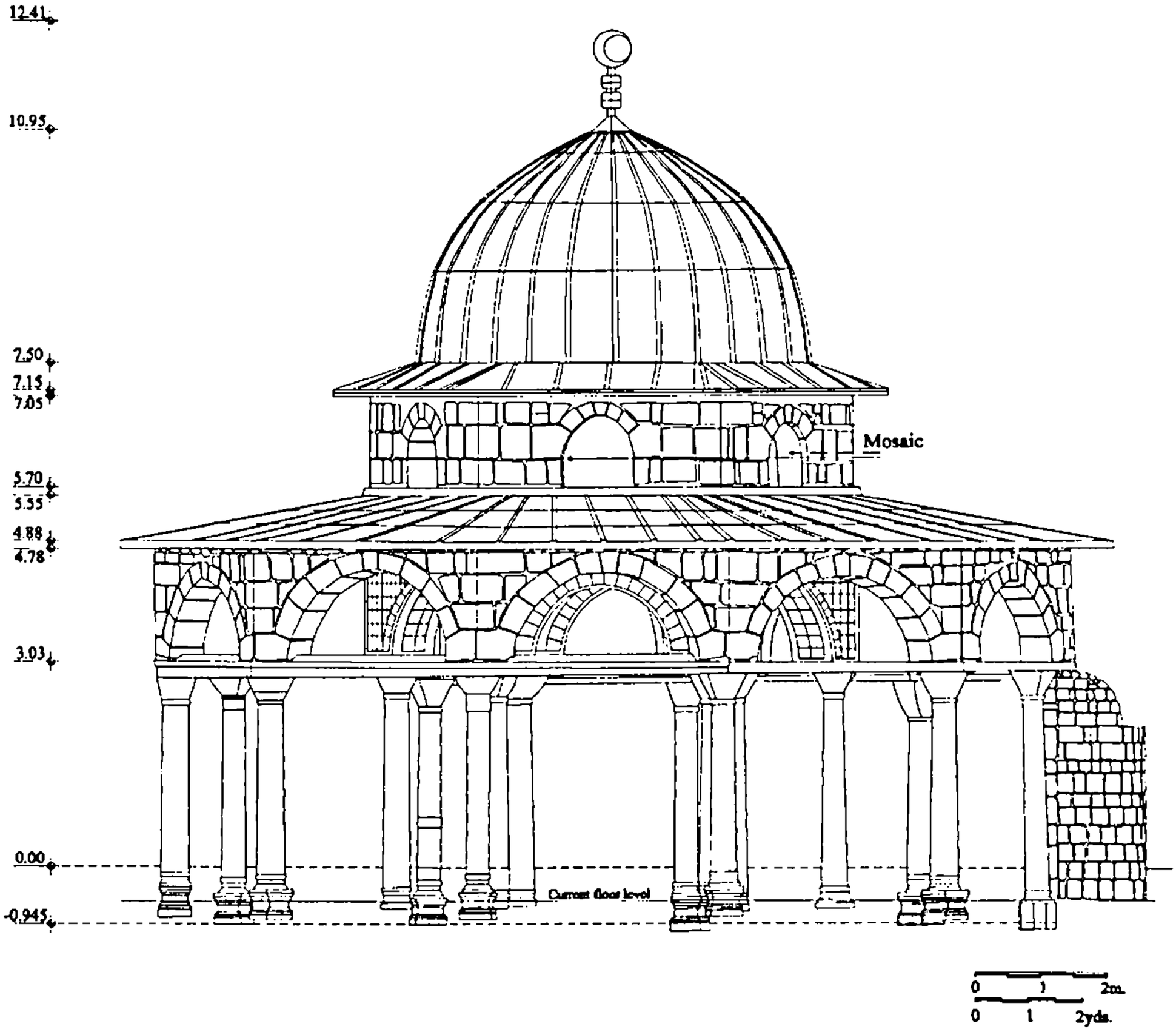


Fig. 7. 9 **Al-Aqsa Mosque: West elevation of *Qubbet al-Silsilah* (The Dome of the Chain) after restoration.**

Source: The researcher.

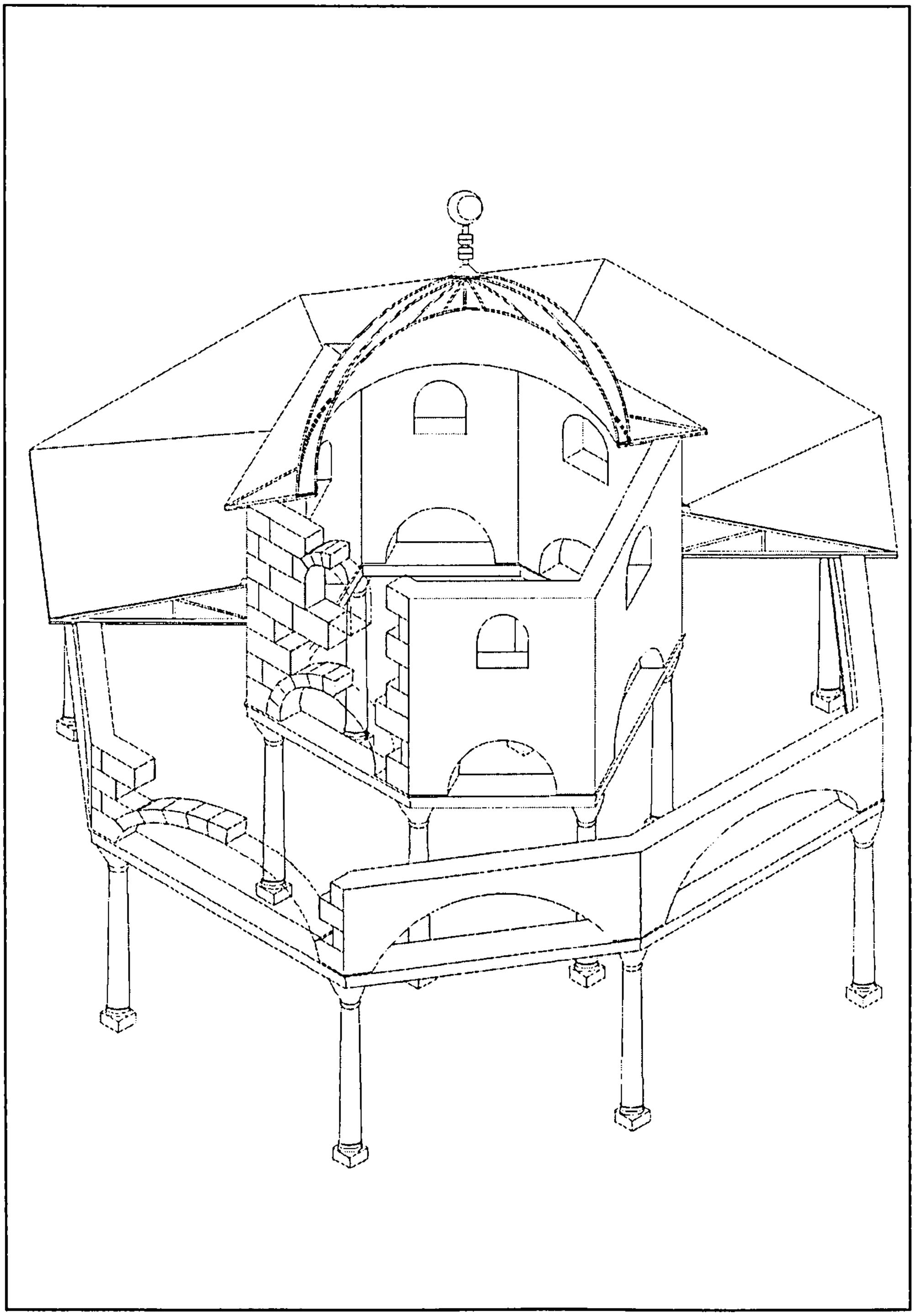


Fig. 7. 10 **Al-Aqsa Mosque: *Qubbet al-Silsilah* (The Dome of the Chain) as it may well have looked in the early Islamic period. The drawing shows the architectural arrangement and construction method employed in the building.**

Source: The researcher.

Table 7.2 Measurements in the plan of the present *Qubbet al-Silsilah*

Description		
No.	**Description**	**Dimension in metres**
1-	Average length of the side of the external polygon	4.00
2-	Radius of the circle inscribed the external polygon.	7.1
3-	Perimeter of the outer polygon	43.51
4-	Average length of the side of the inner hexagon	3.6
5-	Radius of the circle inscribed the hexagonal enclosure.	3.6
6-	Perimeter of the inner hexagon	21.71
		Area in square metres
1-	Superficial area of the edifice	146
2-	Area of the inner hexagonal enclosure	34

Table 7.3 Measurements of the elevation of the present *Qubbet al-Silsilah*

Description		
No.	**Description**	**Height in metres**
1-	Datum point (top of the threshold of the main door of the adjacent Dome of the Rock)	0.00
1-	Original floor level (datum point)	---
2-	Current floor level	-0.64
2-	Average level of the bottom of base	-0.945
3-	Top of the tie-beam	3.965
4-	Lower edge of the sloping flat roof.	5.725
5-	Upper edge of the sloping flat roof.	5.825
6-	Meeting-point of the sloping flat roof with the drum.	6.495
7-	Bottom of the drum window.	6.645
8-	Top of the Masonry of the drum	--
9-	Lower edge of the wall-plate	7.995
10-	Upper edge of the wall-plate	8.095
11-	Meeting-point of the Dome and wall plate covering.	8.445
12-	Top height of the apex of the dome excluding the abutment ring.	11.895
13-	Top of the Final	13.355

From an architectural point of view, the monument is quite surprising because of the unexpected geometrical form of an eleven-sided polygonal enclosure, something rarely if ever to be found in architecture. Such an odd-sided form would be hard to construct, it would be difficult to determine its sides by using a simple method of planning, in comparison to regular even-sided forms. Moreover, forms such as hexagons and eleven-sided polygonals are very rarely found together in one and the same building. It would be impossible to find any analogous plans in Greek, Roman, Byzantine and even in early Muslim monuments. Therefore, such a plan is rare, if not unique, and suggests the archaeological possibility of having more than one phase of construction. In other words, these two enclosures could be attributed to two different periods.

Clearly, the historical manuscript of 'Abd al-Malik ibn Habīb mentioned before –a source relatively close to the Umayyad period– affirms the Umayyad origin of *Qubbet al-Silsilah* (the Dome of the Chain). Nevertheless, it does not mention the real shape of *Qubbet al-Silsilah* which existed in the early Islamic period. Consequently, it does not eliminate the possibility of any later alteration. So the question arises: -

- Does the present *Qubbet al-Silsilah* still conserve its original early Muslim form?

The vast majority of scholars conventionally deal with the present *Qubbet al-Silsilah* as being one single period, among them Rosen-Ayalon who argues that the present building and its shape must be dated to the Umayyad period. Nevertheless, Rosen-Ayalon probably did not take into consideration the possibility that one of the enclosures may have been **rebuilt and changed** when she based her conclusion on the following archaeological observations: -

1) The bases of the columns are similar to those in other early Islamic buildings (e.g. Fustāt and Cordova), and are of a single period.

2) The original floor is at the same level as the floor of *Qubbet al-Sakhrah* (the Dome of the Rock).

3) There have never been any walls enclosing the structure.

4) In the upper part, the drum shows a series of openings corresponding in their shape and arrangement to the adjacent *Qubbet al-Sakhrah* (the Dome of the Rock).

Although historical descriptions of *Qubbet al-Silsilah* do not disagree with Rosen-Ayalon's archaeological observation, they contradict her conclusion. An early historical description of Ibn al-Faqīh 290H/ 902AD mentions that *Qubbet al-Silsilah* "was constructed over twenty marble columns" including those of the prayer-recess [Ibn al-Faqīh, 1996, p151]. This description is followed by that of al-Maqdsī 375AH/ 985AD who confirms that *Qubbet al-Silsilah* has no enclosed walls. Such descriptions also correspond with Khusrū's mention in 438AH/ 1047AD from which it can be understood that *Qubbet al-Silsilah* has an **even number of sides** [Khusrū, 1983, p67]. In 748AD/ 1347AH al-'Umarī gives a technical description for *Qubbet al-Silsilah*, in which he clearly confirms that it was constructed over twelve green marble columns and that the inner dome was constructed over six columns [Al-'Umarī, 1924, 1: p147]. Al-'Ulaimī (al-Hanbalī) 901 AH/ 1496AD mentions that *Qubbet al-Silsilah* has seventeen marble columns in addition to two small marble columns for the prayer-recess [Al-'Ulaimī, 1995, 2: p18]. Accordingly, the total number of columns in this monument were nineteen. At present, the number of columns that exist in *Qubbet al-Silsilah* equals six in the inner enclosure and eleven in the outer enclosure. So the columns will count as a total of seventeen, and if we add the two small columns of the prayer-recess to the total, there will be nineteen columns. However, this total number does not fit the early historical description in the literature, specifically, al-'Umarī's description that the inner enclosure had 6 columns while the outer one had 12 columns, not eleven. This would mean that in 748AD/ 1347AH the inner enclosure of *Qubbet al-Silsilah* (the Dome of the Chain) had 6 sides while the outer one had 12 sides.

Comparing descriptions in the literature with the form of the edifice as seen today, it can be assumed that the inner enclosure still preserves its original delineation while the outer one must have been somewhat changed. According to Le Strange, the disagreement in the number of the columns of *Qubbet al-Silsilah* as described in the literature with the number of columns that exist today might have resulted from several earthquakes that hit Jerusalem over the centuries. This would have

necessitated some restoration or rebuilding of the monument [Le Strange, 1970, p149]. Such rebuilding of the outer enclosure could, therefore, have taken place during one of these restoration works. This assumption is also based on the following archaeological evidence: -

1) Traces of the mosaic coating have been discerned in the inner enclosure especially at the internal faces of the opening in the drum, illustrating the Muslims' habits in using mosaic in decorating their monuments. However, in the outer enclosure no such traces have been discovered.

2) The arches in the inner enclosure are half-circles, corresponding to arches in other early Muslim buildings such as *Qubbet al-Sakhrah* (the Dome of the Rock).

3) In comparison to those in the inner enclosure, the height of the arches in the outer enclosure of *Qubbet al-Silsilah* is not equal to their radius, but smaller. So they are not a full half-circle. This could result from the change of the enclosure from a twelve to an eleven-sided enclosure that necessitated a small increase in the length of each side unless the surrounded area decreased. If so, this would require a slight elongation in the outer arches to fit the new enclosure.

Geometrically, a twelve-sided enclosure of *Qubbet al-Silsilah* makes more sense in terms of geometrical relation with the plan of the inner structure. For example, the twelve-sided polygon can be easily delineated with the help of a hexagon.

The question of who might have carried out this alteration, and why and when it happened, needs to be answered. As stated before, al-'Umarī's description in 748AH/ 1347AD shows that the *Qubbet al-Silsilah* still preserved its outer 12 columns and mosaic coating. In 872AH/ 1467AD al-'Ulaimī gives a different description. He stated that *Qubbet al-Silsilah* has seventeen columns in addition to those two small marble columns of the prayer-recess; this is, in fact, identical to the number of the columns of *Qubbet al-Silsilah* today. Therefore, this alteration must have taken place in the period between the description of al-'Umarī's and al-'Ulaimī. This is the period of Mamlūk rule over Jerusalem, 659 AH/ 1260 AD – 923 AH/ 1517 AD. In his study of Mamlūk Jerusalem (1987), Burgoyne does not mention anything

regarding works at this building. According to Creswell who drew on a later historical source of al-'Ulaimī, the present form of *Qubbet al-Silsilah* is due to Baybars I [al-'Ulaimī, 1995, 2: p88; Creswell, 1969, 1: p202]. Indeed, in the absence of contemporary historical or clear archaeological evidence, it is hard to give an exact date for such work. So it is better to leave it open for further research and simply conclude that such a change in the outer enclosure of *Qubbet al-Silsilah* took place during the Mamlūk period.

Yet, there is the elusive question why the restorer of *Qubbet al-Silsilah* did not preserve the outer enclosure's delineation. Why impose a new outline for this Monument? In this case, a symbolic interpretation could not be the reason. No historical answer can be readily found for this question. It can be noticed from the plan of *Qubbet al-Silsilah* as it exists today that there would have been an attempt to merge the prayer-recess with the outer enclosure, in other words, to make the recess one of its sides. The length and the setting of the prayer-recess could be the reason for such change in the enclosure. This prayer-recess is quite significant; according to Ibn al-Faqīh, it is located in the centre of the al-Aqsa enclave [Ibn al-Faqīh, 1996, p151].

To develop a better understanding of the question regarding *Qubbet al-Silsilah* it is important to investigate the overall siting of the building in al-Aqsa enclave. On examining the layout of al-Aqsa enclave (see Fig. 7.11), it emerges that the prayer-recess, located in front of *Qubbet al-Silsilah*, is in the **very centre** of al-Aqsa enclave (see Fig. 7.11: A) and is exactly as described by Ibn al-Faqīh. The siting of *Qubbet al-Silsilah* shows that this monument is located on the north-south axis (see Fig. 7.11: F-G) of the enclave that penetrates the very centre of the *Qiblah* wall of al-Aqsa enclave. At the same time, *Qubbet al-Silsilah* is located on the east-west axis that is parallel to the *Qiblah* wall of the enclave and forms the centre of *Qubbet al-Sakhrah* (the Dome of the Rock) (see Fig. 7.11: C-D). Therefore, it is evident that *Qubbet al-Silsilah* is not located at the very centre of the enclave, in order not to undermine the centre of *Qubbet al-Sakhrah* or its axis that links the two domes, at the same time respecting the centre of the *Qiblah* wall of the enclave.

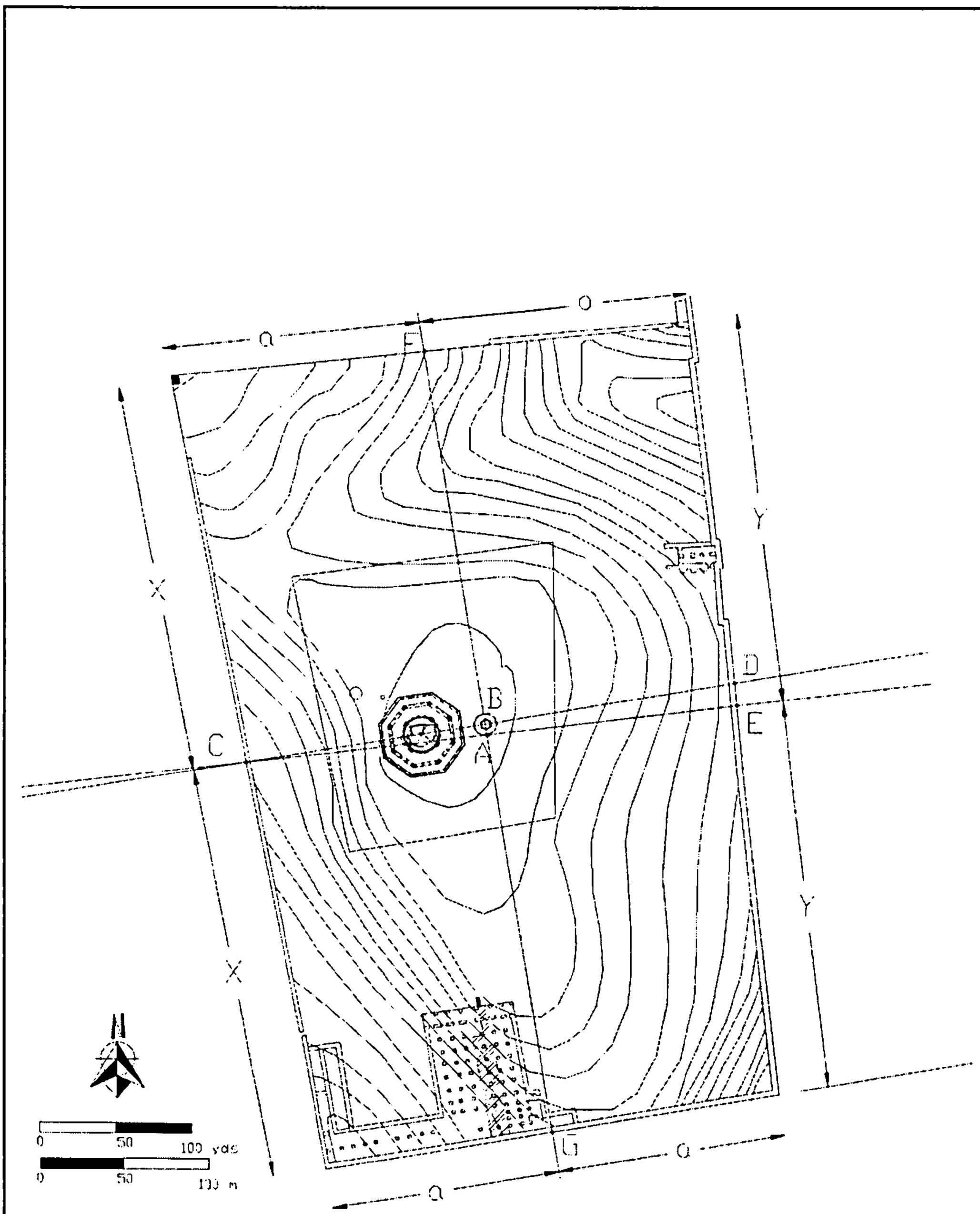


Fig. 7. 11 **Al-Aqsa Mosque: The relation between the layout of al-Aqsa enclave and *Qubbet al-Silsilah*. The axis CD is parallel to the *Qiblah* wall and the axis CE penetrates the midpoint of the east and the west wall of the enclave. (A= centre that is generated by linking the midpoints of each opposite side (C-E and F-G)).**

Source: The researcher.

The reason for this is that the existing position of this edifice is the ideal location to establish a visual relation in the general layout plan of al-Aqsa enclave between the centre of *Qubbet al-Sakhrah* and the north-south axis of the *Qiblah* wall of al-Aqsa Mosque. At the same time, *Qubbet al-Silsilah* is located on the central axes of *Qubbet al-Sakhrah* and the *Qiblah* wall (see Fig. 7.11: B), and its prayer recess is in the very centre of the enclave (see Fig. 7.11: A). This evidence encourages one to reject the claim of the Israeli scholars Rosen-Ayalon and Jacobson, who are probably influenced by the biblical tradition, that *Qubbet al-Silsilah* is the very centre of al-Aqsa enclave or –as Jacobson claims- indicates the centre of the Herodian Temple [Jacobson,1980, p36; Rosen-Ayalon, 1989, p27].

Another crucial question regarding *Qubbet al-Silsilah* is its function. Historical literature has been varied in its explanations. Ibn 'Abd Rabih (300 AH/ 913 AD) [Ibn 'Abd Rabih, 1953, 7: p256], Khusrū (439 AH/ 1047 AD) [Khusrū, 1983, p67] refer to *Qubbet al-Silsilah* as *Mahkamat Dawūd* or "Court of David". Al-Idrīsī (549 AH/ 1154 AD) mentions *Qubbet al-Silsilah* giving its name as "Church of the Holy-of-Holies". This name was invented by the Crusaders during their rule over Jerusalem 493 AH/ 1099 AD- 583 AH/ 1187 AD. These writers are, however, drawing on the mythological interpretation derived from the Old Testament. Al-'Ulaimī (901 AH/ 1496 AD) presents another totally different interpretation, identifying *Qubbet al-Silsilah* as a *Bayt al-Māl* (treasury). In comparison to the first suggestion, this interpretation is not only late in its date but it is also difficult to accept such an open building as a treasury, by definition a closed structure. Moreover, according to Rosen-Ayalon the building is quite different from any known Umayyad treasuries, such as those in Damascus (see Fig. 7.12) and Hamāh, which are conventionally seen in their form as enclosed structure above columns and with a dome, while in the case of *Qubbet al-Silsilah* there are two concentric rows [Rosen-Ayalon, 1989, p26]. Al-Wāsitī in the eleventh century AD had listed several monuments in al-Aqsa enclave including *Qubbet al-Silsila* [al-Wāsitī, 1979, p74] as well as the model of *Qubbet al-Sakhrah* and the *Mayt al-Māl* [Al-Wasitī, 1979, p81], indicating clearly that these monuments are not one building.

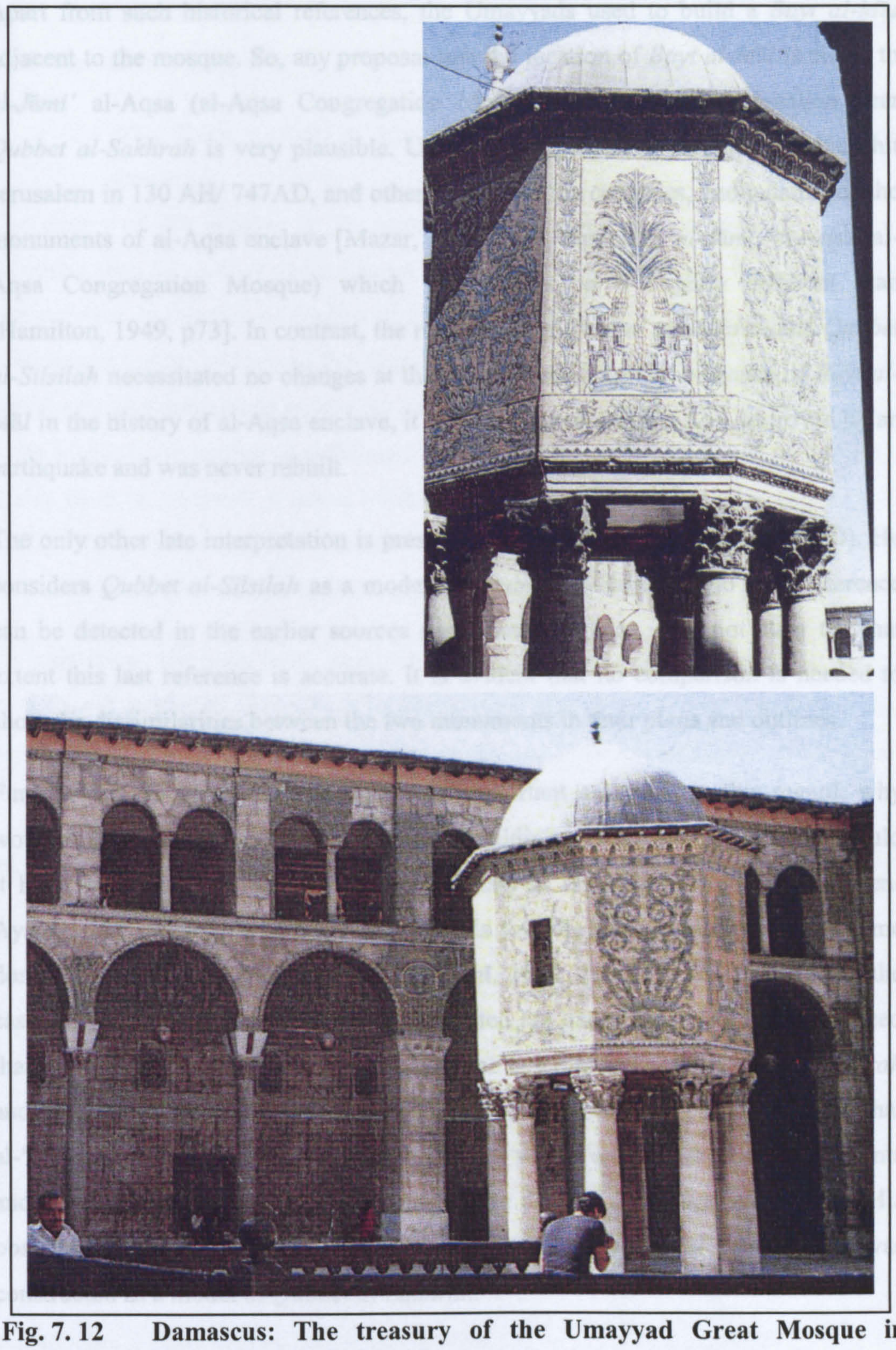


Fig. 7. 12 **Damascus: The treasury of the Umayyad Great Mosque in Damascus as it looks today.**

Source: The researcher.

Apart from such historical references, the Umayyads used to build a *Bayt al-Mãl* adjacent to the mosque. So, any proposal that the location of *Bayt al-Mãl* is closer to *al-Jãmi'* al-Aqsa (al-Aqsa Congregation Mosque) rather than the location near *Qubbet al-Sakhrah* is very plausible. Unfortunately, a strong earthquake which hit Jerusalem in 130 AH/ 747AD, and other cities over the centuries, badly damaged the monuments of al-Aqsa enclave [Mazar, 1969, p20], especially *al-Jãmi'* al-Aqsa (al-Aqsa Congregation Mosque) which was rebuilt on a slightly different plan [Hamilton, 1949, p73]. In contrast, the restoration of *Qubbet al-Sakhrah* and *Qubbet al-Silsilah* necessitated no changes at that time. Presuming the existence of *Bayt al-Mãl* in the history of al-Aqsa enclave, it can be suggested that it was destroyed by an earthquake and was never rebuilt.

The only other late interpretation is presented by al-'Ulaimī (901AH/ 1496 AD). He considers *Qubbet al-Silsilah* as a model for *Qubbet al-Sakhrah*. No such reference can be detected in the earlier sources supporting this idea. It is not clear to what extent this last reference is accurate. It is evident that no comparison is needed to show the dissimilarities between the two monuments in their plans and outlines.

Furthermore, Rosen-Ayalon has raised an important questions in this regard: why would a model be left intact after the actual building was completed, and why would it have been built so close to *Qubbet al-Sakhrah* and with eleven sides [Rosen-Ayalon, 1989, p26]? Even more confusing is that the same writer called the same dome *Bayt al-Mãl* or the treasury [al-'Ulaimī, 1995, 1: p272]. If this were not the case, why then would al-'Ulaimī have invented his interpretation. It can be noticed that at al-'Ulaimī's time, the upper half of the exterior walls of *Qubbet al-Sakhrah* and the faces of *Qubbet al-Silsilah* were covered by mosaics. It can be assumed that al-'Ulaimī noticed the exterior mosaic coating which covered the two monuments and seems to be identical. He also observed the distinct difference in their size. His observations might, therefore, have led him to claim that *Qubbet al-Silsilah* was constructed as a model of *Qubbet al-Sakhrah*.

One distinctive issue that could help interpret the function of *Qubbet al-Silsilah* would be its spatial definition. Unlike the al-Aqsa congregation Mosque and *Qubbet al-Sakhrah*, this monument is the only open structure that was constructed alongside

the Umayyad scheme of *Qubbet al-Sakhrah* and *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in al-Aqsa enclave. So the question arises: -

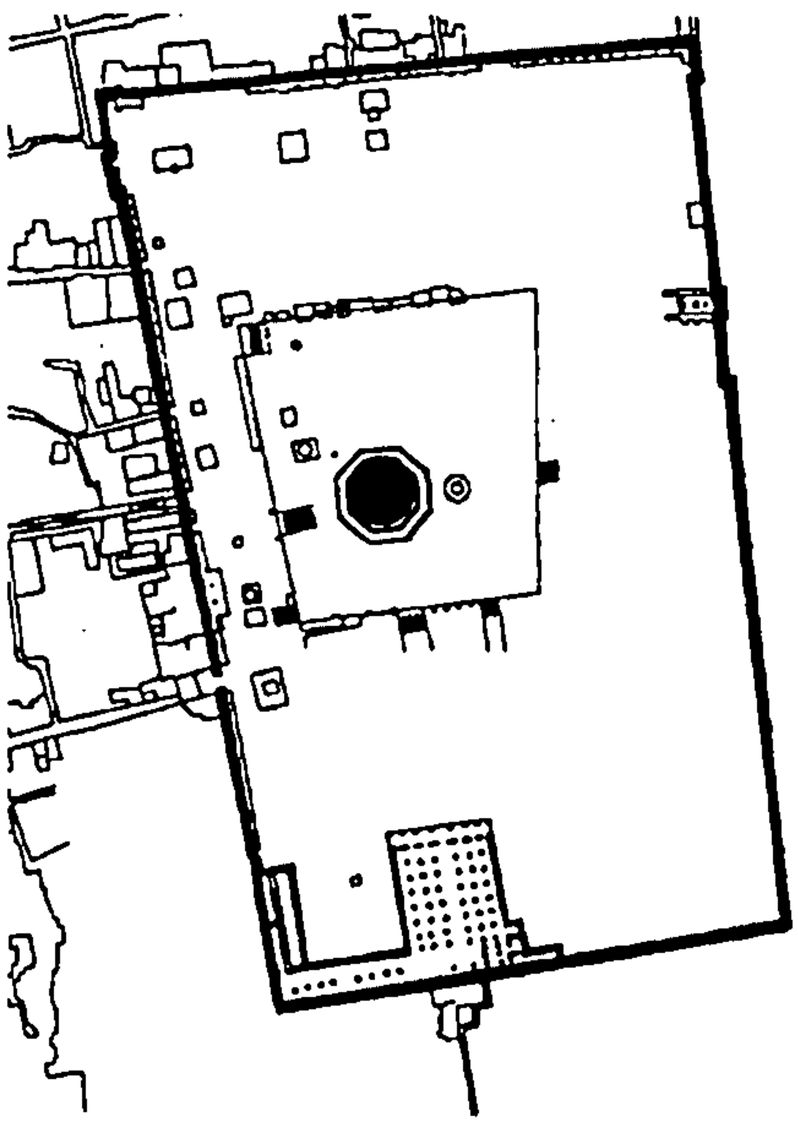
- Was there a need to construct such an open structure in al-Aqsa enclave?

The nature of the weather in Palestine frequently necessitates some architectural solutions such as porches and porticoes to create some kind of protection against the sun and rain. In the case of *Qubbet al-Silsilah*, it can be expected from its from, size (146 square metre) and layout that it was an ideal place to accommodate the Muslim caliph and his companions when they were sitting outside *Qubbet al-Sakhrah* and al-Aqsa Mosque. According to al-'Ulaimī, the Umayyad caliph "Sulaimān Ibn 'Abd al-Malik used to sit under a dome beside *Qubbet al-Sakhrah*" [al-'Ulaimī, 1995, 1: p280]. This must be *Qubbet al-Silsilah* because no other domes were constructed at that time near *Qubbet al-Sakhrah* except this Monument.

To summarise, the open form, size and layout of this monument, coated by mosaics in the same way as its companion *Qubbet al-Sakhrah*, would strongly suggest it was erected as an exterior private shelter (place) or porch for the Muslims' caliph in al-Aqsa enclave.

7.4 *QUBBET AL-SAKHRAH* (The Dome of the Rock)

Qubbet al-Sakhrah (The Dome of the Rock) is the most dazzling Muslim monument in al-Aqsa enclave (see Fig.7.13, 14). It is located a few metres to the north-west of the centre of al-Aqsa enclave. The early writer al-Maqdisī (375AH/ 985AD) mentions that he had neither seen nor heard of such a beautiful building elsewhere [al-Maqdisī, 1987 (985), p146]. A Cufic inscription which runs just beneath the ceiling around the outer face of the middle octagonal colonnade of the



monument gives the date of the erection as the year of 72AH/ 691AD. The date in this Arabic script confirms that it was the Umayyad caliph 'Abd al-Malik Ibn Marwān who built *Qubbet al-Sakhrah*.

In the 9th century AD, the name of the founder was removed and replaced by the name of the 'Abbāsid caliph al-Ma'mūn but without changing the date. The date, therefore, survives to indicate the true identity of the edifice.

The scientific study of the architecture of the building was only established in 1862 AD by the work of Melchior de Vogüé, Duthoit, Waddington and Sauvaire in al-Aqsa enclave. The result of this work was a book written in French, *Le Temple de Jérusalem* which includes several architectural drawings and details. Two years later Wilson began the Ordnance Survey of Jerusalem [Moscrop, 2000, p53], in which some significant photographs of *Qubbet al-Sakhrah* were included. In 1873 Clermount-Gannaeu had an opportunity to study *Qubbet al-Sakhrah* in great detail during some restoration works carried out in the building. Richmond and Creswell have also made an elaborate study of the building; they raise several questions concerning the history and the architecture of this building such as: Who built *Qubbet al-Sakhrah*? Why was it built? And why has it two concentric ambulatories? These studies on *Qubbet al-Sakhrah* were followed by other researches such as those of Van-Berchem: "The mosaic of the Dome of the Rock in Jerusalem and the Great Mosque in Damascus" (1969), Raby & Johns: *Bayt al-Maqdis* (1992) and al-Ratrout: *A New Theory to Explain the Architectural Design and Planning of the Dome of the Rock* (1998). Despite the large number of researches on *Qubbet al-Sakhrah*, several questions on the early Islamic era of the building still cause contention.

- Why did 'Abd al-Malik build *Qubbet al-Sakhrah*?
- What is the architecture of *Qubbet al-Sakhrah*? And what type of building is it?
- How was *Qubbet al-Sakhrah* delineated?
- What does *Qubbet al-Sakhrah* mean in the Islamic context?



Fig 7. 13 **Al-Aqsa Mosque: *Qubbet al-Sakhrah* in Jerusalem. The top picture was taken in 1859 AD, looking south-west, the bottom one is a recent picture looking north-west.**

Source: Top: William and Thomson, 1881, p495; bottom: Duncan, 1972, p15.

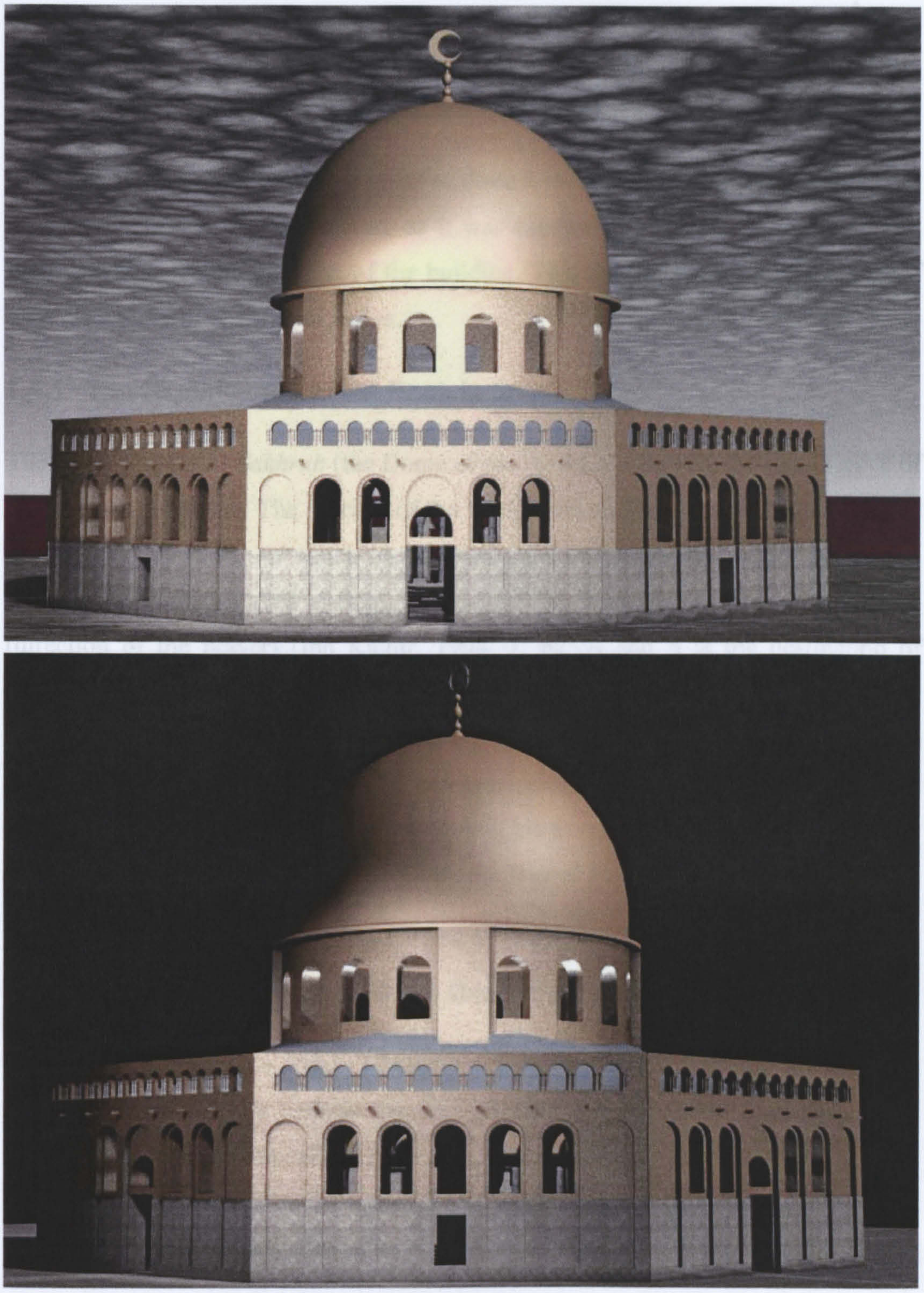


Fig 7. 14 **Al-Aqsa Mosque: Three-dimensional computer model of *Qubbet al-Sakhrah* in Jerusalem as it looked in the early Islamic period (the reconstruction is made according to al-'Umarī's description of the building [al-'Umarī, 1924, 1: p140]). Top picture looking north, the bottom one is picture looking north-west.**

Source: The researcher.

Although *Qubbet al-Sakhrah* has been restored several times over centuries[3], it is fortunate that the building still preserves its original appearance [Rosen-Ayalon, 1989, p14]. Examining the original features is, therefore, of the greatest importance.

In this section an attempt will be made to discuss the reason which stands behind the construction, examine the structure as it was established, analyze its function, and finally, search for the meaning of the building. This section does not concern itself with the history of restoration *per se*.

7.4.1 The Significance of the Rock in Islam

The name *Qubbet al-Sakhrah* (the Dome of the Rock) emphasises the significance of the place for Muslims. The sanctity of the Rock in Islam is derived from the fact that it was the very place on which al-Aqsa Mosque was established after the Sacred Mosque in Makkah ['Abd al-Baqī, 1994, 1:p.133]. It is the Muslims' first *Qiblah* (direction of the prayer) [Ibn Kathīr, 1994, 1: p259] and it is the destination of Muhammad's *Isrā'* (the translocation form Makkah to Jerusalem). Furthermore, the Qurān says: "And listen the Day when the Caller will call out from a place quite near" [Qurān, 50:41]. Some Muslim commentators such as Ibn Kathīr say that the nearby place, from which the Israfīl will blow his trumpet, is the Rock in Jerusalem. In this land the people will be gathered on the Day of Judgment [Ibn Kathīr, 1994, 4: p294; el-Awaisi, 1997, p20].

7.4.2 Why Did 'Abd al-Malik Build *Qubbet al-Sakhrah*?

The reason which made 'Abd al-Malik build *Qubbet al-Sakhrah* has always been debated among scholars such as Creswell, Grabar, Rosen-Ayalon, Elad and others. Their arguments are basically led by two Arabic accounts each of which gives a different reason for the construction. These debates and interpretations do not yet seem to have reached any satisfactory conclusion. Thus, it is of great significance to

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[3] In 413AH/1022AD the wooden dome of *Qubbet al-Sakhrah* was restored [Ibn al-Faqīh, 1996 (903), p151; Richmond, 1924, p13]. The dome's inner decoration was restored in several periods: 585AH/ 1189AD, 718AH/ 1318AD, 1233AH/ 1817AD and 1384AH/ 1964AD [Creswell, 1969, 1: p67]. At the beginning of the 16th century AD the exterior mosaic was replaced by ceramic tiles [Richmond, 1924, p37].

examine the historical texts to discover the extent of architectural and artistic commentary.

The first account is that introduced by al-Ya'qūbī in his manuscript *The History of al-Ya'qūbī* [al-Ya'qūbī, 1999, 2: p182]. He mentions that 'Abd al-Malik sought to divert the *hajj* (pilgrimage) from Makkah to Jerusalem during his struggle with 'Abdullah Ibn al-Zubair. His action, as al-Ya'qūbī claims, was aimed at beating his rival, who called himself the Muslims' caliph in Makkah, by preventing him from obtaining the Muslims' allegiance during their pilgrimage. The other account is given by al-Maqdisī who mentions that "when 'Abd al-Malik saw the splendid Christian architecture in historical Syria and Jerusalem[4], he feared that this would dazzle the minds of the Muslims, hence he erected the Dome above the Rock which can now be seen there." [al-Maqdisī, 1987, p139].

It is not clear to what degree these accounts are accurate. According to the first hypothesis of al-Ya'qūbī, 'Abd al-Malik would have contended one of the main theological principles of Islam and this, according to Creswell, would, therefore, have been a crime against Islam because it would have prevented the pilgrimage [Creswell, 1969, 1: p66]. Indeed, the Arabic script inside the building confirms that *Qubbet al-Sakhrah* was not completed before 72AH/ 691AD. Hence, it is unreasonable to believe in the first theory, because how could 'Abd al-Malik think that the construction of *Qubbet al-Sakhrah*, which **would take many years to be finished**, would enable him to prevent Ibn al-Zubīr taking the Muslims' allegiance? Furthermore, would Muslim pilgrims wait until the end of the construction of *Qubbet al-Sakhrah*, and not make their pilgrimage to Makkah for many years?

Assuming the first theory to be true, that is that 'Abd al-Malik seriously intended to replace the Ka'bah and then the architecture of *Qubbet al-Sakhrah* would have to correlate with that of the Ka'bah in Makkah. However, the octagonal form of the building, as it will be discussed next, cannot represent a Ka'bah. If *Qubbet al-Sakhrah* was supposed to replace the Ka'bah, why would it be composed as an

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[4] See chapter 8 regarding the wider architectural cultural context in Palestine and Jerusalem.

octagonal shape? Why would 'Abd al-Malik have thought that this form would be reasonable to replace the Ka'bah rather than a cubic form which befits the Qurānic description of it? Why would his architect not employ a circular plan for the building which must be easier to accommodate *Tawāf* (a circular function) during Muslim pilgrimages? These questions lead to more queries regarding the expected size of a building that would be appropriate for the large numbers of Muslim pilgrims who make *Tawāf* **at the same time**. It is evident that the existing area of 2225 square metres of *Qubbet al-Sakhrah* is unsuitable to accommodate all the Muslim pilgrims of historical Syria. These questions suggest that al-Ya'qūbī, as a Muslim *shi'ī* and an 'Abbāsid loyalist, must have invented his story.

It is not much clearer to what extent the second theory of al-Maqdisī is plausible. It seems that the interpretation of al-Maqdisī caused Mauss to compare *Qubbet al-Sakhrah* (or the Dome of the Rock) with the Church of the Holy Sepulchre. He noticed that the diameter of the dome in *Qubbet al-Sakhrah* is quite similar to that of the Church of the Holy Sepulchre. This led him to claim hastily that *Qubbet al-Sakhrah* had been copied from the Church of the Holy Sepulchre [Mauss, 1888, p14]. It can be seen that this dimension, (the radius measures 20.44 metres), was not only found in *Qubbet al-Sakhrah* but also in other Umayyad monuments such as in the width of *Bāb al-Rahmah* (the Golden Gate) in al-Aqsa enclave, which is contemporary with *Qubbet al-Sakhrah*. No comparison needs to be made to show the dissimilarities between the two monuments. Furthermore, neither in the early Islamic times nor before was the form of the Church of the Holy Sepulchre octagonal [Warren, 1970, p13]. Of some importance in this discussion, and weakening Mauss' hypothesis, is a study made by al-Ratrout who examined the planning of *Qubbet al-Sakhrah*. This argument suggests that the diameter of the circular enclosure which surrounds the rock would be the smallest one to accommodate the setting of the irregular protrusive rock from the rocky hill of al-Aqsa enclave [al-Ratrout, 2002, p43] (see Fig. 7.15). This means that the dimensions of the protrusive rock determined the radius of the dome and not the church.

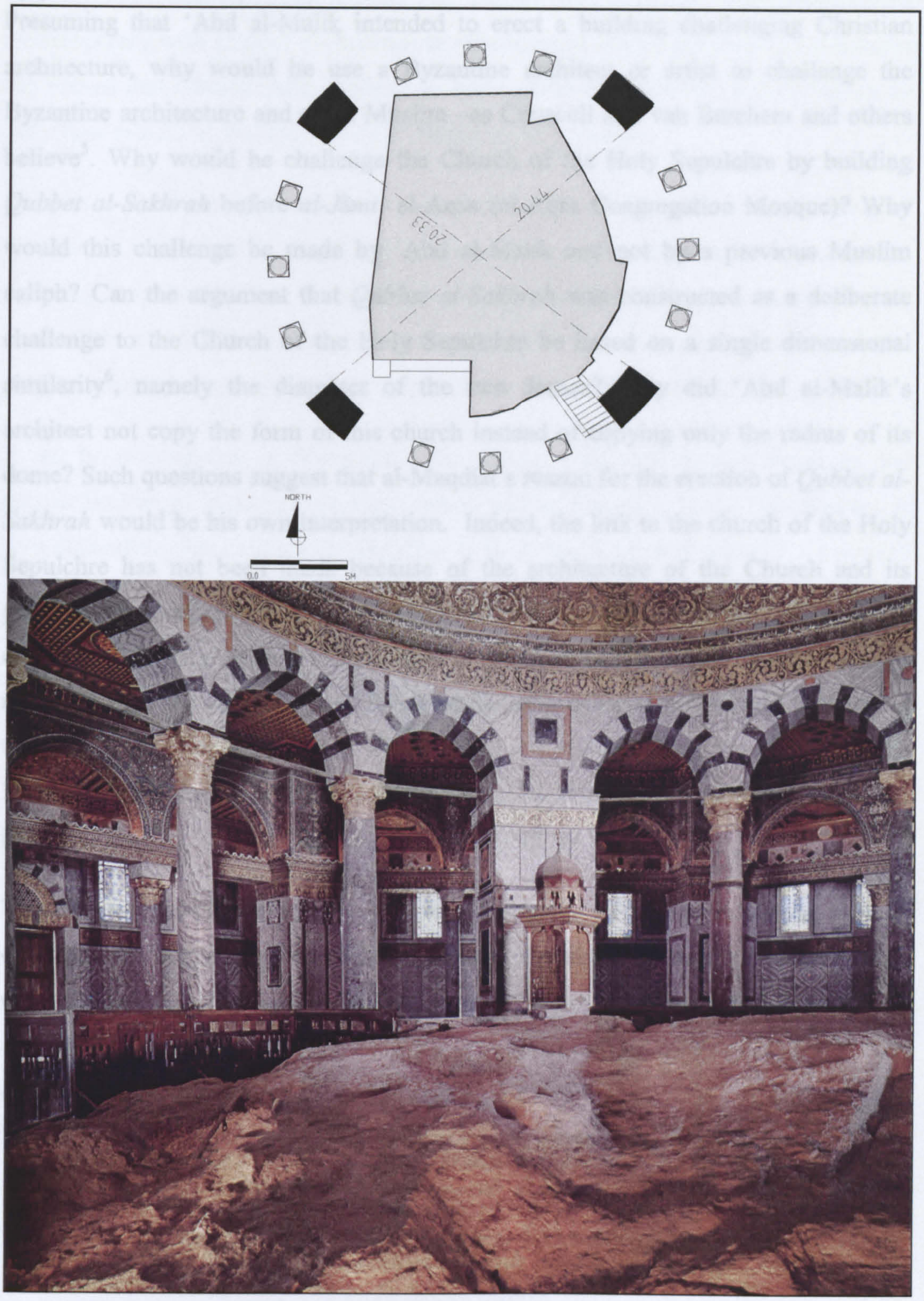


Fig 7. 15 **Al-Aqsa Mosque: Top: plan of the circular enclosure surrounding the Rock of *Qubbet al-Sakhrah* in Jerusalem. Bottom: Interior perspective of the Rock as it looks today**

Source: Top: After al-Ratrout, 1998, p286. Bottom: Duncan, 1972, p57.

Presuming that 'Abd al-Malik intended to erect a building challenging Christian architecture, why would he use a Byzantine architect or artist to challenge the Byzantine architecture and not a Muslim –as Creswell and van Berchem and others believe[5]. Why would he challenge the Church of the Holy Sepulchre by building *Qubbet al-Sakhrah* before *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque)? Why would this challenge be made by 'Abd al-Malik and not by a previous Muslim caliph? Can the argument that *Qubbet al-Sakhrah* was constructed as a deliberate challenge to the Church of the Holy Sepulchre be based on a single dimensional similarity[6], namely the diameter of the two domes? Why did 'Abd al-Malik's architect not copy the form of this church instead of copying only the radius of its dome? Such questions suggest that al-Maqdisī's reason for the erection of *Qubbet al-Sakhrah* would be his own interpretation. Indeed, the link to the church of the Holy Sepulchre has not been made because of the architecture of the Church and its possible relationship with *Qubbet al-Sakhrah*, but lies in the historical and political environment which existed in Jerusalem at the time of al-Maqdisī. Furthermore, it resonates well in examining the relation between the Muslim caliph and Christians at this very time. Tensions existed which led to the destruction of the Church of the Holy Sepulchre by the Fātimid caliph al-Hākin Bi-'Amr Alah in 400 AH/ 1009 AD [Khusrū, 1983, p. 75; Marmarjī al-Dumanikī, 1987, pp.289-295].

The architectural charm and the decorative richness of *Qubbet al-Sakhrah* made early Muslim writers such as al-Ya'qūbī and al-Maqdisī hypothesize a reason for the construction of *Qubbet al-Sakhrah* –and only *Qubbet al-Sakhrah.* These writers do

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[5] The Islamic conquest of Jerusalem occurred three decades before the building of *Qubbet al-Sakhrah.* This period may well be enough to acquire the local building traditions by Muslims or to have Muslim architects or craftsmen who were simply born in Syria or Jerusalem or those converted to Islam some time ago. According to Ibn al-Murajjā (11th century) the skillful craftsmen employed in the enclave are brought in from all Muslim provinces [Ibn al-Murajjā, 1995 (11th century), p59; Sharāb, 1993, p76]. Unfortunately, no names of master builders are mentioned. Only two names came down from the historical sources: the first is Yazīd Ibn Salām from Jerusalem and the second is Rajā' Ibn Hayūh from Bisān in Palestine. Both of them are Muslims and their work is seemingly limited to an administrative supervision of the building activity and not to technical consultation [Ibn al-Murajjā, 1995 (11th century), p59; Sharāb, 1993, p76].

[6] There is a slight difference between the dimensions of the domes. The inner diameter of *Qubbet al-Sakhrah*, according to Mauss's measurements, is 20.37 metres [Mauss, 1888, pp.14-23] and that of the Church of the Holy Sepulchre is 20.46 metres [Creswell, 1969, 1: p105].

not, in fact, say anything about the reason for building other monuments contemporary with *Qubbet al-Sakhrah* or rebuilding al-Aqsa enclave itself. Whatever the reason that caused 'Abd al-Malik to build *Qubbet al-Sakhrah* it must surely be somehow related to the reason for rebuilding al-Aqsa enclave.

To give a better insight into the actual reason that stands behind the building of *Qubbet al-Sakhrah*, it is of great importance to examine the overall layout of the building. It is evident that the location of *Qubbet al-Sakhrah* represents the highest point of the rocky hill in the enclave that rises above the surroundings and that such a position would be the most appropriate location to erect the building.

It can be noticed that in Historical Syria domes were used in both religious and secular buildings. Syrian architecture, which will be discussed in the next chapter, is also distinctive. According to al-Maqdisī, 'Abd al-Malik himself would have noticed its architectural context [al-Maqdisī, 1987, p139]. In Muslim religious architecture, building domes over octagons is one of the architectural features started with the building *Qubbet al-Sakhrah*[7]. It was also employed in building *Bayt al-Mãl* (the treasury) in the Umayyad Mosques of Damascus and Hamãh, which were contemporaries of *Qubbet al-Sakhrah*. It is clear that *Qubbet al-Sakhrah* is a building that dominates the horizon of al-Aqsa enclave and the skyline of Jerusalem. It is located on the top of the Rock, but, according to Rosen-Ayalon, the setting of *Qubbet al-Sakhrah* had been determined in connection with the overall setting of al-Aqsa enclave and was not planned separately [Rosen-Ayalon, 1989, pp.27-28]. This suggests that 'Abd al-Malik might have intended to create a **building in al-Aqsa enclave** that would dominate the horizon of al-Aqsa enclave and Jerusalem which could be seen from faraway. Yet the question why he built an attractive monument or restored al-Aqsa enclave still needs to be answered. Regardless of any hidden political intentions at that time, it can evidently be seen that much else was done as a part of 'Abd al-Malik's and that of his son al-Walīd's plan concerning Jerusalem. The huge Umayyad palaces to the south of al-Aqsa Mosque indicate a mega-work

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[7] There was a dome constructed in one of Muslim houses in Madīnah at the time of Muhammad [Walī, 1993, p114]. No information is available so far that confirms or disproves the existence of other domes in the Arabian Peninsula before the early Islamic period or at that very time.

and a substantial labour force in Jerusalem, which reflect a great Umayyad interest in the city [Ben-Dov, 1985, p220]. Milestones also tell us that 'Abd al-Malik started to restore the roads around Jerusalem. According to Blair, four undated examples of milestones were discovered in Palestine. Their inscriptions state that 'Abd al-Malik ordered the construction of roads and the erection of milestones to indicate the number of miles from Damascus to Jerusalem [Blair, 1992, p67]. Such activities inside and outside the city of Jerusalem lead to the conclusion that 'Abd al-Malik intended to develop a fully three-dimensional **Muslim image for Jerusalem**.

Hence, to understand how relevant the early Muslim writers' references are to the physical development of al-Aqsa enclave, it is of the greatest importance to examine the architecture, i.e. the form, function and meaning, of *Qubbet al-Sakhrah*.

7.4.3 Architecture of *Qubbet al-Sakhrah*

To understand *Qubbet al-Sakhrah* as a building it is important to learn about the design elements and principles the structure used to create the configuration of the building.

Form and Function

Qubbet al-Sakhrah forms a regular octagon with three concentric annular enclosures; the inner most one is circular while the others are octagons (see Fig. 7.16, 7.17).

The outer octagon forms the boundary wall of *Qubbet al-Sakhrah* (see Fig. 7.18). It is constructed from large courses of stonework more than 0.50 metres high. *Qubbet al-Sakhrah* has eight sides with a thickness of 1.30 metres [Richmond, 1934, p14]. Each face measures 20.6 metres in length and 12.1 metres in height including the 2.6 metres of the parapet. There is some difference in centimetres between the length of each side. Four sides of this boundary wall face almost the four cardinal points; each has a central door measuring 2.55 metres in width and 4.35 in height. Each face of this wall has seven windows (including the doors), supporting round-headed arches

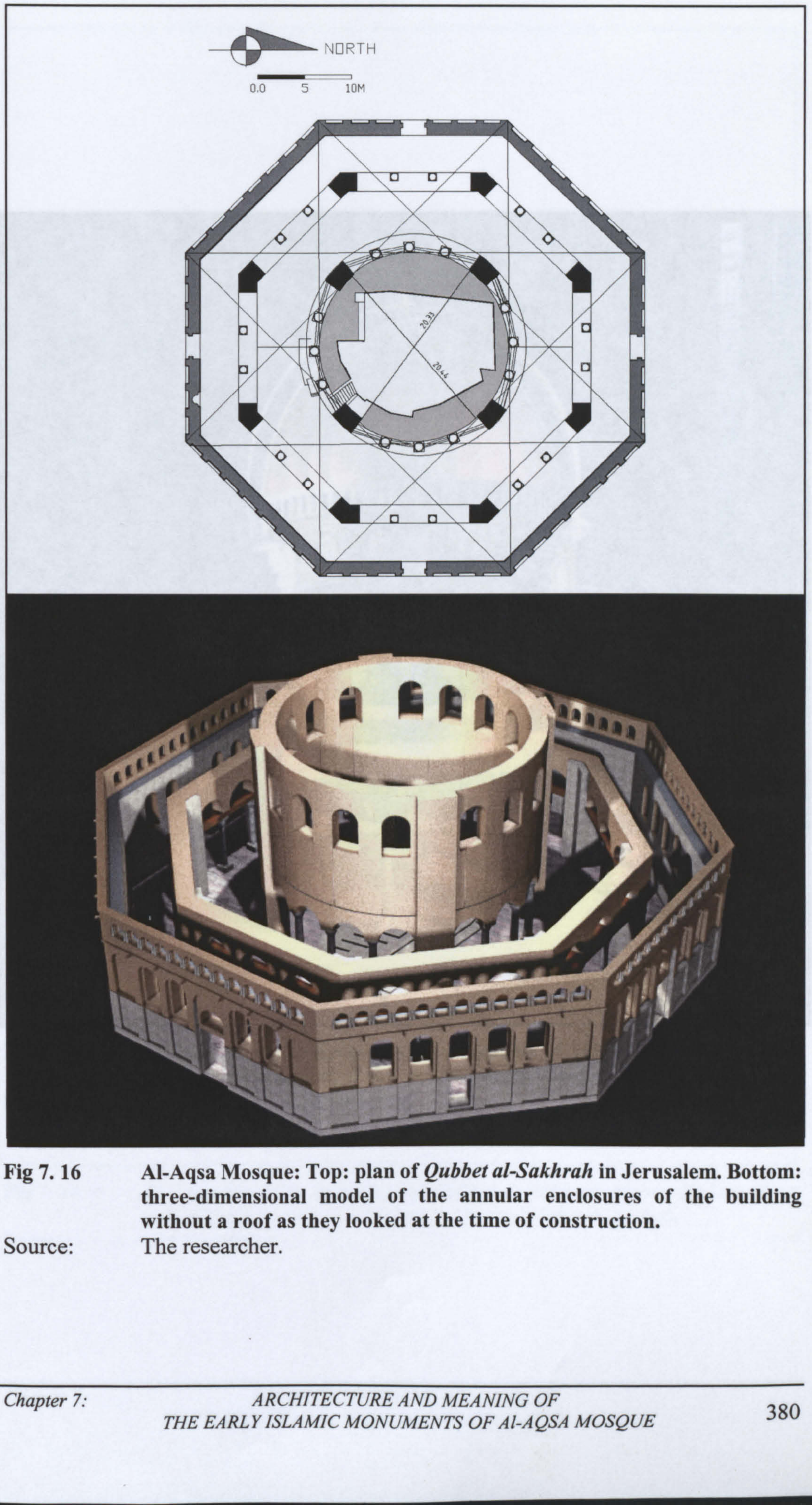


Fig 7. 16 **Al-Aqsa Mosque: Top: plan of *Qubbet al-Sakhrah* in Jerusalem. Bottom: three-dimensional model of the annular enclosures of the building without a roof as they looked at the time of construction.**

Source: The researcher.

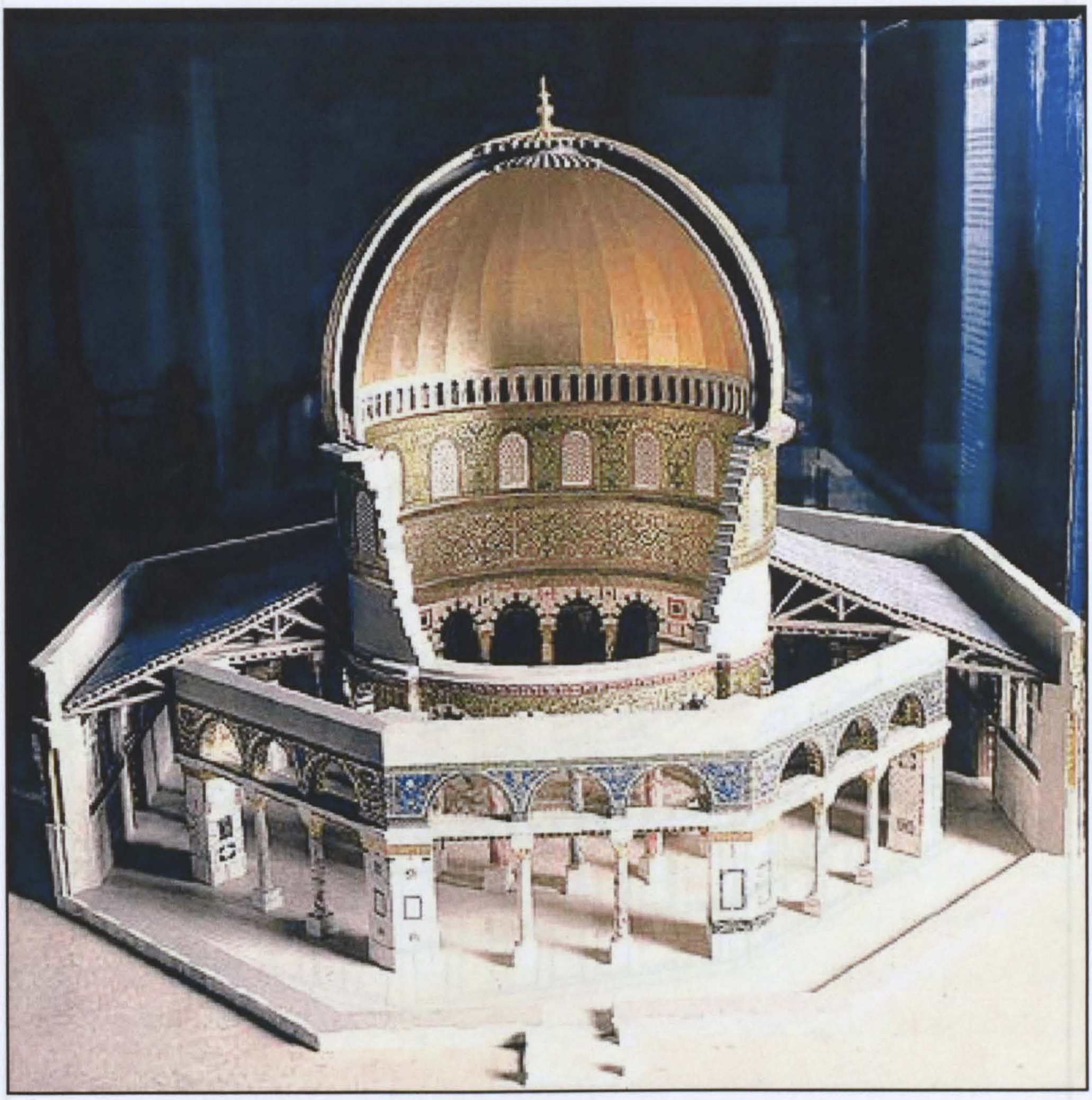


Fig 7. 17 **Al-Aqsa Mosque: Cross section of *Qubbet al-Sakhrah* shows the three concentric enclosures of the building as they look today.**

Source: http://jeru.huji.ac.il/pis3.htm.

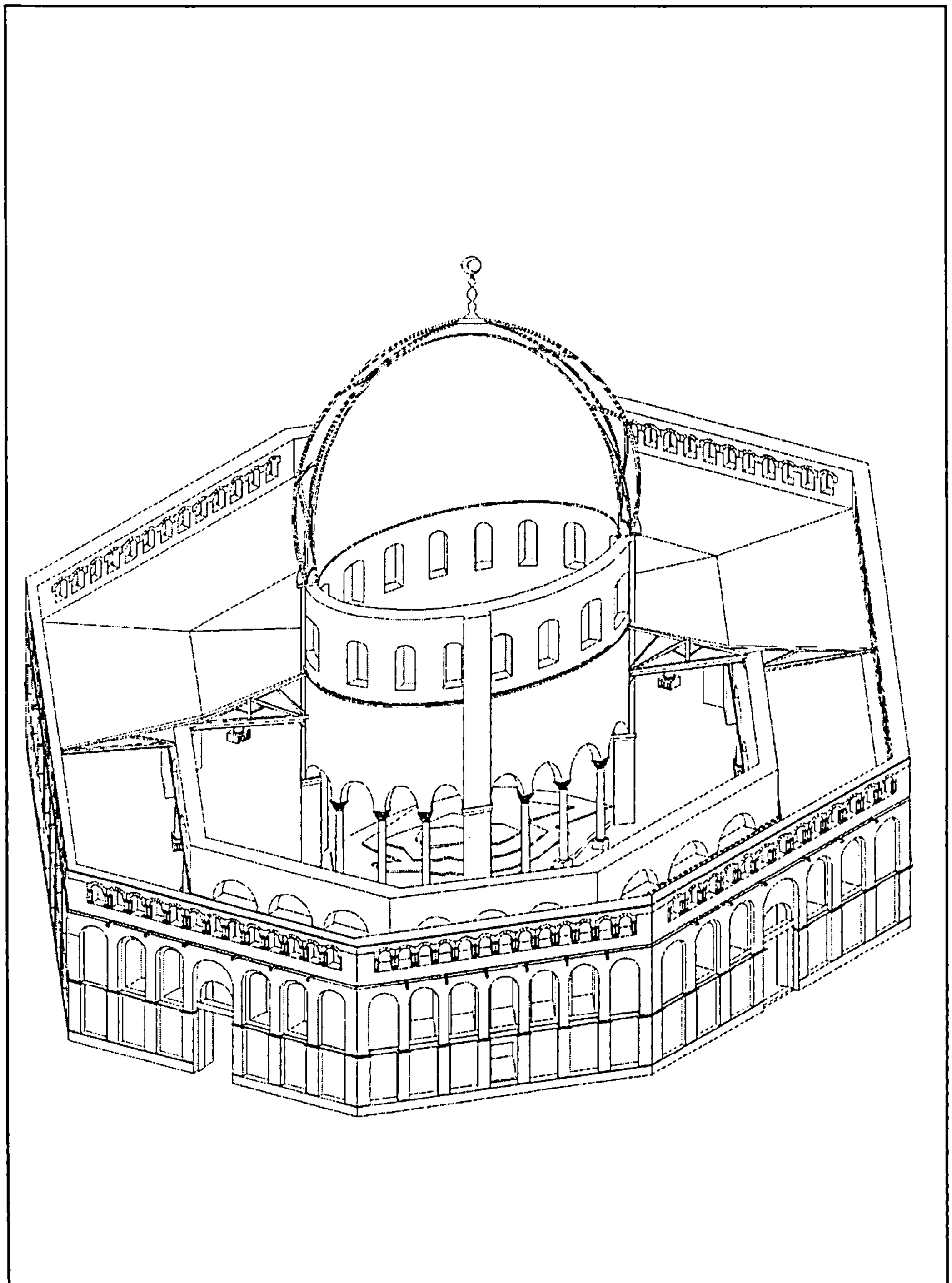


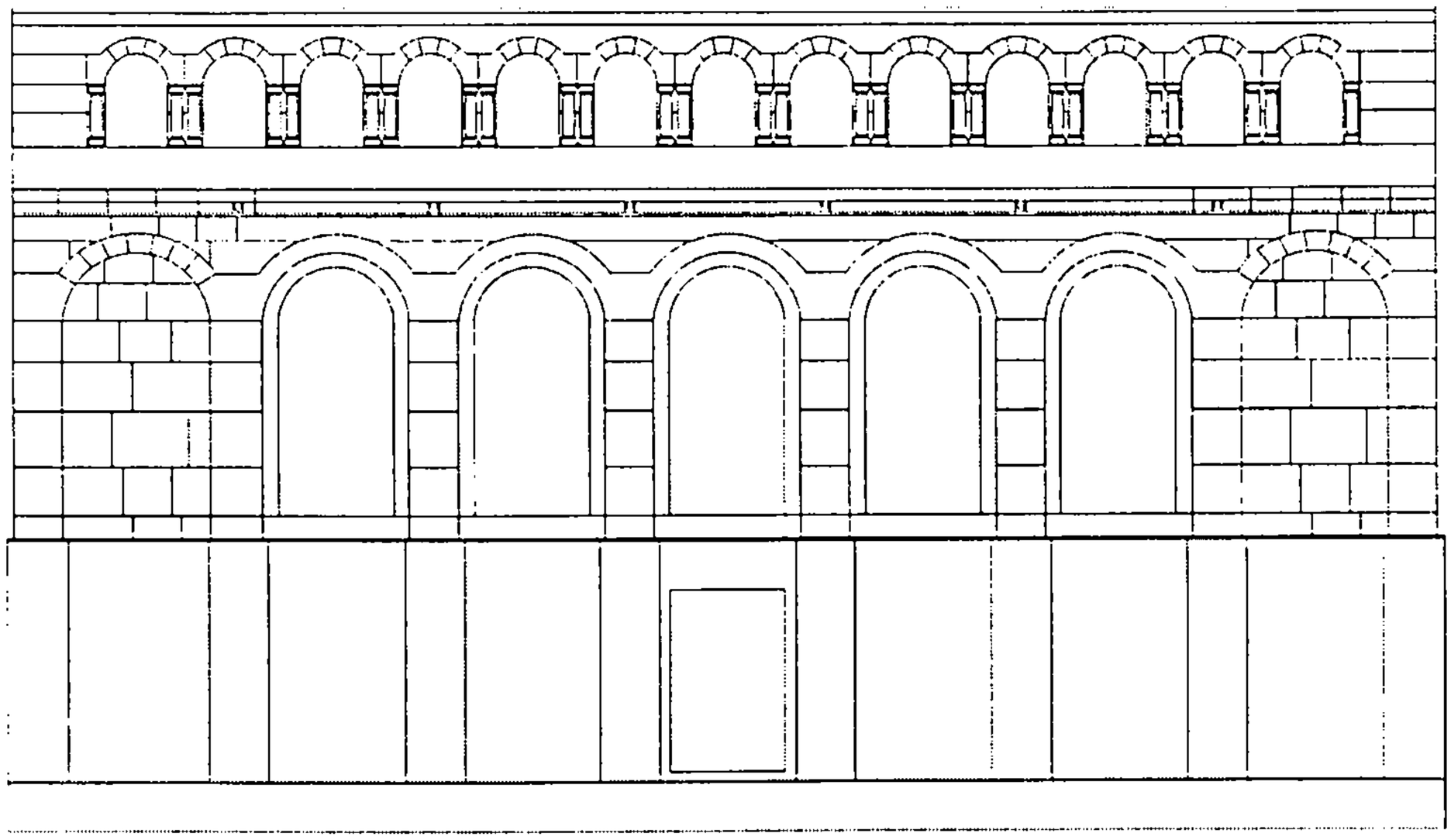
Fig 7. 18 **Al-Aqsa Mosque: Isometric of *Qubbet al-Sakhrah* shows the boundary wall of the building as it looked in the early Islamic period.**

Source: The researcher.

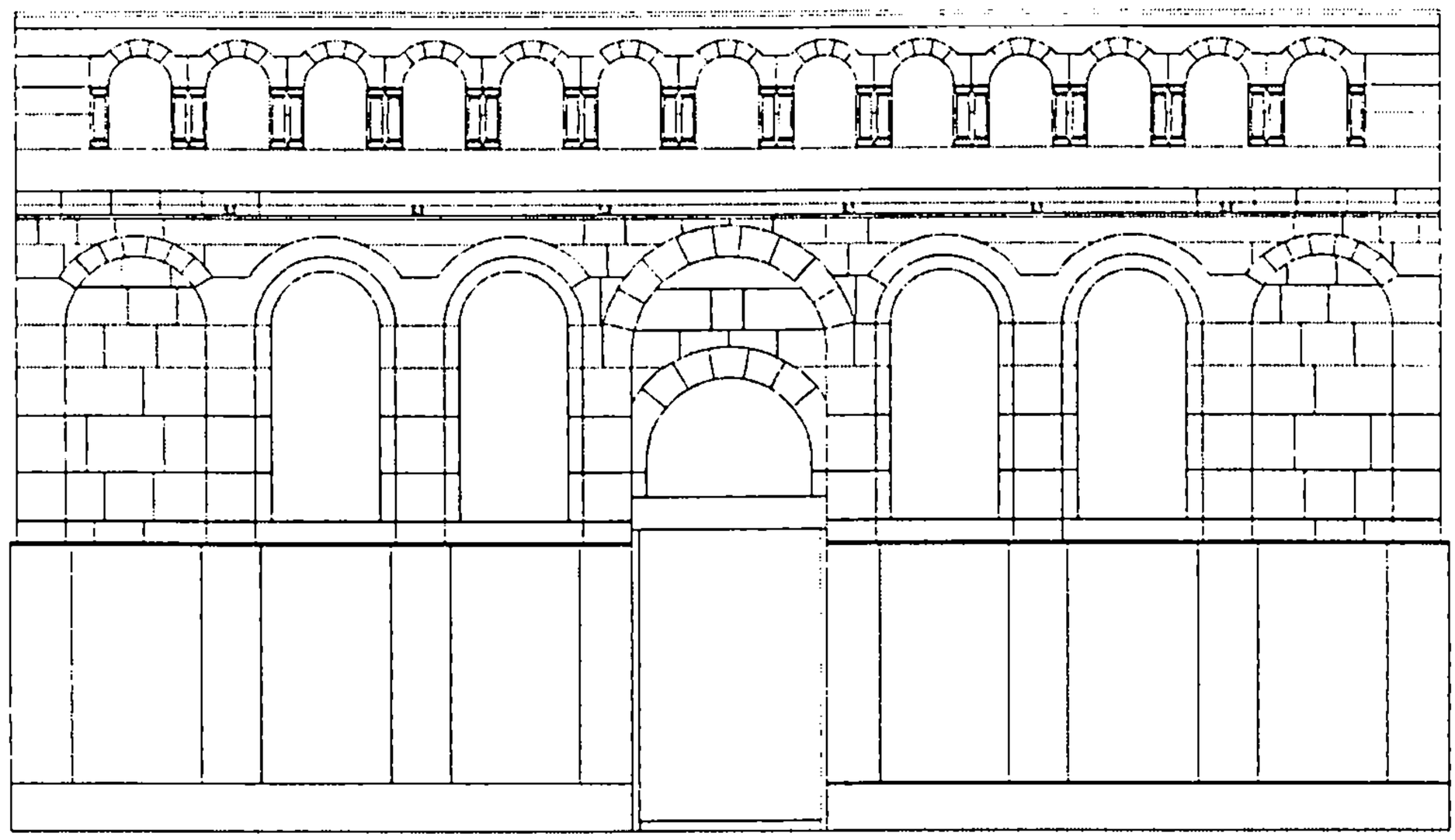
(see Fig. 7.19). According to Clermont-Ganneau, five of these windows are real. They are filled with slabs of plaster pierced with holes containing stained glass of various colours. However, the windows at each end are blind arches, and have always been so. The originality of these blind arches is confirmed by the absence of any break in the stonework [Clermont-Ganneau, 1899, 1:p181]. Such architectural treatment at the corners of the building is presumably employed for the structural stability of *Qubbet al-Sakhrah.*

A small arched parapet crowns the boundary wall (see Fig. 7.20); each side has 13 openings. It is described by al-'Umarī in 748AH/ 1347AD as having niches [al-'Umarī, 1924, 1:140]. These small openings support round-headed arches. Clermont-Ganneau deliberately studied the southern and the south-western outer faces of the boundary wall of *Qubbet al-Sakhrah*. He argues that the parapet of the exterior walls has been arranged in relation to the lower arches of the windows in order to achieve an architectural rhythm in the wall. He also adduced archaeological inspections for some of these arches which confirm that they were originally open and formed part of the original face. This, therefore, led him to believe that the boundary wall is entirely homogenous from top to bottom and all its parts belong to the same period [Clermont-Ganneau, 1899, 1: pp.184-185]. All of the upper faces of the walls were decorated by a mosaic coating which was described by al-'Umarī [al-'Umarī, 1924, 1: p140], and its existence is confirmed by Clermont-Ganneau [Clermont-Ganneau, 1899, 1: p190]. Unfortunately the exterior mosaic no longer exists, as it was replaced by ceramic tiles in the 16th century AD [Richmond, 1924, p36]; the lower parts, however, are covered by marble slabs, of which some are still preserved since the erection of the building. Indeed, the covering of the series of the arcades which crown the eight sides of the wall of the octagon and its mosaic must originally have given the building a very different general aspect to that which it offers at the present day, and must have been even more beautiful then.

The intermediate enclosure also forms an octagon. It divides the interior space into two ambulatories (see Fig. 7.21, 22). It is constructed on 8 piers and 16 marble columns supporting round-headed arches. Each of the eight sides is divided into three



South-west elevation



West elevation

Fig 7. 19 **Al-Aqsa Mosque: The west and south-west elevations of *Qubbet al-Sakhrah* during the early Muslim construction and before the upper surfaces were covered with mosaic.**

Source: After Clermont-Ganneau, 1899, 1: p137.

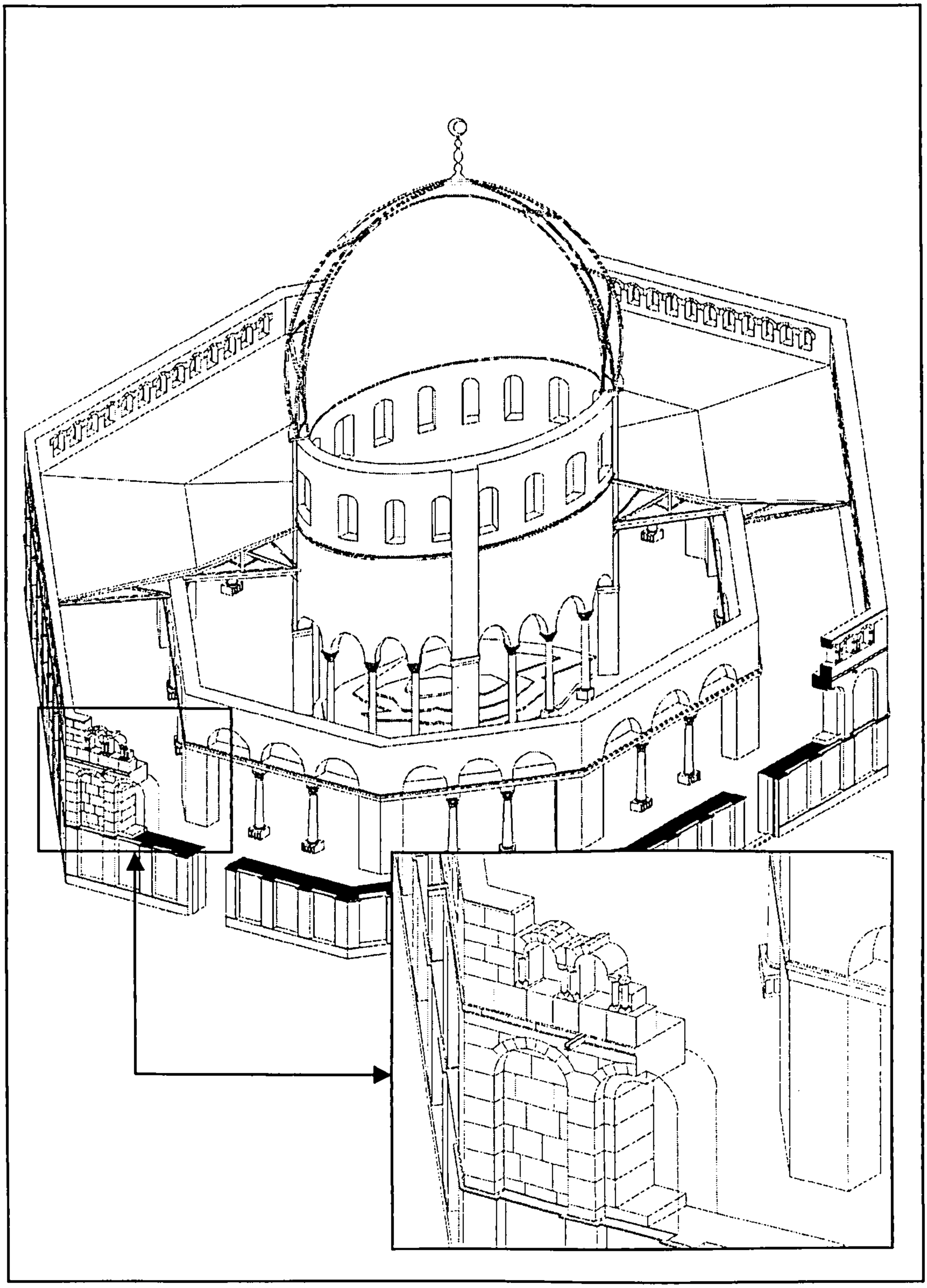


Fig 7. 20 **Al-Aqsa Mosque: *Qubbet al-Sakhrah* in the early Islamic period; the picture details the building method employed in constructing the windows and the arched parapet of the boundary wall of the building.**

Source: The researcher.



Fig 7. 21 **Al-Aqsa Mosque: The outer ambulatory of *Qubbet al-Sakhrah* as it looks today.**

Source: Grabar, 1996, p69.

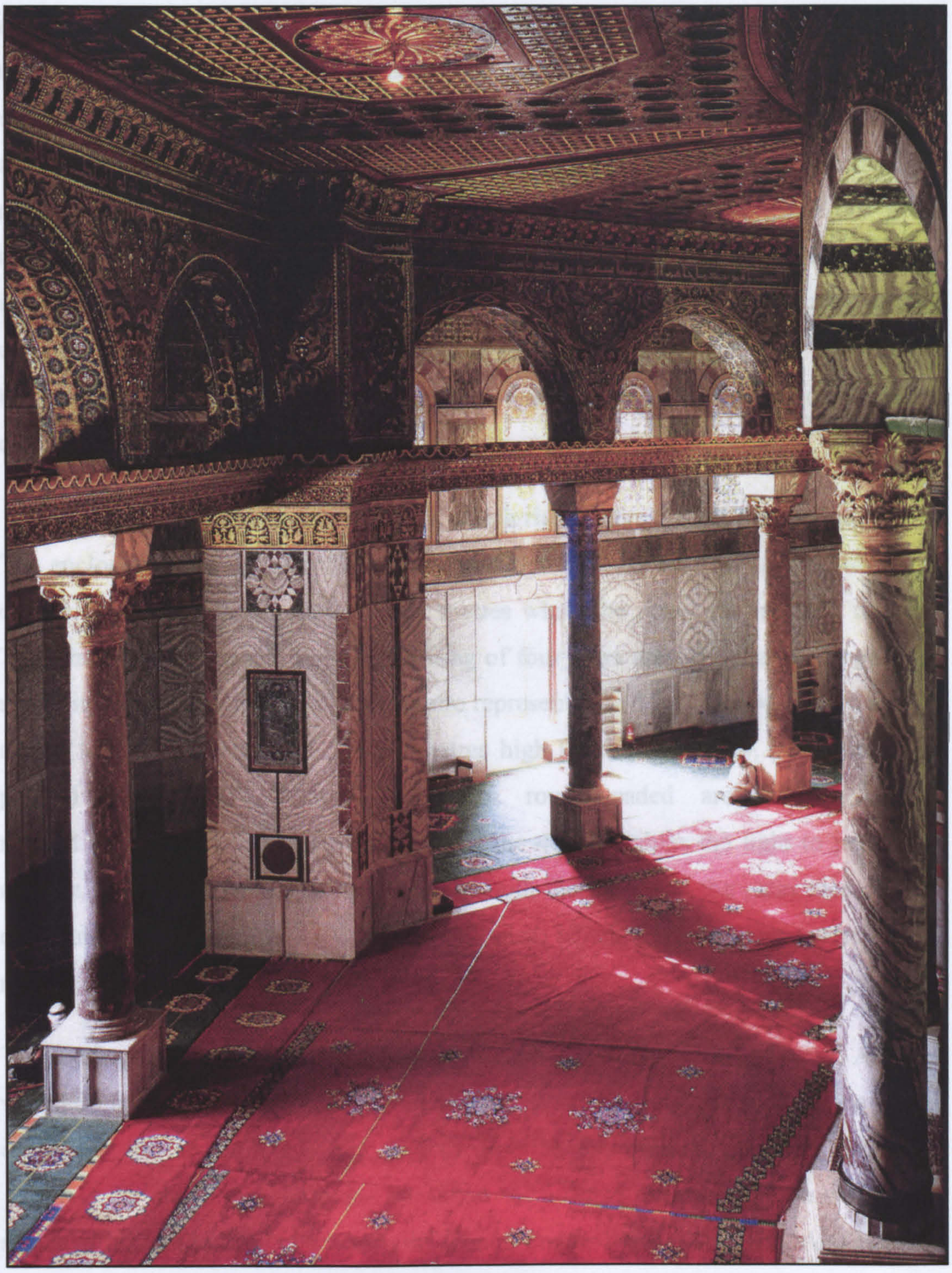


Fig 7. 22 **Al-Aqsa Mosque: The inner ambulatory of *Qubbet al-Sakhrah* as it looks today.**

Source: Grabar, 1996, p58.

archways standing on two columns and the corner piers (see Fig. 7.23). All the piers and columns are tied together by decorated wooden tie-beams running around the entire intermediate enclosure. The tie-beams do not only have an aesthetical appearance but they also have a structural function: to resist the lateral thrust that result from the arches. Clermon-Ganneau produced two detailed drawings that give an idea of this architectural arrangement and method of construction of the tie-beam in *Qubbet al-Sakhrah*. His drawings show that these beams do not rest directly on the columns' capitals but on plain blocks that lie above the capitals[8] (see Fig. 7.24). Both the inner and the outer faces of this enclosure are decorated by mosaic of different colours, predominantly gold.

The inner enclosure surrounds the Rock which rises above the building's floor level. The enclosure has a circular delineation, however with a little dent so that two radii can be detected; one measures 10.165 metres while the other one is 10.22 metres. This enclosure forms a cylinder, consisting of four piers and 12 columns supporting semi-circular arches. Part of this enclosure represents the drum. It is built from ashlar stones laid in courses about 50 centimetres high [Richmond, 1924, p11], and it is pierced by sixteen windows supporting round-headed arches. It can be noticed that building a pierced drum under the dome enables the light to penetrate and the air to circulate inside the building. Both the inner and the outer face of this enclosure were originally decorated by mosaics, which were of glass tesserae and mother-of-pearl [Richmond, 1924, p15].

The roofing system in the *Qubbet al-Sakhrah* consists of two different types. A large wooden cupola was used to cover all the space surrounding the rock in the inner enclosure. Ibn al-Faqīh was the first to describe the original dome in 290 AH/ 902 AD; he states that the dome consisted "of a dome over a dome on which are sheets of lead and plates of copper gilt" [Ibn al-Faqīh, 1996, p151]. Ibn 'Abd Rabbih

[8] The plain block resting above capitals is known as *dosseret* and it is widely used in the Byzantine period.

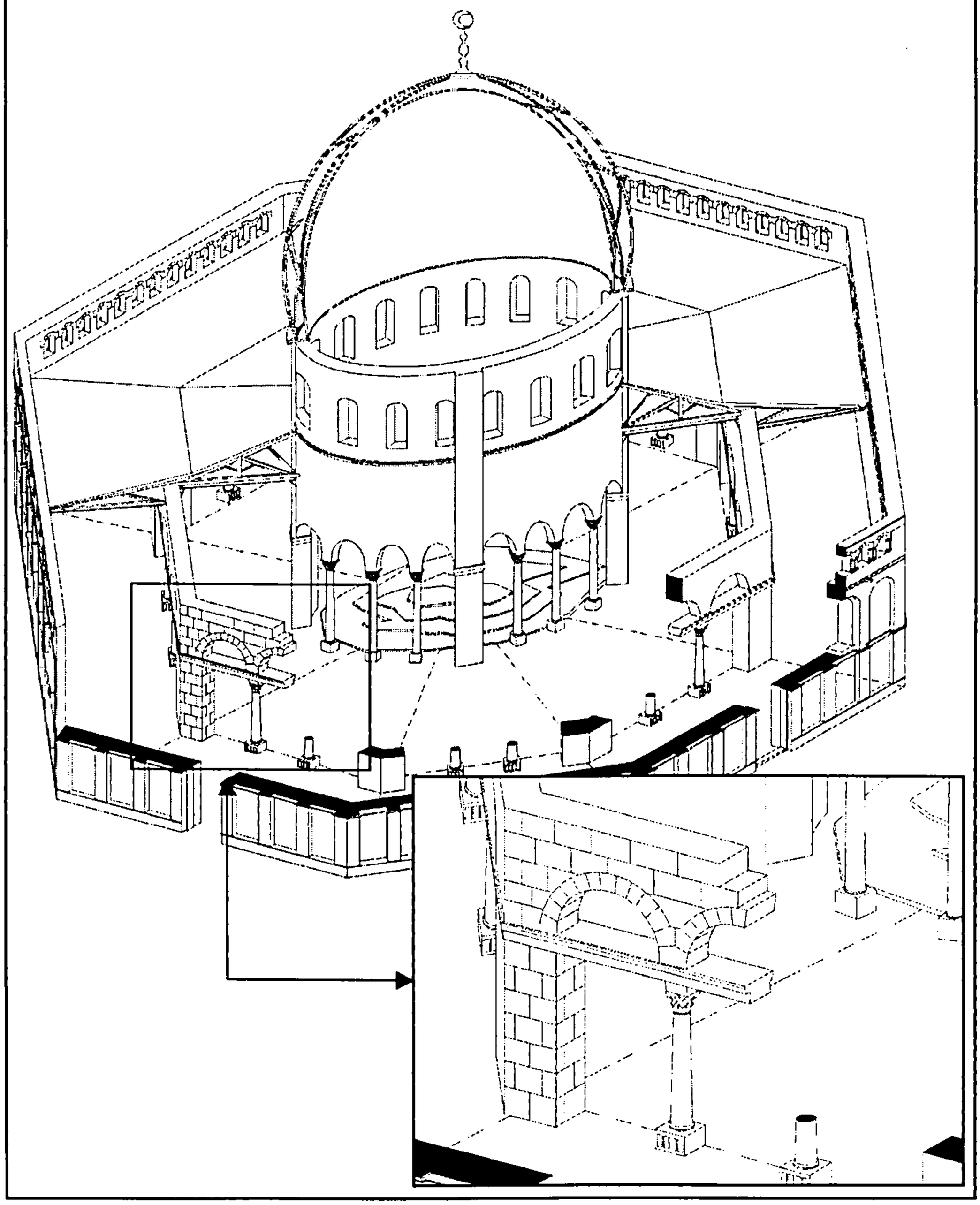
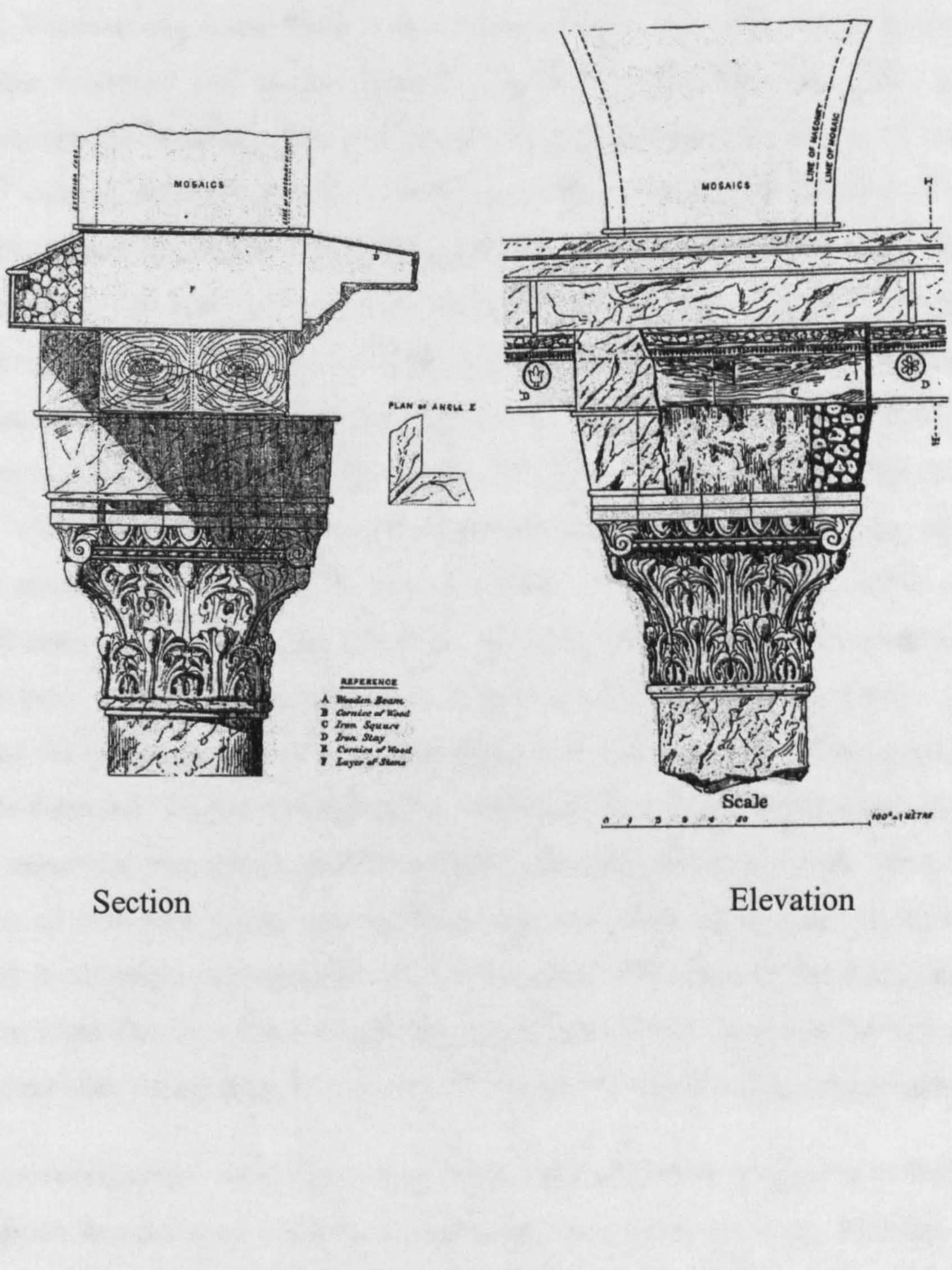


Fig 7. 23 **Al-Aqsa Mosque: *Qubbet al-Sakhrah* in the early Islamic period; the picture details the building method employed in constructing the intermediate enclosure of the building before covering it with marble and mosaic.**

Source: The researcher.



Section

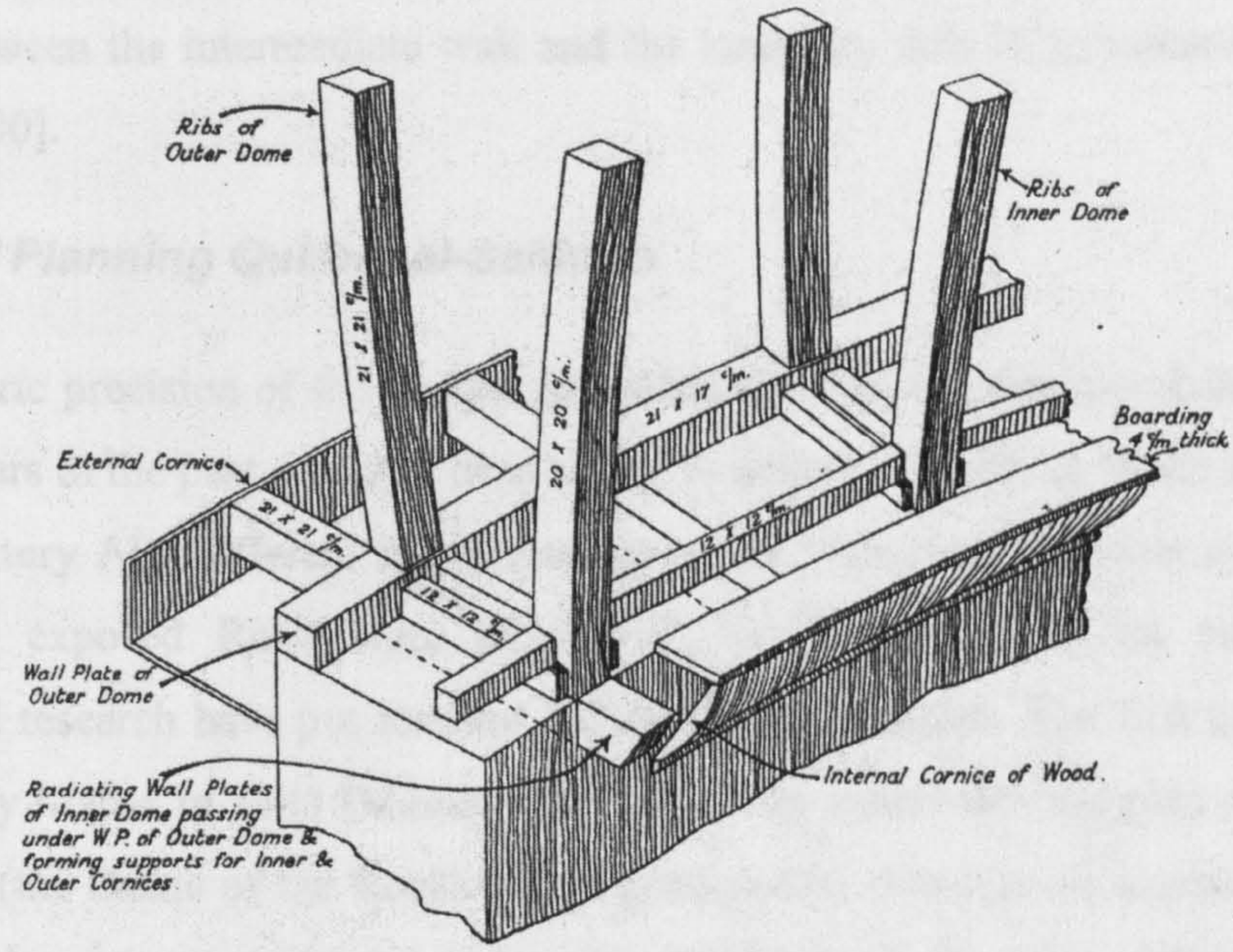
Elevation

Fig 7. 24 **Al-Aqsa Mosque: Section and elevation of the outer (north) face of the intermediate octagon of *Qubbet al-Sakhrah* (the Dome of the Rock). The detail illustrates the method of construction of the tie-beams and its relation with the arches and capitals.**

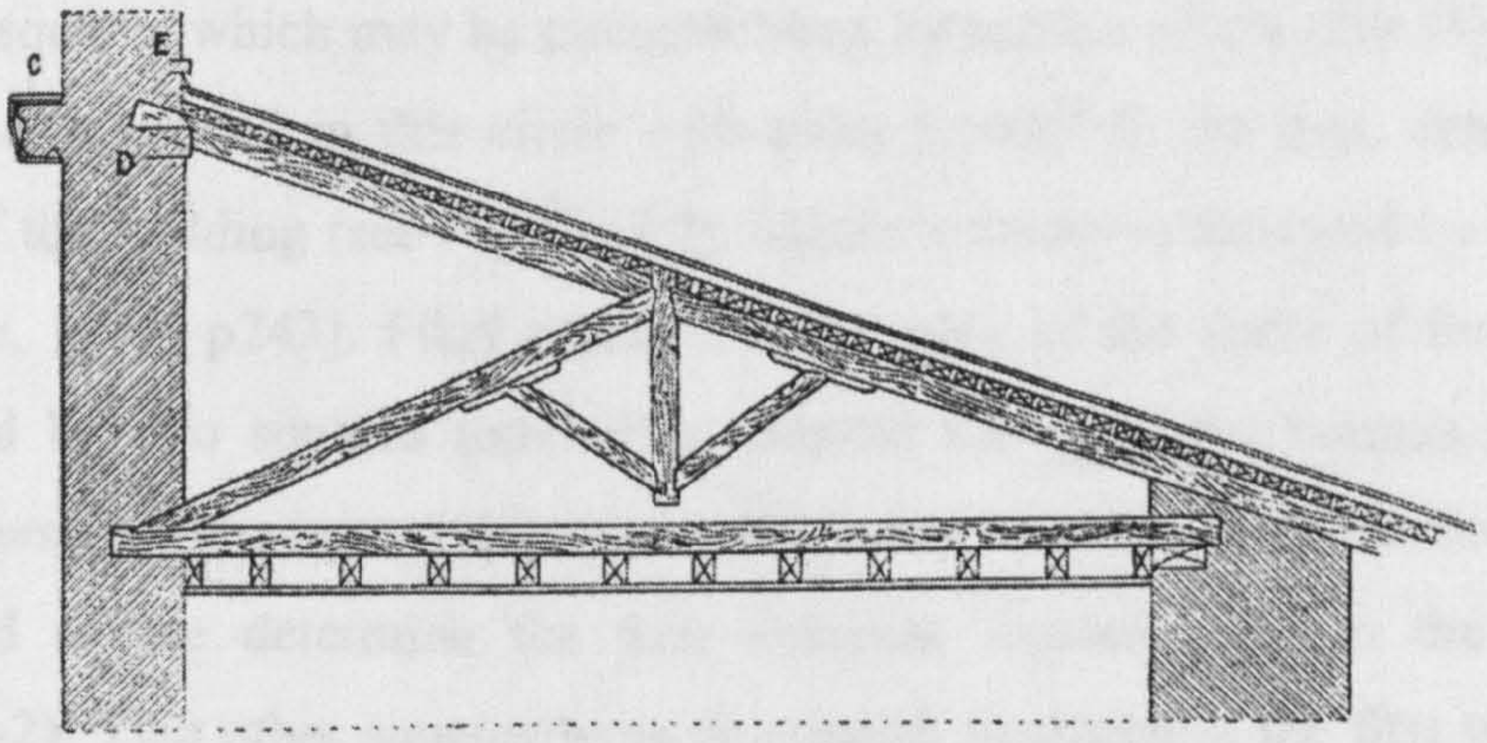
Source: Clermont-Ganneau, 1899, 1: pp. 208-209.

(301 AH/ 913 AD) gives further details, saying that the dome was covered by 3,392 sheets of lead, over which were placed 10,210 plates of brass gilt [Ibn 'Abd Rabbih, 1953, 7: p255]. Al-Maqdisī gives further details; he mentions that the dome is comprised of three layers: the first is composed of a planking of wood, decorated with paintings; the second is composed of bars of iron, interlaced to resist the pressure of the wind; and the third is made of wood covered with sheets [presumably of lead]. Between the layers there is an interior passage that rises almost to the top, which the workmen use during inspection and repair [al-Maqdisī, 1987, p146]. Unfortunately the original dome was destroyed by an earthquake in the 5th century AH/ 11th century AD [Ibn al-Athīr, 1966, 9: p294], and built with the help of some construction material reused from the earlier dome [Richmond, 1924, p13]. Warren revealed a very fine inscription in the present woodwork of the cupola that indicates that this repair must be dated to 413 AH/ 1022 AD [Warren, 1970, p39]. In 1924 AD, Richmond published a technical description of the dome as it stands today. He mentions that the present wooden cupola of *Qubbet al-Sakhrah* consists of two domes. These two domes are constructed with converging wooden ribs with an average section of 21 centimetres square for the outer one, while the inner one is about 20 centimetres square (see Fig. 7.25: 1). These ribs are curved; in other words, they are bent like those of a wooden ship and covered by planking of wood. Each dome has thirty-two ribs meeting at their summit in a circular plate. The boarding of the inner dome carries painted and gilded ornamental plaster which is fixed with the help of palm-tree fibre glued on the boarding before the plaster was laid. The timbers used are of different kinds, among them oak and cedar. Evidently, Richmond's technical description corresponds with the technical references of the early Muslim writers as cited above. All this description leads to the conclusion that the new dome constructed after the earthquake maintained the same original building techniques.

For the covering of the other space around the inner enclosure of *Qubbet al-Sakhrah*, a monopitch wooden roof is used which extends from the drum to the boundary wall (see Fig. 7.25: 2). The weight of this roof is really divided into two unequal parts, as the middle of it is supported by the intermediate octagonal wall which is not located



1- The footing of the two domes upon the wall of the drum



2- The roof covering the inner aisle of *Qubbet al-Sakhrah*.

Scale: 1:100

Fig 7. 25 **Al-Aqsa Mosque: Types of the roofing system in *Qubbet al-Sakhrah* (the Dome of the Rock) which detail the construction method employed in the covering building. The details are for the present covering of the building which follows the original techniques used at the time of constructing the building.**

Source: Top: Richmond, 1924, p11. Bottom: Clermont-Ganneau, 1899, 1: p206.

in the midpoint between the octagonal boundary wall and the circular wall supporting the central drum (see Fig. 7.26): the shorter and lighter part of the roof extends between the intermediate wall and the boundary wall [Clermount-Ganneau, 1899, 1: p200].

Method of Planning Qubbet al-Sakhrah

The geometric precision of the *Qubbet al-Sakhrah*'s plan and elevation has attracted many scholars in the past, and still does today, to study the building. Since the end of the 19th century AD, different interpretations of the planning of *Qubbet al-Sakhrah* around the exposed Rock were developed. Seven theories based on heavily documented research have put forward different interpretations. The first theory was published by Mauss in 1888 [Mauss, 1888, p14]. He argues that the plan of *Qubbet al-Sakhrah* (the Dome of the Rock) was engendered by two squares inscribed in the exterior circle of the central rotunda (see Fig. 7.27:1-2); if the sides of these squares are prolonged, their intersection determines a regular octagon, which divides the two ambulatories (see Fig. 7.27:3-4). The sides of this octagon, when prolonged, form two other squares which may be circumscribed by another circle (see Fig. 7.27:5-6). An octagon, inscribed in this circle with sides parallel to the first, determines the exterior of the building (see Fig. 7.27:7). Mauss's theory is followed by Fikrī [cited in Othmān, 1988, p243]. Fikrī argues that the plan of the dome of the Rock was engendered by two squares intersecting around the rock, the corners of the first square determine the piers of the rotunda that carry the dome, whereas the corners of the second square determine the four columns located between the piers (see Fig.7.28:1-2). Two other squares were delineated, intersecting the first two squares, and their corners determine the position of the columns standing next to the piers (see Fig. 7.28:3). The intersection points of the sides of the first squares, when prolonged, determine the position of the piers of the intermediate ambulatory (see Fig. 7.28:4). The intersecting points of the prolonged lines that connect the corners of the other two squares represent the corners of the exterior walls (see Fig. 7.28:5-6).

Othmān has another opinion [Othmān, 1988, p245]; he argues that the plan of the

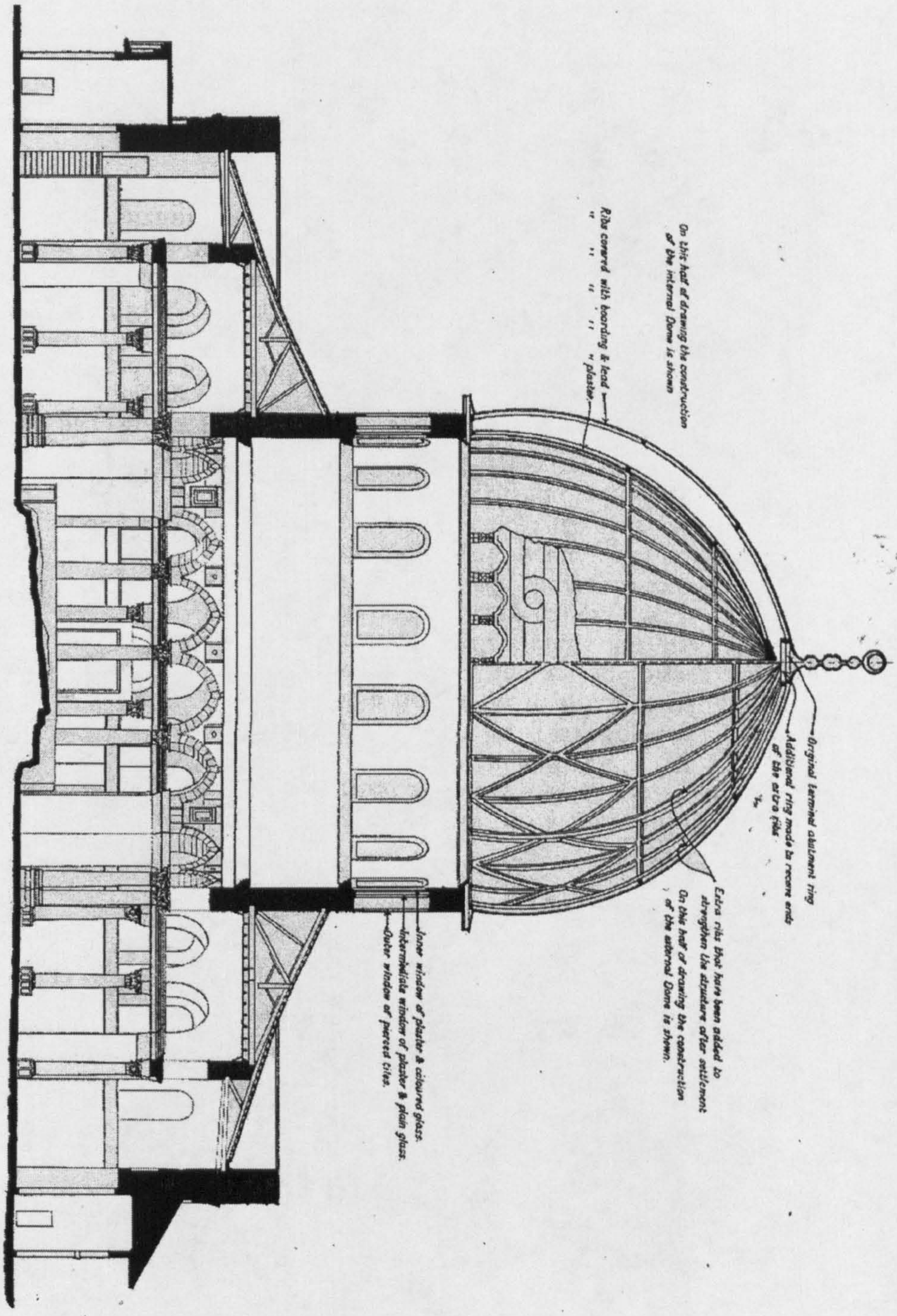


Fig.2. SECTION ON EAST & WEST AXIS

Fig 7. 26 **Al-Aqsa Mosque: Section of *Qubbet al-Sakhrah* in Jerusalem. (The inner arches of the inner enclosure are originally semicircular but they are now slightly pointed as a result of their marble cover dating from the beginning of the 14th century AD).**

Source: Richmond, 1924, p6.

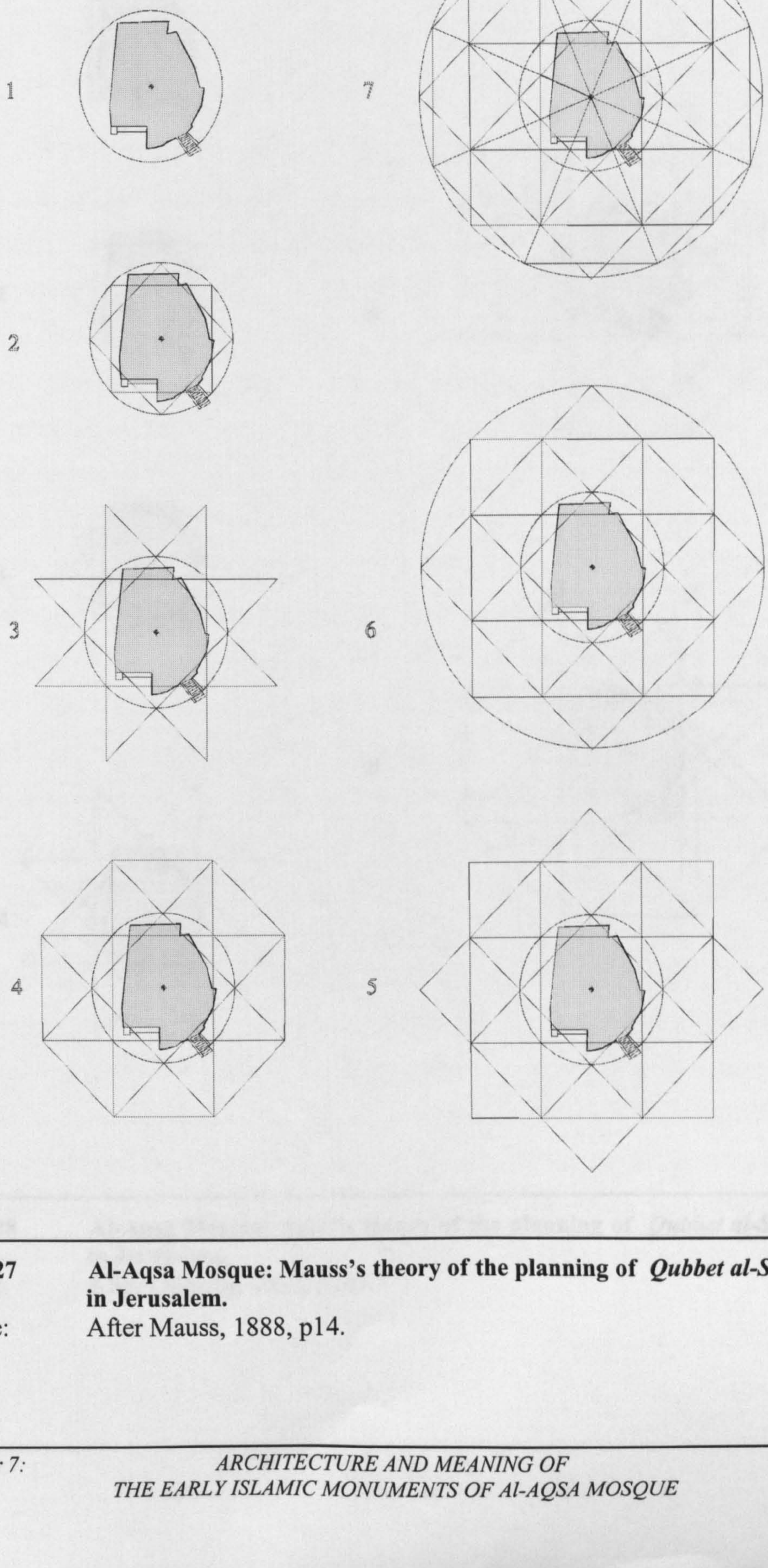


Fig 7. 27 **Al-Aqsa Mosque: Mauss's theory of the planning of *Qubbet al-Sakhrah* in Jerusalem.**

Source: After Mauss, 1888, p14.

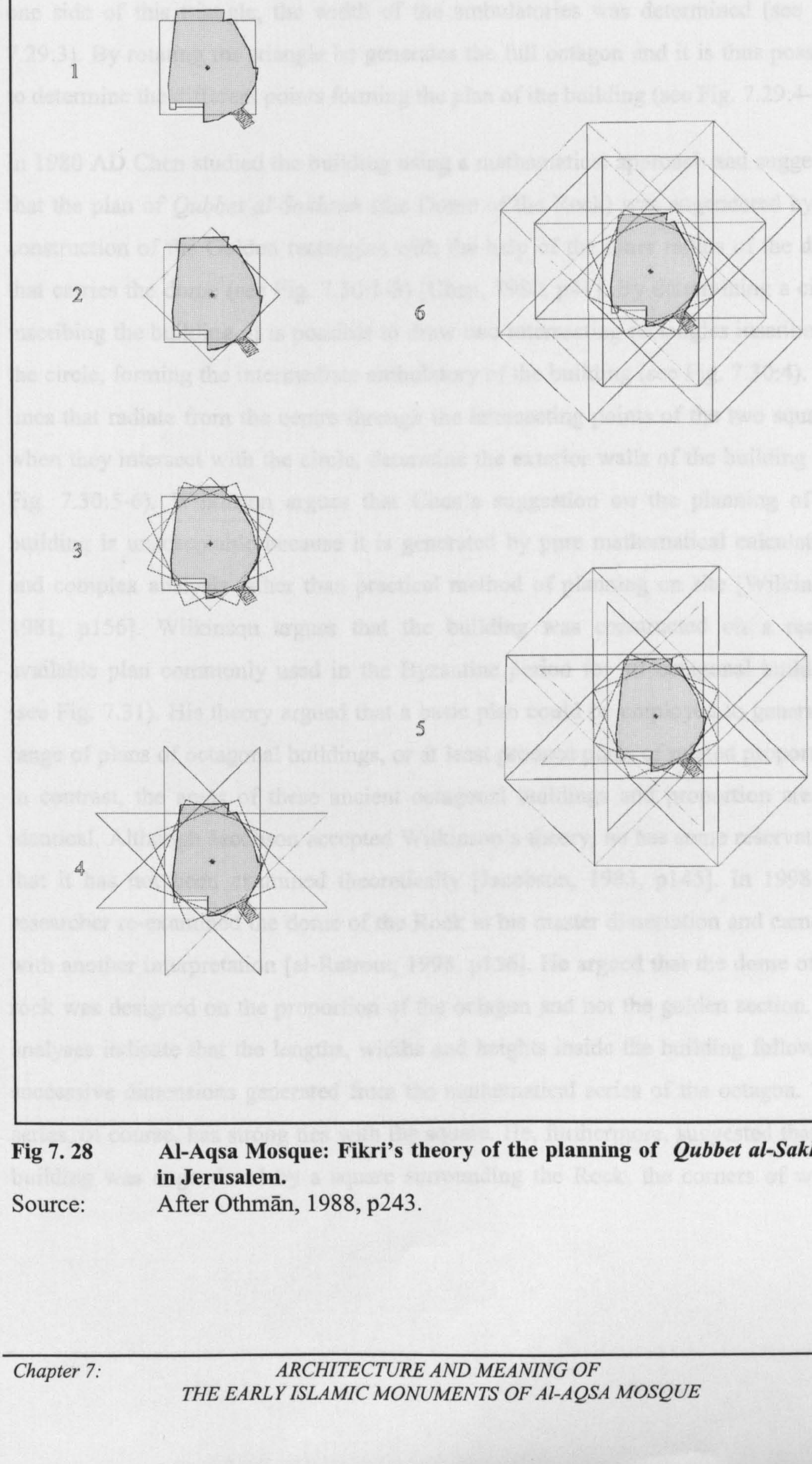
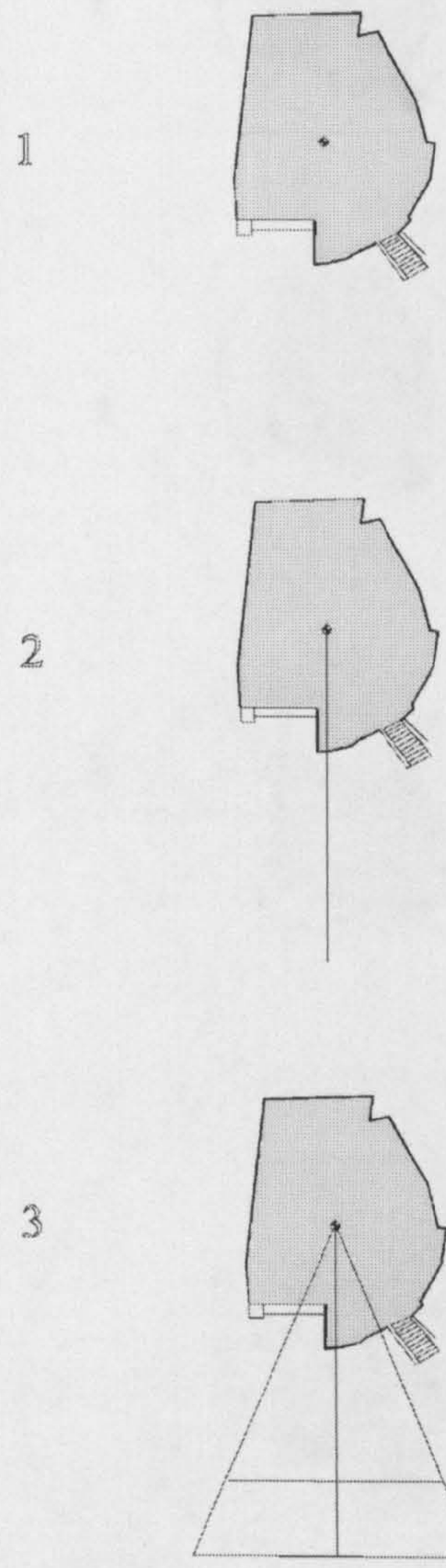


Fig 7. 28 **Al-Aqsa Mosque: Fikri's theory of the planning of *Qubbet al-Sakhrah* in Jerusalem.**

Source: After Othmān, 1988, p243.

building was engendered by an isosceles triangle that has a 45 degree angle at its vertex which is located at a fixed position on the Sacred Rock (see Fig. 7.29:1-2). On one side of this triangle, the width of the ambulatories was determined (see Fig. 7.29:3). By rotating the triangle he generates the full octagon and it is thus possible to determine the different points forming the plan of the building (see Fig. 7.29:4-5).

In 1980 AD Chen studied the building using a mathematical approach and suggested that the plan of *Qubbet al-Sakhrah* (the Dome of the Rock) was engendered by the construction of the Golden rectangles with the help of the inner radius of the drum that carries the dome (see Fig. 7.30:1-3) [Chen, 1980, p41]. By determining a circle inscribing the building, it is possible to draw two intersecting rectangles inscribed in the circle, forming the intermediate ambulatory of the building (see Fig. 7.30:4). The lines that radiate from the centre through the intersecting points of the two squares, when they intersect with the circle, determine the exterior walls of the building (see Fig. 7.30:5-6). Wilkinson argues that Chen's suggestion on the planning of the building is unacceptable because it is generated by pure mathematical calculations and complex analysis rather than practical method of planning on site [Wilkinson, 1981, p156]. Wilkinson argues that the building was constructed on a readily available plan commonly used in the Byzantine period for all octagonal buildings (see Fig. 7.31). His theory argued that a basic plan could be employed to generate a range of plans of octagonal buildings, or at least produce plans of related proportion. In contrast, the areas of these ancient octagonal buildings and proportion are not identical. Although Jacobson accepted Wilkinson's theory, he has some reservations that it has not been examined theoretically [Jacobson, 1983, p145]. In 1998 the researcher re-examined the dome of the Rock in his master dissertation and came up with another interpretation [al-Ratrout, 1998, p156]. He argued that the dome of the rock was designed on the proportion of the octagon and not the golden section. His analyses indicate that the lengths, widths and heights inside the building follow the successive dimensions generated from the mathematical series of the octagon. This series, of course, has strong ties with the square. He, furthermore, suggested that the building was engendered by a square surrounding the Rock, the corners of which



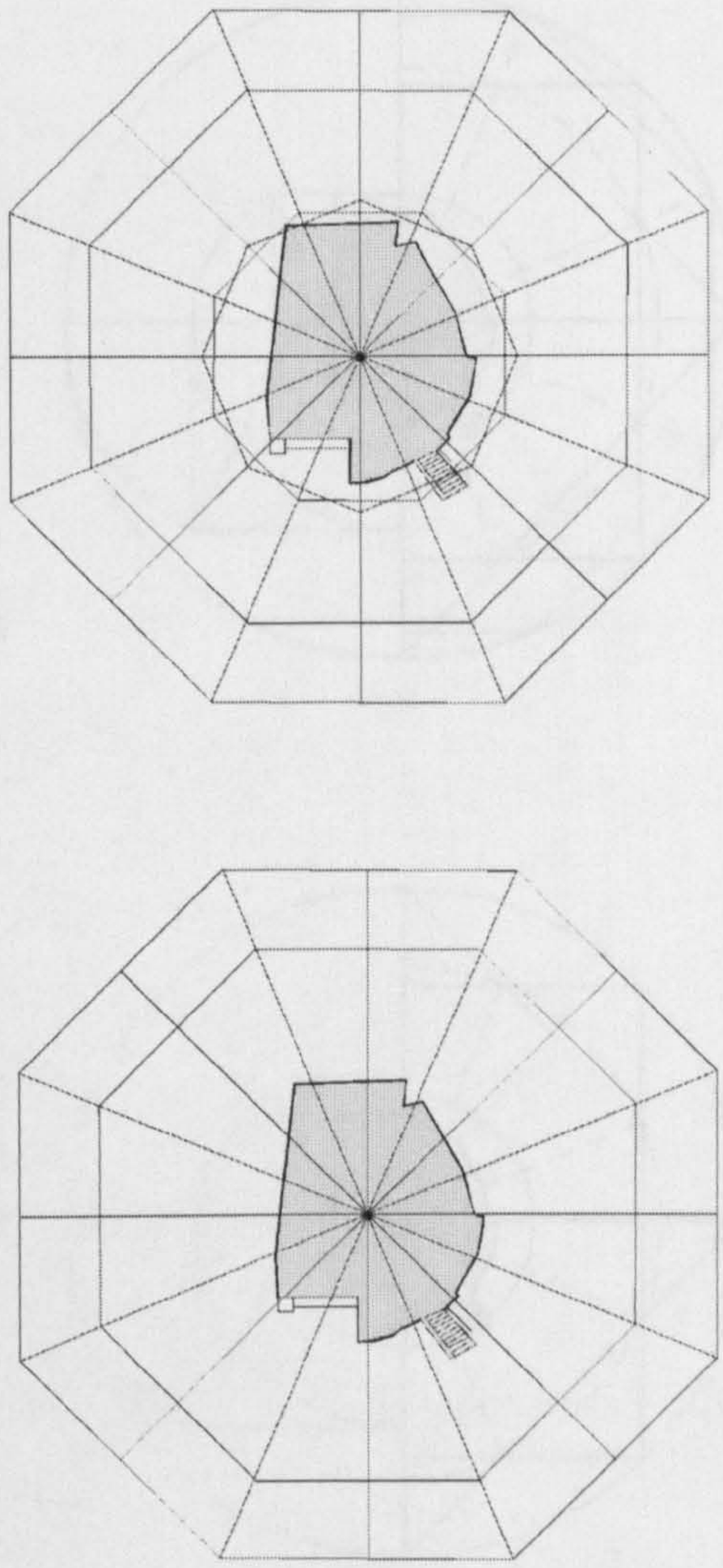


Fig 7. 29 **Al-Aqsa Mosque: Othmān's theory of the planning of *Qubbet al-Sakhrah* in Jerusalem.**

Source: After Othmān, 1988, p250.

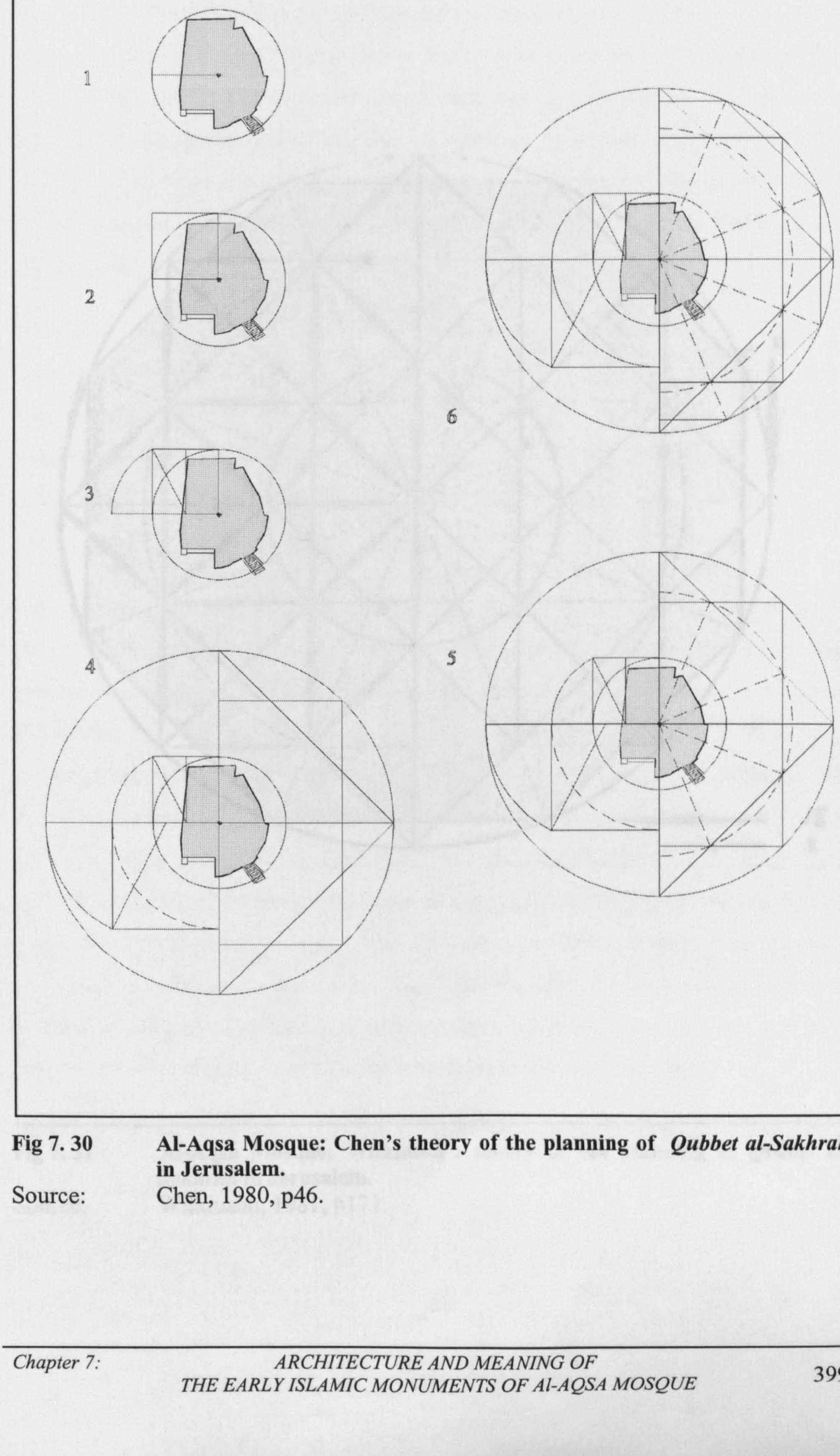


Fig 7. 30 **Al-Aqsa Mosque: Chen's theory of the planning of *Qubbet al-Sakhrah* in Jerusalem.**

Source: Chen, 1980, p46.

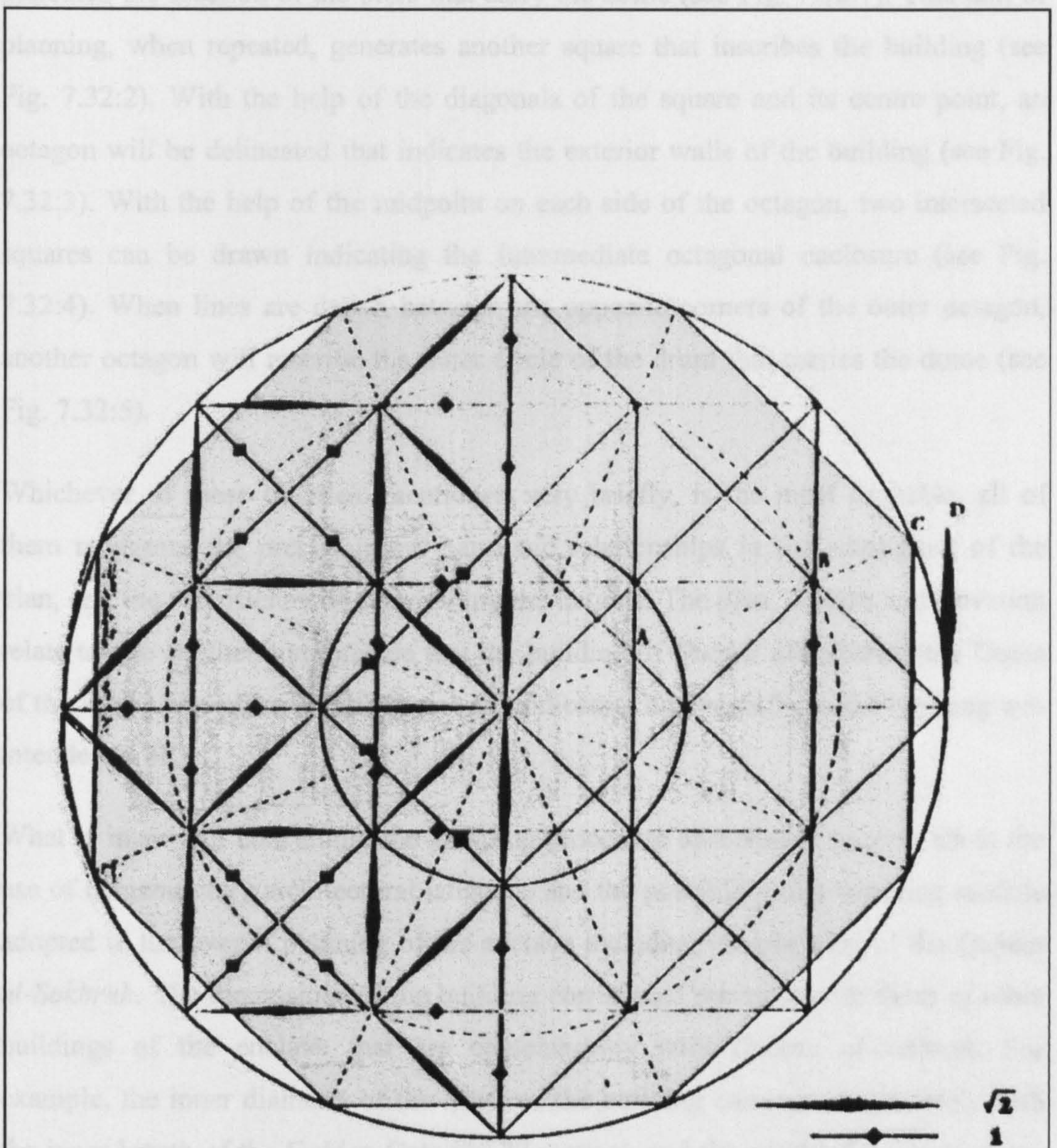


Fig 7. 31 **Al-Aqsa Mosque: Wilkinson's theory of the planning of *Qubbet al-Sakhrah* in Jerusalem.**

Source: Wilkinson, 1981, p171.

indicated the location of the piers that carry the dome (see Fig. 7.32:1). This unit of planning, when repeated, generates another square that inscribes the building (see Fig. 7.32:2). With the help of the diagonals of the square and its centre point, an octagon will be delineated that indicates the exterior walls of the building (see Fig. 7.32:3). With the help of the midpoint on each side of the octagon, two intersected squares can be drawn indicating the intermediate octagonal enclosure (see Fig. 7.32:4). When lines are drawn between the opposite corners of the outer octagon, another octagon will inscribe the inner circle of the drum that carries the dome (see Fig. 7.32:5).

Whichever of these theories, mentioned very briefly, is the most probable, all of them recognize the precision and harmonic relationships in the setting-out of the plan, and the consistency of determining the heights. The plan, section and elevation relate to one another and indicate that the building of *Qubbet al-Sakhrah* (the Dome of the Rock) was planned with great care indicating how significant the building was intended to be.

What is important concerning the planning procedure observed in chapter six is the use of contemporary architectural language and the possibility of a planning module adopted in the overall planning of the enclave including the planning of the *Qubbet al-Sakhrah*. The dimensions of the building correspond precisely with those of other buildings of the enclave that are contemporary with *Qubbet al-Sakhrah*. For example, the inner diameter of the drum of the building corresponds precisely with the inner length of the Golden Gate (20.37 metres), and the width of the main doors of the building (2.81 metres) is the same as the width of *Bāb al-Hāshmī* and *Bāb al-Asbāt*. Such relationships suggest other coincidences implying some local planning unit used in buildings in Jerusalem. This calls for other investigations to find out whether planning method and measurement units existed in Jerusalem that had been used in Muslim buildings locally or on a national or international scale.

Having examined so far the architectural form and planning of *Qubbet al-Sakhrah*, it

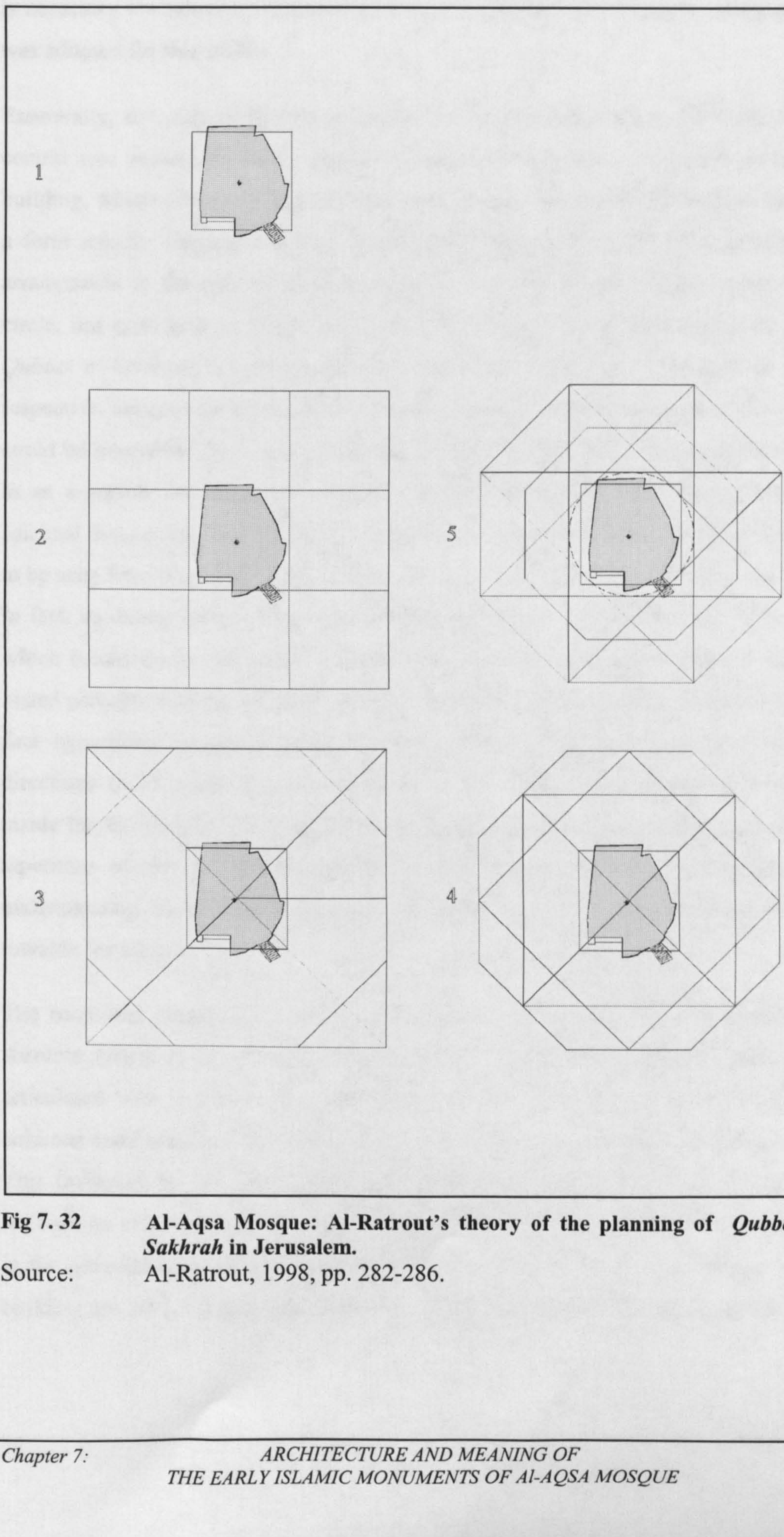


Fig 7. 32 **Al-Aqsa Mosque: Al-Ratrout's theory of the planning of *Qubbet al-Sakhrah* in Jerusalem.**

Source: Al-Ratrout, 1998, pp. 282-286.

is necessary to discuss the question why such a symmetrical centroidal configuration was adopted for this edifice.

Essentially, the plan of *Qubbet al-Sakhrah* was determined by a definition of the central area around the Rock. *Qubbet al-Sakhrah* is a kind of memorial centroidal building, which celebrates its place. Baker argues that the centroidal configuration of a form usually suggests the idea of stability [Baker, 1989, p76]. The geometrical arrangement in the plan of *Qubbet al-Sakhrah,* which consists of the octagon and circle, has gone beyond this idea to imply stability and dynamism, place and time. *Qubbet al-Sakhrah* has no apparent hierarchy in the sides of its octagon or in its respective importance of the four entries, which are exactly the same. This form could be interpreted both as an argument for the building with a centripetal focus or as an argument for the place which is accessible from four sides, symbolising the spiritual focal point for Muslims. From a formal point of view, the building is meant to be seen from afar, and no place in Jerusalem could escape its presence at that time. In fact, its strong far-reaching visual impact operates as a magnetic entity from afar which breaks down into partial and repetitive elements as one draws near it. Such a visual perception of the building, which is the same from all directions, reinforces the first hypothesis by recalling the notion of the building as a focal point for all directions to its centre [Grabar, 1996, p55]. The form of the octagon is repeated inside the building by the massive intermediate boundary. The central point of this repetition of the octagon would be to provide an immediate perception and understanding of the internal space of the building as a whole with a clear focus towards the centre.

The rotational movement is identified in the function of *Qubbet al-Sakhrah*. The absolute symmetry in the areas and form of the building surrounding the Rock were articulated with a diversity of decorative motifs and different styles of capitals, columns and bases and the Qurānic script to invite circumambulation in the building. This invitation by the architectural and artistic treatment of the building basically depends on visual perception, which is reinforced by a slight modification introduced in the geometric precision of the building's plan and elevation. The columns of the building are set 2.5 degrees counterclockwise of their expected locations at the main

axes of the octagon so that every vertical plane appears clearly from any position and, therefore, invites the person to come closer and thus stimulates movement. But nowhere is a place to begin or to end. Such diversity of motifs and styles would, furthermore, provide harmony, and avoid monotony that could result from the symmetrical form. The building, indeed, plays with two different forces: on the one hand, an attraction from all sides towards the centre, on the other, an impetus or push to move around it. This should not be understood as a contradiction, but rather something that strengthens the concept of centrality of the form and its consequence. As the Rock itself continues under al-Aqsa enclave, its top cannot be conceived as a separate entity. The building does not compel particular religious behaviour but it reflects a symbolic meaning. This idea in the design of *Qubbet al-Sakhrah* exists in the archetype of Makkah, where the circular movement of the first Muslim liturgy is performed around the Ka'bah, the character of movement around its polar axis. The Ka'bah orients the direction of Muslim prayers to it, and also invites them to come to visit it from all the Muslim countries during the pilgrimage in order to circumambulate it.

In fact, the relation between *Qubbet al-Sakhrah* and the Ka'bah physically exists in the siting of the layout of the building which shows that the plan of the monument was arranged to respect the *Qiblah* wall of al-Aqsa enclave. This wall is indeed linked with Makkah and not with the cardinal points. This clearly manifests itself in the name of the southern gate of this building, which is identified as *Bāb al-Qiblī* [al-Maqdisī, 1987, p146].

The Proportional System Employed in Qubbet al-Sakhrah

The proportional system employed in *Qubbet al-Sakhrah* displays a harmonic relationship among the different parts of the building. Both Chen and Jacobson suggested that the system's ratios are based on the Golden Section. Their analysis shows that this ratio is close to that of the plan and section and elevation [Chen, 1980, pp.41-50; Jacobson, 1987, pp.145-147]. But a later research of al-Ratrout confirms that the proportion of the building is generated from the octagonal series developed with the help of an octagon that is based on the square [al-Ratrout, 1998, p168]. A certain proportion of 1:1.613 is repeated between length and height of

different parts in the building. This value exists in plan, section and elevation of *Qubbet al-Sakhrah* which indicates the great attention paid to unity in the planning of this building. As the proportion is based on the octagon, the different dimensions in the building may well have been determined with the help of the diagonals of the square (see Fig. 7.33,34,35). No comparative octagonal forms existed in the enclave at that time to examine the relationship between their proportions. But dimensions in *Bāb al-Rahmah* (Golden Gate) correspond well with the dimension of *Qubbet al-Sakhrah*. For example, the inner length of the Golden Gate (20.37 metres) is identical to the inner diameter of *Qubbet al-Sakhrah*. Comparative examples of the precision and harmony in the proportional system which exists everywhere in *Qubbet al-Sakhrah* has yet to be discovered in precedent octagonal buildings. The proportion in the plan of the Church of St. Mary in Nablus and St. Vitale in Ravenna may generally correspond to the plan of *Qubbet al-Sakhrah*, but regarding the section and elevation, the similarities are hardly noticeable.

In short, the proportional system of *Qubbet al-Sakhrah* reflects a high quality of design practice in coordinating the plan, section and elevation of the building that responds to the symbolic meaning of the place as investigated below (see section 7.4.5).

Decoration of Qubbet al-Sakhrah

The decoration of *Qubbet al-Sakhrah* has a significant role in the visual perception of its architecture. It is composed of different materials and textures, such as marble, wood, stucco and mosaic. Glass mosaic is the predominant decorative element of the building inside and outside. For example, the interior mosaic covers an area of more than 1200 square metres [Van Berchem, 1982, p42]. Regardless of the materials employed in the decoration, the artistic motifs undoubtedly display their own theme and subject and play a part in the visual message reflected in the architecture of *Qubbet al-Sakhrah*. According to Van Berchem, at least the decoration of the octagonal and circular arcades of *Qubbet al-Sakhrah* have remained intact and the artistic motifs are still preserved from their early Muslim origins [Van Berchem, 1969, 1: p.217].

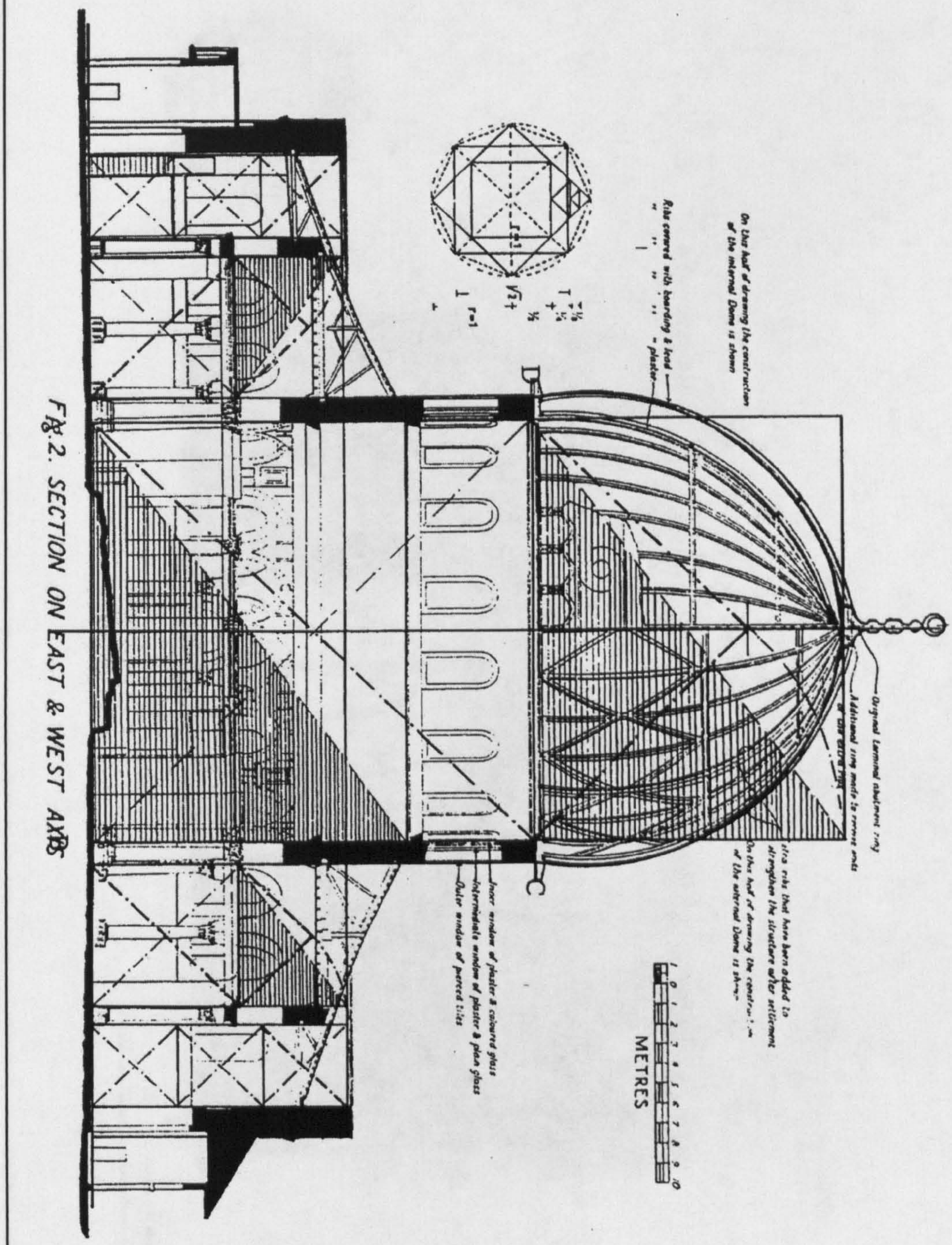


FIG.2. SECTION ON EAST & WEST AXES

Fig 7. 33 **Al-Aqsa Mosque: The proportional system of the cross-section of *Qubbet al-Sakhrah* in Jerusalem.**

Source: Al-Ratrout, 1998, p293.

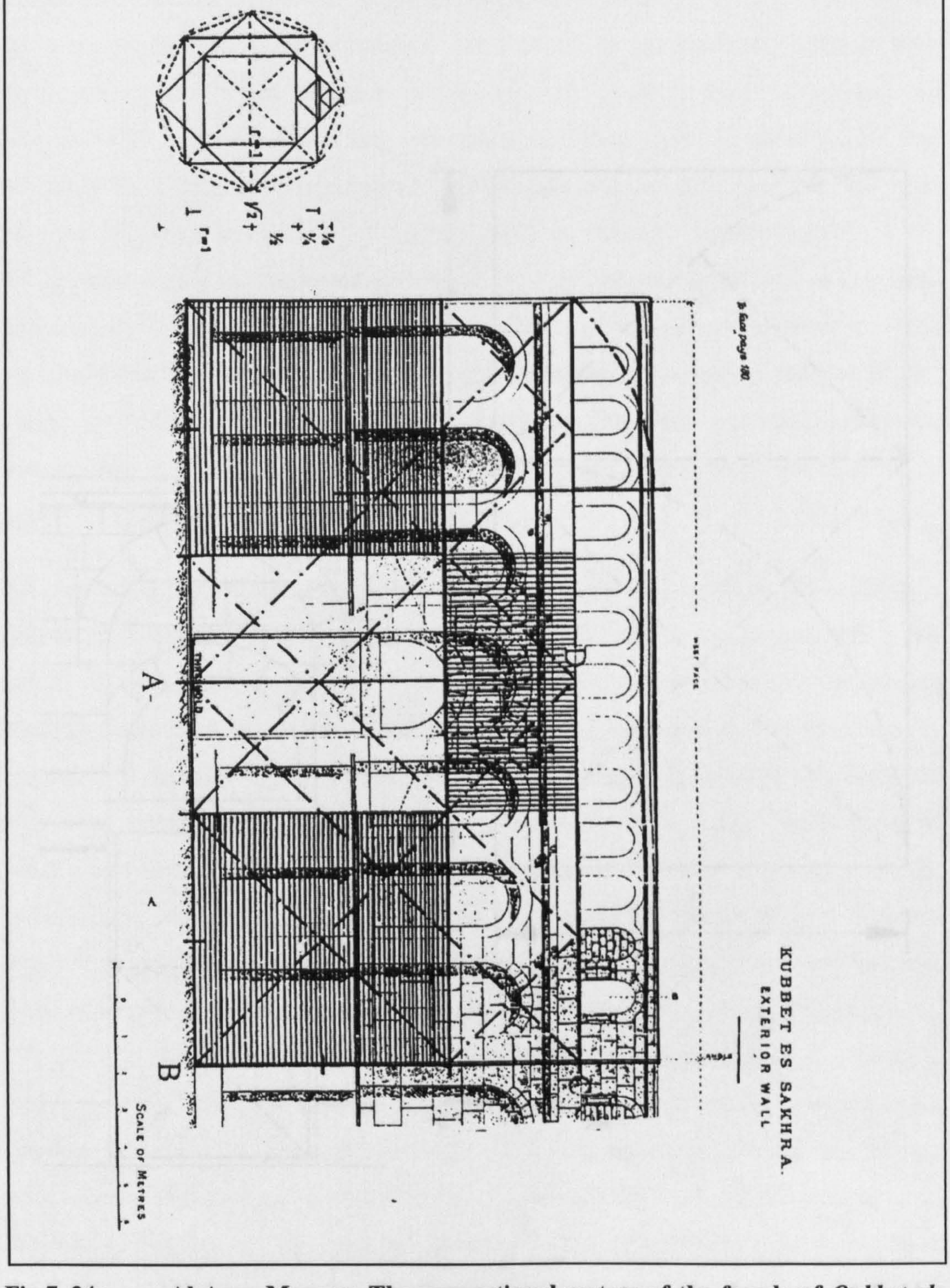


Fig 7. 34 **Al-Aqsa Mosque: The proportional system of the facade of *Qubbet al-Sakhrah* in Jerusalem.**

Source: Al-Ratrout, 1998, p293.

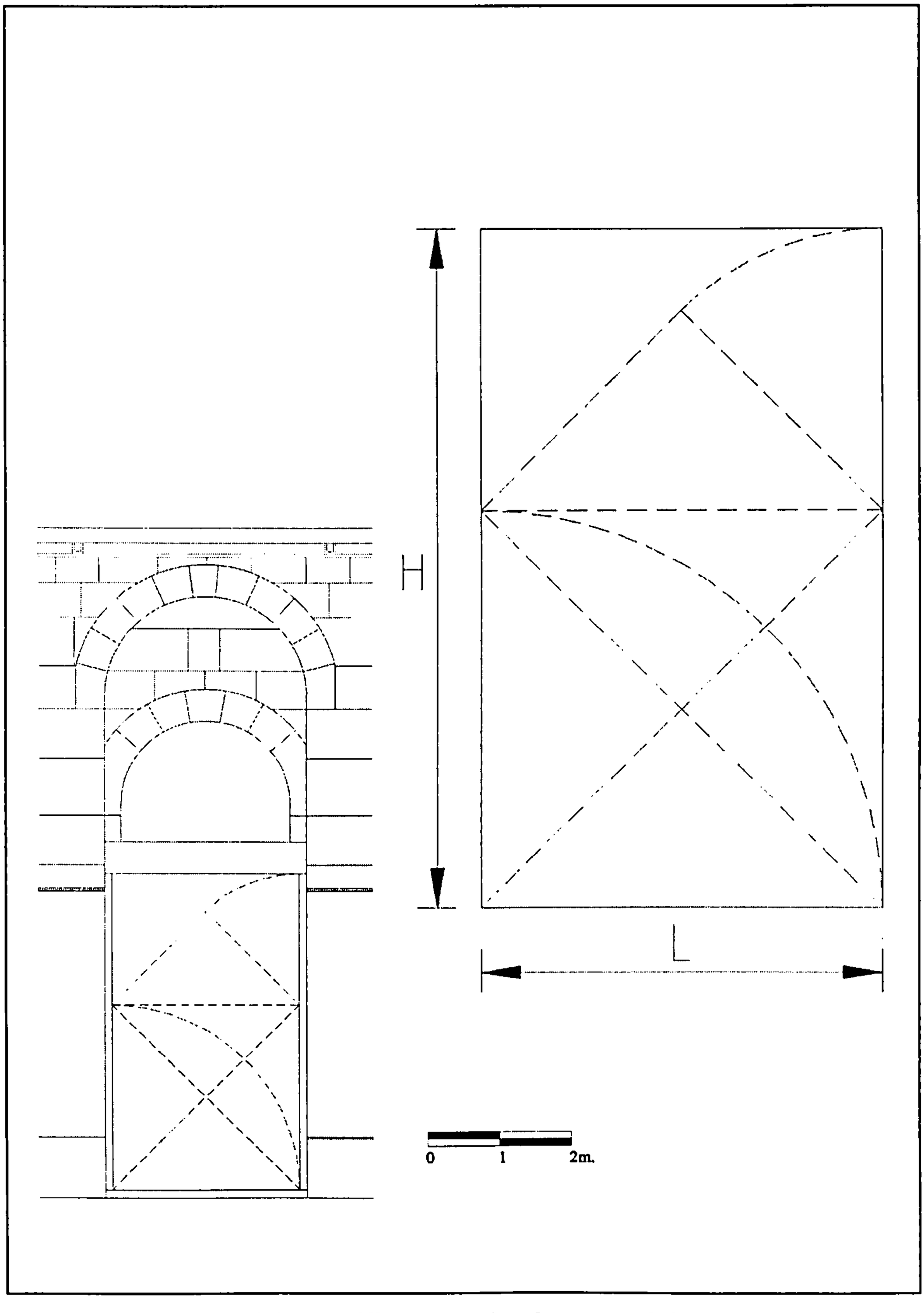


Fig 7. 35 **Al-Aqsa Mosque: The proportional system of the doorways of *Qubbet al-Sakhrah* in Jerusalem (the drawing shows the masonry without mosaic cover).**

Source: The researcher.

It is hard to describe every single motif, because there are too many to be discussed in this study. But architectural and floral compositions can be distinguished among the principal themes in the decoration, some of which are extremely close in their style to those motifs that can be found in *Bāb al-Rahmah* (or the Golden Gate) and *Bāb al-Nabī* (or the Double Gate). According to Rosen –Ayalon, some motifs also resemble local decorative examples of the capitals and carved friezes of some non-Muslim buildings from the 6th-7th century AD in Palestine [Rosen-Ayalon, 1989, p.42]. An example for this resemblance can be seen between the scrolls of acanthus, which decorated the cornices of the dome-piers and the decorated cornice of the pyramidal tomb in al-Bāra in Syria and over a doorway in the same place [De Vogue, 1864, pp.82-83]. In addition, the diversity of jewellery (crowns, necklaces, breastplates, and bracelets) is another striking theme to be seen in the mosaics of *Qubbet al-Sakhrah*.

An interesting and extremely important argument is the way in which the building is decorated on the outside. According to Grabar, exterior mosaics in colour, and in fact colour of any kind, were extremely rare in late Antique architecture in the Mediterranean area or in Iran [Grabar, 1996, p.55]. Mosaics at that time usually consisted of decorative panels over an entrance or a façade, still today with only one significant exception, the Ka'bah in Makkah [Grabar, 1996, p.55]. The building of the Ka'bah was covered every year with a colourful 'vesture' (*kiswah*) until the 'Abbāsid period where the *kiswah* colours were excluded and the *kiswah* becomes black with gold lettering. This covering seems to be part of an extremely venerable Semitic tradition, apparently introduced by an ancient Himyarite king [Burckhardt, 1976, p.4]. This custom is alien to the Graeco-Roman architecture. To cover a building with cloth is understood by Arabs to treat it as a living body which has a spiritual influence on the surroundings. As for *Qubbet al-Sakhrah*, the design technologies of the mosaic decoration, as it was available locally, have been used on the outside to create a long-distance impact as Ka'bah. *Qubbet al-Sakhrah* related to the Rock in a similar way to that employed at the Ka'bah in Makkah. In other words, the archetype of the Ka'bah inspired the design of *Qubbet al-Sakhrah*.

There is more than one explanation for why *Qubbet al-Sakhrah* would have been inspired by the Ka'bah. For example, Muslims built *Qubbet al-Sakhrah* on the sacred sanctity of the second Mosque on earth, which is their former *Qiblah*. The Ka'bah was the only religious reference for the prayers of Muslims. It was the memory of the Arabian religious past that provided the archetype of a sacred building. These reasons resonate well in the religious environment that existed in the seventh century which was coloured heavily by religious fervour [Grabar, 1996, p.66].

Finally, the mosaics of *Qubbet al-Sakhrah* introduce two decorative principles which were to continue to develop in later Islamic art. The first is the non-realistic use of realistic shapes and the anti-naturalistic combination of naturalistic forms. For example, the trunk of the tree in some motifs was transformed into a jewellery box. The second principle is that of continuous variety. The mosaics of *Qubbet al-Sakhrah* show comparatively few types of design –mainly the acanthus scroll, the garland, the vine scroll, the tree, and the rosette. Yet nowhere can we find an exact repetition. Certain variations within a theme represent individualistic interpretations.

In short, the art of the building is really dazzling. The abstraction and absence of mythological stories on its mosaics is very marked in the art of the enclave. These characteristics in the art of *Qubbet al-Sakhrah* are well attuned to Muslim culture with its prohibition of human and animal configuration [Al-Alfī, no date, p83].

7.4.4 Architectural Archetype of *Qubbet al-Sakhrah*

Not only the name of *Qubbet al-Sakhrah* commemorates the Rock but the design concept of the building also indicates an attempt to highlight its significance. The designer of the building dealt with the Rock as an extremely important feature. Although the building surrounded the protrusive top of the Rock, it is located on an artificial platform, itself part of a huge area in al-Aqsa enclave. There was no attempt to cover the Rock or to raise the level of this artificial base that accommodates the building. The level of the inner floor of *Qubbet al-Sakhrah* is located 1.50 metres below the top of the Rock, which makes it distinguishable from the inside. This treatment in the design of the building must indicate that the Rock plays an important role in generating the idea of the design of the building.

The archetype of *Qubbet al-Sakhrah*, is represented in two ways: spiritual and architectural (see Fig. 7.36).

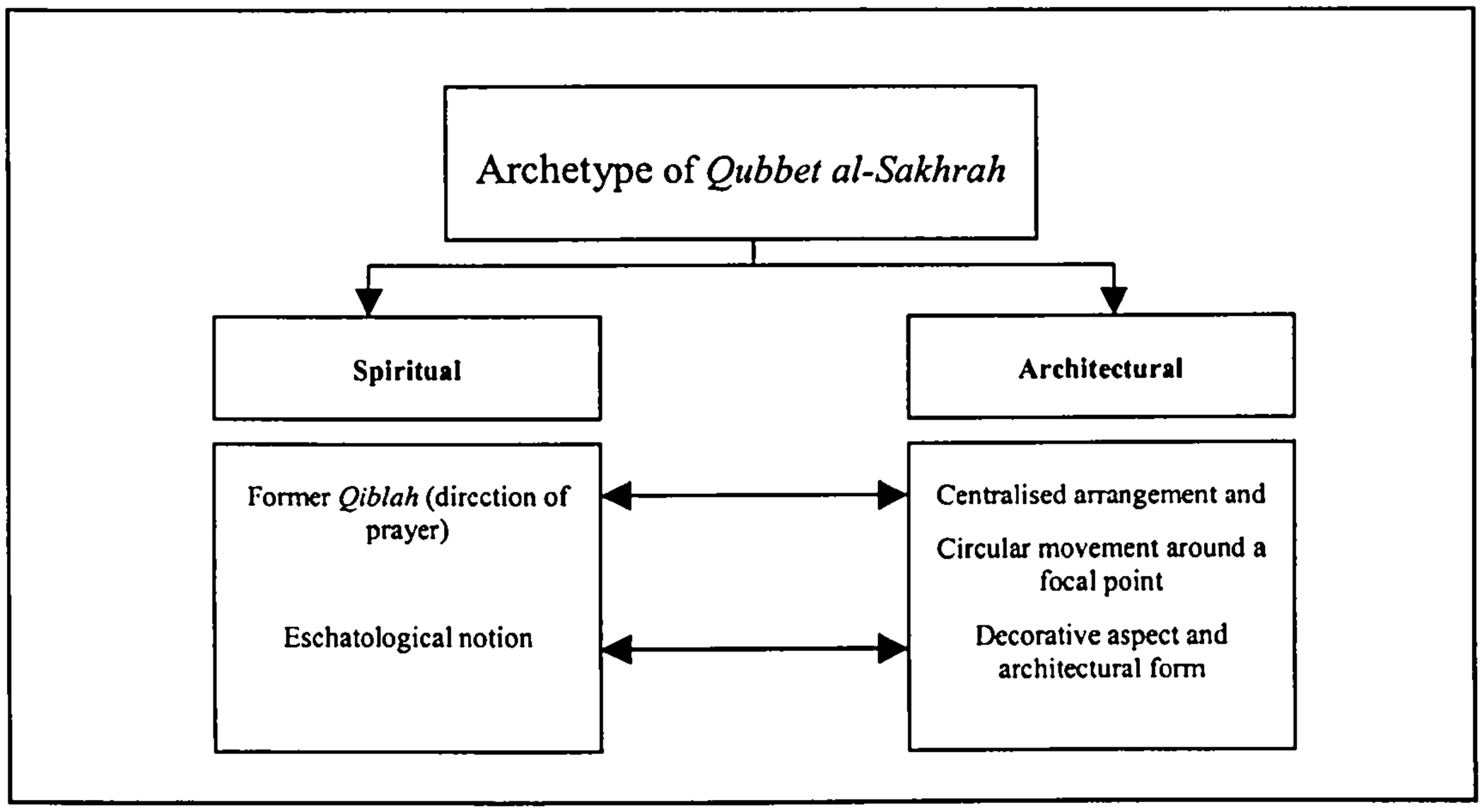


Fig 7. 36 **Al-Aqsa Mosque: The archetype of *Qubbet al-Sakhrah* in Jerusalem.**
Source: The researcher.

The centralised arrangement and rotational movement in the archetype of *Qubbet al-Sakhrah* recalls the archetype of the Ka'bah. They are also reminiscent of *Isrā'* (the mystical flight of Muhammad) from the Sacred Mosque in Makkah to al-Aqsa Mosque in Jerusalem –that was established over the Rock. In other words, the prime sanctity of Makkah was translocated to al-Aqsa Mosque. This translocation fuses the two places in Muslims' imagination. For example, on the Last Day, as it reads in Ibn al-Faqīh, the Ka'bah with its pilgrims will come to Jerusalem [Ibn al-Faqīh, 1996 (902), p.145]. Furthermore, the decorative aspects of the exterior of the building may well shape the exterior cover of the Ka'bah regardless of the difference in techniques. These suggest that the archetype of the Ka'bah may well inspire *Qubbet al-Sakhrah*, and especially for the following similarities between the two places:

— Spiritually, the Rock was the Muslims' *Qiblah* (direction of prayers) as the Ka'bah is then and now. The Rock is part of the sanctity of al-Aqsa Mosque as the Ka'bah is part of the Sacred Mosque in Makkah, both places that are historically linked together in their establishment in Islam.

— Architecturally, the centralised location of the Rock inside the al-Aqsa Mosque corresponds with the central location of the Ka'bah inside the Sacred Mosque. Visits to both of these Mosques were intensely encouraged by Muhammad. The circular movement around the Rock corresponds well with Muslims' circumambulation around the Ka'bah. Moreover, the exterior decoration of *Qubbet al-Sakhrah* symbolizes the embroidered cover of the Ka'bah.

In short, *Qubbet al-Sakhrah* is a memorable building that commemorates the place. It is an archetype that reflects both of the archetypes of Makkah and Jerusalem.

7.4.5 The Meaning of *Qubbet al-Sakhrah*

Few endeavours have been made over the last century to understand the message that was intended to be conveyed throughout *Qubbet al-Sakhrah*. Two arguments on the meaning of the building have been put forward; both are based on the iconographic interpretation of the mosaics. The first relates primarily to religious politics and the second to an eschatological interpretation drawn from medieval stories about Solomon's Temple, and beyond Solomon, to the garden of Paradise which is the destination of all believers. Grabar developed the first interpretation in 1950 when investigating the art of *Qubbet al-Sakhrah*, particularly the mosaic of the inner face of the intermediate octagon. His analysis led him to claim that the representation of jewellery on the mosaic decoration of the intermediate enclosure can be identified as the imperial and royal attributes of Byzantine culture, which thus symbolizes the Muslims' victory over the Christians. Creswell and Van Berchem have both rejected this interpretation but have not offered an alternative. According to them, there are no examples in early Christian art where Christ, the Virgin, or the Saints have been adorned with such rich and glittering jewels as can be seen in *Qubbet al-Sakhrah* [Creswell, 1969, 1: p280]. Hence, according to Creswell and Van Berchem, Grabar's attempt to connect the ornament inside *Qubbet al-Sakhrah* with Christian motifs is far from convincing [Creswell, 1969, 1: p281].

In 1989 AD, Rosen-Ayalon published another interpretation of the meaning of *Qubbet al-Sakhrah*. She argues that the decorative concept in the building was intended to convey a specific symbolic message of Paradise [Rosen-Ayalon, 1989,

p66]. Although Rosen-Ayalon's study is somewhat more convincing, it is not clear yet whether it represents the entire story of the meaning of the building. Her interpretation had indeed been proposed earlier for the mosaic of the Great Mosque of Damascus which was contemporary to that of *Qubbet al-Sakhrah* [Grabar, 1996, p.59]. The central problem with the mosaic decoration is the abundance of sophisticated symbolic systems and abstraction that afforded different interpretations. For example, Rosen-Ayalon argues that *Qubbet al-Sakhrah* illustrates the theme of Paradise while in another part of her study she claims to detect the depiction of the Resurrection. For her, therefore, *Qubbet al-Sakhrah* represents Paradise. However, the Arabic scripts inside *Qubbet al-Sakhrah* do not refer to paradise but to Resurrection and Judgment. Some of the decorative motifs of this building have existed in other monuments inside al-Aqsa enclave, such as *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque), *Qubbet al-Silsilah* (the Dome of the Chain) and *Bāb al-Rahmah* (or the Golden Gate). Some of the motifs of *Qubbet al-Sakhrah* are also repeated in other buildings in relatively close geographical proximity such as the Umayyad Great Mosque at Damascus. All of these Muslim monuments, in fact, differ in their form from *Qubbet al-Sakhrah*.

In 1996 AD Tāmāri published an elaborated study on the symbolic meaning of the early names of the gateways of *Qubbet al-Sakhrah*. He argues in his research, which is based on a historio-architectural approach, that the names of the gateways of *Qubbet al-Sakhrah* reflect an eschatological symbolic message. However, his argument is only elaborated with regards to one aspect of the building, i.e. the early names of the gateways of *Qubbet al-Sakhrah* in connection with Muslims' belief and culture regarding the Rock. Tāmāri's argument which refers to the eschatological 'symbology' of the early names of the gateways of *Qubbet al-Sakhrah*, indicated that "the octagonal outline itself, as it is known, represents more than one symbol" [Tāmāri, 1996, p.5]. The building, still, invites contention.

Hence, it may be of help to the understanding of the full meaning of *Qubbet al-Sakhrah* to approach the building from both an architectural and artistic point of view rather than exclude one or the other. The starting point will be to examine briefly the historical, artistic and urban context of the building. Jerusalem at that time was an

important religious place of the Umayyad caliphs in historical Syria. It was, also, given a political significance as a city in which the Umayyads used to take Muslims' allegiance. Jerusalem is, of course, important for Christians too; among their beliefs is one that the Resurrection of Christ took place in Jerusalem at the place where the Church of the Holy Sepulchre was constructed, which accordingly became a place of Christian **pilgrimage**. Muslims, too, believe in the Resurrection which is in their minds also associated with Jerusalem. Muhammad, indeed, instructed Muslims that the city is the land where the dead will be raised and gathered [El-Awaisi, 1997, p20]. It is also believed that the Rock in al-Aqsa enclave would be the place from which the caller will call out on the last day [Ibn Kathīr, 1994, 4:p294].

Architecturally, the selection of the octagonal form strongly recalls the idea of Resurrection. The form has its precedents in Christian octagonal churches and particularly in the tomb of Jesus in the Holy Sepulchre itself, all of which symbolize the Resurrection. What is significant in this discussion is the Byzantine Church on mount Jerzīm in Nablus, dated to the 2nd half of the 5th century AD and destroyed before the Muslim conquest of Palestine. While it contains an octagon in its planning, it too has a rock at its centre (or a rock-cut tomb). No such octagonal form contemporary to *Qubbet al-Sakhrah* has been revealed in Jerusalem so far. The fact is that both Christians and Muslims share the idea of the Resurrection; they differ, however, in their interpretations. Christians relate the octagon to the Resurrection of the dead, and this may be the reason why octagons were constructed over graves. The Tomb of the Virgin in Jerusalem and the Mausoleum of Diocletian's palace in the middle of the east Adriatic coast (Croatia) are two Christian examples of octagons over graves [Creswell, 1969, 1:p.109; Marasovic, 1970, p17]. As for Muslims, on the day of Resurrection, as it reads in the Qurān, "eight will, that day, bear the Throne" [69:17]. Ibn Kathīr comments that on the Resurrection Day a throne will be placed on earth from which the people will be judged. The eight sides of the octagon correspond to the number eight of the angels that will carry God's Throne [Ibn Kathīr, 1994, 4: p532]. Originally the carriers of the throne are four and only become eight at the time of Resurrection. This idea corresponds to the geometry of the octagon, which has its origin in the **square**. Indeed, in Muslim shrines the octagon is associated with the divine source. No such octagons, constructed over the

Muslims' dead, have been found that are dated to the Umayyad period or before. Umayyads do, however, build octagons, for example, to house the treasury in their Mosques. This link with the treasury recalls the large amount of jewellery depicted on the intermediate octagon of *Qubbet al-Sakhrah*. Such observations lead to the belief that in the early Islamic period the meaning of the octagon form has some association with the Resurrection context rather than representing it.

Another issue of special significance to this discussion, supporting the divinity theme of the octagon form, is the large numbers of *mihrābs* (niches) in the decoration of the building. While these *mihrābs* are represented architecturally as a parapet crowning the building from the outside, they also crown the mosaic decoration and marble carvings inside the building. According to Walī, in all cases where such an element is mentioned in the Qurān it represents the most significant position related to God or a royal place where the King resides [Walī, 1993, p282]. This leads back to the Arabic script, particularly inside the building at the inner face of the intermediate enclosure which stresses basically the oneness of God and rejects the idea that Jesus was his son. It reads from the southern side in counter clockwise direction: -

> ...It is He who gives Life and Death, and He has Power over all things...Allah and His Angels, send blessing on the Prophet: O ye that believe! Send ye blessing on him, and salute him with all respect [33: 56]. O People of the Book! Commit no excesses in your religion: nor say of Allah aught but the truth. Christ Jesus the son of Mary was (no more than) a Messenger of Allah, and his Word, which he bestowed on Mary, and a Spirit proceeding from Him: so believe in Allah and His Messengers. Say not "three": desist: it will be better for you: for Allah is One God: glory be to him: (far Exalted is He) above having a son. To Him belong all things in the heavens and on earth. And enough is Allah as a Disposer of affairs. Christ disdaineth not to serve and worship Allah, nor do the angels, those nearest (to Allah): those who disdain His worship and are arrogant, He will gather them all [4: 171-172]... So peace on him the day he was born, the day that he

dies, and the day that he will be raised up to life (again)! [19: 15] Such (was) Jesus the son of Mary: (it is) a statement of truth, about which they (vainly) dispute. It is not befitting to (the majesty of) Allah that He should beget a son. Glory be to Him! When He determines a matter, He only says to it, "Be", and it is. Verily Allah is my Lord and your Lord: Him therefore serve ye: this is a Way that is straight [19: 34-36] There is no god but He: that is the witness of Allah, His angels, and those endued with knowledge, standing firm on justice. There is no god but He the Exalted in Power, the Wise. The Religion before Allah is Islam (submission to His Will) nor did the People of the Book dissent therefrom except through envy of each other, after knowledge had come to them. But if any deny the Signs of Allah, Allah is swift in calling to account [3: 18-19].

According to Grabar, the contents of the script were meant to define the building's shape [Grabar, 1996, p.66]. In fact, those texts referring to Christians are taken from the Qurān as well as other Qurānic texts referring to Judaism and Islam which are written inside the inner face of the drum of the dome of the building. The central point in this calligraphy reveres and celebrates holiness based on the religious idea of monotheism, which is common to Muslims, Christians and Jews. It is glorifying God that he is omnipotent and celebrating the sanctity of the place as Muslims understood it.

What is interesting in the Cufic script of *Qubbet al-Sakhrah* is some of its content, that it is also related to the Resurrection as the last statement in the calligraphy is: "And Allah is swift in calling to account" which suggests *Yawm al-Hisāb,* (Day of Judgement). This reflects the Resurrection context, which corresponds to the symbolic message of the octagon as derived from Muslim culture. But, it is irrelevant to the Paradise representation argument of Rosen-Ayalon [Rosen-Ayalon, 1989, pp.66-67] where Paradise was portrayed in Christian art as a circle (see Fig. 7.37).

It is often said by later Muslim sources such as al-'Ulaimī and al-Nabulsī (1143 AH/ 1730 AD) that *Qubbet al-Sakhrah* is the very place from which Muhammad

ascended to heaven. However, the early mention of *Qubbet al-Sakhrah* as stated by Ibn al-Faqīh and al-Maqdisī establishes no such link between *Qubbet al-Sakhrah* and Muhammad's ascension to heaven. However, Al-Maqdisī points out that the *Qubbet al-Mi'rāj* (the Dome of the Ascension) [al-Maqdisī, 1987, p145], is located some metres to the north-west of *Qubbet al-Sakhrah*, indicating that Muhammad's ascension has nothing to do with *Qubbet al-Sakhrah*. This in turn encourages the rejection of any idea linking the ascension of Muhammad and Jesus with the octagon of *Qubbet al-Sakhrah* and with the octagon of the Ascension Church on the Mount of Olives, the octagon of which is confirmed by Bagatti to be of Crusader origin while the earlier pre-Crusader Church was not octagonal in plan [Bagatti, 1971, Fig. 88].

The notion of eschatology was evidently still fervent in the 10th century AD and a clear reference for it can be found in al-Maqdisī's manuscript [al-Maqdisī, 1987, p144]. Moreover, additional evidence reinforcing this argument exists in the building itself and has been noticed since early times. The early names of two of the doors of *Qubbet al-Sakhrah* [al-Maqdisī, 1987, p146] are an indication of the Resurrection Day: the Gate of Israfīl and the Gate of al-sūr "trumpet of the Resurrection". If the name of the door al-sūr existed since the construction of *Qubbet al-Sakhrah*, then the motif of cornucopiae on the interior mosaic of the intermediate octagon is surely to be identified as a trumpet (see Fig. 7.38) [Rosen-Ayalon, 1989, p68].

Such evidence relates to the Muslim eschatology regarding the Rock and al-Aqsa Mosque in Jerusalem as the place of the end of *al-Dunyā* (the world).

Also very helpful in understanding the meaning of *Qubbet al-Sakhrah* is the urban form of the site, especially the platform of the building which rises some metres above the surroundings. The number of arcades at the edge of the platform of *Qubbet al-Sakhrah* also holds a similar, if not the same, symbolic meaning. They acquired the name of *al-Mayazīn* (scales) which connects them with the Last Day. This also corresponds with other names given to parts of al-Aqsa enclave, for instance, *Bāb al-Rahmah* (Mercy) (or the Golden Gate) and the valley of *Jahannam* (Hell) which are established at that time.

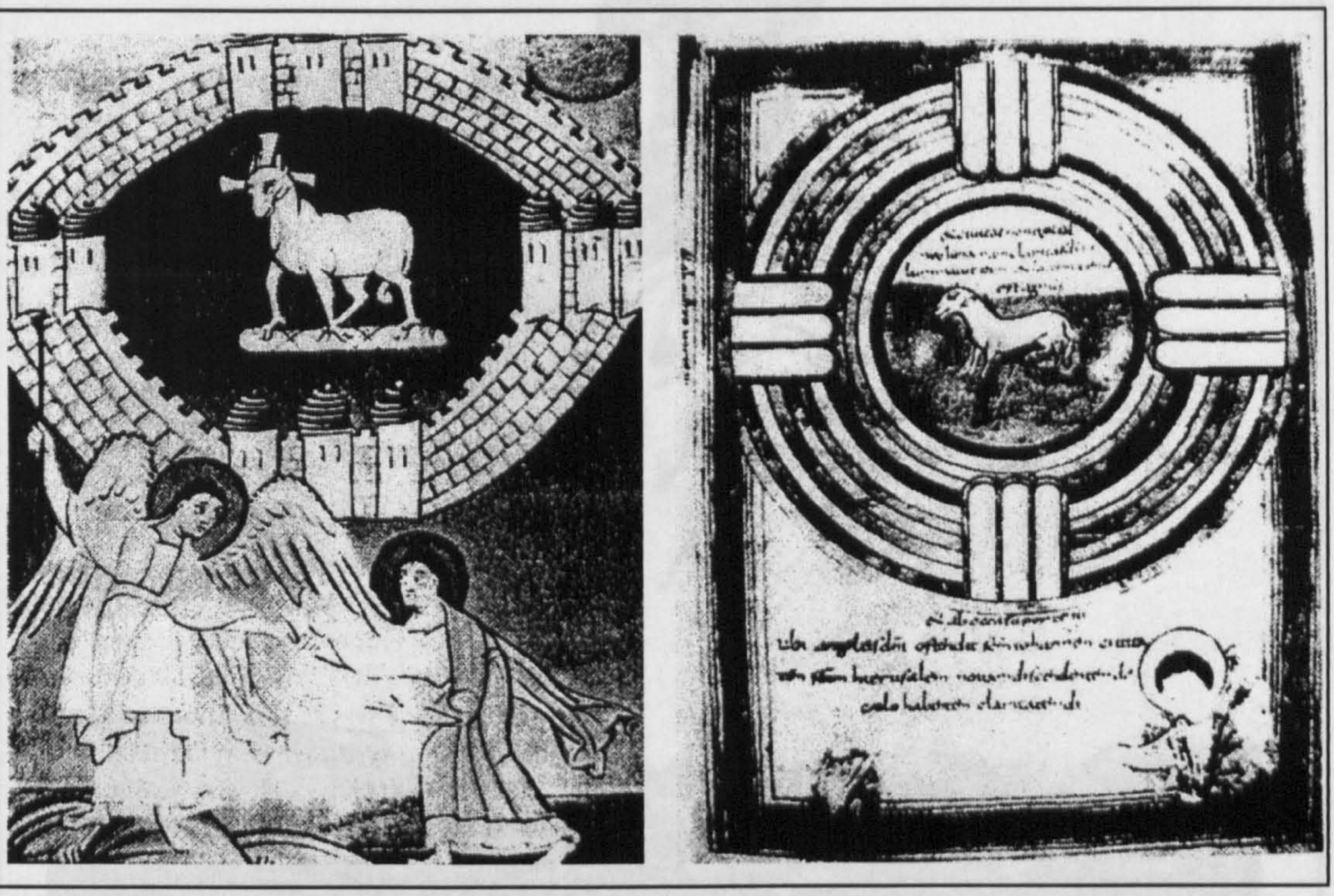


Fig 7. 37 **Two Christian miniatures which show an interpretation of the Heavenly Jerusalem in an apocalyptic vision. Both of them portray paradise as a circle. On the right the manuscript dates to the 9th century AD (in the Municipal Library, Valenciennes), on the left the manuscript dates to the 1ST quarter of the 11th century AD (in the Stadtbibliothek, Bamberg).**

Source: Rosen-Ayalon, 1989, pp. 66-67.





Fig 7. 38 **Al-Aqsa Mosque: Cornucopiae, detail of mosaics; the upper picture is at the circular arcade of *Qubbet al-Sakhrah*, and the lower one is at its northern intrados.**

Source: Creswell, 1969, 1: pp. 270-272.

The octagon is a geometrical expression of number eight. The concept of numbers in Islam is similar to the Pythagorean system where numbers are qualitative as well as quantitative entities. They are not identified simply by addition, subtraction, multiplication, and division [Ardalan & Bakhtiar, no date, p31]. In Christianity, eight symbolises Resurrection [Harastanī, 1991, p215] in contrast to Islam where eight is related to the Divine source, particularly to the throne of God [Ardalan & Bakhtiar, no date, p.31; Tāmāri, 1996, p.11].

Finally, it is relevant to end the argument of this section by referring to Ardalan & Bakhtiar's study regarding the general concept of the octagon and the dome in Islamic perspective that, indeed, fitted *Qubbet al-Sakhrah*. He argues that the dome rested upon a square surrounded by an octagon which symbolized the eight angels, the bearers of the throne [Ardalan & Bakhtiar, no date, p31]

To summarize, everything in *Qubbet al-Sakhrah* leads to the belief that this monument symbolises the throne of God. This is imbued with eschatological emotions, such as the Last Day, the Resurrection, Judgment Day for which, according to Muslim belief, the Rock would be the place of eschatological activity, particularily, blowing the trumpet of the Last day. The religious meaning of the octagon in Muslims' culture also fits well the context of the Resurrection associated with the place; it is an emblem of transition from death to life and, of course, a symbol of return to the divine creator. This idea of transition corresponds to the structural solution in Muslim architecture in transforming forms from square to sphere. In symbolic terms, Muslims can understand such a solution as a relationship linking earth to Heaven.

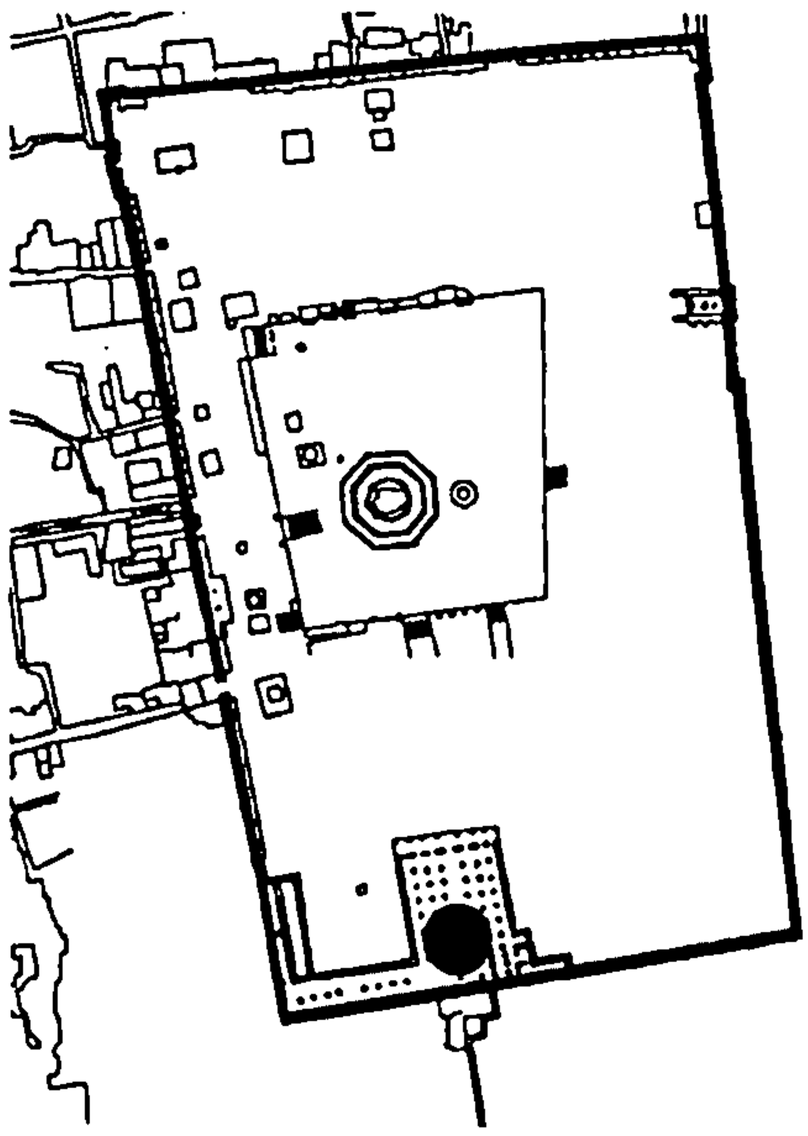
Qubbet al-Sakhrah may well have been inspired by the Ka'bah in its remote impact. The archetype of *Qubbet al-Sakhrah* with its eschatological emotions must have facilitated creating a link with the Ka'bah or the Church of the Resurrection by the early scholars al-Ya'qūbī and al-Maqdisī. They saw the reason for the building as being an intention to divert Muslim pilgrimage or as a challenge to the Church of the Holy Sepulchre. But this does not seem acceptable, especially when considering the impact of the contemporary political environment on these early writers.

Examples of comparable earlier octagonal buildings are known in antecedent non-Muslim buildings such as St. Vitale in Ravenna, the octagon of the palace church in Aachen in Germany and the Church of St. Mary in Nablus in Palestine. Much of the building materials of *Qubbet al-Sakhrah* such as bases, columns and capital are relicts of Byzantine or Roman buildings. The original feature of *Qubbet al-Sakhrah* is the way in which the dome itself projects out of the octagons. These issues will be discussed in more detail in the next chapter.

What then is *Qubbet al-Sakhrah*? It is an early Muslim building displaying the Muslim belief in the sanctity of the place of al-Aqsa enclave and its symbolic meaning associated with the Last Day judgment. The reasons for its construction are a mixture of religion and politics. 'Abd al-Malik considered the city's great wealth of religious association to strengthen the bond of Muslims to Jews. He also saw Jerusalem as a place of second Mosque established on earth as believed by Muslims and their former *Qiblah*. It is a part of the urban syntax in the overall early Muslim scheme of al-Aqsa enclave that exerts a powerful and deliberately contrived impact in developing a full three-dimensional Islamic image for Jerusalem.

7.5 *Al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque)

Al-Jāmi' al-Aqsa (al-Aqsa Congregation Mosque) is situated today at the southern wall of the enclave, opposite *Qubbet al-Sakhrah*. Some early scholars such as Warren erroneously identified *al-Jāmi'* as the Christian *Nea* (Greek for "new") Church of St. Mary built by Justinian, or believe that it was originally built on its ruins [Warren, 1970, p39]. This suggestion is based on the floor plan of *al-Jāmi'* al- Aqsa (al-Aqsa Congregation Mosque), which is that of a multiporticoed basilica with capitals of classical Byzantine style [Ben-Dov, 1985,



p235]. However, the orientation of the main axis of the building towards north-south does not suggest a Christian Church which is always orientated east-west. At the beginning of the 20th century AD, Vincent and Abel, two great scholars of Jerusalem, suggested that the precise location of this church was not at all in al-Aqsa enclave but in another place in Jerusalem. Indeed, their suggestion was latterly confirmed by the excavation of Avigad in the present Jewish quarter where the *Nea* Church was revealed [Avigad, 1976, p51]. Since no other church was suggested as the site of *al-Jāmi'* al-Aqsa so far [Rosen-Ayalon, 1989, p4], it seems that there is no reason to repeat the argument that the site was abandoned by Christians.

The building of *al-Jāmi'* al-Aqsa was surely part of the grandiose early Muslim project of the enclave. This building which replaced the Mosque of 'Umar was on a much larger and more luxurious scale [Rosen-Ayalon, 1989, p5]. This early stage, in turn, raises several questions: Who built *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and why? Where precisely did the previous Congregation Mosque stand? What was the architecture of the new Muslim building? What did the plan of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) look like? What kind of building materials and construction methods were used? To answer these questions there is a need to examine and discuss *al-Jāmi'* al-Aqsa (the early Muslim Congregation Mosque); this matter is of special importance and relevance to the understanding of the evolution of the enclave in the early Islamic period.

7.5.1 The History of the Building of *al-Jāmi'* al-Aqsa

Early Islamic sources relevant to this period are still lacking. Neither al-Ya'qūbī (290 AH/ 902 AD) nor al-Tabarī (310 AH/ 922 AD) mention *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem. Al-Maqdisī (375 AH/ 985 AD) is the first to refer to *al-Jāmi'* al-Aqsa; he attributed its construction to 'Abd al-Malik (66-86 AH/ 685-705 AD). Al-Wāsitī's writings in the early 11th century AD, al-Sayūtī (813-880 AH/ 1410-1483 AD) and al-'Ulaimī (896 AH/ 1490 AD) echoed al-Maqdisī. All of them except al-Sayūtī were Jerusalemites, a fact that might strengthen the credibility of their references.

In contrast, Ibn al-Athīr (630 AH/ 1232 AD) is the first to assign the building of *al-Jāmi'* al-Aqsa to al-Walīd (86-96 AH/ 705-715 AD), the son of 'Abd al-Malik. This position was adopted by some scholars such as Creswell and Sharāb. Ibn al-Athīr wrote two and a half centuries after Al-Maqdisī who had attributed the building to 'Abd al-Malik. He, furthermore, contradicts his own statement in another passage, where he explicitly referred to *Bāb* (door or gate) in *al-Jāmi'* al-Aqsa or al-Aqsa enclave as having been built by 'Abd al-Malik [Ibn al-Athīr, 1863, 2: p20]. It is difficult to ignore the fact that there is some confusion in Muslim sources at the time of Ibn al-Athīr in using the term of *al-Masjid* al-Aqsa in the sense of *al-Jāmi'* al-Aqsa or the entire enclave [Rosen-Ayalon, 1989, p5].

Part of the evidence that encouraged Creswell to accept al-Walīd as the builder of *al-Jāmi'* al-Aqsa is obtained from a number of papyri from Aphrodito in Egypt [Bahat, 1996, p85]. This correspondence in Greek, of a period that lies within the rule of al-Walīd I, wàs between a local prefect and Qurrah Ibn Sharīk, the Muslim governor of Egypt in 90-96 AH/ 709-714 AD. The letters refer to the restoration work of skilled workmen "employed at the mosque of Jerusalem" [Creswell, 1969, 1: pp.373-374]. The reference, in one case, is to ensure "maintenance of the laborers for the mosque of Jerusalem..."; in another, reference is made to "the cost of oil and salt for the maintenance of laborers employed at the mosque of Jerusalem...three persons for twelve months..." [cited in Rosen-Ayalon, 1989, p6]. This reference, as Rosen-Ayalon argues, relating to this small number of workmen, did not indicate a huge work force size but seemed to highlight a limited construction activity in al-Aqsa enclave or a regular restoration work already long in progress. Another interesting point in these documents is that they refer only to the "Mosque of Jerusalem" and *Dār al-Imāra* (the Palace), but no mention is made to *Qubbet al-Sakhrah*, obviously already completed by the date of the letters. Therefore, it can be concluded that the son of 'Abd al-Malik finished the project. If this were not the case, why would 'Abd al-Malik build the enclave, including its different monuments, and eliminate *al-Jāmi'* al-Aqsa from his initiative, especially as this structure is the principal part of the overall religious site. In any event, if such a big project had been initiated by 'Abd al-Malik, it must have taken several years to finish. The building of *al-Jāmi'* al-Aqsa which is situated over an underground passageway of *Bāb al-Nabī* (or the Double

Gate) needed the underneath passageway to be finished first, so the expected date when the construction of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) had been completed should be later and not the same as that of other buildings in the enclave. Therefore, it is hard not to conclude that the construction work of *al-Jāmi'* al-Aqsa was initiated by 'Abd al-Malik and finished under the rule of his son al-Walīd.

7.5.2 Architecture of *al-Jāmi'* al-Aqsa

The architecture of the present *al-Jāmi'* al-Aqsa forms a rectangle of masonry directed north-south and consists of a wide central nave with a gabled timber roof and a cupola at its southern end (see Fig. 7.39, 40). The nave walls contain two rows of arched windows, very slightly pointed in their form, spaced vertically, with three windows above each arch. On each side of the nave is a series of aisles directed north-south and divided by arcades with slightly pointed arches, which are geometrically constructed from two centres (see Fig. 7.41) [Hamilton, 1949, p4]. This type of arch used in the arcades is necessary to reduce the lateral thrust. It is also strengthened by using tie-beams between the columns of the arcades, which resist the horizontal force resulting from the arch, and it also works as a decorative element.

A colored mosaic and marble have been used predominantly to decorate *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). This is how *al-Jāmi'* al-Aqsa looks today, but, the building of *al-Jāmi'* al-Aqsa in the early Islamic period was different. Therefore, it is necessary to examine what history and archaeology can contribute to construct a clear picture of the earliest evolution of the building.

The historical sources that are available so far do not mention any description regarding the earlier phase of *al-Jāmi'* al-Aqsa nor its architecture. The earliest recorded reconstruction of the building is related to a major change to *al-Jāmi'* al-Aqsa that would have been dictated by the 'Abbāsid caliph al-Mahdī (164 AH/ 780 AD). His reconstruction was carried out ten years or twenty years after Abu Ja'far al-Mansūr's restoration (about 155AH/ 771AD) to some parts of the Mosque that

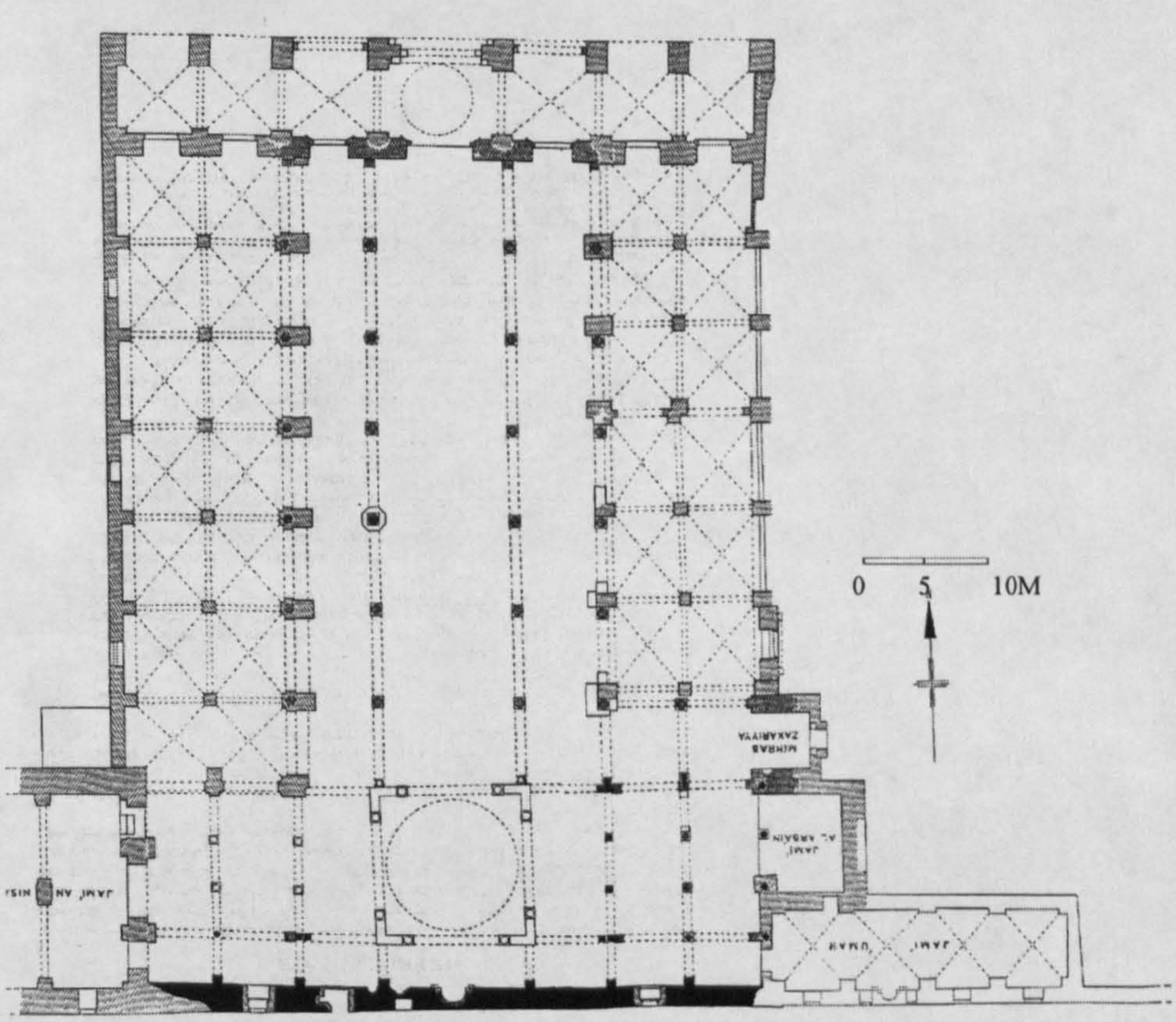


Fig 7. 39 **Al-Aqsa Mosque: Plan of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem as it looks today. The black colour illustrates the early Muslim surviving traces in the present *al-Jāmi'* al-Aqsa.**

Source: After Hamilton, 1949, pi.

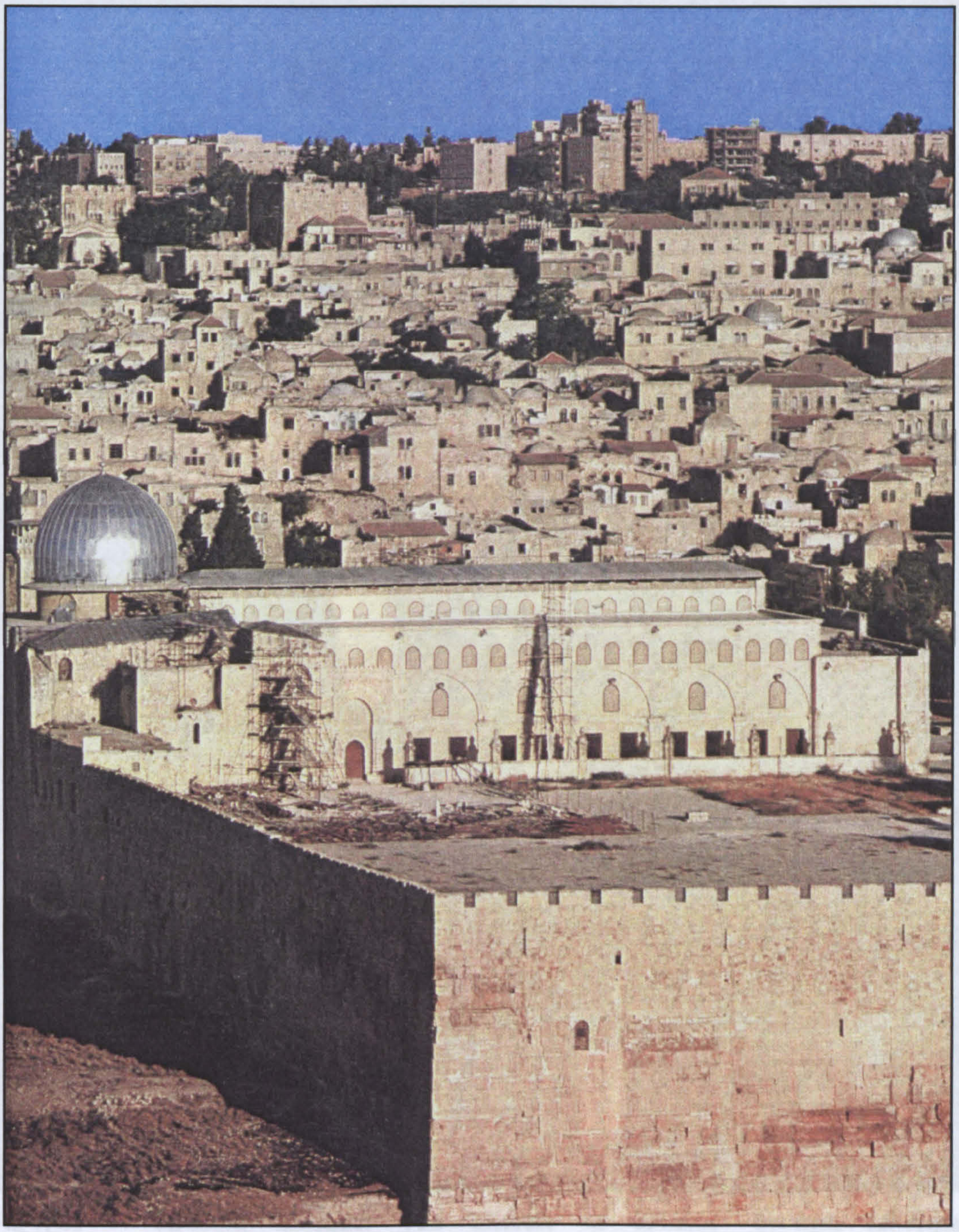


Fig 7. 40 **Al-Aqsa Mosque: *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem today looking north-west.**

Source: Duncan, 1972, p17.

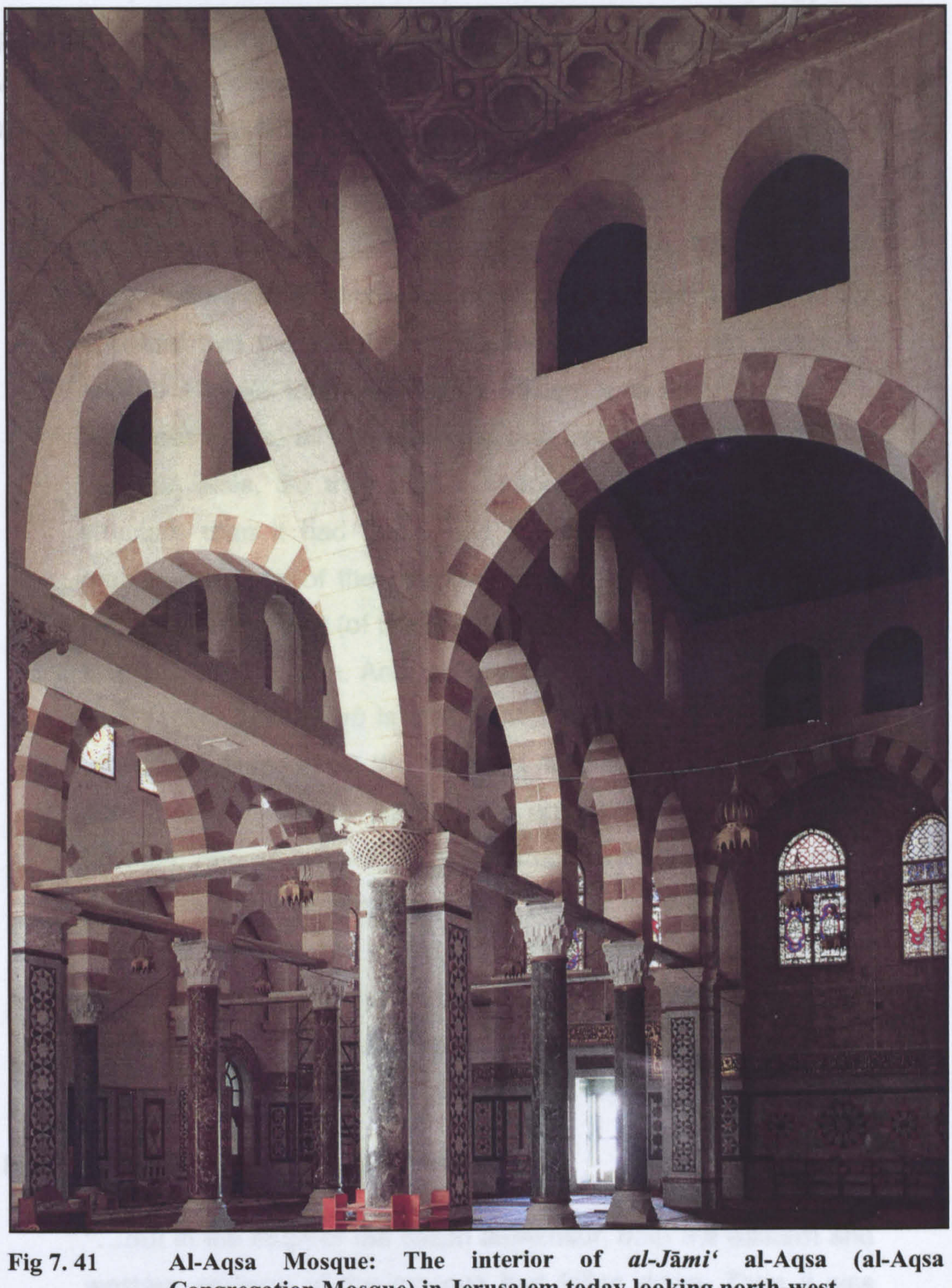


Fig 7. 41 **Al-Aqsa Mosque: The interior of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem today looking north-west.**

Source: Grabar, 1996, p148.

earlier collapsed as a result of an earthquake in 130 AH/ 746 AD [Briggs, no date, p38]. The following statements are the earliest references to *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) that were made by al-Maqdisī (375 AH/ 985 AD) and the author of Muthīr al-Gharām (752 AH/ 1351 AD):

> "...But there occurred an earthquake in the rule of 'Abbāsids and this caused the collapse of the covered part, except that around the *mihrāb* (niche). And when news of it reached the caliph, he was told that the treasury of the Muslims would not suffice to restore it to its former state; so he wrote to the rulers of the provinces and to all commanders, that each one of them should build an aisle. So they built it stronger and more massive in structure than it had been, and this new construction, which reaches the limit of the marble columns, was renowned for its beauty; and the part (of the congregation Mosque) that has piers is a new construction. And the covered building has 26 doors, a door facing the *mihrab* is called the Great Bronze Door, plated with gilded brass... On the right of it are seven big doors, with a door in the middle of them plated and gilded; and on the left likewise. And on the side toward the east are eleven plain doors. And among the fifteen aisles is a portico on marble columns, which was later added by 'Abdallah Ibn Tahir... Over the middle of the covered building is a great gable followed by a beautiful dome; and all the roofs except at the back are covered with sheets of lead." [al-Maqdisī, 1987 (985), p145].

Muthir al-Garam's reference is as follows:

> "...But in the reign of the caliph al-Mansūr, both the eastern and western portions of the mosque had fallen down. Then it was reported to the caliph, saying "O commander of the faithful, verily the earthquake in the yeas of 130 AH/ 746AD caused the collapse of the eastern part of the mosque and the western part

also; now, therefore, do you give order to rebuild the same and raise it again". Then al-Mansūr commanded the building of the mosque. But the building collapsed (again). In the days of the caliph al-Mahdī, who succeeded him, the mosque was still lying in ruins. When this was reported to him, he commanded them to rebuild the same and the caliph said that the mosque had been...too narrow, and of too great length, and...it had not been much used by the people... therefore, they should curtail the length and increase the breadth. Now the restoration was completed on the new plan during the days of his caliphate" [cited in Le Strang, 1970, p102].

During restoration work to *al-Jāmi'* al-Aqsa in 1938-1942 AD Hamilton made a significant discovery in the earliest building as it existed in the early Islamic period. With the help of several archaeological soundings sunk into the floor of the present *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and his critical observations, it was possible to distinguish remains of the early Muslim building. He revealed a marble pavement of flagstones located some 0.80 metre below the present floor. The pavement extends from the southern wall of the enclave and came to an end at the south face of a **wall** some 19.00 metres short of the present wall of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). The surviving part of this wall is 1.00 metre thick, and consists of sized header blocks of white limestone laid through the entire wall. It is dressed clean faced and bears the marks of a comb-pick and runs almost parallel to the present northern wall with a slight diversion to the south at its western end. The diversion is measured to be nearly E2.7N degrees from the southern wall of the enclave. Moreover, the wall once had pilasters of 0.62 metre in width, stepping off the wall and forming the responds of arcades. The distance between the pilasters is measured to be almost 6.80 metres from axis to axis, and that between the two aisles of the discovered pilasters is 12.90 metres from their faces. Only one sill of a large doorway was revealed at the third aisle to the east of the present dome. It is fitted with sockets for door pivots on either side.

As for the other uncovered parts of the wall there were no traces of any door (see Fig. 7.42) [Hamilton, 1949, pp.53-64].

The early Mosque had a porch at its northern far end with a light colonnade protecting the entrance of the mosque. It led to a forecourt open to the sky. Traces of white plaster coating were discovered on the south face of the wall, as well as fragments of plaster painted in dull red, yellow and black which were discovered within the porch. These suggest that the wall of the mosque was decorated with painted plaster [Hamilton, 1949, p65].

In short, the earlier building had a north-south dimension, which was 19.00 metres shorter than that of the present day, and had a marble floor 0.50-0.80 metre below the present floor. The early building had no dome and was divided into aisles, which ran north to south. The arcades that separated these aisles were spaced by an average distance of 4.20 metres from centre to centre and had a thickness of 0.62 metres; these ended in wall pilasters of the same dimension. At the north front of the mosque there was a porch measuring 4 metres in width, running parallel to the northern wall (see Fig. 7.43). The main axis of the building and its width is still unknown, as are the number of doors determined.

The early Muslim *al-Jāmi'* al-Aqsa was replaced with a new one when its northern wall was razed either completely, or within one course to the ground. The earlier marble floor was abandoned, and most of the slabs were probably lifted [Hamilton, 1949, p60].

The new building also replaced the early system of arcades by a secondary system, which incorporated some elements of the old; the alignment of the old arcades and their original intercolumniation were retained (see Fig. 7.44).

According to Hamilton, it was the second al-Aqsa (or *al-Jāmi'* al-Aqsa) that brought into being the dome and the present north wall of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) [Hamilton, 1949, p60]. The dome was additionally supported on the west and east by arcades running up to its corners (see Fig. 7.45) [Wilkinson,

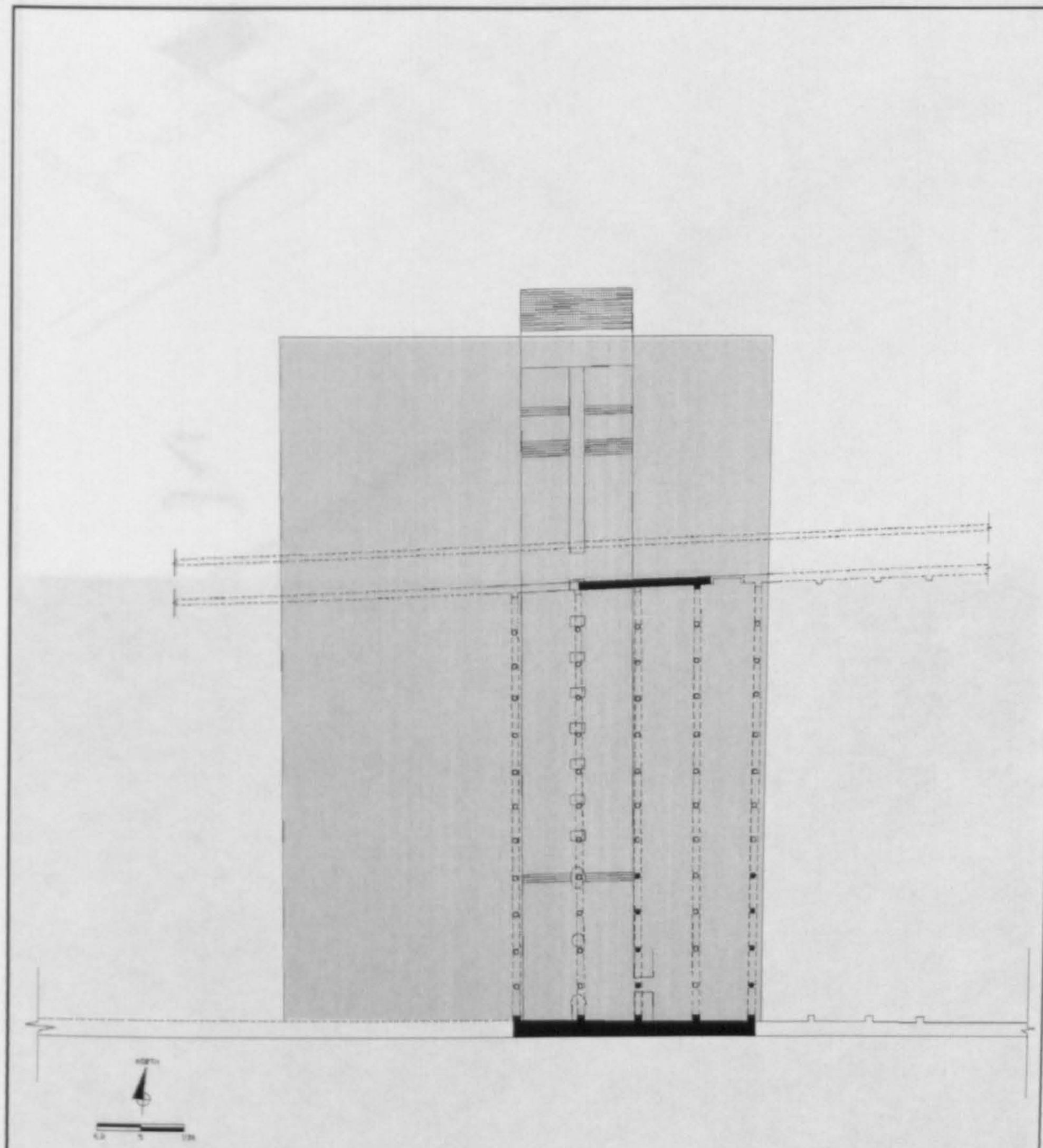


Fig 7. 42 **Al-Aqsa Mosque: The surviving early Muslim traces of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem. The plan is based on the archaeological excavation of Hamilton.**

Source: After Hamilton, 1949, p52/ Fig.30.

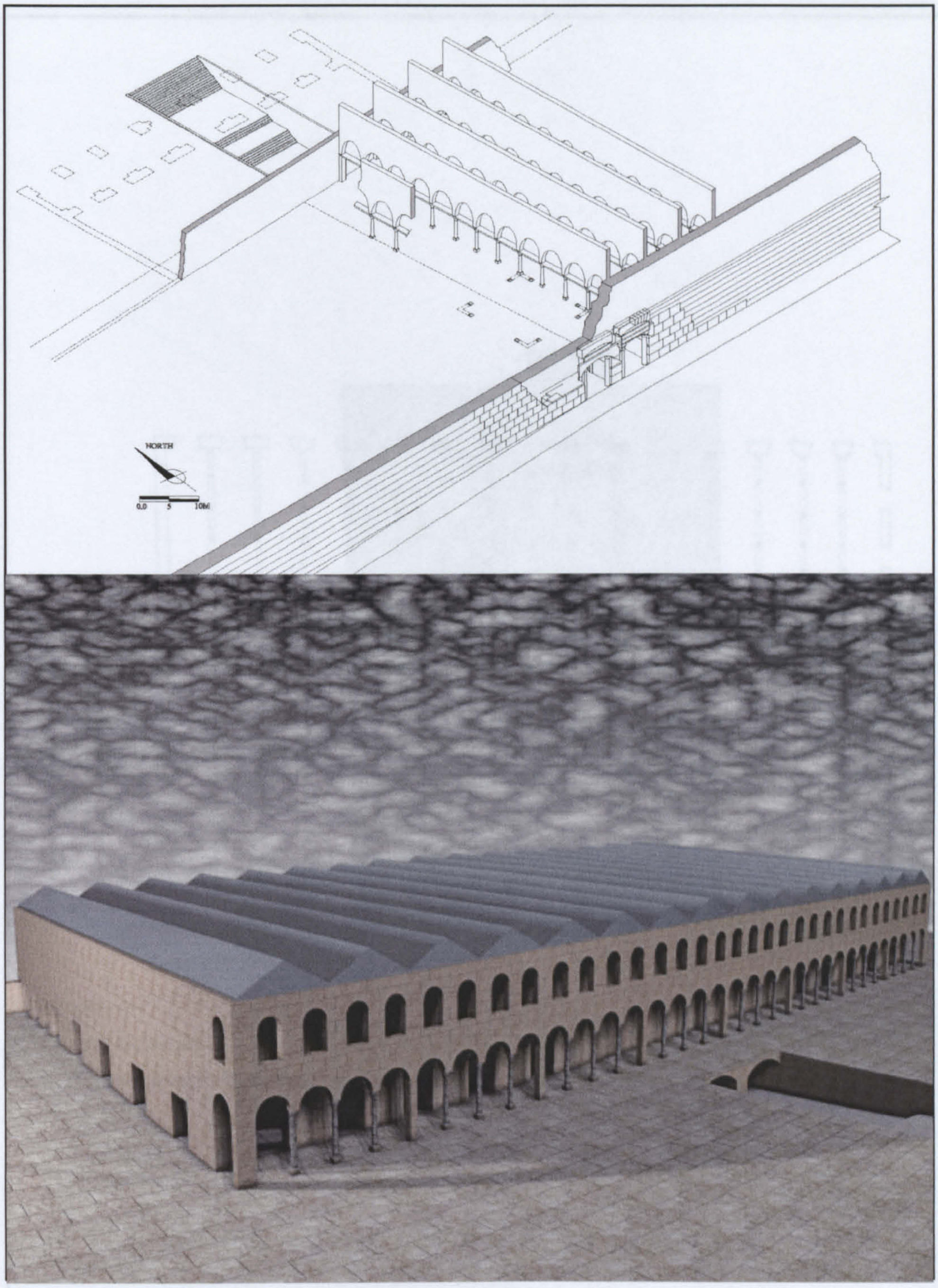


Fig 7. 43 **Al-Aqsa Mosque: Reconstruction for *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem as it may well have looked in the early Islamic period. The top picture (looking north-east) represents the architectural arrangement of 'Abd al-Malik's building while the bottom represents a suggested computer image of the building at that time based on archaeological evidence and al-Muqdisī's description of *al-Jāmi'* al-Aqsa (looking south-west).**

Source: The researcher.

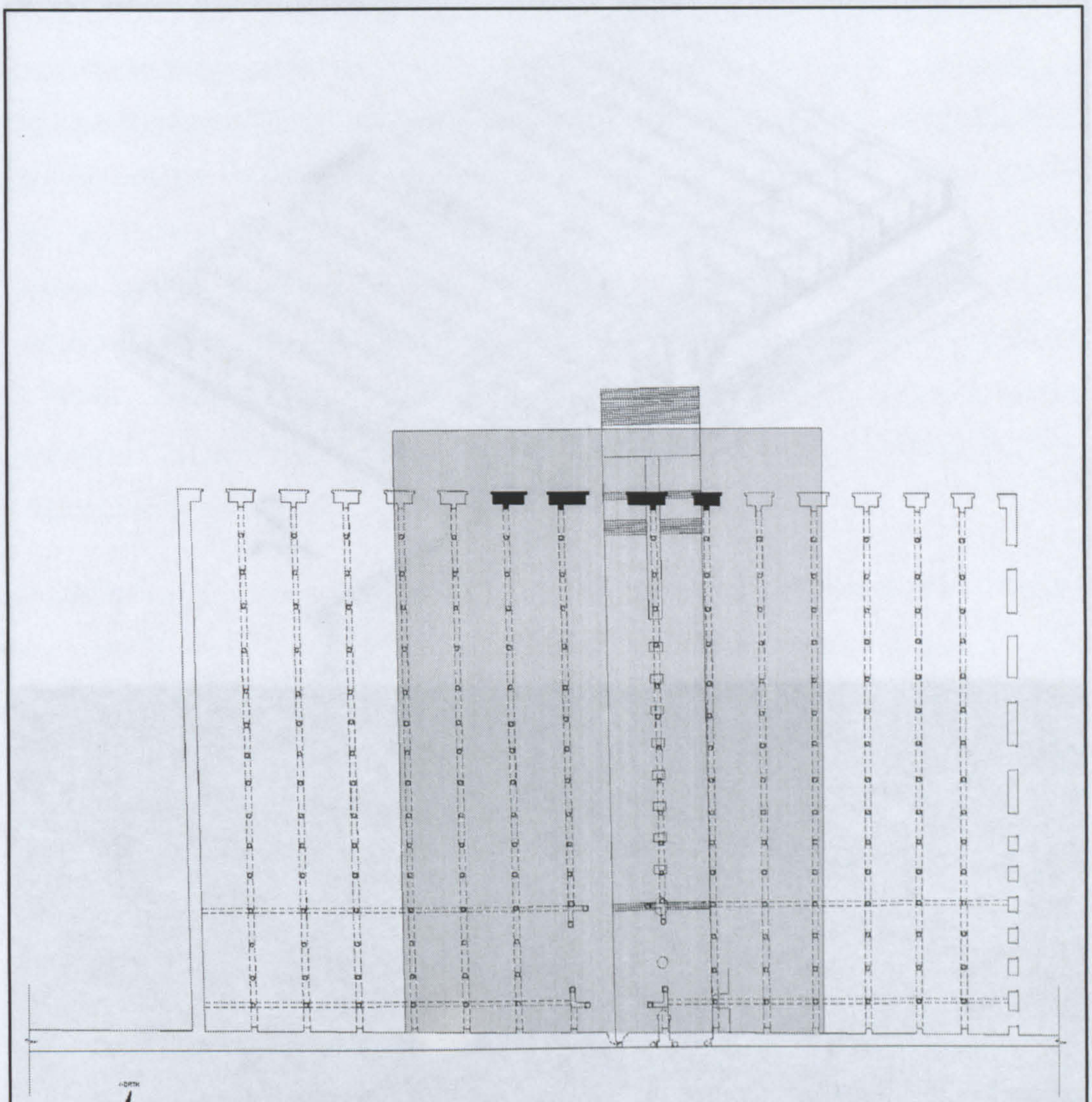


Fig 7. 44 **Al-Aqsa Mosque: *Al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem as it may well have looked in the 'Abbāsid period. The plan based on the archaeological excavation of Hamilton and on the historical description of al-Maqdisī, an important source of information about the structure of the Mosque prior to the great earthquake in Jerusalem in 425AH/ 1033AD. It is also based on other accounts from that period.**

Source: The researcher.

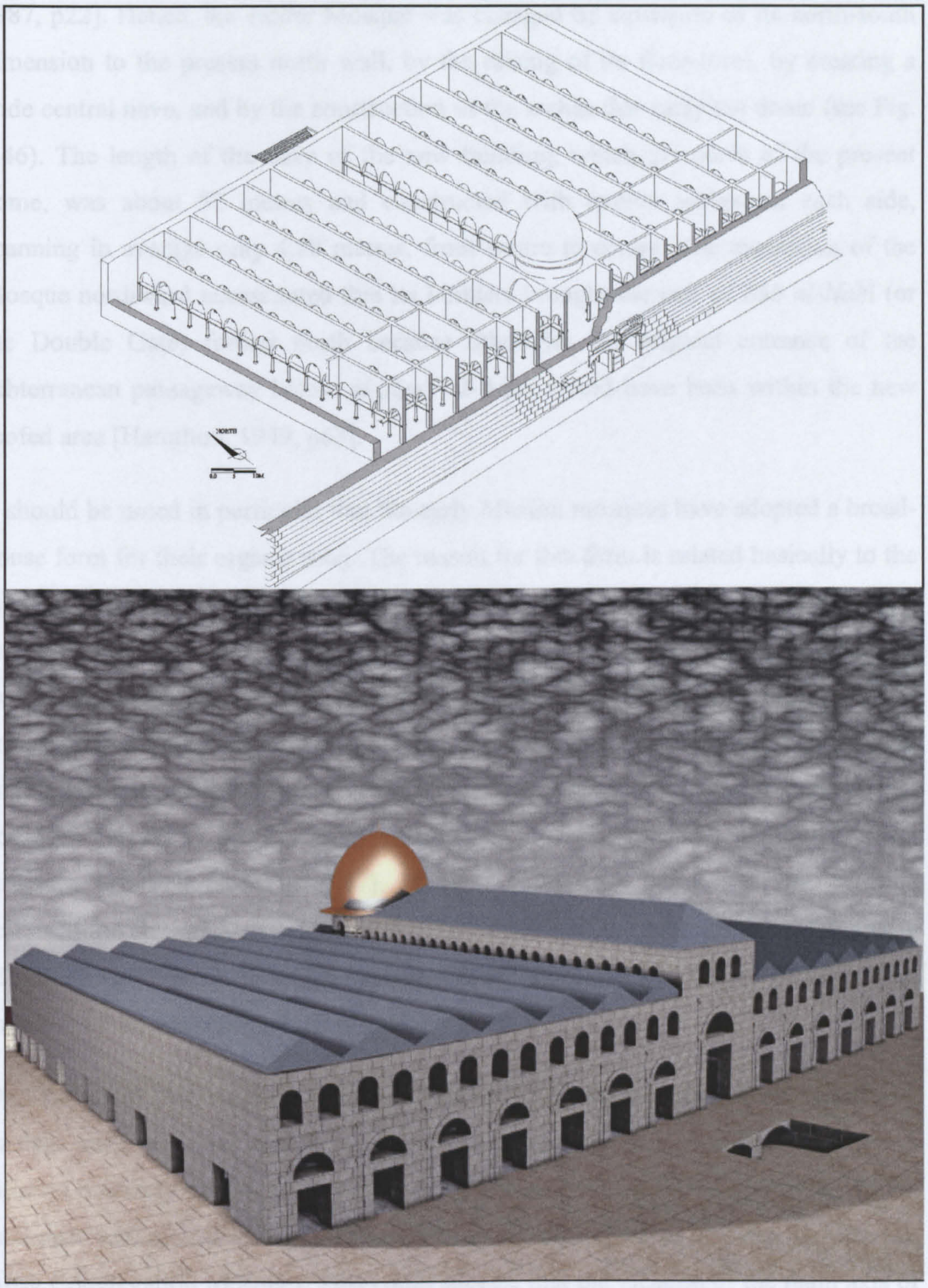


Fig 7. 45 **Al-Aqsa Mosque: Reconstruction for *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem as it may well have looked in the 'Abbāsid period. The top picture represents the architectural arrangement of al-Mahdī's building while the bottom represents a suggested computer image of the building at that time (looking south-west).**

Source: The researcher.

1987, p22]. Hence, the earlier Mosque was changed by extension of its north-south dimension to the present north wall, by the raising of its floor-level, by creating a wide central nave, and by the construction of the arches that carry the dome (see Fig. 7.46). The length of the nave of the new building, which lay north of the present dome, was about 52 metres and constructed with twelve arches on each side, spanning in average only 4.28 metres, from centre to centre. The expansion of the Mosque northward necessitated that its builders brought the exit of *Bāb al-Nabī* (or the Double Gate) further north because otherwise the original entrance of the subterranean passageway below *al-Jāmi'* al-Aqsa would have been within the new roofed area [Hamilton, 1949, p63].

It should be noted in particular that the early Muslim mosques have adopted a broad-house form for their organization. The reason for this form is related basically to the type of function inside the mosques, where the prayers stand in long parallel rows that are perpendicular to the direction of Makkah. So the aisles in the mosques used to take the same arrangement. The case of *al-Jāmi'* al-Aqsa is different; unlike the contemporary Umayyad Mosque at Damascus, the aisles of the building ran at right angles and not parallel to the *Qibl*ah (direction of prayer) wall. The reason for that could be related to the structural necessity to fit the arcades to the subterranean structure below it (see Fig. 7.47). In other words, the builders of the Mosque followed the arrangement or direction of the arcades of the subterranean passageway of *Bāb al-Nabī* (the Double Gate) below and, therefore, avoided the use of support on the back of the underlying vaulted passage.

One last point that must be made in favour of the relation between the underlying vaulted passage below *al-Jāmi'* al-Aqsa and *Qubbet al-Sakhrah* is that the latter is situated precisely on the north-south axis of *Bāb al-Nabī* (or the Double Gate) which is almost 4.00 metres to the east of the main axis of the present *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). This could suggest that the location of the main axis of *Bāb al-Nabī* and that of *al-Jāmi'* al-Aqsa in the Umayyad period were the same. If this were the case, then why was the axis of *al-Jāmi'* al-Aqsa slightly moved to the west after the construction of its dome and its elongation? The location of the

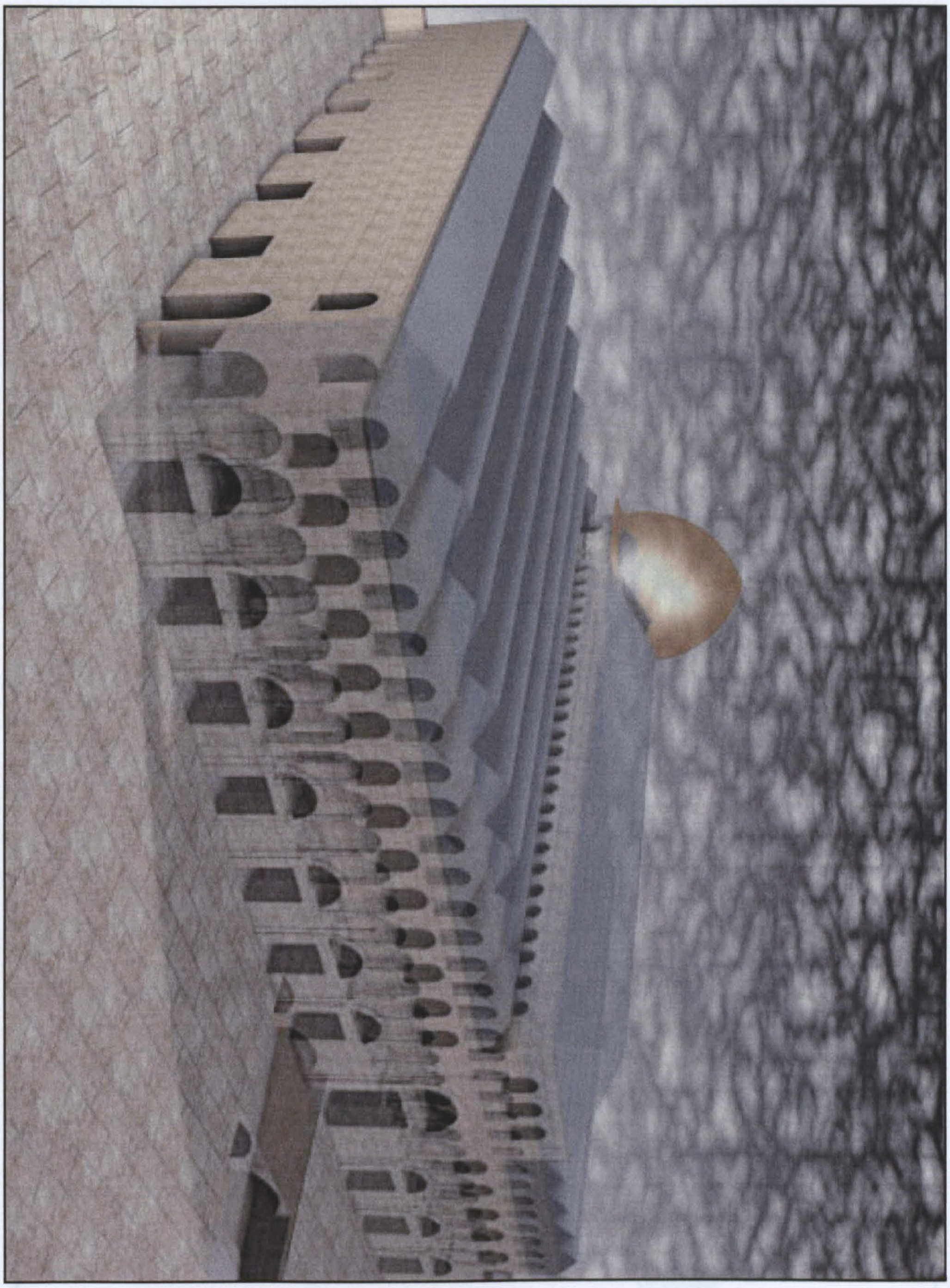


Fig 7. 46 **Al-Aqsa Mosque: The early structural development of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). The picture represents the 'Abbāsid building of al-Mahdī imposed on a reconstruction of *al-Jāmi'* al-Aqsa as it may have looked in the Umayyad period.**

Source: The researcher.

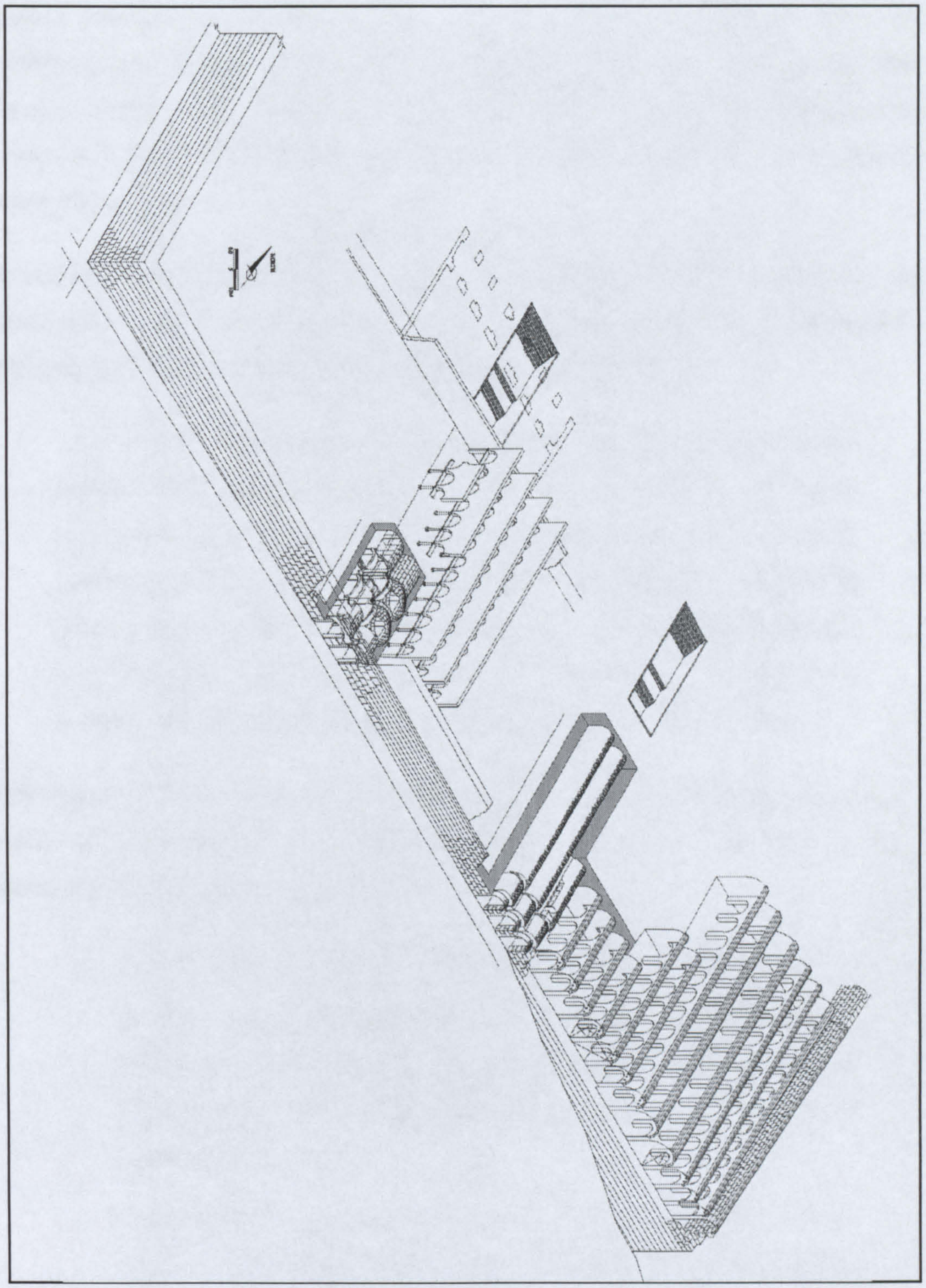


Fig 7. 47 **Al-Aqsa Mosque: The architectural arrangement of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and its structural relationship with the southern part of al-Aqsa enclave and its subterranean passageway as it may well have looked in the Umayyad period.**

Source: The researcher.

present fountain of *al-Kās* (the cup) could be a reason, especially when the underlying vaulted passage of *al-Jāmi'* al-Aqsa would have lost its importance after the earthquake of 130 AH/756AD. Indeed, this issue requires more research on the evolution of *al-Jāmi'* al-Aqsa in the 'Abbāsid period, a task far beyond the present scope of this thesis.

In any event, the full meaning of the relationship between *al-Jāmi'* al-Aqsa and the urban form of the entire enclave in its Islamic context is evident from al-Maqdisī's explanation regarding the location of the building (see Fig. 7.48):

> "…The main building (of *al-Jāmi'* al-Aqsa) does not come up to the eastern wall (of the enclave)…the other reason given is, that it was not found possible to extend the Main-Building (*al-Jāmi'* al-Aqsa) as far as to the south-east corner of the Area Wall, lest the *Mihrāb* (the niche), in the centre-place at the end of the Mosque, should not then have stood opposite the Rock under the Dome; and such a case was repugnant to them…" [al-Maqdisī, 1987 (985), p146].

Having examined the early stage in the evolution of *al-Jāmi'* al-Aqsa, several significant conclusions can be reached, some of which are highlighted by Rosen-Ayalon [Rosen-Ayalon, 1989, p7]: -

- *Al-Jāmi'* al-Aqsa must have been first built by 'Abd al-Malik.
- *Al-Jāmi' al-Aqsa* was built only after the construction of *Qubbet al-Sakhrah* or had begun after it was completed. The precise location of *al-Jāmi'* al-Aqsa would have been determined by the location of *Qubbet al-Sakhrah.*
- It may be deduced that the basic concept was axial; any shift of *al-Jāmi'* al-Aqsa would thus have been dictated by the requisite sitting of the *Qubbet al-Sakhrah*.

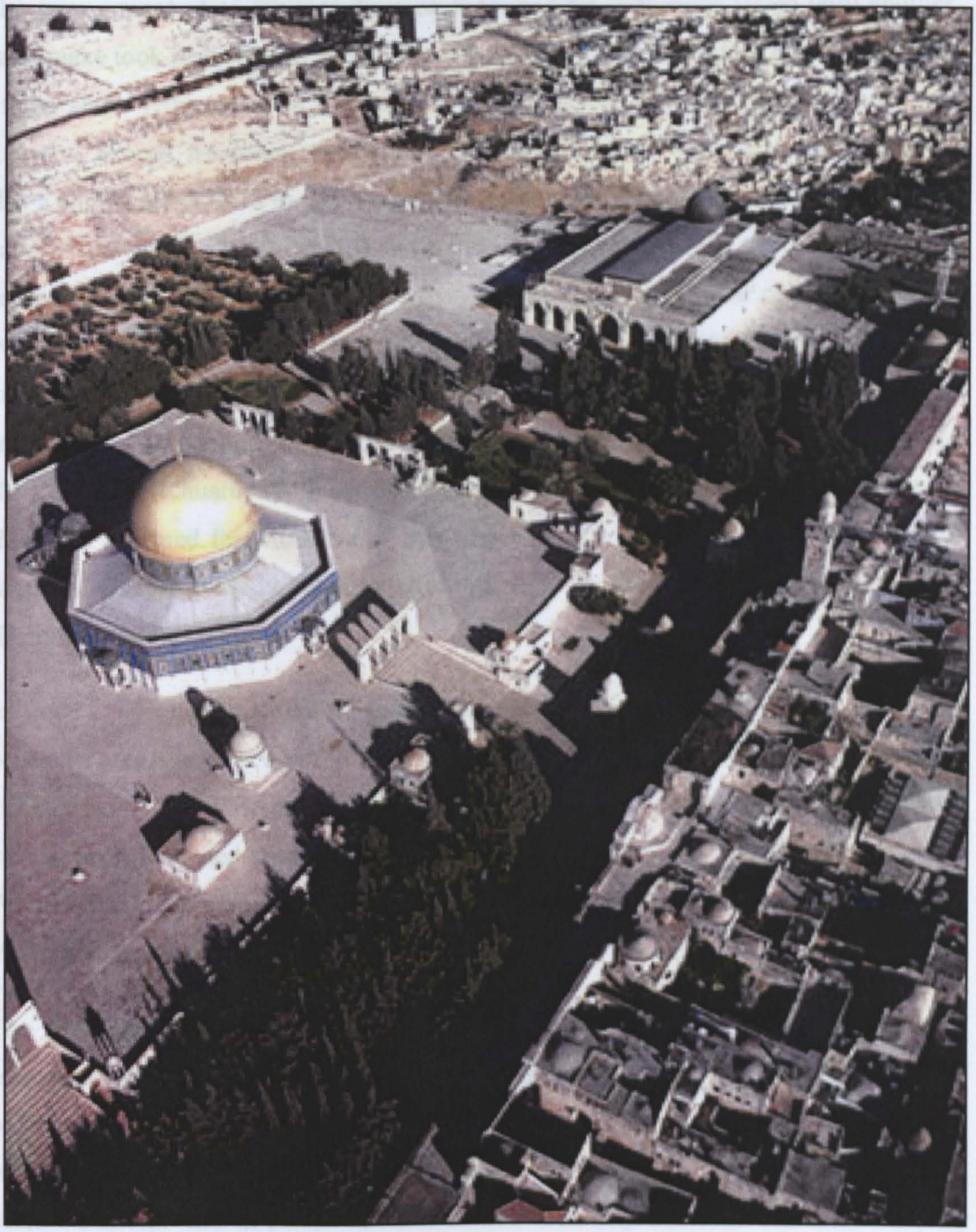


Fig.7. 48 **Al-Aqsa Mosque: *Al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and *Qubbet al-Sakhrah* (the Dome of the Rock) in Jerusalem as they look today. The picture reflects the relationship between the two monuments in its Islamic context as mentioned by al-Maqdisī's interpretation for the location of *Al-Jāmi'* al-Aqsa.**

Source: http://www.templemount.org/theories.html

The arrangement of *al-Jāmi'* al-Aqsa as described by al-Maqdisī lasted until another earthquake took place in 425 AH/ 1033 AD. According to Hamilton, every one of the fifteen aisles lying north of the present dome was demolished, together with their supports, except, for some reason, the three central doors. The earthquake involved also a slight shift inward in the axis of the nave arcades [Hamilton, 1949, p71]. The nave of the building constructed after the earthquake was the same length as its predecessor, but was supported by seven arches, with a different proportion of an average span of 7.43 metres from centre to centre. The supports and the footings of this phase are totally different in their character compared to the earlier phase; they are relatively bigger than the old ones. On a bases of the description of Khusrū for *al-Jāmi'* al-Aqsa [Khusrū, 1949, pp. 56-65] and an inscription found inside the Mosque, Hamilton assigned the initiative of this major change to the repairs of the Fatimid caliph al-Dhahir (411-427 AH/ 1020-1035 AD) in the year 425 AH/ 1033 AD [Hamilton, 1949, p73].

In the 12th century AD the Knights Templar applied *al-Jāmi'* al-Aqsa for their domestic uses, giving it a porch in front. The Templars extended *al-Jāmi'* al-Aqsa to the east and west by massive vaulted galleries which they grafted roughly on the more graceful arcaded structures of their predecessors. Of these galleries the present Women's mosque and its extension in the present Haram museum are their most impressive survivals.

The final stage in the evolution of structure is made in 746 AH/1345 AD and associated with the name of 'Izz al-Dīn Aybak al-Masrī, whose inscription on the porch suggests that al-Aqsa reached its present form in the middle of the 14th century AD by successive additions and restorations executed under the Mamlūk Sultans al-Malik al-Kāmil and al-Malik al-Nāsir Hasan. No major change has affected the structure of the mosque since that time [Hamilton, 1949, p74].

To summarize, *al-Jāmi'* al-Aqsa represents one of the principal units of the splendid scheme of al-Aqsa enclave. It was begun by the Umayyad caliph 'Abd al-Malik and was finished by his son al-Walīd. The surviving traces of 'Abd al-Malik's structure employed capitals and columns mostly originating from derelict Roman or Byzantine

buildings [Wilkinson, 1987, p4], a character noticed in all places of the enclave at that time. Again animal and human configurations do not exist at all in the building.

On the basis of the tendency of the early Muslim mosques to have a relatively long *Qiblah* (direction of prayer) wall with associated rows of columns as well as historical and archaeological evidence presented so far, it seems to be justifiable to reconstruct the plan of 'Abd al-Malik's *al-Jāmi'* al-Aqsa as a broad-house form. According to Rosen-Ayalon, it must have been quite long, resembling the structure built by the 'Abbāsid caliph al-Mahdī [Rosen-Ayalon, 1989, p7]. However, no central nave existed and no cupola had been constructed in 'Abd al-Malik's structure. This earliest stage in the evolution of the building indicates a type of planning manifested in all of the early Muslim mosques such as the prophet's Mosque in Madīnah and the early Mosques founded in Kūfah in Iraq and Fustāt (the tent) in Egypt. It can also be found in the Umayyad White Mosque in Ramlah in Palestine.

From a formal point of view, the architecture of *al-Jāmi'* al-Aqsa is of a type of stonework that bears the characteristic features of Historical Syria (Palestine, Syria, and Trans-Jordan). The stone work, the porch and probably the gabled roof were all created to deal with the local environment of Palestine. At the same time, the architectural composition of *al-Jāmi'* al-Aqsa, and specifically its plan, are designed to accommodate Muslims' ritual functions; if *Qubbet al-Sakhrah* is a symbolic building, *al-Jāmi'* al-Aqsa is a functional one. Reviewing all the early mosques in Islam, the syntax of *al-Jāmi'* al-Aqsa is really inspired by a broadly applied concept that existed throughout the early Muslim world and culture. This review will be undertaken in the next chapter.

7.6 SUMMARY AND CONCLUSION

None of the Muslim structures built prior to the time of 'Abd al-Malik have been preserved. The impressive Umayyad monuments: *Qubbet al-Silsilah* (The Dome of the Chain), *Qubbet al-Sakhrah* (the Dome of the Rock) and *al-Jāmi'* al-Aqsa (al-Aqsa Congregational Mosque) are forms of stone construction covered with mosaic outside and inside, except *al-Jāmi'* al-Aqsa where stucco had replaced the mosaic.

The semi-circular and probably the slightly pointed shape are the type of arches of the early Muslim monuments of the enclave. Roman and Byzantine capitals, columns and stones were reused economically. They were employed to generate forms of multi-porticoed space or concentric annular floor plan. These reused elements were in many cases reworked in order to harmonize them in their new geometrical forms or plans and fit their new culture. The difference in sizes and heights of reused columns and capitals was a problem for the builders of the early Muslim monuments. This necessitated employing appropriate and creative structural solutions. The feet of the columns are adjusted to their bases by thick plates of lead, which form the bedding intended to make them rest securely [Clermount-Ganneau, 1899, p190] and to unify their heights. Tie-beams that adorned all of the monuments are not only used for aesthetic appearance but they also cleverly reinforce the buildings structurally. They are also used in the majority of the early Muslim mosques, such as the Mosque of 'Amru at Cairo. According to Melchior de Vogüé, the tie-beam is a characteristic that appears to be an invention of Arabs as it has not hitherto been found in any church of the sixth or seventh century [Melchior de Vogüé, 1864, p83]. This treatment was integrated with other architectural solutions for roofing method, the system of lighting, and these indicate a careful consideration of environmental and climatic conditions. These environmental aspects require further research.

The type of building materials, and the construction of domes, arches as well as the roofing system that were used in building these monuments indicate a place-specific character that belongs to Historical Syria (Palestine, Syria and Trans-Jordan). Its architecture was distinguishable by its beautiful stone buildings [Briggs, no date, p8]. As will be shown in the next chapter, the forms must have been developed locally, the development occurring within the framework of a sense of harmony and balance within the Muslim cultural context.

The different overlapping layers of religious ideology associated with the enclave as well as religious Muslim activity at the place encouraged the designers of the Umayyad scheme to generate ideas in architecture that were rooted deeply in Muslim beliefs. Accordingly, the original design concept of the twelve-sided form of *Qubbet al-Silsilah*, the octagon of *Qubbet al-Sakhrah* and the broad-house of *al-Jāmi'* al-

Aqsa were inspired by the significance of the place and its religious reference harking back to Makkah. Each form reflects its function well and the meaning of two key buildings have been explored. The exploration of the meaning of all other building elements requires further research beyond this thesis.

The architectural and artistic treatment of these forms comprises an interesting inventory. For example, the application of mosaic on all external faces of a building is extremely rare if not unique in the architecture of the 7th century [Grabar, 1996, p63]. If such surface treatment does exist in early Byzantine buildings it occurs only over an entrance or a small part of a facade, such as the mosaic of the façade of the Basilica at Bethlehem [Clermount-Ganneau, 1899, p190]. The intention of the designer is to create a visual impact or sensory impression using local construction techniques and methods of architecture. The forms and their decoration hold important symbols for Muslims relating to their religious reference and a memory of, their sacred building in Makkah. This is not only the case inside the enclave for the designers' intention also goes beyond the boundaries of the enclave to create an impact for the distant viewer. In other words, the designer of the enclave attempted to create a full-dimensional Muslim image of Jerusalem. In this sense, these buildings are, indeed, very Islamic buildings.

From the point of view of Muslims' social consensus at that time and the unity of their religious reference, new design principles, which materialize the notion of **'the holy'** for various Muslim beliefs, are not necessarily formally different from those applied in architecture of Historical Syria of the 7th century. They demonstrate, however, an intelligible and creative development of architectural elements, forms and construction methods used locally.

One reason why it was possible for the early scholars of Jerusalem such as Mauss and Creswell to erroneously identify the earliest monuments of Muslim architecture in the enclave as Roman or Byzantine is that they reused a variety of architectural elements, such as columns, capitals and stones, gathered from abandoned or destroyed ancient Roman or Byzantine buildings. Although many of these elements are reworked, they still preserve their classical appearance. Examining architectural forms merely by breaking them into traditional components –a practice used by some

art historians– results in the misinterpretation of buildings because of the neglect of the wider cultural context. According to Clermount-Ganneau "it is always risky, especially in (Historical) Syria, to try to discover dates from architectural style. In many cases nothing is more misleading". [Clermount-Ganneau, 1899, p186]. This art historian approach, which was adopted by Creswell and many of his followers, was not suitable for the discussion of early Muslim architecture of the enclave because it led to the claim that there is a mixture of different styles in each single building and, consequently, to a questionable conclusion [Creswell, 1969,1:p89].

Muslims paid great attention to their buildings in the enclave, particularly in *Qubbet al-Sakhrah*. Comparative examples for geometrical shapes can be found alongside the Roman and Byzantine empires such as the Mausoleum of the Diocletian Palace in Croatia, St. Vitale in Ravenna in Italy and the church of St. Mary in Nablus in Palestine. Nevertheless, such geometrical precision and coordination of dimensions in the plan, section and elevation of *Qubbet al-Sakhrah* do not exist in the early Christian buildings. According to Grabar, "there is no known late antique or early Christian building like *Qubbet al-Sakhrah*. Earlier architectural forms were treated, in the Jerusalem building, like pure exercises in rational geometry, whereby almost every point of the plan and elevation derives logically from the smallest circle circumscribing the Rock in the middle" [Grabar, 1996, p63].

In seeking to relate these buildings to the given topography of the site, and to the layout of the enclave, their placing is clearly not accidental. Not less evident is the relationship among these monuments, and between them and the subterranean passageways examined in chapter six. What is interesting in the planning of the early Muslim monuments is the character of standardization of their corresponding dimensions. For example, the inner radius of *Qubbet al-Sakhrah* (the Dome of the Rock) coincides with the length of *Bāb al-Rahmah* (or the Golden Gate). As for the Umayyad *al-Jāmi'* al-Aqsa, the width for the two aisles of discovered pilasters is, indeed, almost identical with the width of *Bāb al-Nabī* (or the Double Gate) and Wilson's arch. This seems to indicate the use of identical standards in the early architecture of the enclave. This, also, gives rise to more questions about the nature of the measurement unit employed in constructing the early Muslim monuments in

the enclave, which is still controversial among the scholars of Jerusalem with regard to Byzantine or Islamic units. One factor which encourages us to accept that Muslims would have created their own unit is the request that *Zakāt* or *Kharāj* (charity or tax) on houses and lands throughout Muslim countries be assessed with the help of a standard measure. According to historians such as al-Baladhurī, this necessitates a total revision of the system of measurements and weights used in Muslim countries [al-Baladhurī, 1983, pp.241-242]. Among other Muslim scholars, al-Mawridī gave a reference to the early Islamic system of measurements [al-Mawridī, 1996, p241]. This question actually calls for a review of the measurements of all early Muslim monuments, a task far beyond the scope of this thesis.

An important point –relevant to be noted regarding the overall planning of the enclave– is that 'Abd al-Malik's structure of *al-Jāmi'* al-Aqsa, including its porch, evidently terminates at a distance of 58.50 metres from the outer face of the southern wall of the enclave. This distance is indeed observed at *Bāb al-Nabī* (or the Double Gate), *Abwāb Mihrāb Mariam* (or the Triple Gate), and the eastern basement of the enclave. This in turn strengthens the hypothesis that the Umayyads intended to roof all of the southern part of the enclave but that the idea was abandoned, an argument that is already put forward in the previous chapter. Several questions arise: To what maximum width can Muslims establish a mosque so that all prayers can hear the *Imām* (the preacher) clearly at the farthest point? Why were a nave and a dome created for *al-Jāmi'* al-Aqsa after the Umayyad period? Are the changes in plan of *al-Jāmi'* al-Aqsa and the need of lighting the inner space the main reasons behind these creations? Answers to these questions require further research.

Muslims built three monuments in the enclave that are holy, but the nature of their holiness is not exclusively for religious activities. The idea of the sacred space in Muslims thought reveals the inclusion of religious and secular human activities. Accordingly, Armstrong argues that "there was no separation of sacred from profane, the spiritual from the sexual, the religious from political. Muhammad and his wives lived in a little apartment around the periphery of the courtyard. Public meetings to discuss social, political, and military as well as religious matters were also held there. The whole of life must be brought into the ambit of holiness as an expression of

Tawhīd (oneness of God)" [Armstrong, 1998, p12]. This is indeed specifically reflected in the Umayyad scheme where different buildings can be found for different uses in one complex of al-Aqsa Mosque or enclave. The relationship between human activity and architectural forms in the enclave reflects both integration and harmony and not separation and dichotomy.

All these discussions lead to the conclusion that the deliberate ideas and concepts of the architecture of the early Islamic monuments of the enclave indicate a highly sophisticated architectural design. It implies creativity in providing an outstanding wealth of beautiful vivid forms for the predominantly religious purpose. These reflect appropriate structural solutions and economic investments using construction materials, ingenious micro and macro spatial relationships, considered planning and strong visual impacts. These features characterise the type, style and character of architecture of the early religious buildings in the enclave. Indeed, these prompt the exploration of the architectural and cultural context of Jerusalem and the region at that time in order to understand the origins of the early Muslim architecture of al-Aqsa Mosque. This investigation will be undertaken in the next chapter.

CHAPTER EIGHT

THE ARCHITECTURAL ORIGINS OF AL-AQSA MOSQUE:

This chapter investigates the architectural precedents and examines the traditional construction skills employed in the project. Furthermore, it analyses the origins and typology of the early Islamic monuments of al-Aqsa Mosque.

The grandiose early Muslim architectural project of the enclave demonstrates knowledge of contemporary building construction types. The evolution of the architecture of the al-Aqsa enclave during the early Islamic period is, no doubt, a result of the accumulation of human experience and knowledge, which cannot have come about overnight.

8.1. INTRODUCTION

The art and the architecture that emerged in al-Aqsa enclave during the early Islamic period, exhibit a high quality of design and building construction. Different solutions were employed to solve the structural problems and fulfil the cultural and religious requirements. Only two building archetypes were employed for the early Islamic monuments of the enclave: the annular centralised building and broad house type. A number of questions arise which need to be answered:

- What are the characteristics of architecture generated in the wider cultural and religious context of the region?
- What kind of construction knowledge is employed and how do they evolve in practice?
- How do the archetypes of the early Muslim architecture of the enclave evolve and what are their origins?
- What is the significance of the early Muslim building archetypes?

In order to answer these questions, the following sections will discuss the cultural context and examine building practice in the East Mediterranean and Middle East. It will also elaborate on the analysis of correspondent archetypes of the buildings of the enclave.

8.2. THE CULTURAL CONTEXT IN THE REGION

In the early Islamic period, the Muslims conquered three major geographical areas: Historical Syria, Egypt, and Iraq (see Fig 8.1). Developed cultures of Graeco-Roman and Christian cultures were concentrated in Historical Syria, Hellenistic and Christian cultures in Egypt. In Mesopotamia the buildings of Sassanians and of their predecessors, the Assyrians, were developed and their building material was brick.

8.2.1 Byzantine Architecture

The Byzantine Empire is mainly developed in the Mediterranean countries such as Egypt, Syria, Asia Minor, Byzantium, Italy and France, where Christianity spread (see Fig. 8.2). Early Christian architecture was an integral part of the later Roman Empire. The first Christians already had synagogues as their places of worship. In the early 4th century AD, particularly after Constantine's recognition of Christianity as the formal religion of the Roman Empire, purpose-built churches or the adaptation of existing buildings were being commissioned. At that time, variations in the character of buildings reflected different local resources. In Syria, where there was a tradition of cutting stones that still survives, there was, for instance, more emphasis on carved decoration and on the exterior walls. In central Anatolia and Armenia there was probably an early use of vaulting in place of timber roofing. Variations also developed in those detailed aspects of planning which dealt with specific needs of liturgy that evolved differently throughout the empire. They evolved specifically with regard to the provision of entrances, internal barriers, and secondary spaces [Fletcher, 1987, pp.268-271].

Possibly three Roman archetypes may well have influenced the early Byzantine buildings: the basilica (hall of justice adaptation) (such as basilica of Trajan in Rome (98-112 AD) (see Fig. 8.3)), the circular temple (such as the Pantheon (120-124 AD) (see Fig. 8.4)) and the centralised audience hall or garden pavilion (such as the so-called temple of Minerva Medica (c. 260 AD) (see Fig. 8.5)). St. Stephano, built between 468-483 AD in Rome, is a church, which exemplifies the centralised plan. In some instances, the plan of this type of building is surrounded by an ambulatory.

Individual Byzantine tombs followed earlier Roman patterns. Among these buildings is the mausoleum of Constantine's daughter Costantia, now the church of St. Constanza in Rome (c. 330 AD). Many related new buildings, but not all, might be referred to as memorial structures built over Martyrs' tombs. One of the earliest examples of these buildings is the Constantinian church of St. Peter in Rome (c. 320-

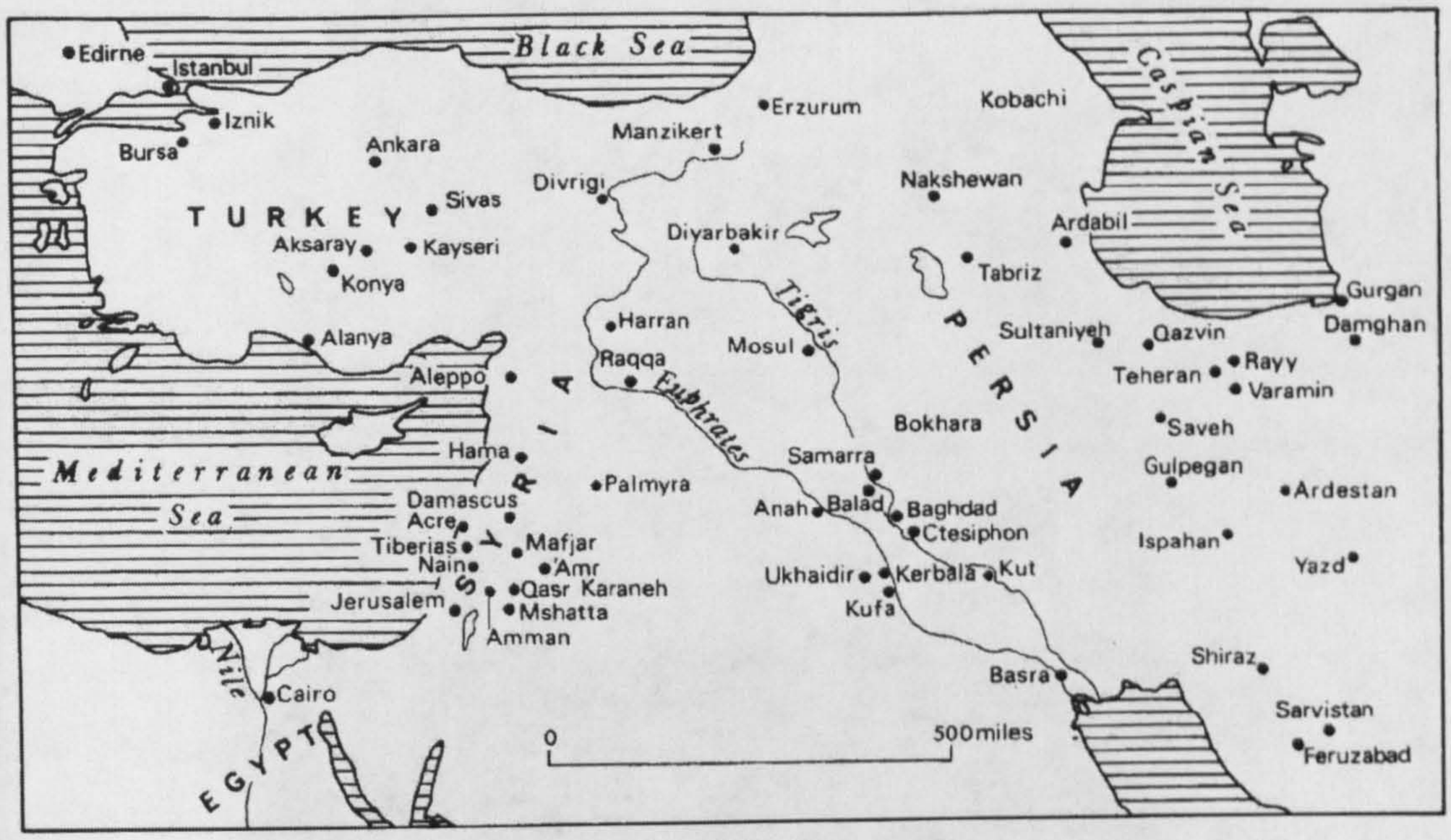


Fig 8. 1 **Three major areas are conquered by Muslims between 12-19AH/ 633-640 AD.**

Source: Fletcher, 1987, p553.

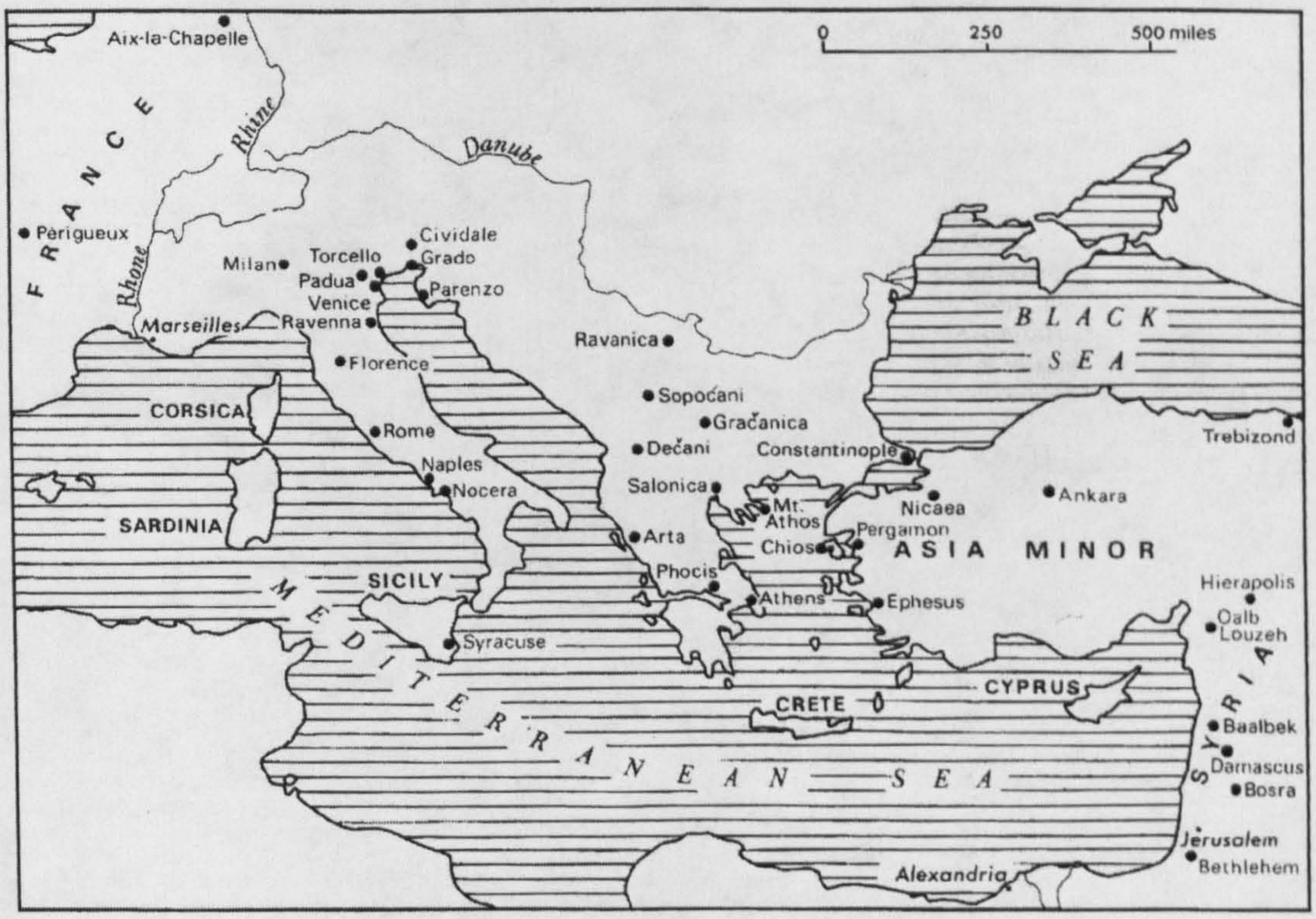
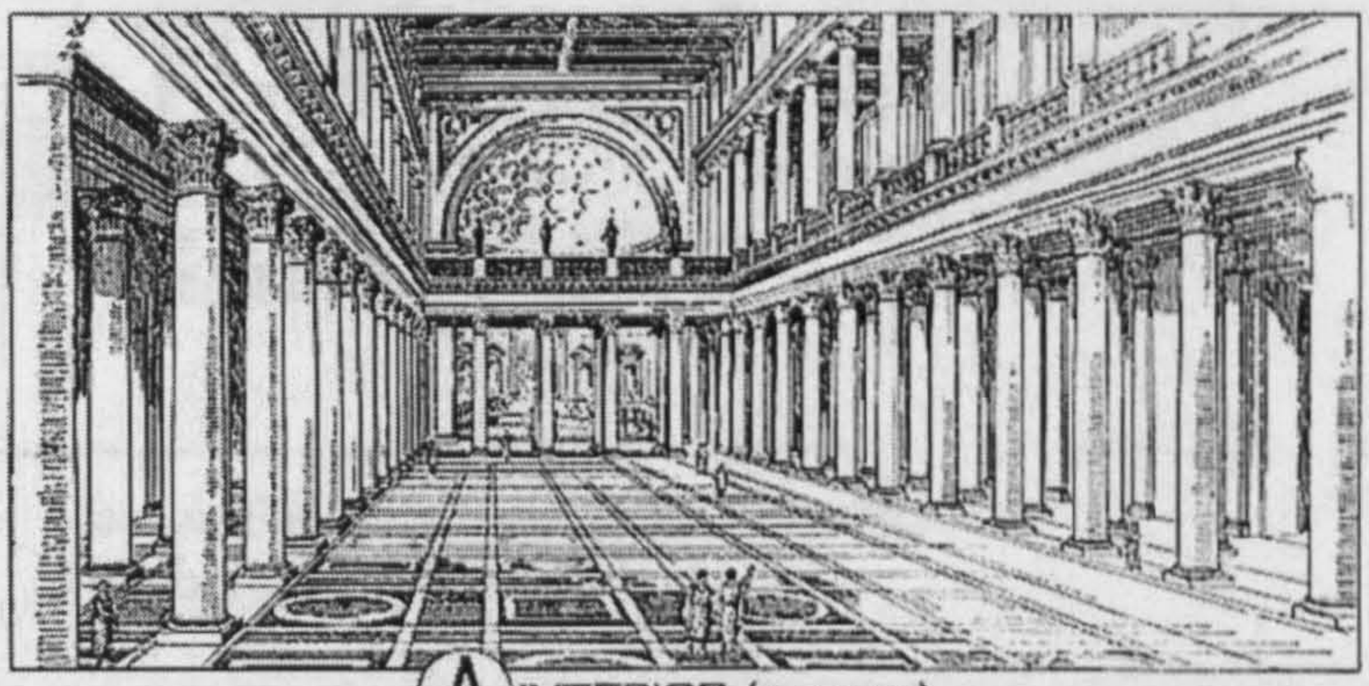
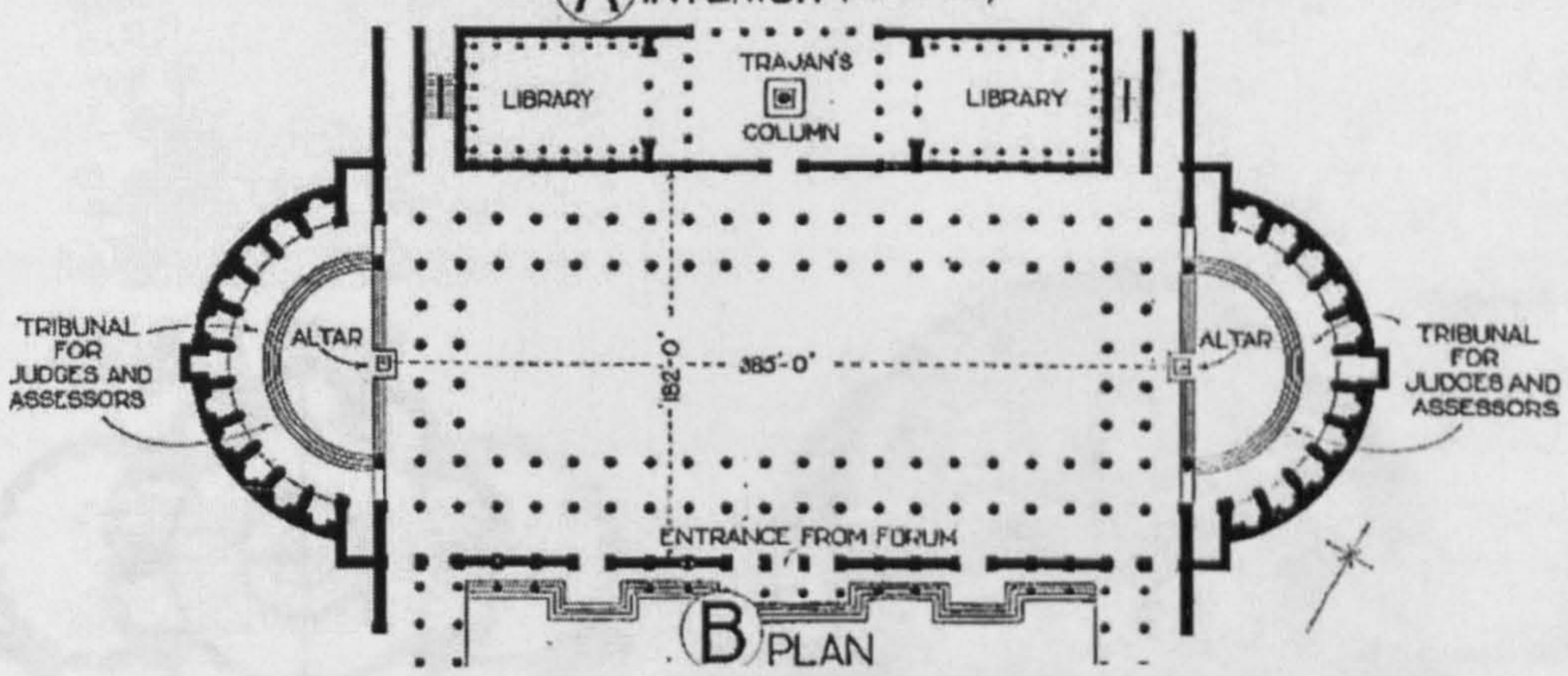


Fig 8. 2 **The Byzantine Empire (313-1453 AD).**

Source: Fletcher, 1987, p269.



(A) INTERIOR (RESTORED)



(B) PLAN

Fig 8. 3 **Rome: Basilica of Trajan (98-112 AD).**
Source: Fletcher, 1975, p291.

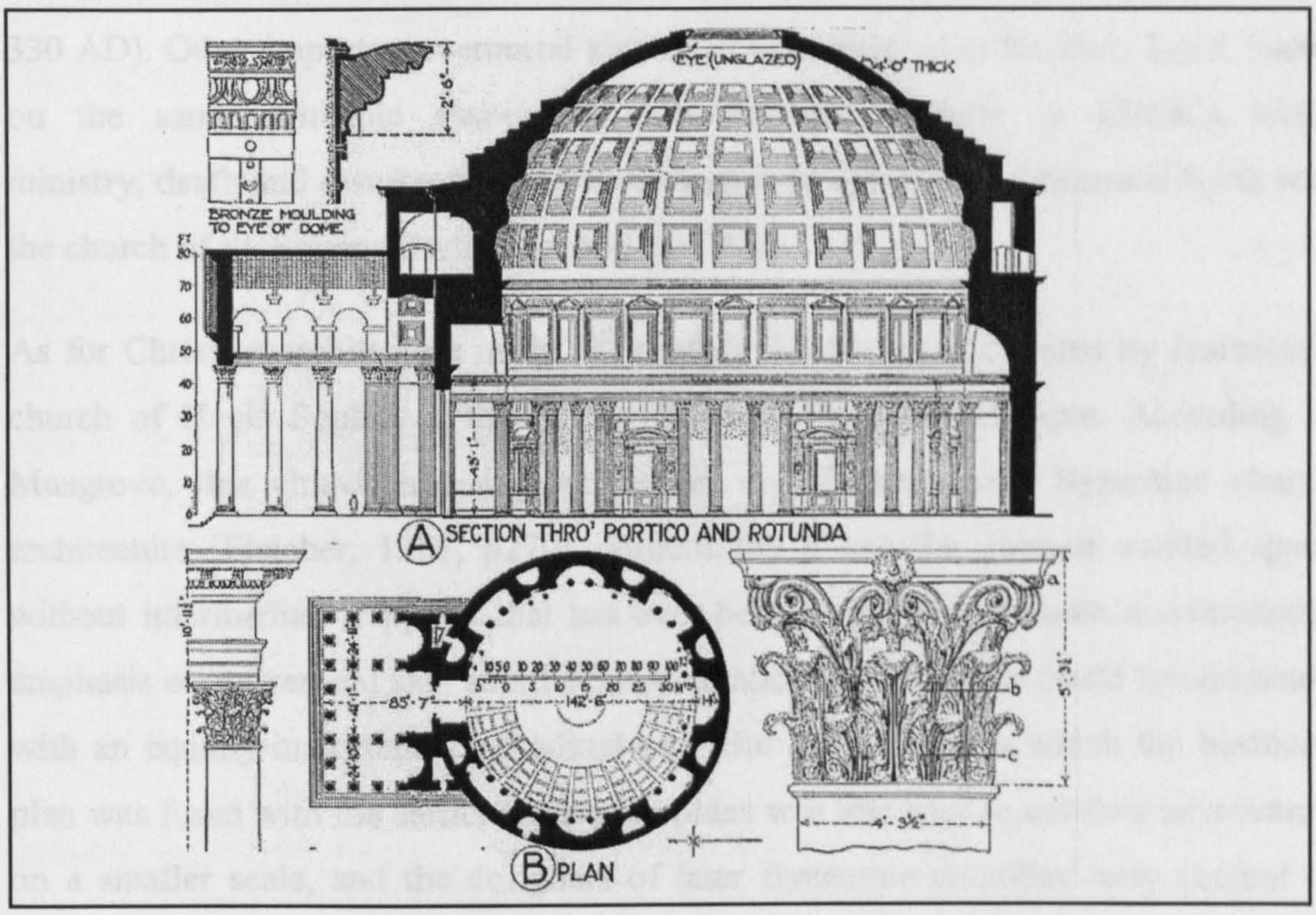


Fig 8. 4 **Rome: The Pantheon (120-124 AD).**
Source: Fletcher, 1975, p288.

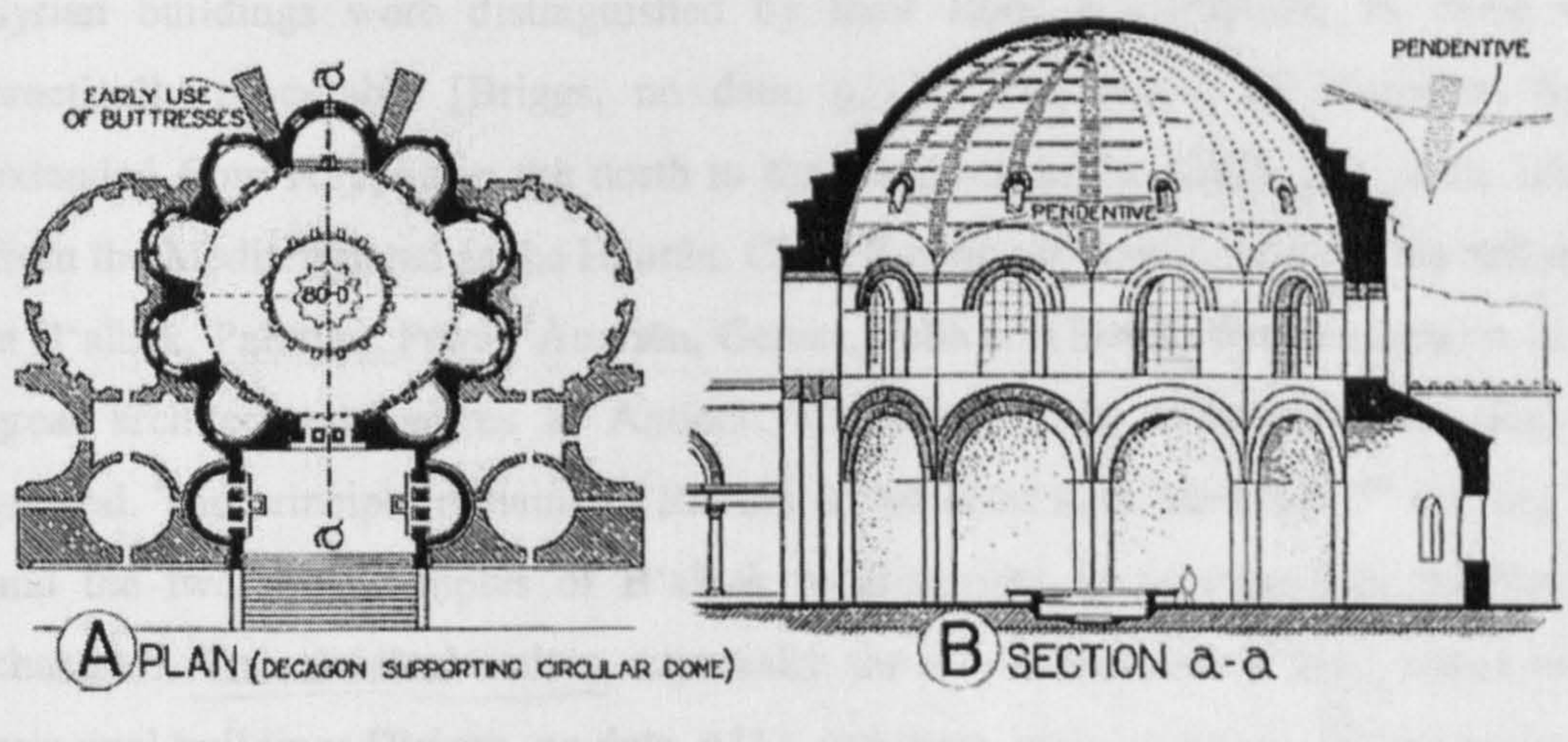


Fig 8. 5 **Rome: The Minerva Medica (c. 260 AD).**
Source: Fletcher, 1975, p288.

330 AD). Other important memorial structures were erected in the Holy Land, based on the same principle associated with Christian beliefs in Christ's birth, ministry, death and resurrection. An important later example in Historical Syria was the church of St. Simeon Stylites (c. 480-490 AD).

As for Christian architecture in the 6th century AD it was dominated by Justinian's church of Hagia Sophia or the Divine Wisdom, in Constantinople. According to Musgrove, this church had a great impact on all subsequent Byzantine church architecture [Fletcher, 1987, p270]. Structurally it has the greatest vaulted space without intermediate supports that has ever been built. With it came a centralising emphasis on its vertical axis and the demonstration how this axis could be combined with an equally important longitudinal one. But the manner in which the basilican plan was fused with the earlier tetraconch plans was less easy to emulate satisfactory on a smaller scale, and the designers of later Byzantine churches were content to allow the central axis to dominate over the longitudinal one, as it had done in the contemporary church of St. Sergius and Bachus in Constantinople (possibly begun 527 and completed before 536 AD) [Fletcher, 1987, pp.268-271].

Syrian Architecture

Syrian buildings were distinguished by their stone construction, as stone was practically procurable [Briggs, no date, p11]. The region of Historical Syria extended from Alleppo in the north to the Dead sea in the south, and as far inland from the Mediterranean as the Haurān. Chief Roman provincial monuments still exist at B'albak, Palmyra, Petra, 'Ammān, Gerasa, Pella and Busrā. But the remains in the great architectural centres at Antioch, Damascus, and Jerusalem are scanty in general. The principal remains of Roman architecture date from the 2nd century AD and the two great temples of B'albak in Historical Syria exemplify the Roman character. The classical orders, especially the Corinthian, were freely used in all principal buildings [Briggs, no date, p11], and most of the acanthus foliage and other details are sharply-cut, with deeply pierced lobes to the leaves. The big size of the masonry blocks is noticeable; in the rare cases, where very large stones could not be used, joints were made so fine as to be invisible. Timber roofs were used for

peristyles and other buildings at Palmyra and elsewhere, stone was employed in vaulting wherever possible.

The colonnaded streets are a characteristic feature in various Roman cities such as Busra, Ba'alback Philippopolis and Jerusalem, and the large Syrian towns are usually delineated on a rectangular plan (see Fig. 8.6). There was usually a large temple enclosure, and the theatres and other buildings found in some of the greater centres, such as Gerasa or Jerash and Nablus, were rather magnificent.

The middle of the 4th century AD is another stage in Syrian architecture, lasting up to the time of the Muslim conquests. Syria is a great Christian province, with chief centres at Antioch and Edessa. A good number of Churches were erected in Jerusalem, Bethlehem and other places in Historical Syria.

Coptic Architecture

Coptic architecture emerged in Egypt after Christianity was introduced into the country in the middle of the 1st century AD. It took its name from the place of its origin where it retained the spirit of the Pharaonic art, so Coptic architecture is a link in the chain of the ancient Egyptian, Greek and Roman civilisations in Egypt. In other words, Coptic is another name for Egyptian-Christian architecture. Monasteries and churches are the best surviving remains that feature Coptic design and planning, especially those buildings constructed between the 5th century AD and the early Islamic Conquest of Egypt. The Coptic buildings remain scattered in different places such as Old Cairo, Wadī Natrūn, Sohāj, Saqqārah and Aswān [Briggs, no date, p14].

Architecturally, the monasteries were built with simple, accessible materials, predominantly mud or burnt bricks, but larger stones were used when available.

The dome was simple, and the most unique and individualized development in Coptic architecture. Sometimes more ornate stones and finely-worked pieces of marble were relics gathered from abandoned temples in the vicinity of the monasteries. The monasteries were secured by thick defence walls and towers to provide security when under any attack [Briggs, no date, p15].

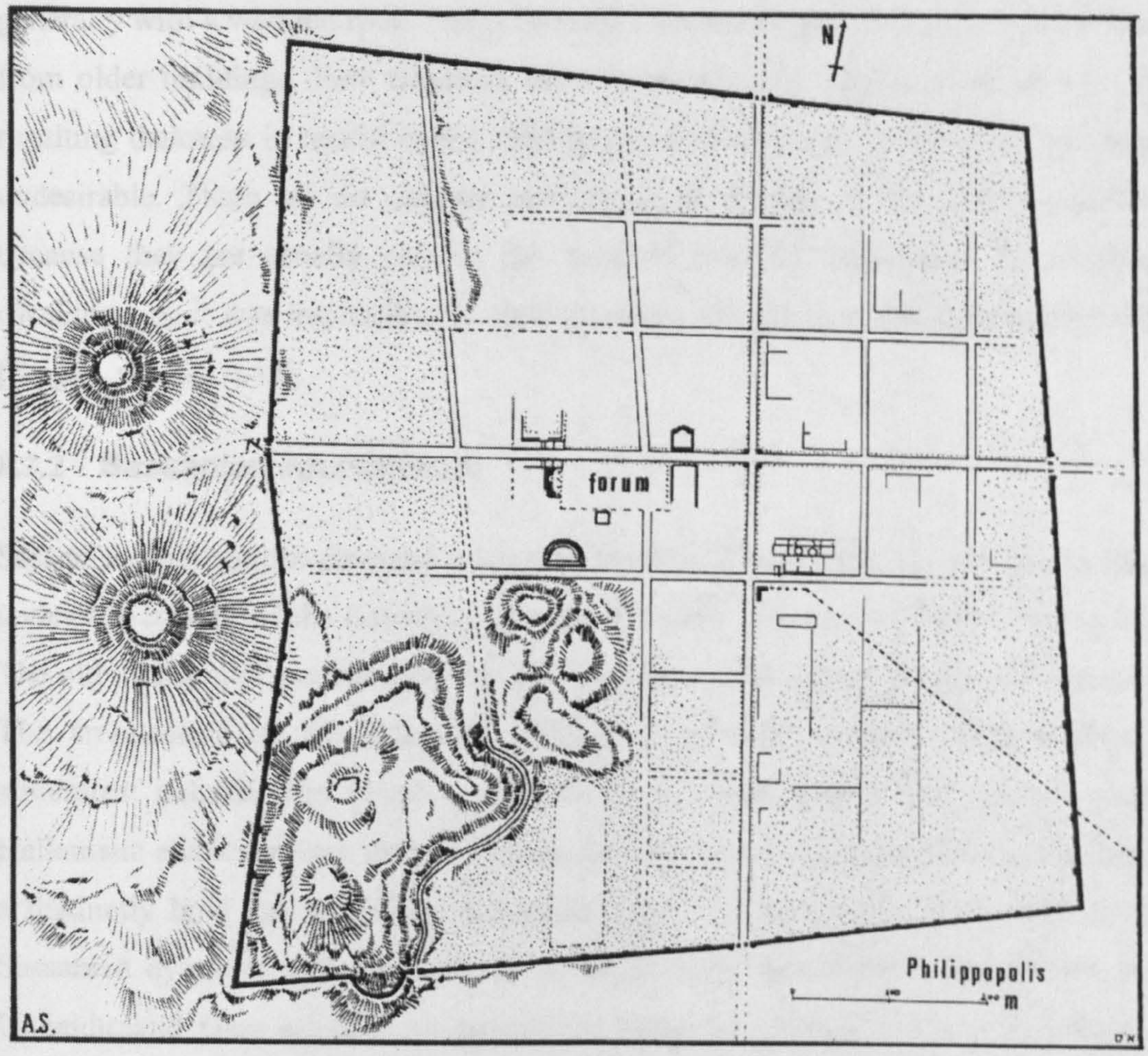


Fig 8. 6 **Historical Syria: The Roman city of Philippopolis.**
Source: Segal, 1988, p127/ Fig.155.

The ancient Coptic Church generally took a rectangular plan, divided into a nave and aisles, over which there is a triforium but no clerestory (see Fig.8.7). At the end is a principal apse flanked on either side by smaller apses. Over each apse is a dome, which are usually the only external feature to distinguish the church from the flat roofs of the surrounding hovels. The construction of the church is very simple, generally with a wooden roof. The columns of the arcade are frequently marble taken from older buildings. Few windows exist in the church, usually of small size; the resulting darkness is restful in the glaring sun of the desert, and thus by no means undesirable. There are no outdoor porches or mouldings in the Coptic churches, because they are usually part of the fortified convent surrounded by Christian dwellings, so it was impossible to distinguish the church as a free-standing building [Briggs, no date, p15].

8.2.2 Sassanian Architecture

Sassanian architecture emerged when major parts of Mesopotamia and Persia came under the control of the Sassanian dynasty between 224 and 642 AD (see Fig 8.8). The old tradition of ancient Assyrian and Chaldean civilisations prevailed in the land. The architecture of Sassanians is influenced by many remains of a variety of structures: palaces, fire temples, forts, bridges, dams, houses and planned cities. Hellenistic elements were included in the designs. However, the architecture displays a distinctly bold and grandiose Sassanian style that testifies to the wealth of the Sassanian dynasties and their superb craftsmanship. Tāj-I-Kisrā at Ctesiphone, and Ukhaidir and Qasr ash-Shī are among the beautiful palaces that probably date to Kisrā I (531-579 AD) and Kisrā II (590-628 AD). The palaces share common features; they are planned on a colossal scale, constructed of brick, and in part vaulted construction systems are used. According to Briggs, there are great disputes about whether the knowledge of vaulting of the Sassanians should be attributed to Roman sources or to the Parthians in Mesopotamia; there is not yet a satisfactory conclusion [Brigs, no date, p16].

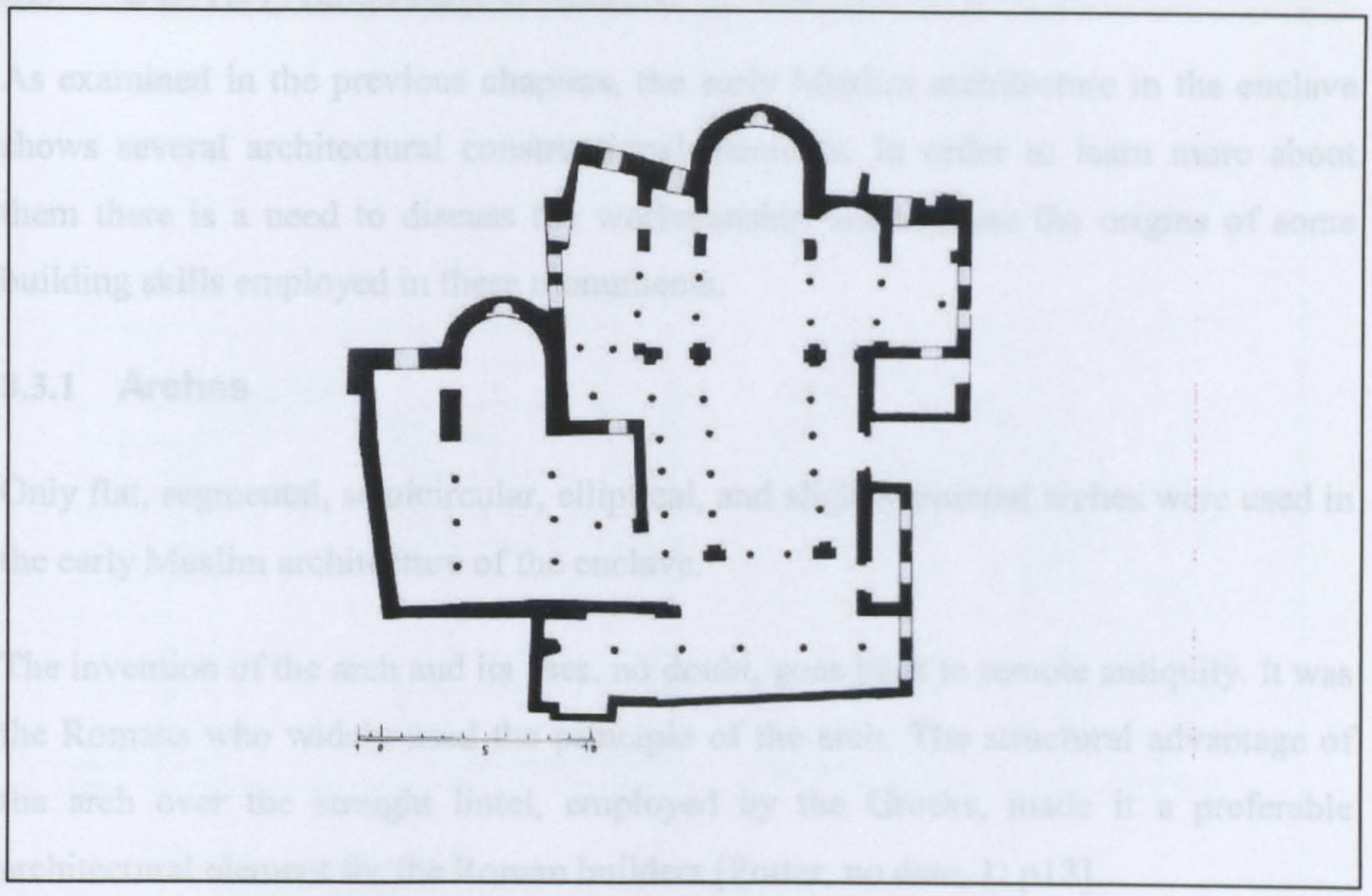


Fig 8. 7 **Egypt: Plan of the Coptic Church of El ADRA at HARIT ZUWILA at old Cairo at is looks today.**
Source: http://www.copticarchitecture.com/arc/heritage/zuwil.htm



Fig 8. 8 **The Sassanian Empire.**
Source: http://www.persiangulfonline.org/persian_gulf_sasanian_empire.gif

8.3 CONSTRUCTION SKILLS

As examined in the previous chapters, the early Muslim architecture in the enclave shows several architectural constructional elements. In order to learn more about them there is a need to discuss the workmanship and analyse the origins of some building skills employed in these monuments.

8.3.1 Arches

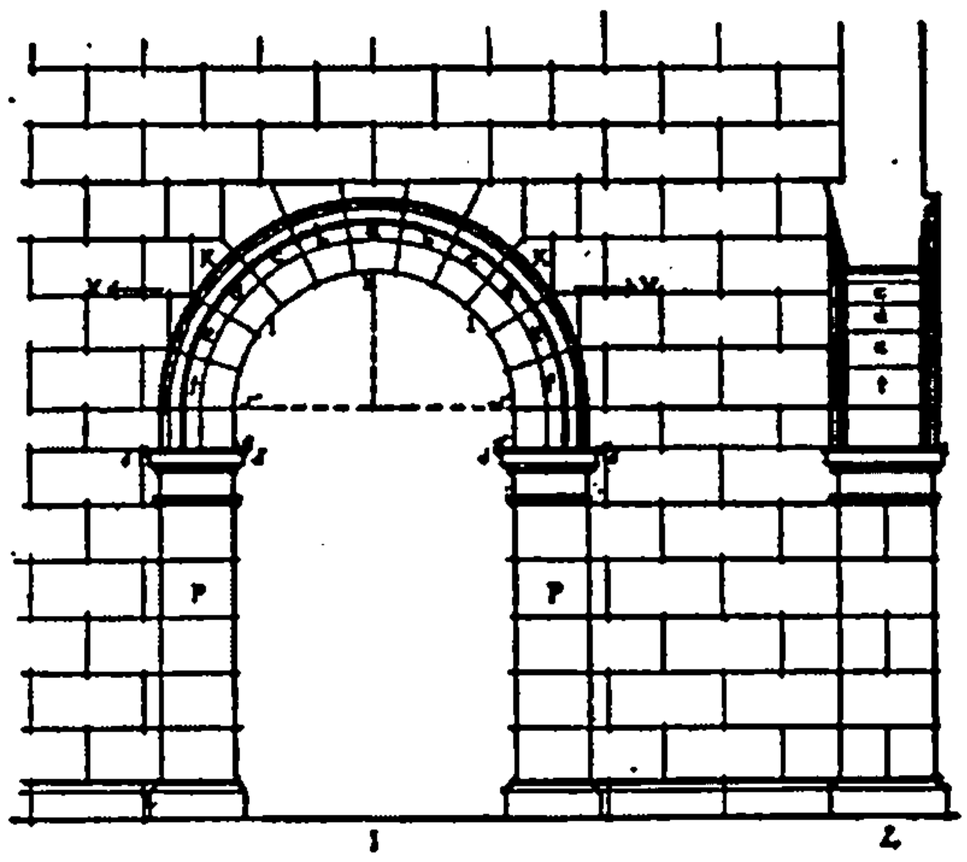
Only flat, segmental, semicircular, elliptical, and slightly pointed arches were used in the early Muslim architecture of the enclave.

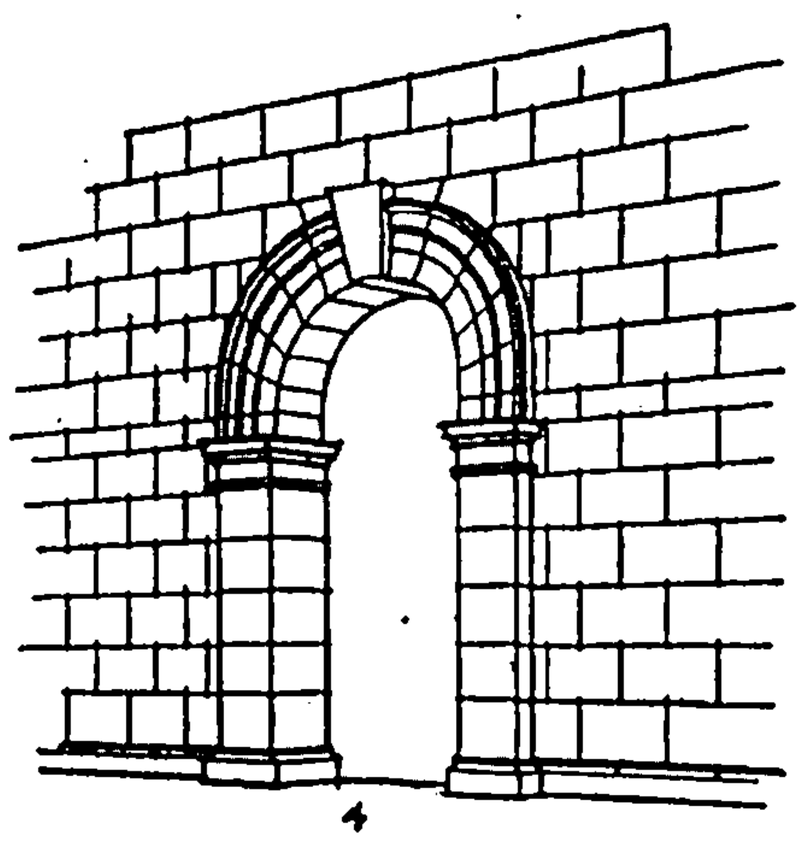
The invention of the arch and its uses, no doubt, goes back to remote antiquity. It was the Romans who widely used the principle of the arch. The structural advantage of the arch over the straight lintel, employed by the Greeks, made it a preferable architectural element for the Roman builders [Porter, no date, 1: p13].

Architecture before the introduction of arches had generally only horizontal and vertical forces to consider. However, arched structures necessitated the response to lateral thrust. Architects had, thereafter, to consider not only the tendency of the building to collapse, but also its tendency to burst outwards [Porter, no date, 1: p15]. The various forms of arched structures are discussed below.

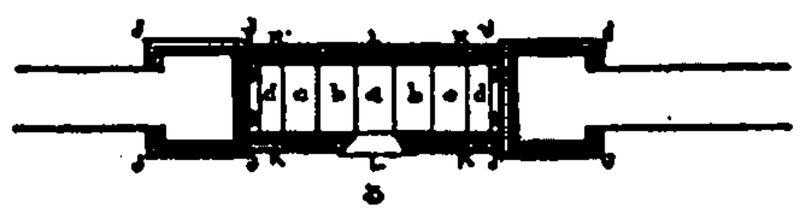
Semicircular, Segmental and Flat Arch

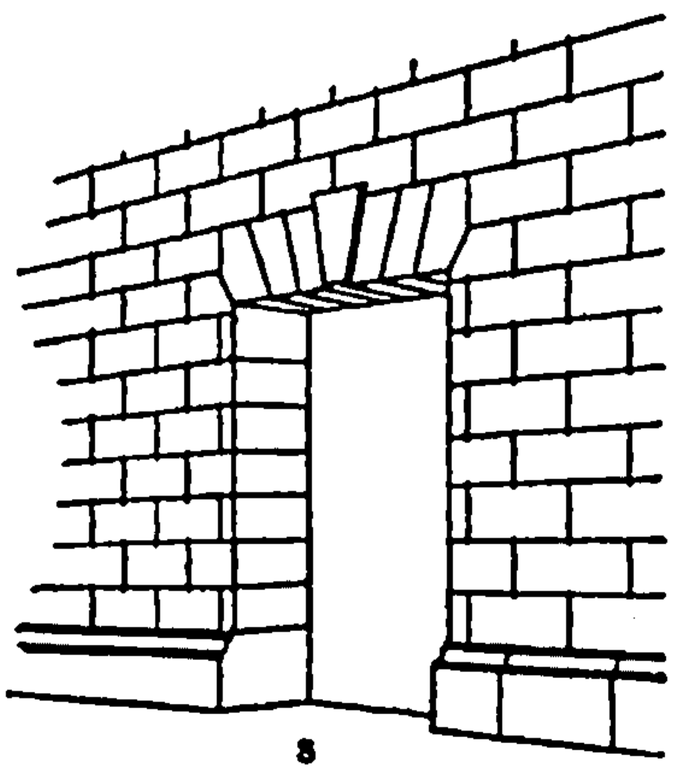
The semicircular arch is constructed from one centre. It was widely used by Romans and was one of their characteristic architectural forms. Sometimes the arch was flattened into a segmental form or even into a flat arch (see Fig. 8.9) [Porter, no date, 1: p13]. The higher the crown of the arch the less the lateral thrust –a fact that was sustained in the evolution of other later architectural types of arches such as the pointed arch. The pointed arch has the greatest height and consequently a minimum lateral thrust while the flat arch generates a maximum thrust.





Semicircular Arch





Flat Arch

Fig. 8. 9 **Diagram of Semicircular and Flat Arch.**
Source: Porter, no date, 1: p14.

Elliptical Arch

The elliptical arch is constructed from three different centres. It was used by the Romans, e.g. in open colonnades carrying arches located in the 'oecus' of the House of Meleager (1st century AD) in Pompeii (see Fig. 8.10) [Rivoira, 1918, pp71, 74]. Nevertheless, it is hard to find other Roman examples or a Byzantine example. It seems that the use of this arch is dictated by a particular structural situation when there is a need to decrease the height of the arch and also the resultant lateral thrust. The difference in the time of construction and the distance of the geographical regions between the elliptical arches that exist at *Bāb al-Rahmah* (or the Golden Gate) (see Fig. 8.10) and the elliptical arches in Pompeii make it difficult to suggest a direct link between them.

The Slightly Pointed Arch

The pointed arch is an arch that is constructed from two different centres. Butler identified the earliest example of the slightly pointed arch as in *Qasr Ibn Wardān*, located about fifty-four miles north-east of Homs. It was constructed between 561 and 564 AD [Butler, 1908, B: p.32]. But Herzfield contradicted him when he stated: "no point arch is to be found in *Qasr Ibn Wardān*" [Herzfield, 1908, 2: p92]. He argues that the pointed arch was unknown in the pre-Islamic period. Creswell re-examined the arches of *Qasr Ibn Wardān* and confirmed that the arches are slightly pointed [Creswell, 1969, 2: p443].

The slightly pointed arch is widely employed by Umayyad buildings such as the Umayyad Great Mosque of Damascus (c. 705-715 AD), *Qusayr 'Amrah* in Jordan (c. 712-715 AD), *Hammām al-Sarkh* in Jordan (c. 725-730 AD), *Qasr al-Hayr* in Syria (c. 728/9 AD), *Mafjar* near Jericho (c. 739-743), *Mushattā* in Jordan (c. 744 AD) and *Qasr al-Tūbah* in Jordan (c. 744 AD). All of these examples are located in Historical Syria and there are no examples in Iraq, Egypt or Europe; this indicates that the slightly pointed arch originated in Syria. The following table shows some significant early Muslim examples where the slightly pointed arch is employed.

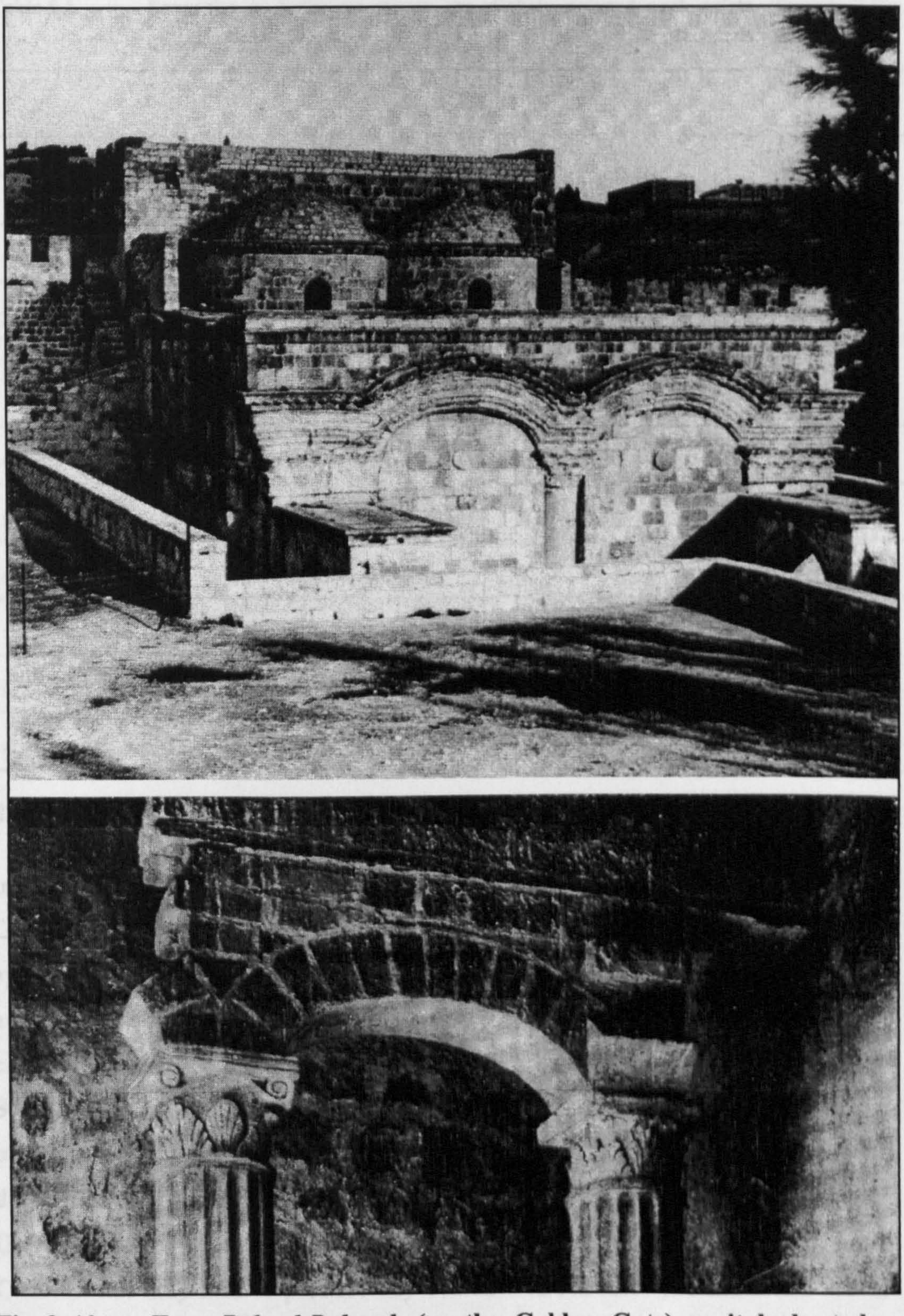


Fig. 8. 10 **Top: *Bāb al-Rahmah* (or the Golden Gate) as it looks today. Bottom: Pompeii. House of Meleager, remains of open colonnade with arches.**

Source: Top: Sharon, 1973, p69. Bottom: Rivoira, 1918, p74.

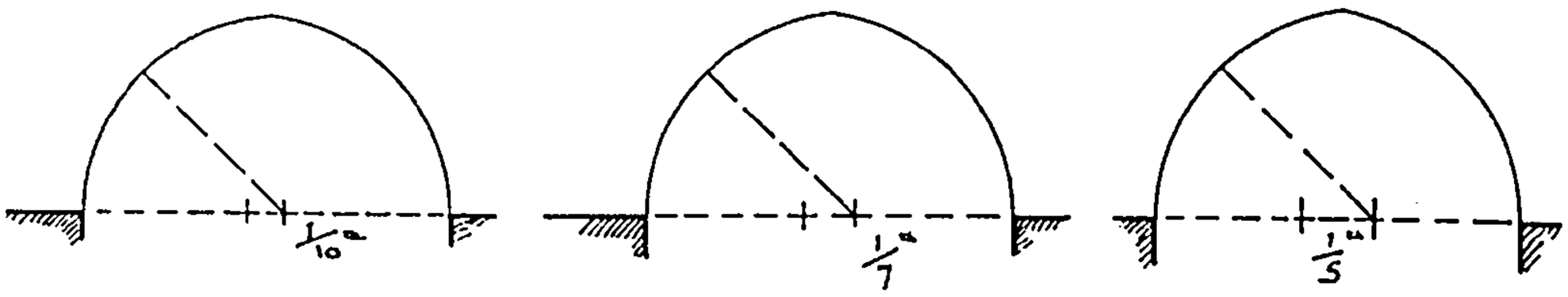
Table 8.1 **Examples of buildings where the slightly pointed arch exists.** (Source: After Creswell, 1969, 2: p443) (see Fig. 8.11).

Description

No.	Name	Location	Date of construction in AD	Separation of centres
1-	***Qasr Ibn Wardān***	Church, arches under dome and apse arch.	561-564	1/11 of span
2-	**Al-Aqsa enclave**	South-eastern Basement.	689	1/10 of span
3-	**Damascus**	Great Mosque, arches frame at north end of transept.	705-715	1/10 of span
4-	***Qusayr 'Amrah***	Audience hall, transverse arches.	712-715	1/10 of span
5-	***Hammām al-Sarkh***	Calidarium of bath	725-730(?)	1/7-1/6 of span
6-	***Qasr al-Hayr***	Great Mosque	728	Very slightly pointed
7-	***Mafjar*** near Jericho	*Sirdāb* and portico of forecourt	739-743	1/8-1/6 of span
8-	***Mashattā***	Section of vaults	744	1/5 of span
9-	***Qasr al-Tūbah***	Section of vaults	744	1/5 of span

8.3.2 Wooden Tie-Beams

In referring to Melchior de Vogüé [Melchior de Vogüé, 1864, p83] Clermount-Ganneau states that: "the existence of the wooden tie-beams is characteristic: it appears to be an invention of Arabs" [Clermount-Ganneau, 1899, 1: p210]. Conder argues that wooden beams which tie together the pillars of the arcade, above the capitals, are not a Byzantine feature, but are found in early Mosques at Cairo and in Spain" [Conder, 1909, p243]. Creswell only mentioned Sancta Sophia as means of proving that this feature is a Byzantine invention. Furthermore, he attempted to dispute the significance of this feature in Historical Syrian Mosques, particularly, the Great Mosque of Damascus and claims that the wooden tie-beams are of a later date. Creswell not only fails to produce any evidence to reinforce his claim that the tie-beams have not been employed in the early Syrian Mosques but he also avoided mention of the early Islamic monuments of al-Aqsa Mosque which undermine



The construction of slightly pointed and pointed arch.

Fig. 8. 11 **The evolution of the pointed arch as the separation of its two centres increases.**

Source: Creswell, 1969, 1: p166.

the bases of his claim. According to him, this element exists in Sancta Sophia at the Gynaeceum Gallery over the narthex and therefore it is of a Byzantine origin [Creswell, 1969, 1: p114]. Despite the mention of this example, the difference between it and the early Muslim buildings lies in the way the tie-beams work (see Fig. 8.12). In the early Muslim period the technique is that the stone arches rest completely on the wooden beams and do not touch the columns' capitals, however the arches in Sancta Sophia rest mainly on the capitals and not on the wooded beams. It is possible that these wooden beams do not continue over the capitals or, perhaps were inserted later, which is yet to be confirmed. Moreover, Creswell weakens the significance of his claim in another statement that "the treatment of the tie-beams (of *Qubbet al-Sakhrah*) which, on their inner faces, are treated as a Classical entablature, is not to be found, so far as I know, in any existing building" [Creswell, 1969, 1: p112].

Therefore it seems clear that the conclusion of Melchior de Vogüé, Clermount-Ganneau and Conder that this element has to be credited to the Muslim period, was right.

8.3.3 Roofing System

Three principal kinds of roofing systems were used in the early Muslim architecture of al-Aqsa enclave.

Barrel, Segmental and Elliptical Vaults

Only three shapes of vaults were used in the enclave, mainly for roofing the subterranean structures of the enclave. From the arch to the vault, the step is easy. If the width of the arch is so thick that the width of the single voussoirs could not cover the whole width, one might build two arches side by side. It becomes necessary of course, to avoid vertical joints or the formation of continuous cracks between the two arches, which would obviously weaken the construction. The vaults may be constructed with a complete centering; however, if the vault is too long it will be expensive to construct one centering for the whole vault. Thus it requires

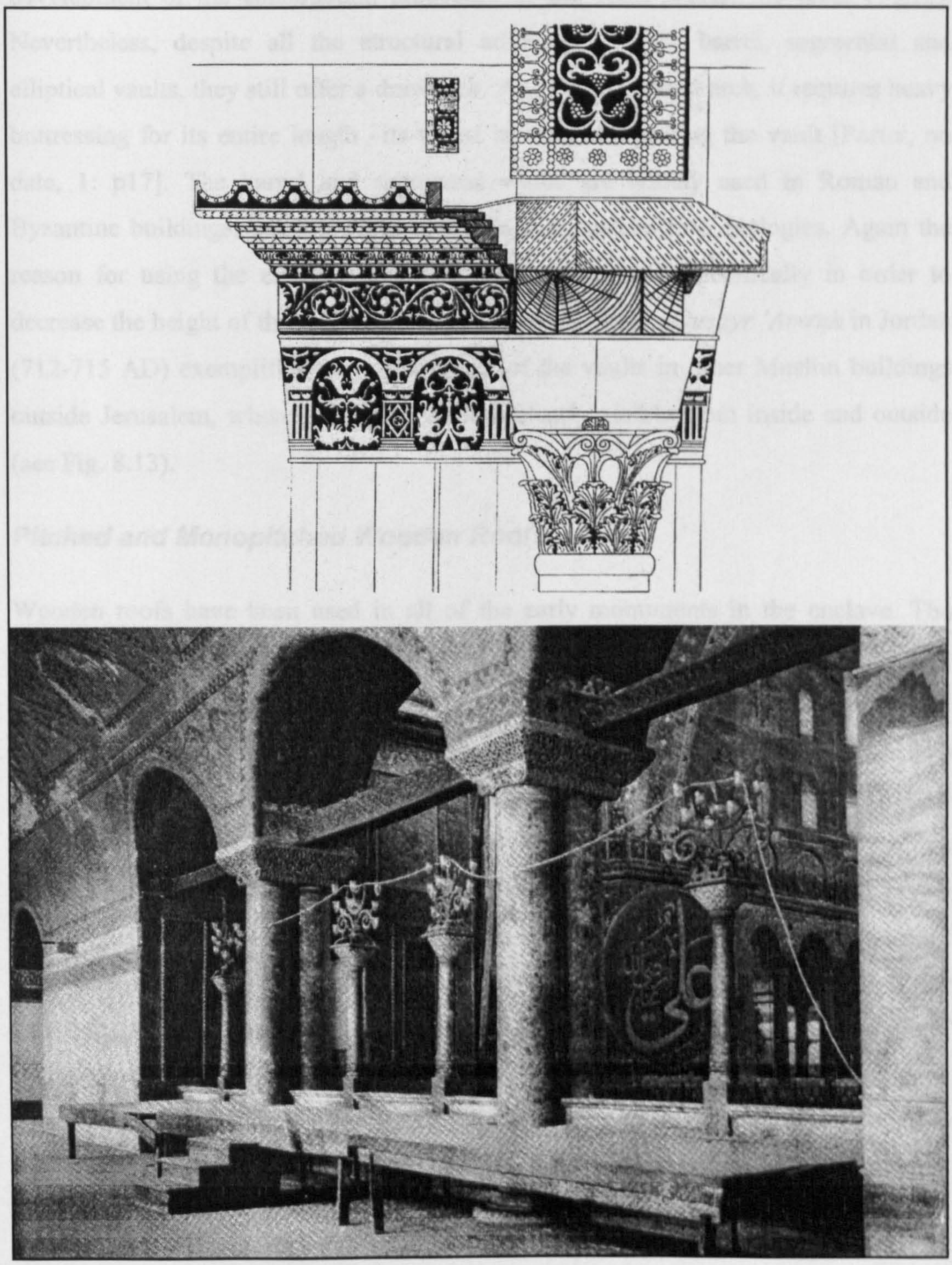


Fig. 8. 12 **Top: Section through the tie-beam inside *Qubbet al-Sakhrah* (the Dome of the Rock). Bottom: Tie-beams of arches in the upper gallery in Sancta Sophia in Constantinople.**

Source: Top: Richmond, 1924; bottom, p16; Creswell, 1969, 1: p115.

constructing it in stages so that the centering could be used many times during the development of the construction procedure of the vault [Porter, no date, 1: p13]. Nevertheless, despite all the structural advantage of the barrel, segmental and elliptical vaults, they still offer a drawback. As an exaggerated arch, it requires heavy buttressing for its entire length –its thrust is continuous along the vault [Porter, no date, 1: p17]. The barrel and segmental vaults are widely used in Roman and Byzantine buildings, but for elliptical vaults it is hard to find analogies. Again the reason for using the elliptical vault is mainly structural, specifically in order to decrease the height of the arch and reduce the lateral thrust. *Qusayr 'Amrah* in Jordan (712-715 AD) exemplifies the employment of the vaults in other Muslim buildings outside Jerusalem, where the barrel vault is clearly visible from inside and outside (see Fig. 8.13).

Pitched and Monopitched Wooden Roofs

Wooden roofs have been used in all of the early monuments in the enclave. The Madaba mosaic floor, mentioned several times in the thesis, clearly depicts this type of roofing which was used in both religious and secular buildings. This may well indicate how popular this type of roofing was in the architecture of Jerusalem. The way of building the roof is to create triangular trusses extending from wall to wall and covering these frames with wooden planking on which lead sheets are occasionally fixed. In many occasions, roof tiles replace the exterior wooden planking. Pitched and monopitched wooden roofs are widely employed in ancient European and the Middle Eastern rural and urban buildings alike. They are used, for example, in houses, basilicas, churches, mosques and others buildings. The origin of this kind of roofing can be traced back to a primitive beginning and the practice is still in use today [Allsopp, 1965, p32]. Structurally, this roof does not generate heavy loads and the side thrust from the weight of the roof is almost zero.

Environmentally, the sloping roof has an advantage over the horizontal roof, especially in driving away the water and snow from its surface.

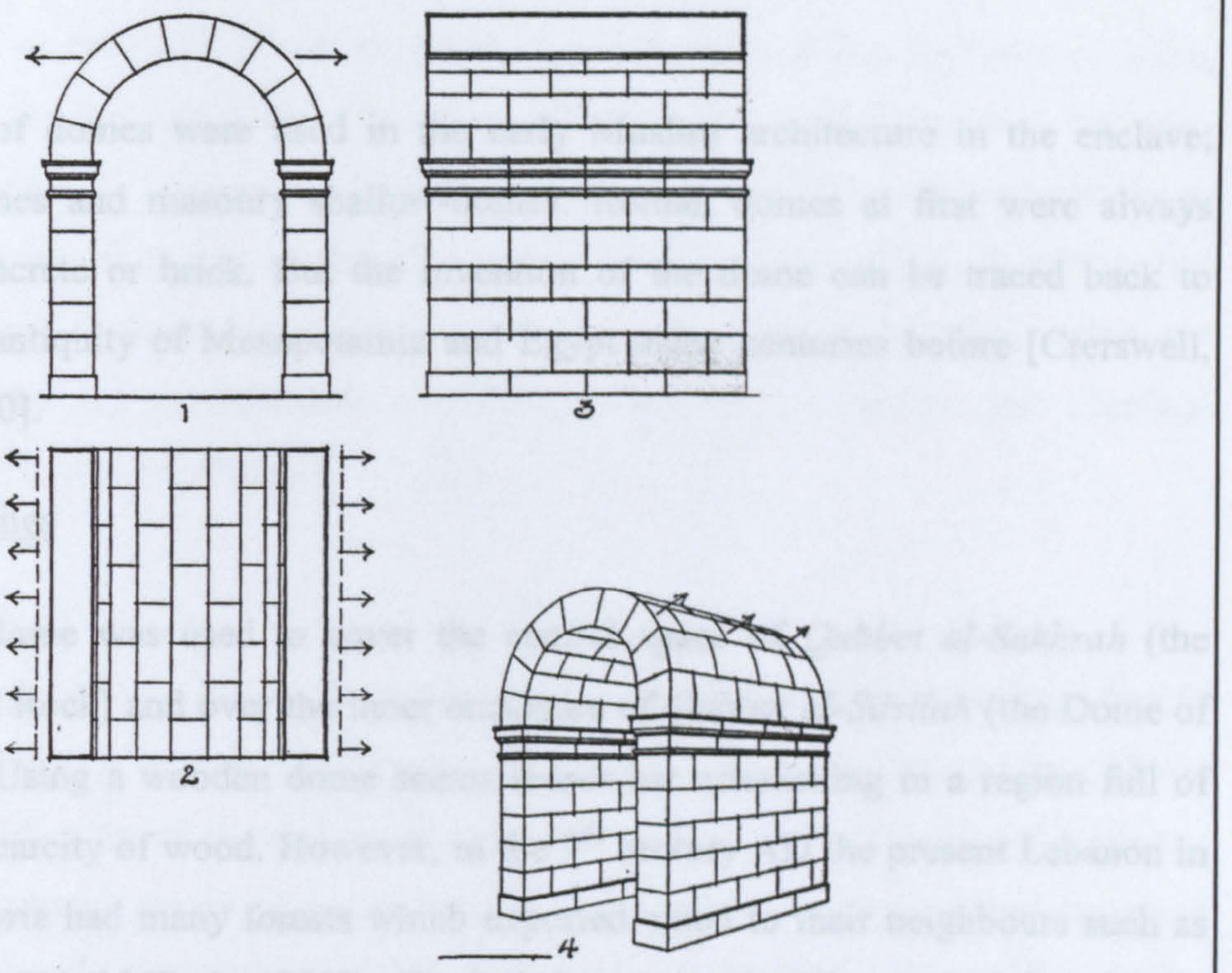


Fig. 8. 13 **Top: Diagram of the Barrel Vault, bottom: *Qusayr 'Amrah* in Jordan as it looks today.**

Source: Top: Porter, no date, 1: p14. Bottom: http://www.spin.si/robertb/jordan/images/desertCastles4.jpg

Domes

Two kinds of domes were used in the early Muslim architecture in the enclave; wooden domes and masonry shallow-domes. Roman domes at first were always made of concrete or brick. But the invention of the dome can be traced back to the ancient antiquity of Mesopotamia and Egypt many centuries before [Crerswell, 1969, 2: p450].

Wooden Domes

A wooden dome was used to cover the central space of *Qubbet al-Sakhrah* (the Dome of the Rock) and over the inner enclosure of *Qubbet al-Silsilah* (the Dome of the Chain). Using a wooden dome seems somewhat astonishing in a region full of stones and scarcity of wood. However, in the 7th century AD the present Lebanon in Historical Syria had many forests which exported wood to their neighbours such as Egypt [al-Suyūtī, 1967, 1: p333]. Conical domes are usually used in the earliest buildings in Historical Syria [Rivoira, 1918, 1: p59] for instance that of the circular temple in Gaza known as the Marneion, built in the 2nd century AD in honour of the fish-god Marnas. The same roof is also found in Constantine's Church of the Holy Sepulchre built in 335 AD [Creswell, 1969, 1:p116].

In the Byzantine period, wooden domes continued to be used in Historical Syria but in greater numbers and mainly in a spherical shape. A famous example existed at the Church of St. Simon Stylites at *Qal'at Sim'ān* in Syria (25 miles from Aleppo), built between 459-560 AD. It was constructed over an octagonal central space measuring 27 metres in diameter. Creswell reviewed the examples of precedent buildings before the early Islamic period and concluded in his study on early Muslim architecture that this type of dome has its origin in Syria [Creswell, 1969, 1:p116].

Shallow Stone Domes

Shallow stone domes were used in roofing the vestibule of both *Bāb al-Rahamah* (or the Golden Gate) and *Bāb al-Nabī* (or the Double Gate). According to Creswell a low dome of perfectly cut stone voussoirs is typical for Syria [Creswell, 1969, 2:

p455]. Examples of this kind exist in *Qusayr al-Nūwayjīs* on the outskirts of Amman (probably 4th century AD) [Creswell, 1969, 2: p459]; baths at Jerash (Gerasa), dating no later than the first half of the 3rd century AD; the pagan tomb in Samaria, dating to the middle of the 4th century AD [Hamilton, no date, pp.64-71]; and the Mausoleum Bizzos at Ruwayhā dating to the 6th century AD [Creswell, 1969, 2: p455]. But double pairs of shallow domes constructed over segmental or elliptical arches are only found in *Bāb al-Rahamah* and *Bāb al-Nabī* in Jerusalem, and identical precedents are yet to be revealed.

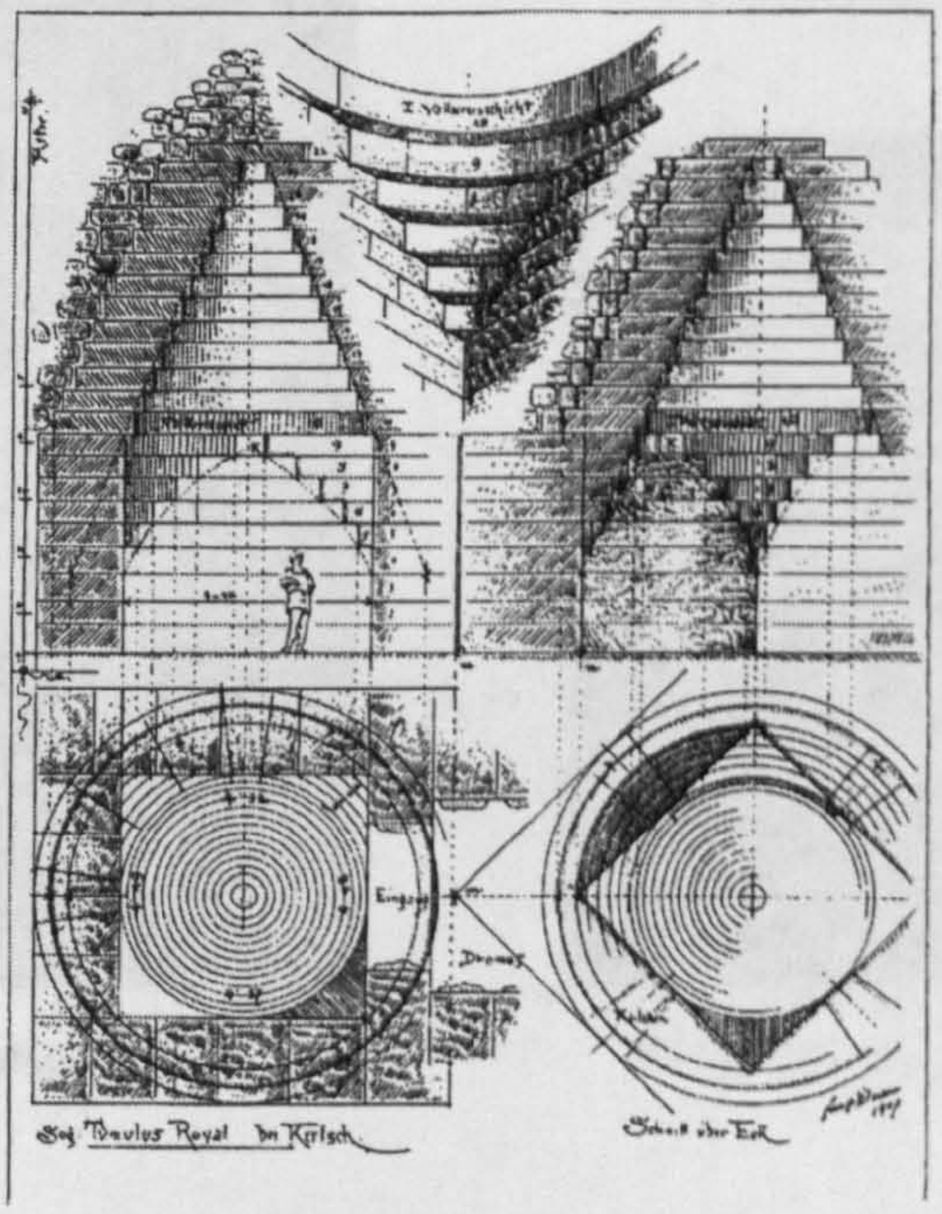
Pendentives.

Roofing a square space with a dome requires an appropriate architectural solution to solve the transition between the corners of the space and the circular base of the dome. An early attempt to confront the problem was made by rounding the corners and gathering them towards the vaulting. This unsatisfactory solution was employed mainly before the evolution of the spherical pendentives. Examples of this architectural treatment of the corners, employed in Egypt in one of the Egyptian tombs at Dirā' Abu'-Nagā (see Fig 8.14), date to the 15th century BC. The same treatment was also found at Kerch, in the Crimea (the ancient Pantikapion), in a domed mausoleum known as Royal Tumulus dating to 6th or 5th century BC (see Fig 8.14). Other examples were found in Italy in an Etruscan tomb at Vetulonia, dating to the 7th century BC [Creswell, 1969, 2: p453] (see Fig. 8.15).

In Syria the problem of pendentives is completely avoided. In Phaena builders employed a square dome in the Roman praetorium (see Fig. 8.15). In 'Amman the dome in a Roman tomb is set on the square, large voussoirs projecting inwards and no special provision is made for its support except for a very small corbel in each corner (see Fig. 8.16). In a little shrine in Um al-Zaytūn in the Haurān, that may well date to 282 AD, some improvement has been made for the treatment of the pendentives (see Fig. 8.16). The builders of the shrine covered the angles of the square by slabs, producing thus an irregular octagon. Another endeavour to provide a solution is found at Latakia in a tetrapylon, or four-faced archway. The pendentives of the tetrapylon consist of flat triangles inclined inwards and formed in each case of



Egypt: Dirā‘ Abu’n-Nagā.

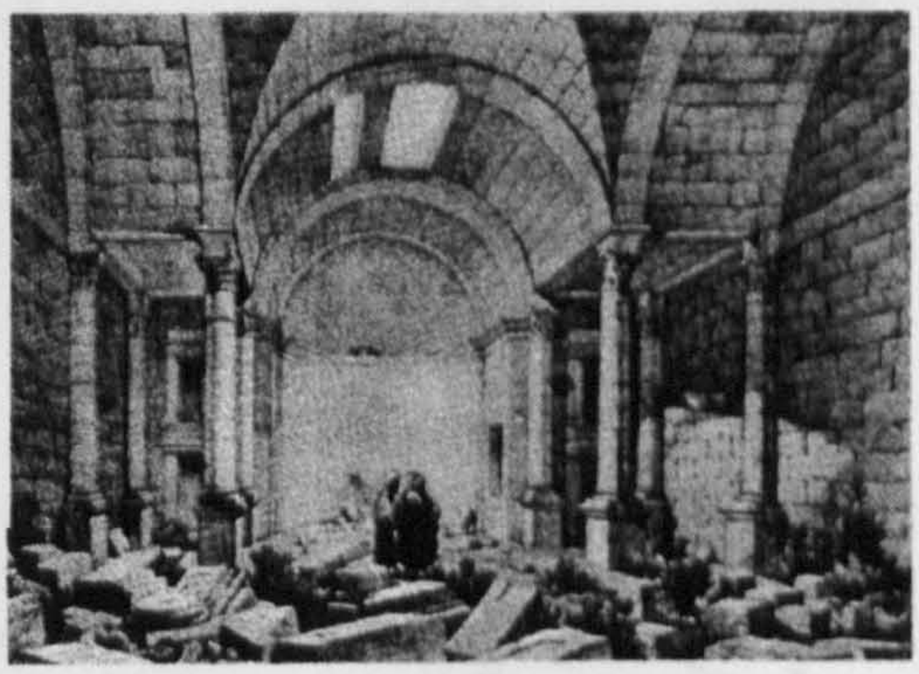


Kerch: the Royal Tumulus.

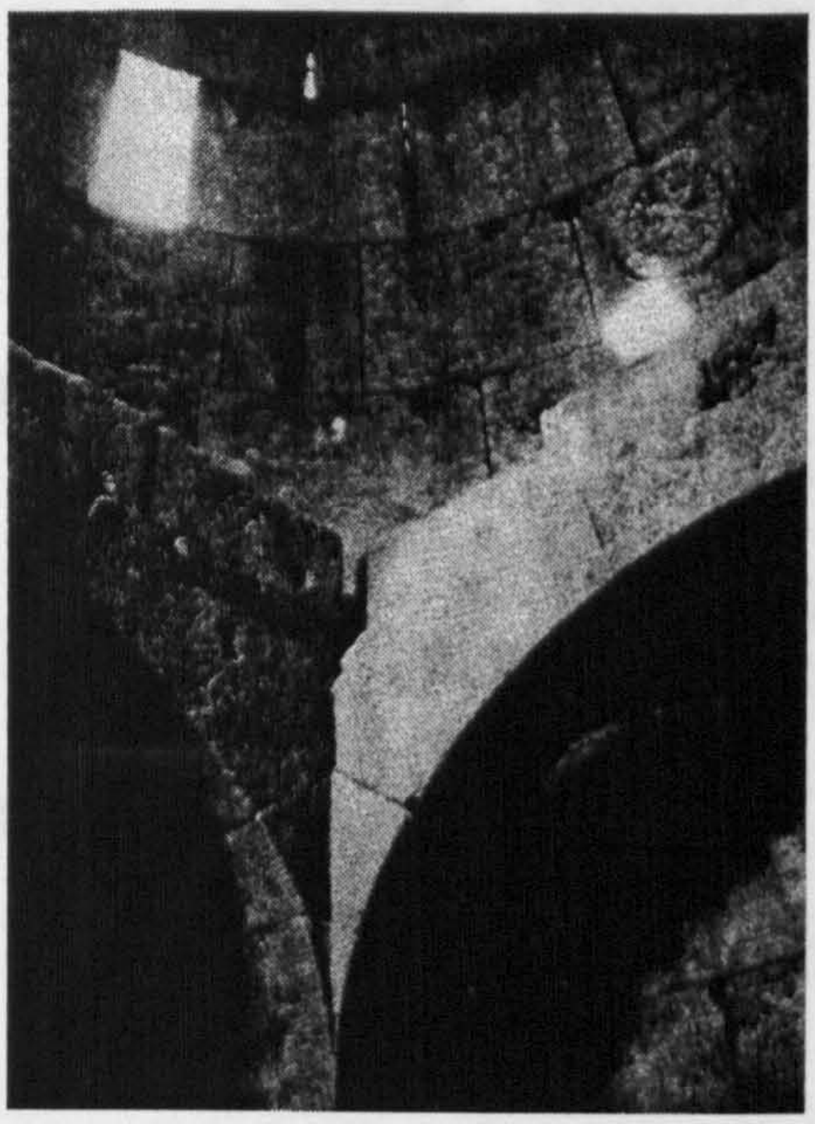
Fig. 8. 14 **Early examples of primitive pendentives.**
Source: Creswell, 1969, 2: pp. 452-453.



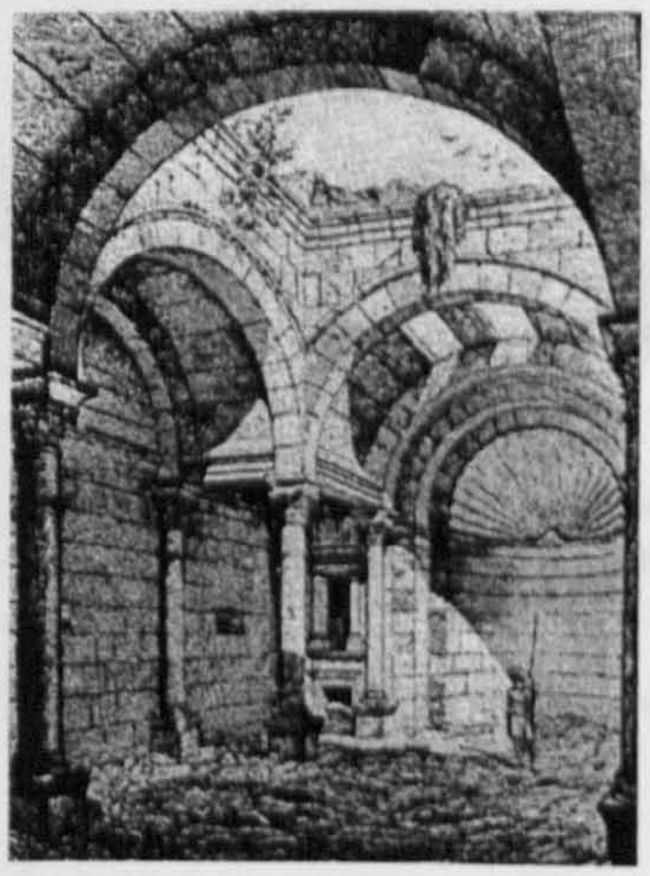
Etruscan tomb from Vetulonia.



Phaena (Mismīya): The Praetorium.

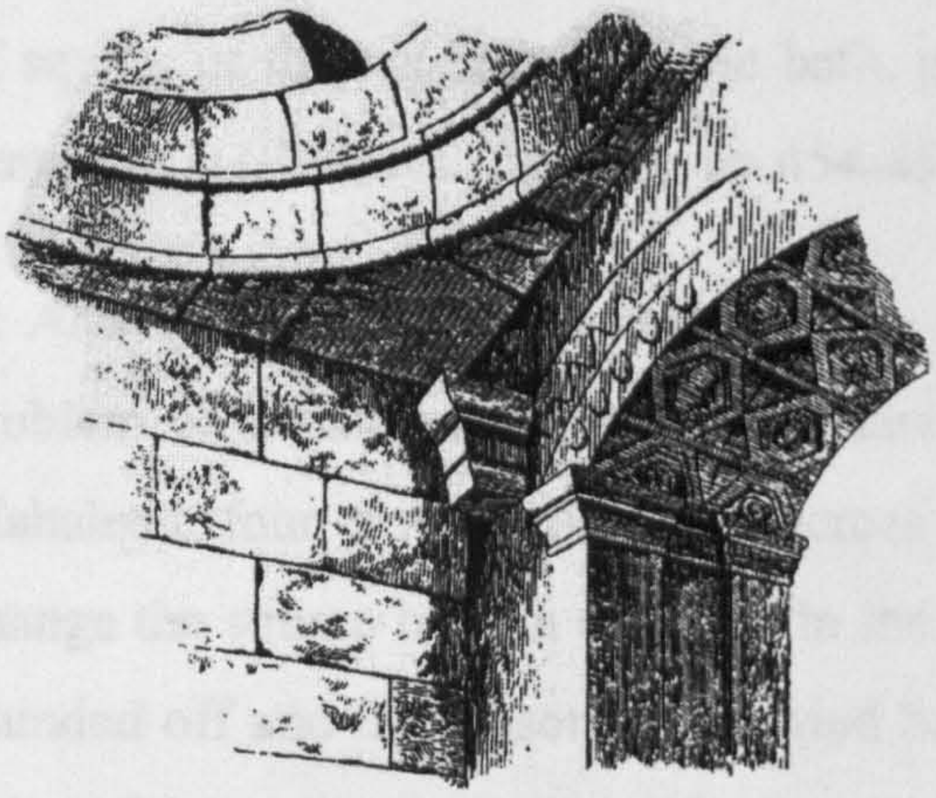


Ruwayhā: Mausoleum of Bizzos

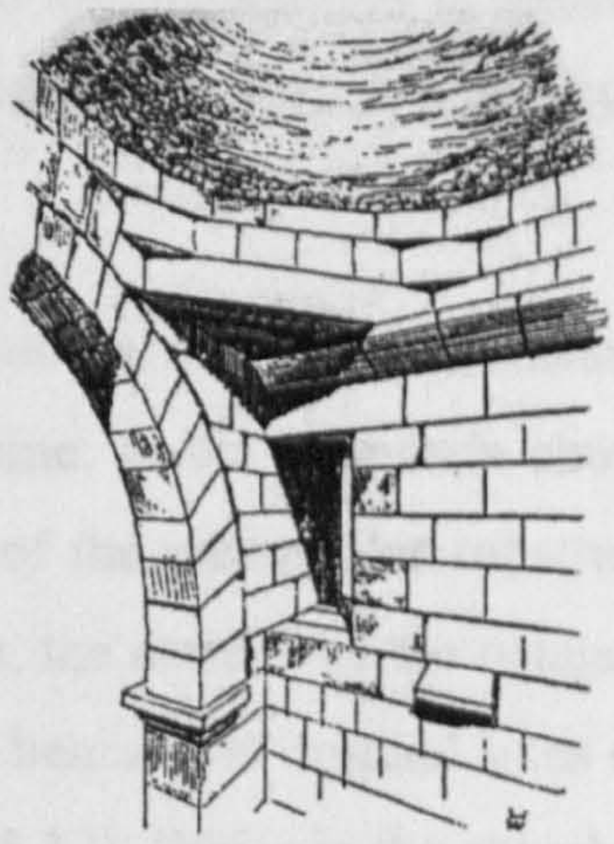


Phaena (Mismīya): The Praetorium.

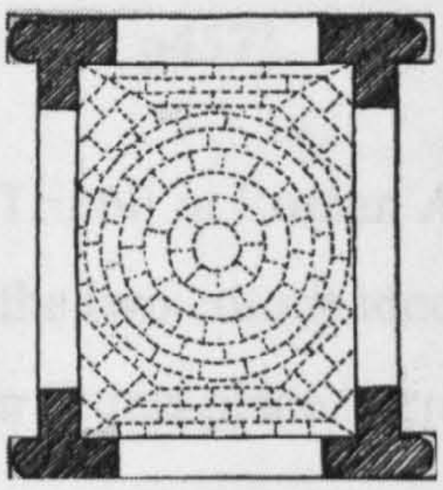
Fig. 8. 15 **Early examples of primitive pendentives.**
Source: Creswell, 1969, 2: p454; Rivoira, 1918, p127.



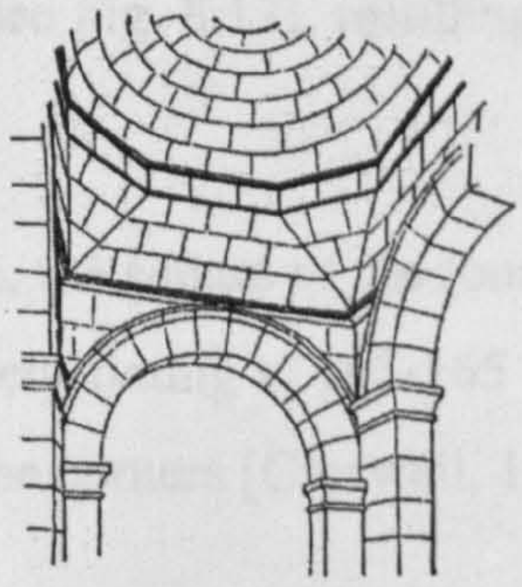
'Ammān: Western Tomb, showing setting of the dome.



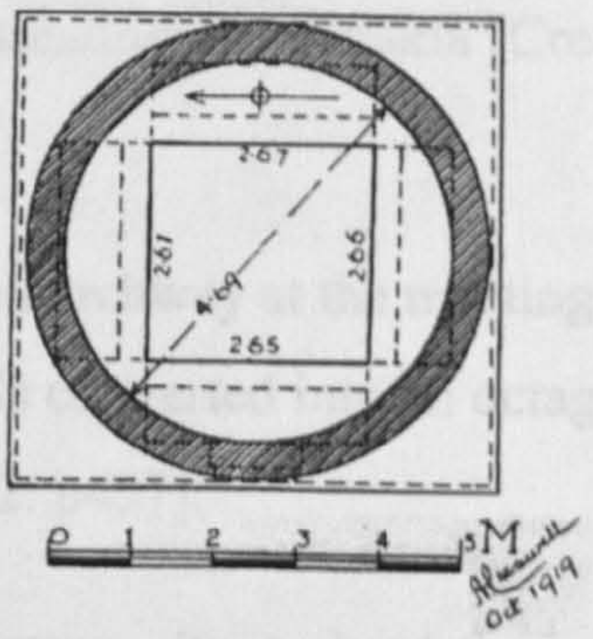
Umm al-Zaytūn: Dome-setting.



Latakia: Plan of tetrapylon.



Latakia: Pendentives of tetrapylon.



Ruwayhā: Plan of Mausoleum of Bizzos, at springing of dome.

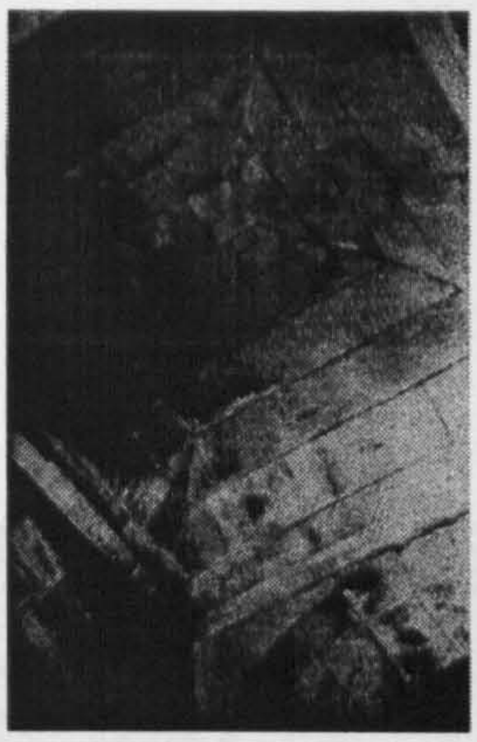
Fig. 8. 16 **Early examples of primitive pendentives.**
Source: Creswell, 1969, 2: p455.

three horizontal oversailing courses of cut stones (see Fig. 8.16). In northern Syria, the problem of the pendentives is entirely evaded in two mausoleums: one at Ruwayhā and the other at Hāss, dating to the early part of the 6th century AD (see Fig. 8.15, 16). The dome in each mausoleum was placed on a square platform with a square opening in the centre where the dome does not touch its outer edge, nor cut across its inner angles. In *'Abda* stone lintels replaced the pendentives at the corners of square of the *caldarium* of the bath, probably dates to the second half of the 6th century AD [Creswell, 1969, 2: pp.454-457].

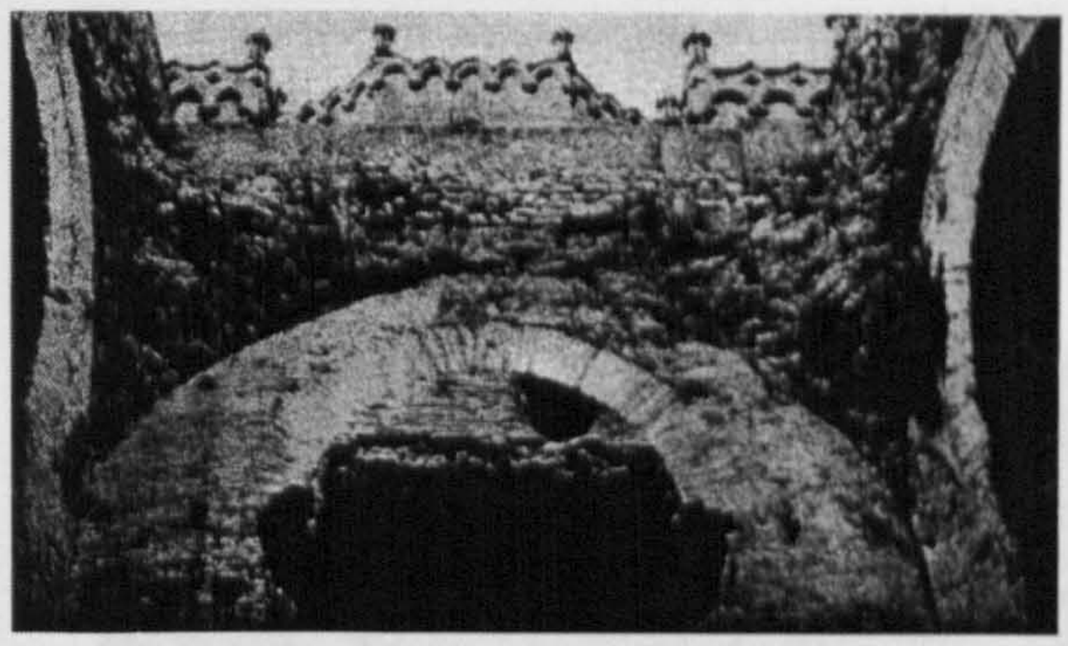
In Asia Minor the same unsatisfactory attempts were carried out to confront the problem of transition between the square and the dome. In the cruciform church at Mahaletch four corbel stones, set across the angles of the rectangular substructure, change the square into an octagon. In the next course, the corners of the octagon are rounded off and the masonry is carried back slightly behind the original lines of the sides of the square so as to produce a circle (see Fig. 8.17). While in the church No.9 at Maden Shahr a stone is set across each corner and bevelled off below so as to form a small triangular *glacis* (see Fig. 8.17), recalling the treatment in Latakia [Creswell, 1969, 2: p457].

In Tripoli in Roman Africa, the square of the four-faced archway at the meeting point of the two colonnaded streets, dating to 163-165 AD, is converted into an octagon by four lintels placed across the corners [Creswell, 1969, 2: p457].

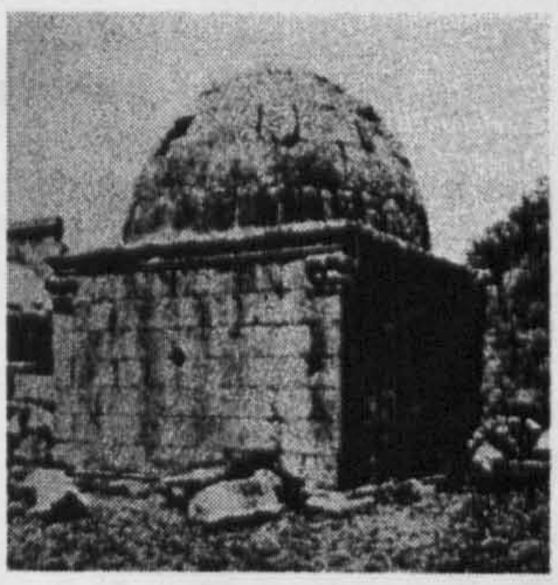
Creswell argues that in Rome, in the *Domus* of Augustana, built about the year 85 AD, no spherical-triangle pendentives are to be seen for the remains are quite rough and nothing of their original surface is left [Creswell, 1969, 2: p458] (see Fig. 8.17). To the right and to the left of this room is an octagonal room covered by a dome, but the transition between the octagon and the dome is blurred over (see Fig. 8.15). In a tomb in the Via Nomentana or "Sedia del Diavolo" which dates to the time of Hadrian (117-138 AD) flat pendentives are formed of lumps of tufa set on the framework of the boards (see Fig. 8.18). In another tomb of the same date of the Via Nomentana, near the Casale dei Pazzi, triangular pendentives were used. In the Baths



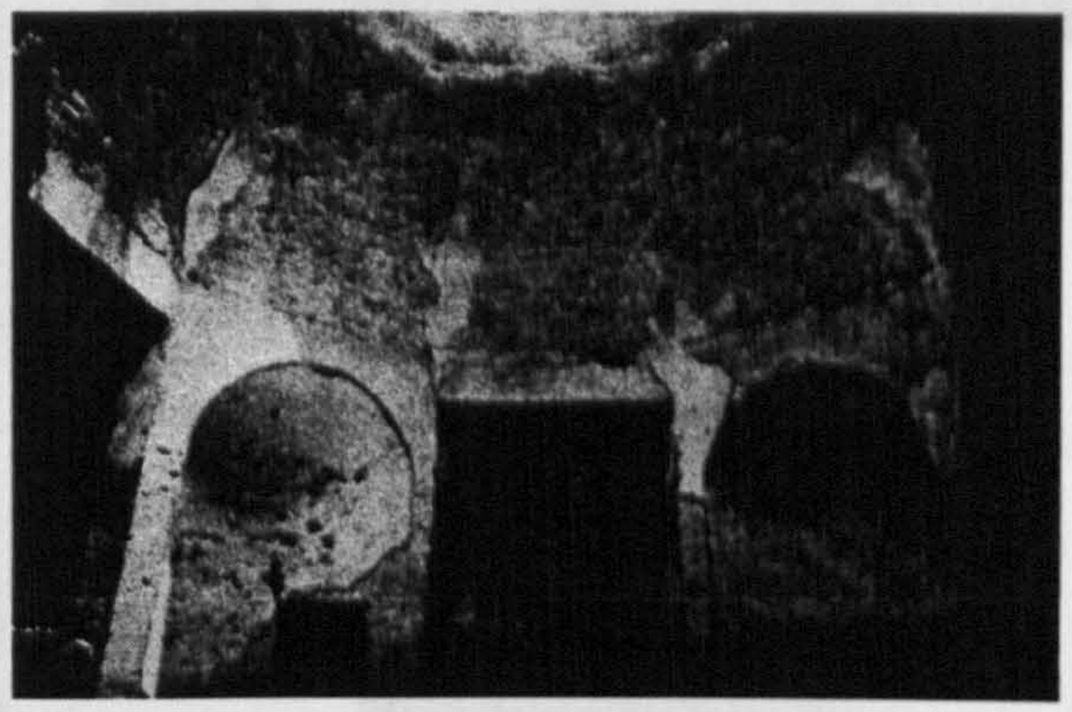
Bosrā: Square dome in the theatre over crossing place in *vomitoria*.



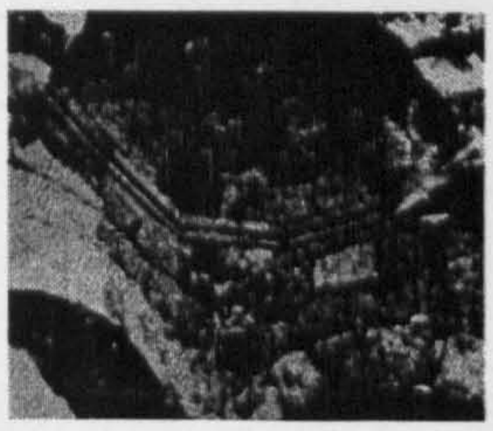
Rome: Alleged pendentives in substructure of Domus Augustana.



Ruwayhā: Mausoleum of Bizzos.



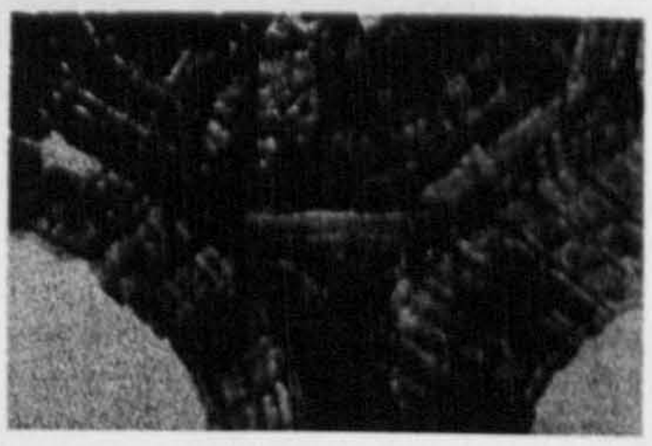
Rome: Dome-setting on octagon in substructure of the DomusAugustana



Maden Shahr: Dome-setting in Church No. 9.

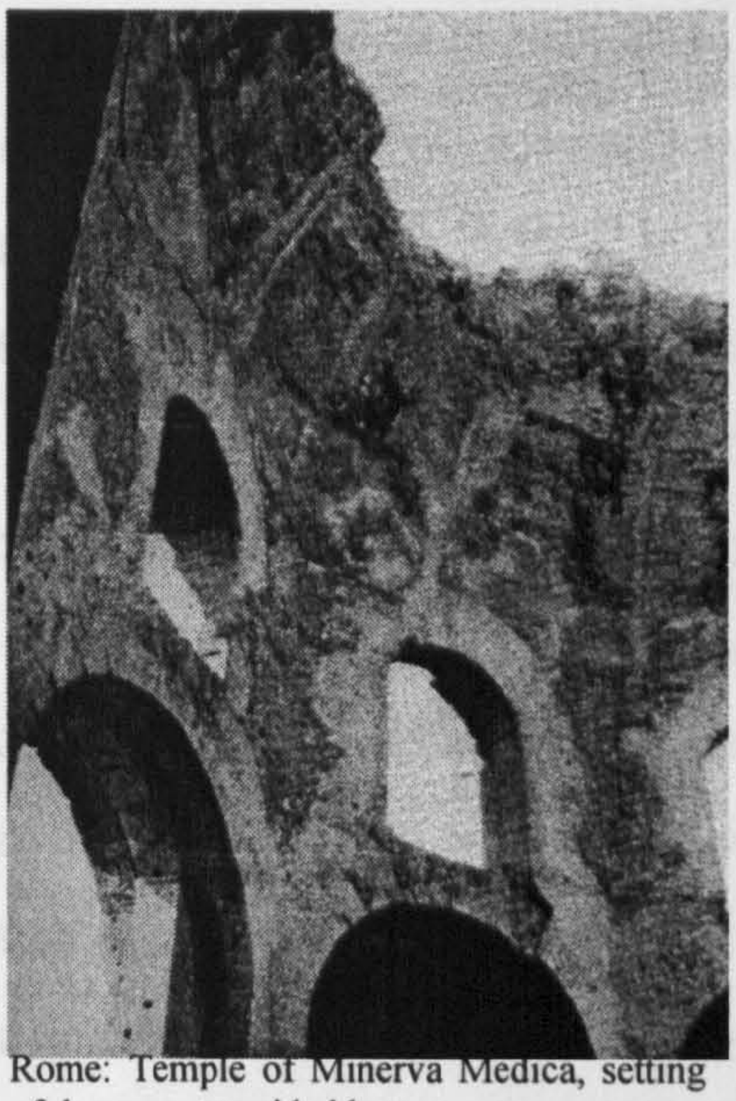


Mahaletch: Dome-setting over transept of church.

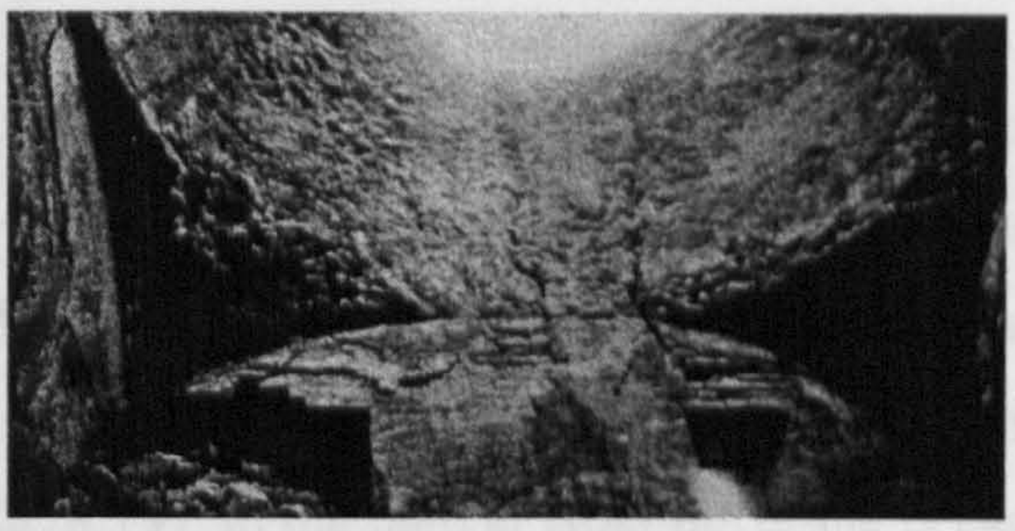


Tripoli (Africa): Quadrifon.

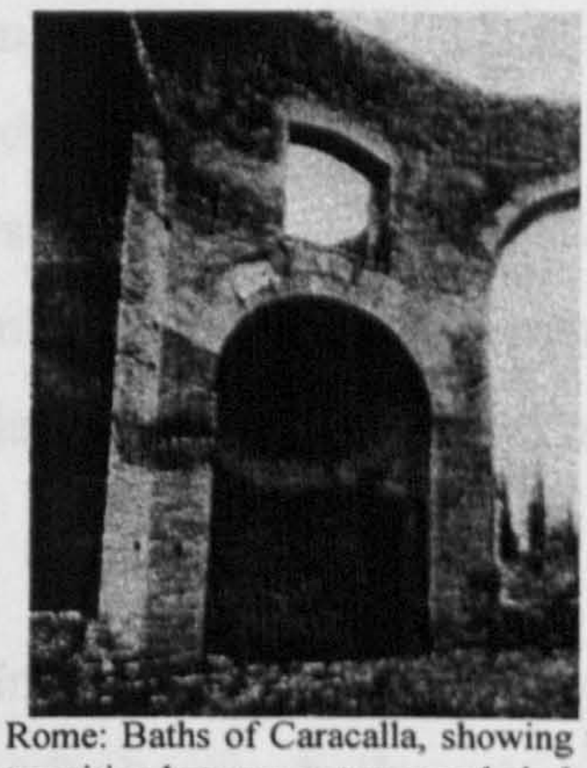
Fig. 8. 17 **Early examples of primitive pendentives.**
Source: Creswell, 1969, 2: p458.



Rome: Temple of Minerva Medica, setting of dome on ten-sided base.



Rome: Mausoleum on the Via Nomentana near the 'casale dei Pazzi', setting of the dome.



Rome: Baths of Caracalla, showing the transition between octagon and circle.

Fig. 8. 18 **Early examples of primitive pendentives.**
Source: Creswell, 1969, 2: p460.

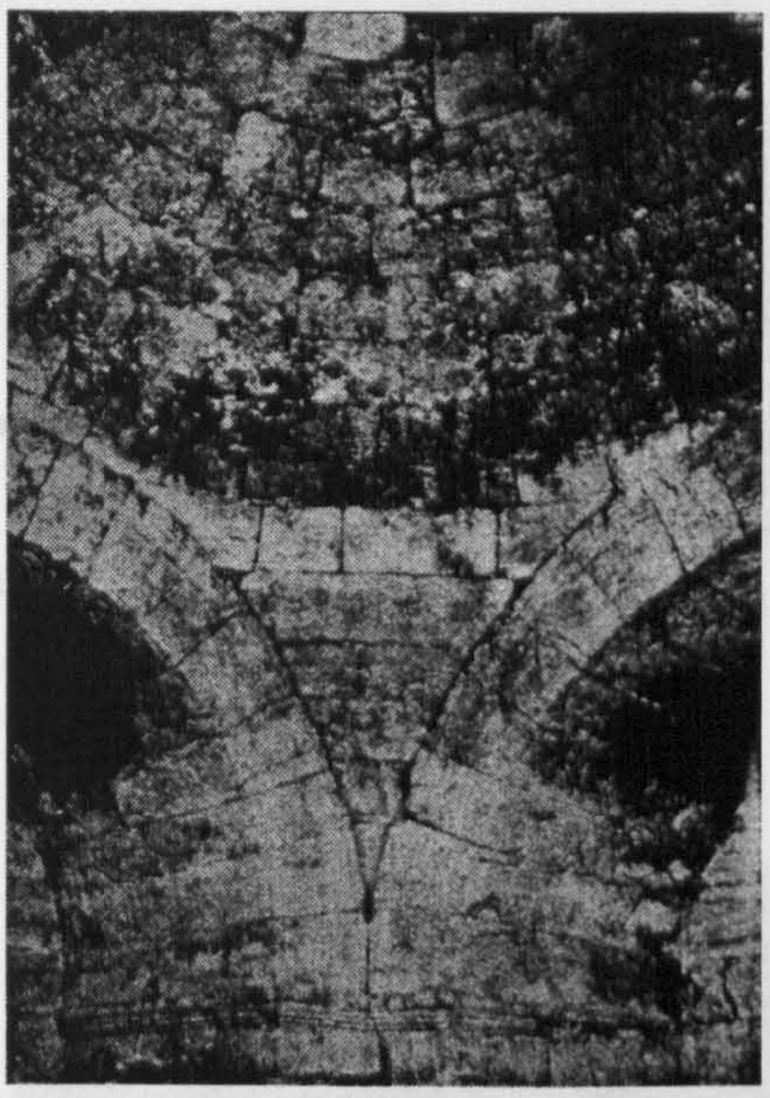
of Caracalla, dating to 212-216 AD, a dome is set on one of the octagonal halls but the transition is effected by means of eight angles in the octagonal space (see Fig. 8.18). The effect of the course is the result of gradually approximating the octagon to the circle in successive courses. In the temple of *Minerva Medica* the dome is set on a ten-sided base (see Fig. 8.18) [Creswell, 1969, 2: p457-459].

Spherical-Triangle Pendentives

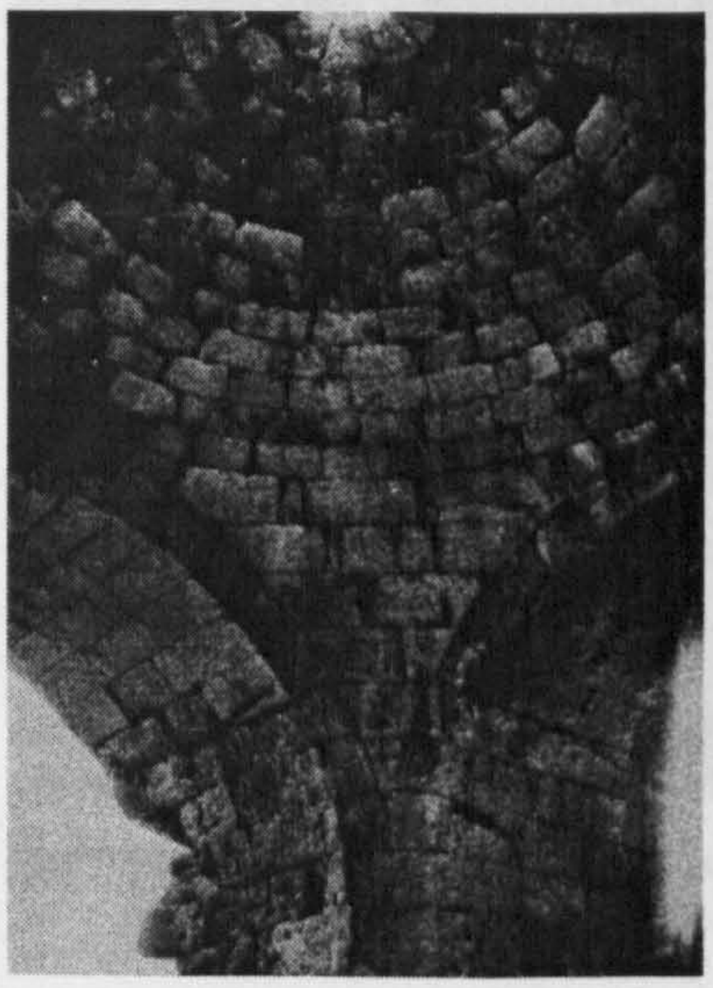
The earliest example that used spherical pendentives is still standing in a mausoleum, known as Qusayr al-Nūwayjīs, on the outskirts of 'Amman, dated by Creswell to the later part of the 2nd century AD (see Fig. 8.17) [Creswell, 1969, 2: p461]. The same pendentive technique is used in the baths at Jerash (Gerasa), dating no later than the first half of the 3rd century AD (see Fig. 8.19). In the bath at Brād the dome is carried by spherical-triangular monolithic pendentives (see Fig. 8.19). Another example of the early spherical-triangle pendentive was found in Samaria in a pagan tomb, dating to the middle of the 4th century AD [Hamilton, no date, pp64-71]. It has a square room measuring almost 3.5 metres. On each side of the chamber was a semicircular wall arch. On the top of these wall-arches rested a shallow dome 3.27 metres in diameter and 0.71 metre in height and was formed of seven rings of masonry. At the corners of the chamber, spherical-triangle pendentives have five courses of masonry (see Fig. 8.20).

In Egypt, the mausoleum of St. Menas (Bu Mīnā) at Maryūt in the desert, about 20 miles west of Alexandria dating to 385-395 AD, has a shallow dome resting on spherical-triangle pendentives of red brick with thick layers of mortar. The dome and pendentives are of the same curvature (see Fig. 8.20).

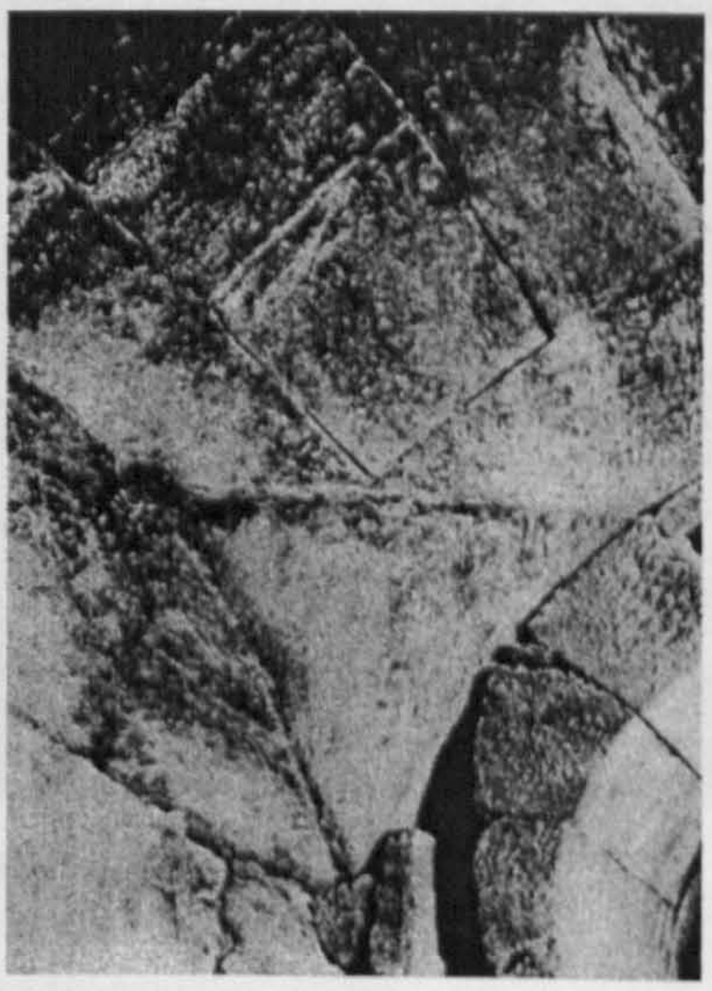
In Ravenna in the cruciform building known as the mausoleum of Galla Placidia, dating to about 440 AD, Revoira found spherical triangles of pendentives in a perfect form [Rivoira, 1910, 1: p28]. However Creswell examined them closely and revealed a sort of re-entrant angle, the same treatment as in the Baths of Caracalla, the result of gradually approximating the octagon to the circle in each successive course. The



'Ammān: Mausoleum known as Qusayr al-Nūwayjīs.

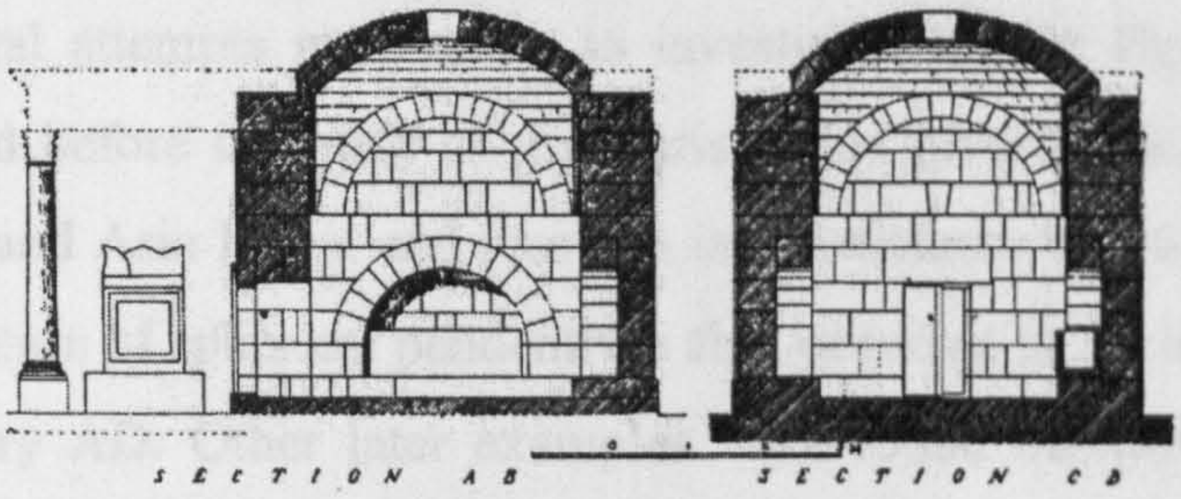


Jerash: pendentive in path.



Brād: pendentive in baths.

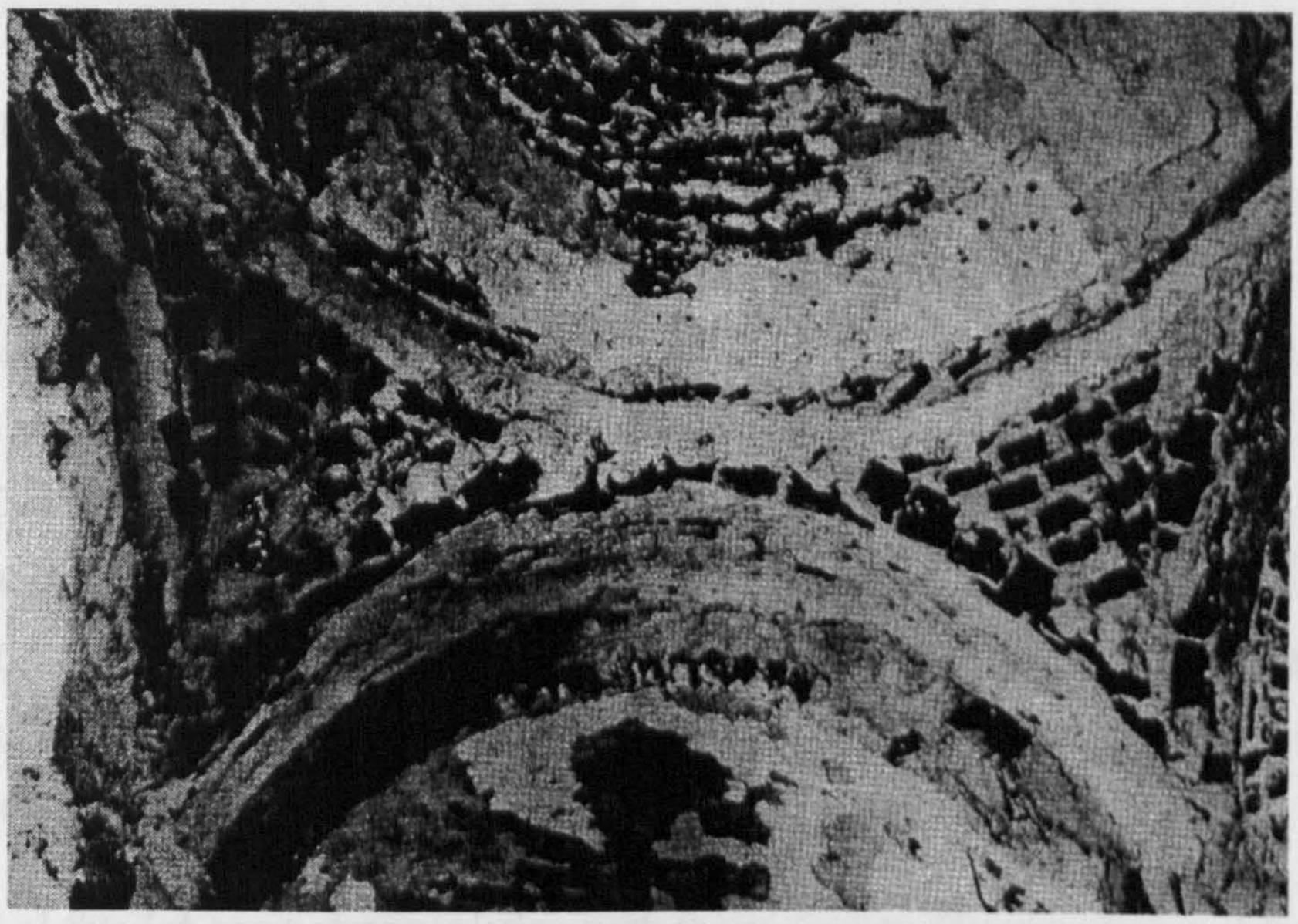
Fig. 8. 19 **Examples of spherical pendentives.**
Source: Creswell, 1969, 2: p462.



Samaria: pagan tomb with dome on pendintives



Samaria: Dome of Pagan tomb.



Abū Mīna: Brick pendentive in Mausoleum of St. Menas.

Fig. 8. 20 **Examples of spherical pendentives.**
Source: Creswell, 1969, 2: pp.462-63.

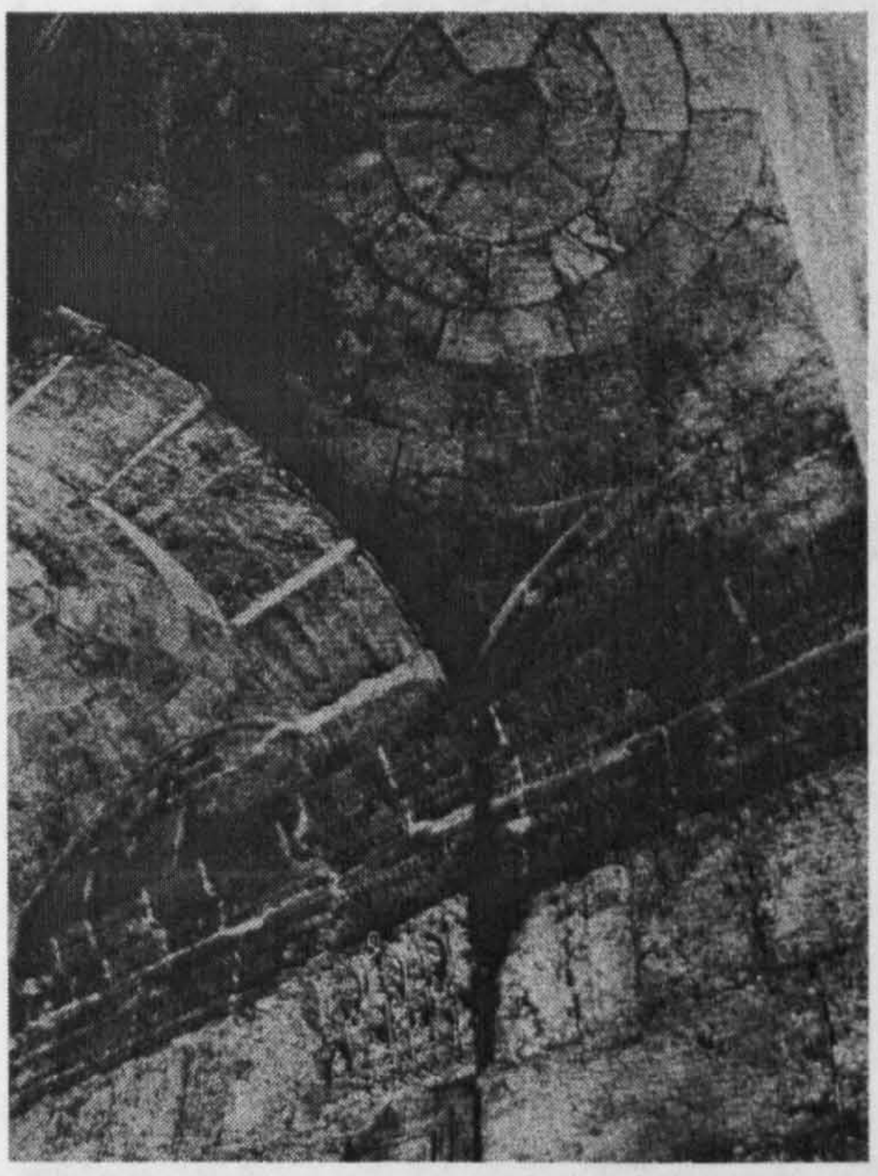
mausoleum cannot, therefore, be regarded as having true spherical-triangle pendentives. In the church of Sancta Sophia at Constantinople, constructed 532 AD, the spherical example is clearly evident at the corners of the square substructure.

To summarize, domes are used from very early times, but not the pendentives. Several attempts were made to investigate this in Egypt, Crimea and Italy in the period before the birth of the Christ. This investigation generated no resolution in Italy and Asia Minor and research is unsatisfactory in Syria. It would appear that the evolution of spherical pendentives first occurred in Syria in the second half of the 2nd century AD. Other later examples were found outside the region which may well suggest that this solution flourished in the Byzantine and early Islamic period in the building of the enclave (see Fig. 8.21).

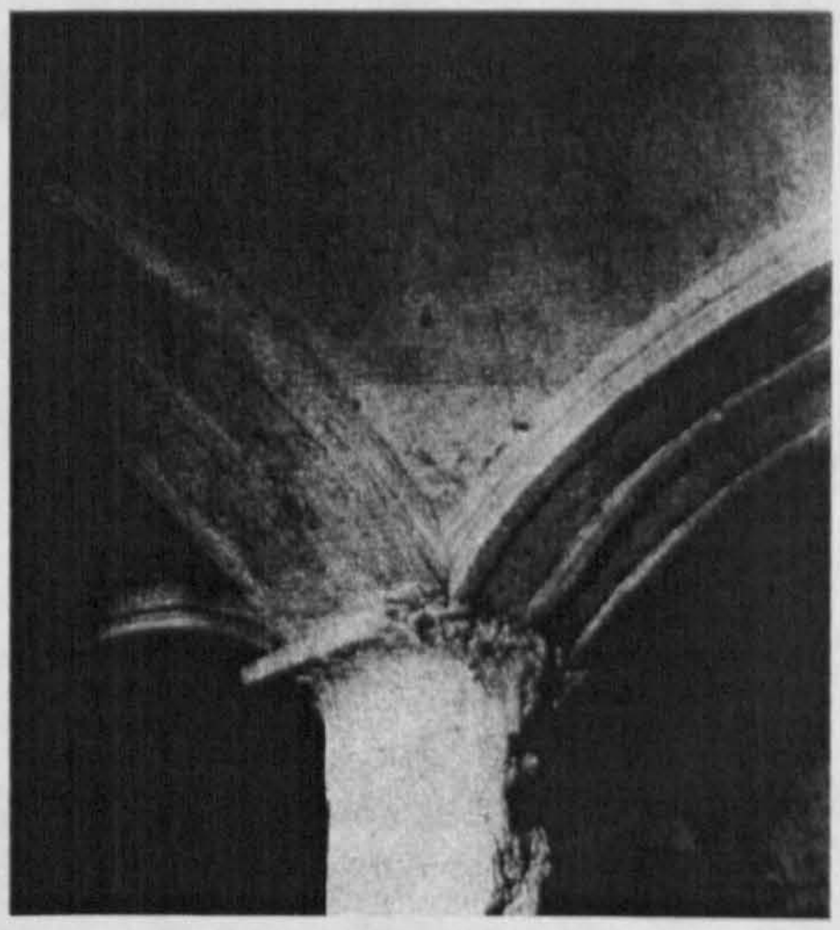
8.4 THE ORIGIN OF *QUBBET AL-SILSILAH*

Other than that of al-Aqsa enclave, an annular open form of a twelve-sided enclosure, or an eleven-sided enclosure surrounding a hexagon, does not seem to exist in the 6th and 7th centuries AD, so it is difficult to find a comparable Byzantine or Christian equivalent to *Qubbet al-Silsilah* (the Dome of the Chain). But an early Roman octagonal market pavilion does exist in Leptis Magna in North Africa, dated to 8 BC, with an open annular structure. It consists of two concentric boundaries: the outer is an open octagonal colonnade while the inner is a circular open space (see Fig. 8.22). The different geographical locations between this building and *Qubbet al-Silsilah*, the different plan, and the different architectural composition make it difficult to believe in any influence or architectural connection.

Qubbet al-Silsilah has a strong relation with the architectural composition of *Bayt al-Māl* (the dome of the treasury) in the Muslims' mosques (see Table 8.2). In some cases, the same composition of the treasury was also combined with a fountain. Creswell finds it difficult not to see any analogies with this architectural composition. He stated: "I cannot help thinking that the dome of the treasury has some connection with the *phiale*, or fountain, which some time stood in the atrium of



Jerusalem: *Bāb al-Rahma* or the Golden Gate, pendentive.



Jerusalem: *Bāb al-Nabī* or the Double Gate, pendentive.

Fig. 8. 21 **Spherical pendentives in al-Aqsa enclave.**
Source: Creswell, 1969, 2: p463.

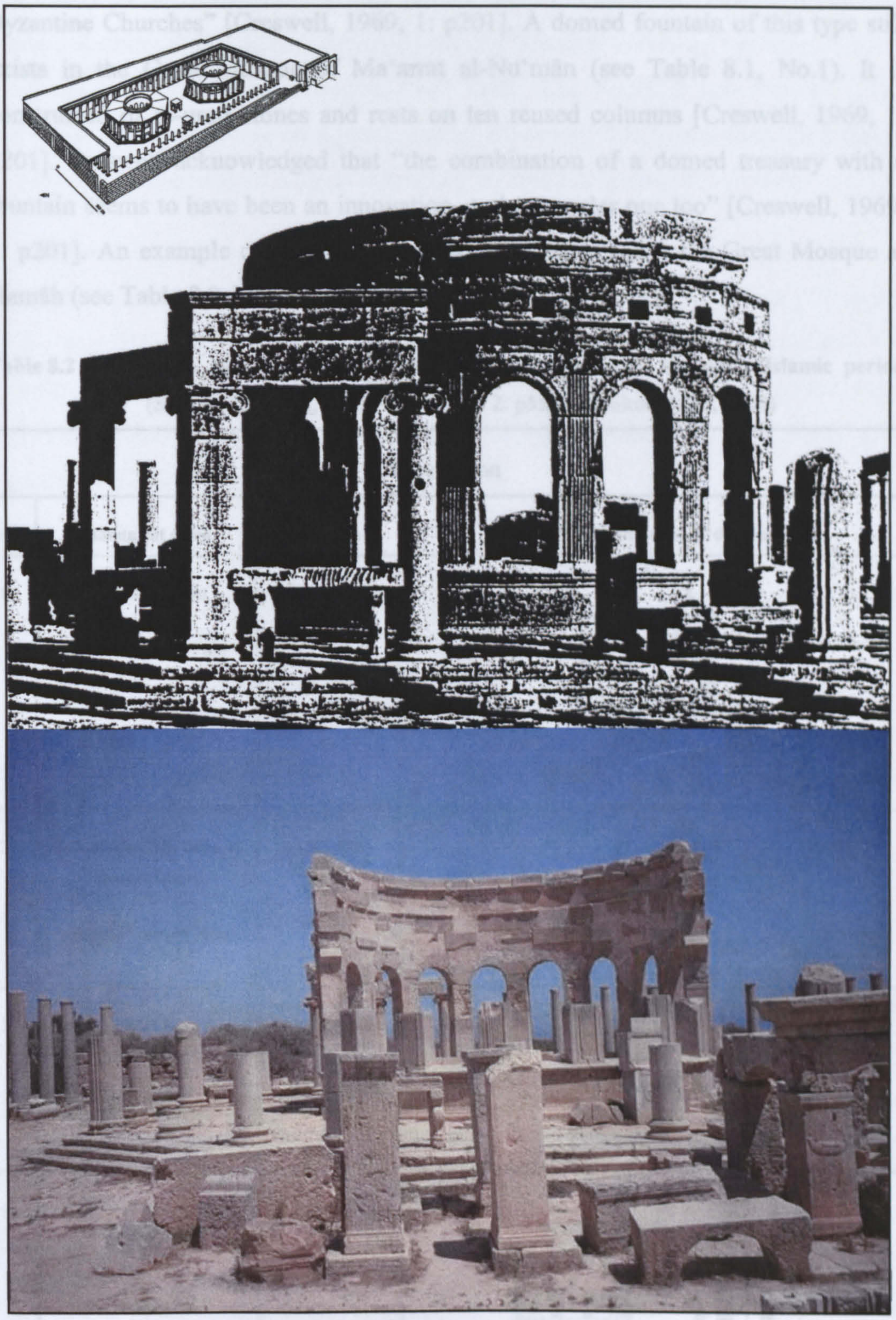


Fig. 8. 22 **Leptis Magna in northern Africa: fountain building (monumental *nymphaeum*) dates to 8 BC from opposite sides.**

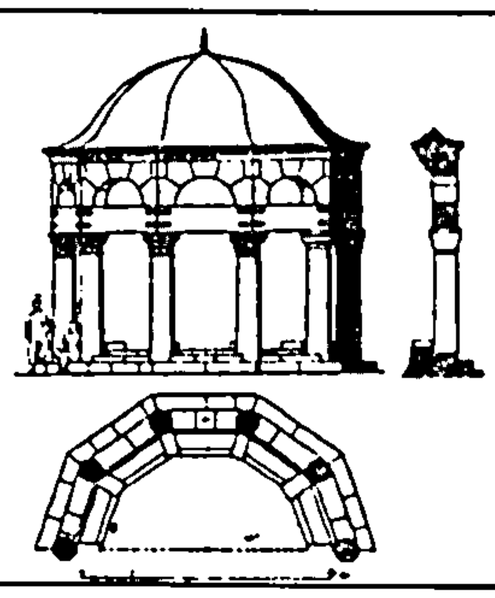
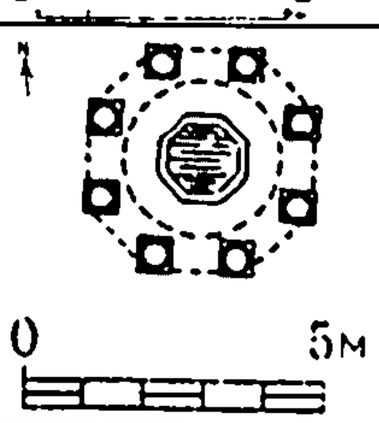
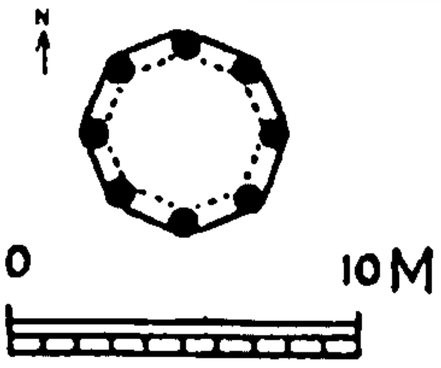
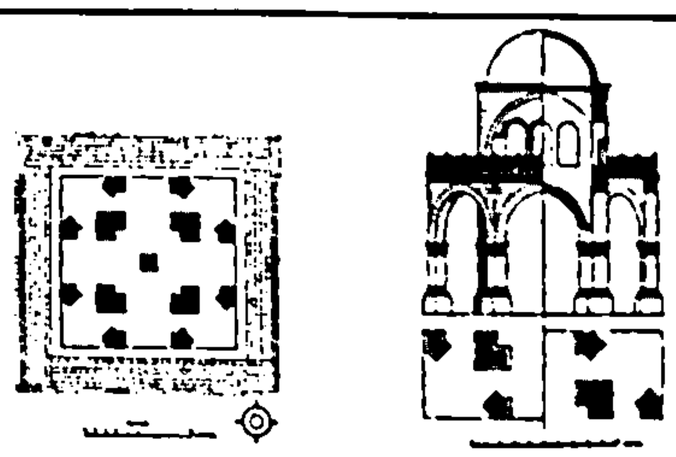
Source: http://rubens.anu.edu.au/htdocs/surveys/mediterrarch/slides.xmosaic/0025/2534.JPG

Byzantine Churches" [Creswell, 1969, 1: p201]. A domed fountain of this type still exists in the Great Mosque of Ma'arrat al-Nu'mān (see Table 8.1, No.1). It is constructed of re-used stones and rests on ten reused columns [Creswell, 1969, 1: p201]. Creswell acknowledged that "the combination of a domed treasury with a fountain seems to have been an innovation, and a popular one too" [Creswell, 1969, 1: p201]. An example of building the treasuries still exists in the Great Mosque at Hamāh (see Table 8.2, No.2).

Table 8.2 **Open structure of concentric buildings erected in the early Islamic period**

(Source: Creswell, 1969, 1: p201 and 2: p559; Hamilton, 1959, p100)

Description

NO.	Monument name	Location	Principal architectural drawings
1-	**Domed fountain** (Early 8th century AD)	Ma'arrat al-Nu'mān	
2-	***Bayt al-Māl* (The dome of the Treasury)** (Early 8th century AD)	In the Great Mosque of Hamāh	
3-	***Bayt al-Māl* (The dome of the Treasury)** (Early 8th century AD)	Umayyad Mosque in Damascuss	
4-	**The forecourt pavilion and its fountain** (First half of the 8th century AD)	Jericho in Palestine	

It consists of an octagonal chamber resting on eight columns. The diameter of a circle inscribing the octagon measures 4 metres. Another surviving example exists at the Umayyad Mosque in Damascus (see Table 8.2, No.3). It too consists of an octagonal chamber resting on eight columns. However, it is bigger than the treasury of Hamāh; the diameter of a circle inscribing its octagon measures 6 metres.

There were other examples that existed in other mosques in Historical Syria and are mentioned in historical sources; some of them rested on ten columns [Creswell, 1969, 1: p202] but unfortunately they did not survive. Al-Maqdisī confirms the popularity of these forms when he states: "In the chief town of every province, there is a treasure chamber supported upon columns constructed in the Great Mosque" [Al-Maqdisī, 1987 (985), p156].

Creswell has suggested in his study on Early Muslim architecture that *Qubbet al-Silsilah* may once have had the form of the treasury but was changed later [Creswell, 1969, 1: p202]. It was concluded in chapter seven of this thesis that the hexagonal form of the inner enclosure of *Qubbet al-Silsilah* preserved its early Islamic shape. But a comparison of *Qubbet al-Silsilah* with the treasuries of the Great Mosque at Hamāh and at the Umayyad Mosque in Damascus may well indicate an architectural link, particularly with the inner enclosure of *Qubbet al-Silsilah*. In the early Islamic period there are several types of architectural composition of a treasury resting on columns surrounding an open space. There is, for instance, the forecourt pavilion and its fountain in *Khirbat al-Mafjar* in Jericho (see Table 8.2, No.4). There are at least two kinds of treasuries; one rests on eight columns and the other on ten. The dimension of 6 metres of the diameter of a circle inscribing the hexagonal inner enclosure of *Qubbet al-Silsilah* is identical to that circle inscribing the octagonal treasury of the Umayyad Mosque in Damascus. It seems, therefore, that *Qubbet al-Silsilah* is a modified composition of the treasuries accommodating a resting place for the Muslim caliph as examined in chapter seven of this thesis (see Fig. 8.23).

Like *Qubbet al-Sakhrah, Qubbet al-Silsilah* is an annular concentric building. However, it is an open structure and its plan consists of a hexagon surrounded by an eleven-sided (or originally twelve-sided) shape. With the exception of the open



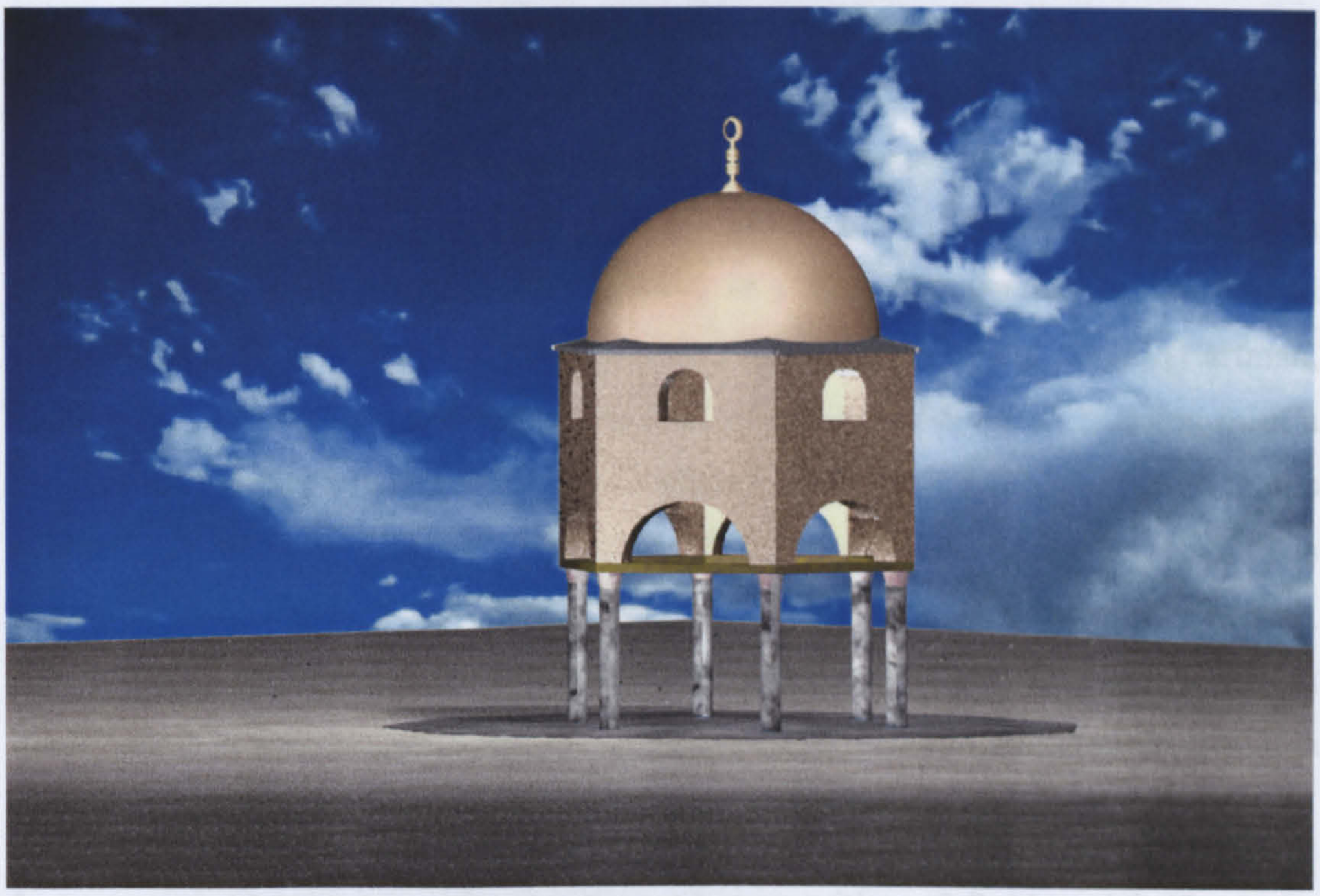


Fig. 8. 23 **The top picture represents the treasury of the Umayyad Great Mosque in Damascus as it looks today, the bottom picture represents a three-dimensional model for the inner enclosure of *Qubbet al-Silsilah*.**

Source: The researcher.

building of the market pavilion in Leptis Magna, the classical concentric annular building types are always closed structures.

It can be concluded that the architectural composition of *Qubbet al-Silsilah* and the dome of the treasuries present a new development of the annular concentric building type.

8.5 THE ORIGIN OF *QUBBAT AL-SAKHRAH*

Since the second half of the 19th century AD, there have been many proposals regarding the origin of *Qubbat al-Sakhrah* (the Dome of the Rock). In 1864 AD, Melchior de Vogüé proposed a Byzantine origin of the plan of the building. He also believed that *Qubbat al-Sakhrah* was inspired by the octagon of the Cathedral of Busrā in Syria, the Church of Ezra', and by the plan of Santa Costanza at Rome [Melchior de Vogüé, 1864, p82]. Adler believes the plan of *Qubbet al-Sakhrah* to be based on the plan of the Anastasis in Jerusalem [Adler, 1873, p.22]. Dehio and von Bezold echoed Ader's opinion [Dehio and Von Bezold, 1892, pp.35-39]. Moreover, they suggested another example, the Church of Ascension on the Mount of the Olives in Jerusalem, an argument that is rejected in the previous chapter of this thesis because this church had no octagonal shape before the 11th century AD. Hartman argues that the plan of *Qubbet al-Sakhrah* is a modified version of the domed central-plan type that was widely spread at the end of the classical period [Hartman, 1909, p22]. Ashbee considered that the plan of *Qubbet al-Sakhrah* remains from a pre-existent Roman building of Hadrian [Ashbee, 1923, pp.7, 241], an opinion that is evidently rejected by Creswell [Creswell, 1969, 1: p70]. Nevertheless, Riviora is extremely convinced of the Roman origins of the plan of *Qubbet al-Sakhrah*. According to him the circular domed structure was the most popular form of Roman mausoleums in Rome exemplified by the Pantheon (c. 120-124 AD),and the Rotunda of Santa Constanza (c. 324-326 AD) [Riviora, 1918, p59].

In researching the origins of the architectural composition of *Qubbet al-Sakhrah*, the form will be considered in its horizontal and vertical components, in other words a plan and a cross-section. An analysis and explanation of the significance of each component is given here so as to trace the chronological development of forms. The

construction methods and the cultural significance of the building have already been examined in chapter seven and at the beginning of this chapter; therefore, there is no need for repetition. The following arguments will suggest that *Qubbet al-Sakhrah* may well not have been inspired by a particular Christian precedent but marks a typological development of the annular building-types.

8.5.1 The Plan of *Qubbet al-Sakhrah*

The Roman origin of the plan of *Qubbet al-Sakhrah* as suggested by Riviora is difficult to accept [Riviora, 1918, p59]. Reviewing the type of Mausoleum in Syria and Palestine there does not appear to be any supporting evidence for his argument. With the solitary exception of *Marneiom* at Gaza (2nd century AD), the existence of a rotunda in a period earlier than the Church of the Holy Sepulchre, which was finished in 335 AD, does not seem to be confirmed [Creswell, 1969, p71]. Such a scarcity of analogies, therefore, undermines the idea of the Roman origin of the plan.

Melchior de Vogüé and Choisy earlier suggested that *Qubbet al-Sakhrah* was inspired by the Cathedral of Busrā, built 512-13 AD [Melchior de Vogüé, 1864, p.82; Choisy, 1899, pl. 97]. The plan the Cathedral consisted of a square surrounded by a circle slightly over 36 metres in diameter in which an octagon is inscribed. Creswell accepted the suggestion of Melchior de Vogüé and Choisy and supported their assumption by generating a new reconstruction of the plan of the Cathedral. He imposed the plan of *Qubbet al-Sakhrah* on the plan of the Cathedral (see Fig. 8.24) [Creswell, 1969 (132), 1: p102]. Only the eastern piers of the octagon of the Cathedral have survived, so the link with only this example of the Cathedral does not seem absolutely satisfactory. This shows that the Cathedral had an octagon with inner circle in its plan. The reconstruction of the Cathedral, which Creswell generated, is based on the plan of *Qubbet al-Sakhra*. No archaeological remains at the place can confirm his suggestion, so his reconstruction is open to contention. He acknowledged this himself: "we cannot be absolutely certain that piers existed in the inner ring at Busrā" [Creswell, 1969 (1932), 1: p.75]. Suppose that Creswell's

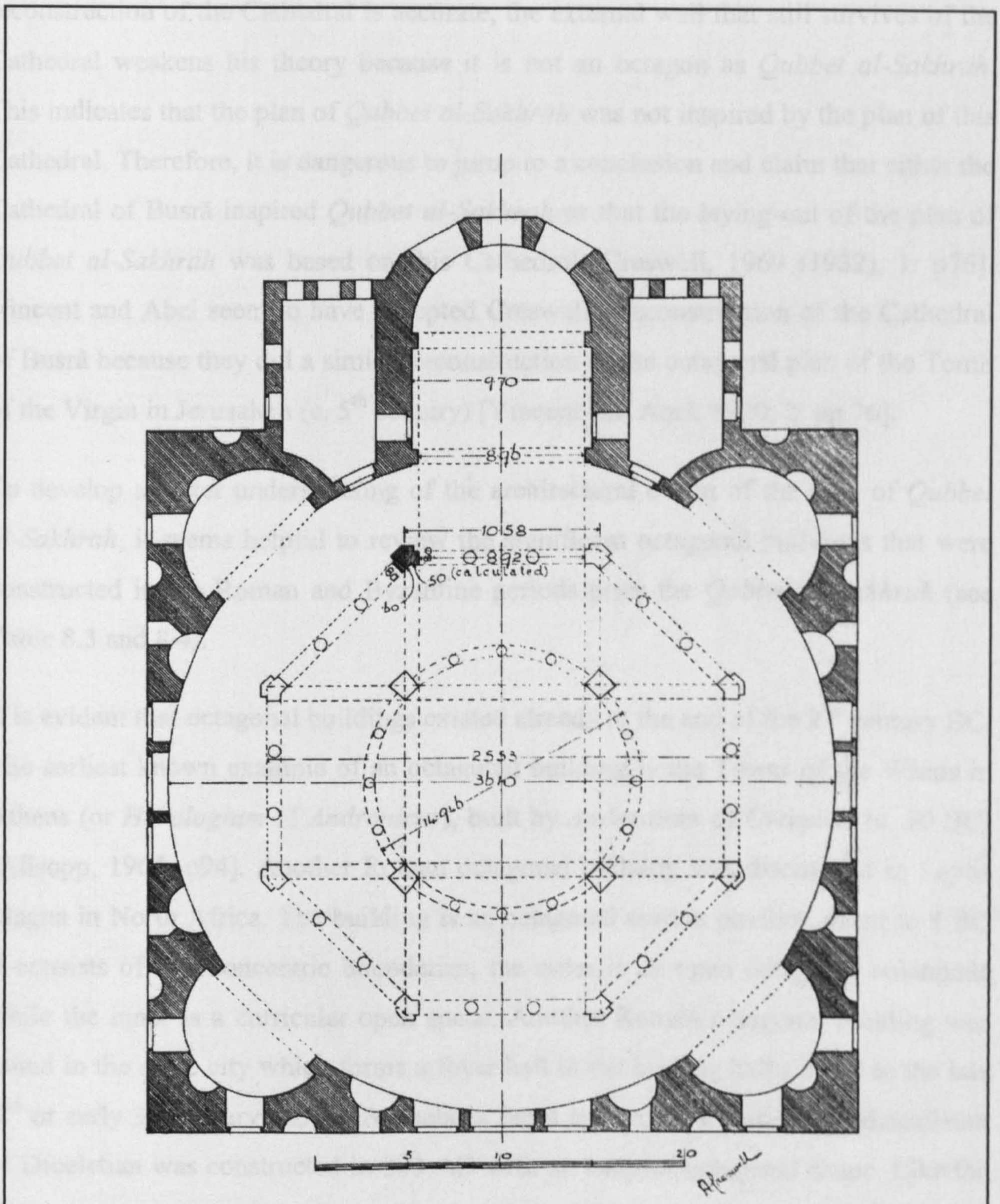


Fig 8. 24 **Historical Syria: A reconstruction of the plan of the Cathedral of Busrā based on the plan of *Qubbet al-Sakhrah*.**

Source: Creswell, 1969, 1: p104.

reconstruction of the Cathedral is accurate, the external wall that still survives of the Cathedral weakens his theory because it is not an octagon as *Qubbet al-Sakhrah*. This indicates that the plan of *Qubbet al-Sakhrah* was not inspired by the plan of this Cathedral. Therefore, it is dangerous to jump to a conclusion and claim that either the Cathedral of Busrā inspired *Qubbet al-Sakhrah* or that the laying-out of the plan of *Qubbet al-Sakhrah* was based on this Cathedral [Creswell, 1969 (1932), 1: p76]. Vincent and Abel seem to have accepted Creswell's reconstruction of the Cathedral of Busrā because they did a similar reconstruction of the octagonal plan of the Tomb of the Virgin in Jerusalem (c. 5th century) [Vincent and Abel, 1920, 2: pp.76].

To develop a better understanding of the architectural origin of the plan of *Qubbet al-Sakhrah*, it seems helpful to review the significant octagonal buildings that were constructed in the Roman and Byzantine periods prior the *Qubbet al-Sakhrah* (see Table 8.3 and 8.4).

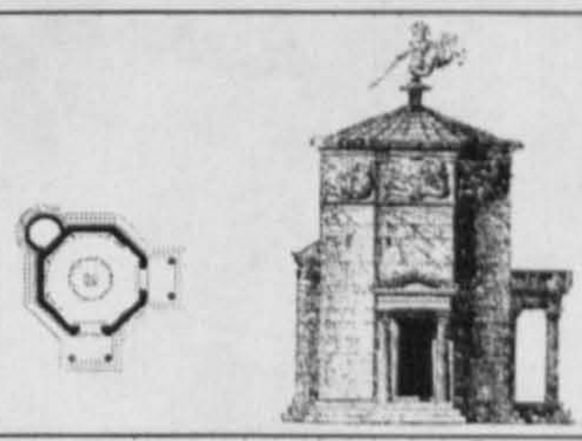
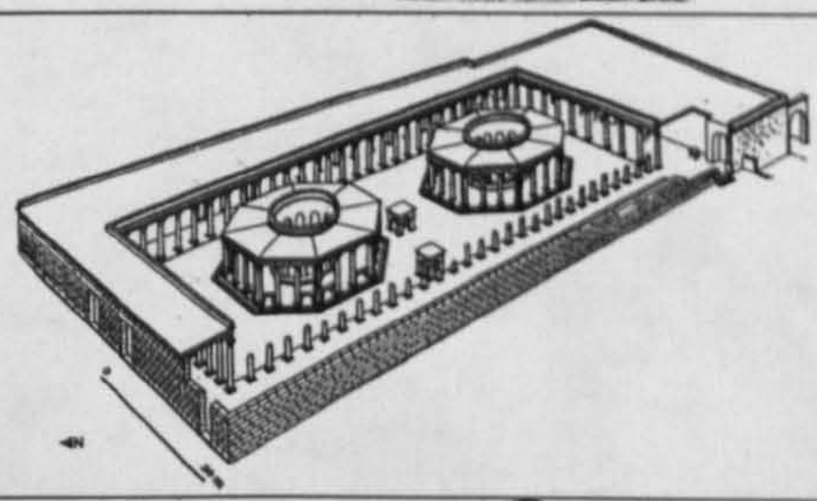
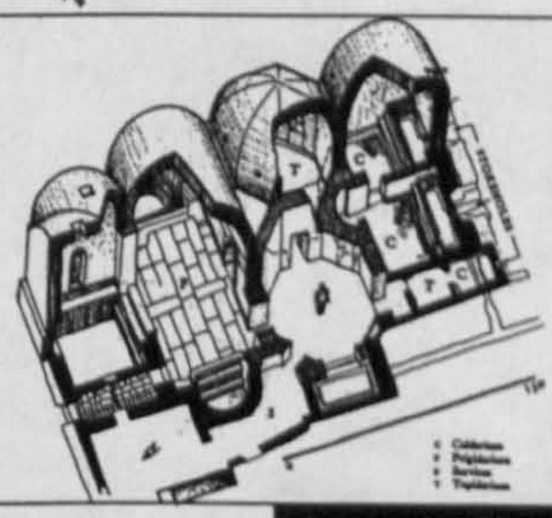
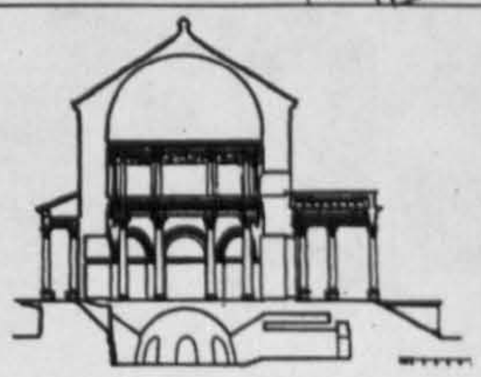
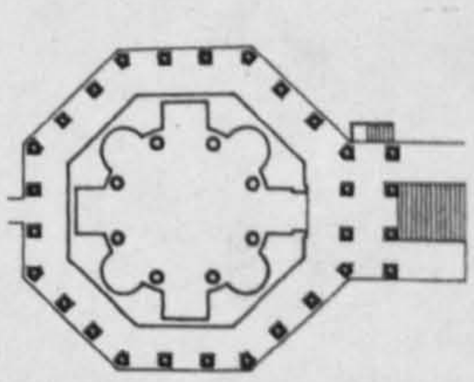
It is evident that octagonal buildings existed already at the end of the 2nd century BC. The earliest known example of an octagonal building is the Tower of the Winds in Athens (or *Horologium* of *Andronicus*), built by *Andronicus* of *Cyrruhus* (c. 50 BC) [Allsopp, 1965, p94]. Another Roman octagonal building was discovered in Leptis Magna in North Africa. The building is an octagonal market pavilion dated to 8 BC It consists of two concentric boundaries; the outer is an open octagonal colonnade while the inner is a curricular open space. Another Roman octagonal building was found in the same city which forms a foyer hall in the hunting baths dated to the late 2nd or early 3rd century AD. In Asphalatos (split in modern Croatia) the Mausoleum of Diocletian was constructed in 303 AD with an exterior octagonal shape. Like the classical temples, it is surrounded by columns. The inner space is circular and is covered by a large cupola [Marasović, 1970, p17].

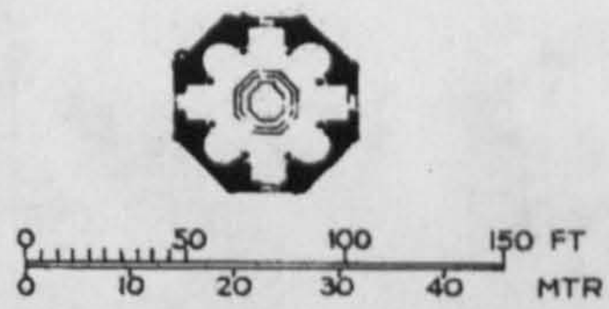
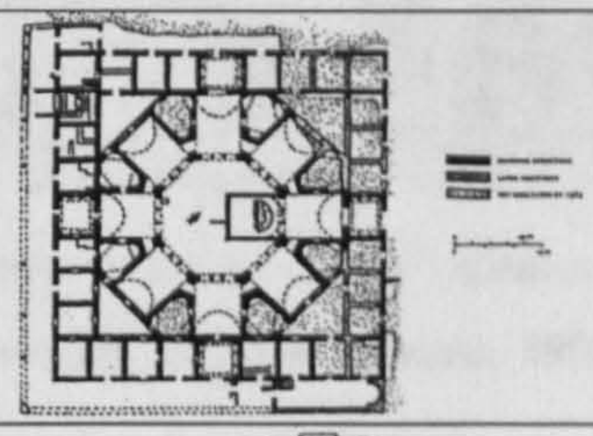
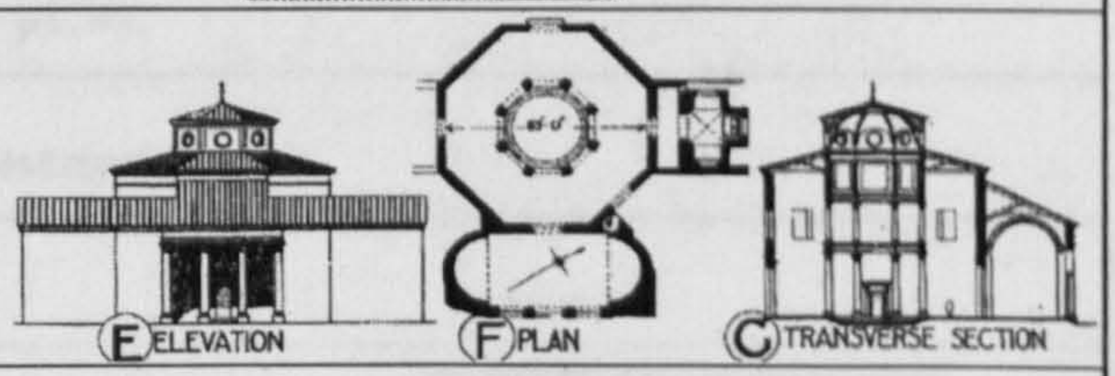
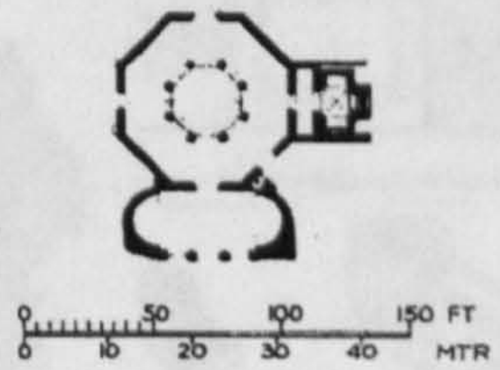
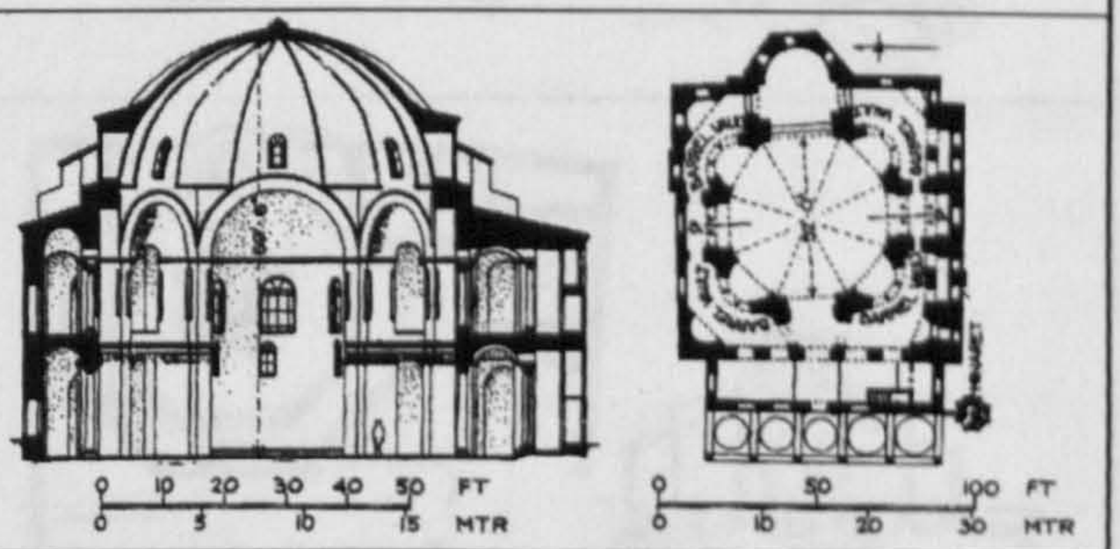
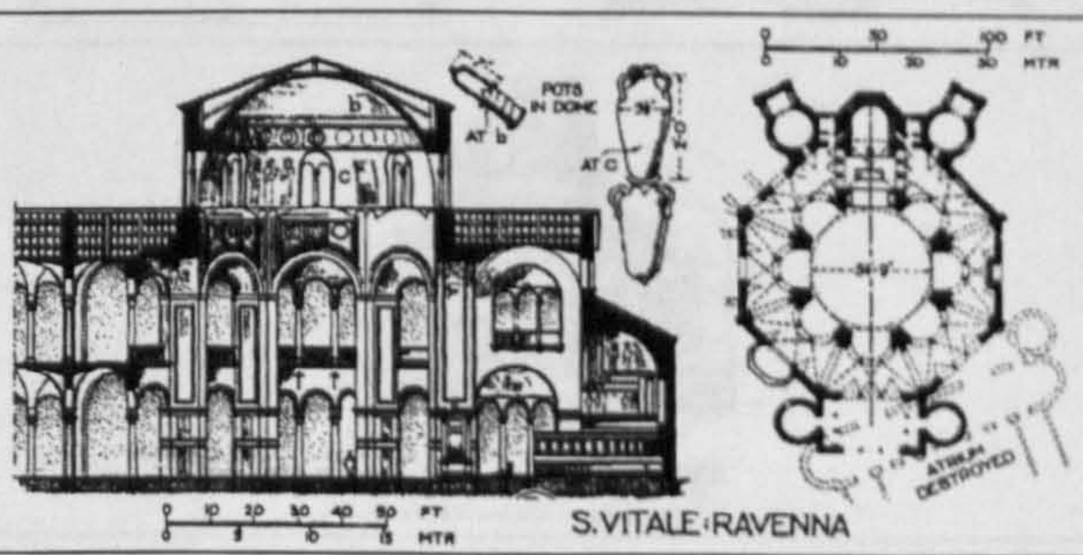
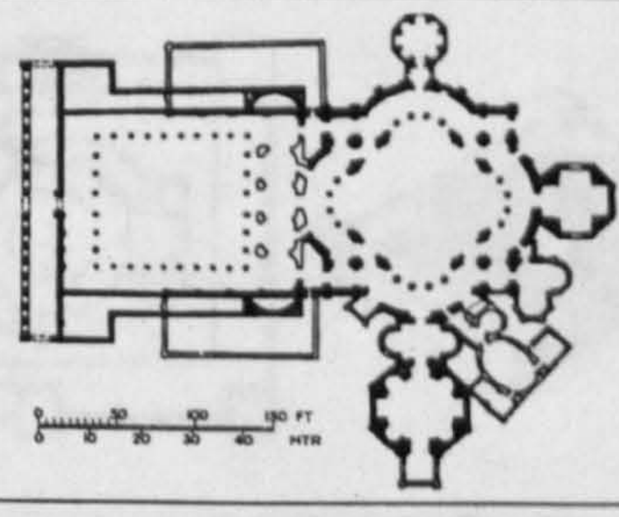
After the Roman Emperor Constantine acknowledged Christianity to be the official religion for the Roman Empire in 313 AD, octagonal buildings flourished. The significance of number eight in Christianity is that it symbolises resurrection after death. This symbolic meaning of the number eight attracted architects to use octagons mainly for Baptisteries and Christian memorial buildings. Examples of

these buildings are known from Aachen in Germany, Rome, Constantinople, Busrā in Syria, to Nablus and Bethlehem in ancient Palestine (see Table 8.3 and 8.4). Despite the fact that each building consists of an octagonal enclosure, none of them has a plan identical to that of *Qubbet al-Sakhrah* (the Dome of the Rock).

Table 8.3 **Octagonal buildings of the Roman and Christian periods outside Historical Syria** (Source: Allsopp, 1965, p94; Fletcher, 1975 and 1987, pp. 256-402 and pp. 210-386; Marasović, 1970, p42)

Description

NO.	Monument name	Location	Principal architectural drawings
1-	**Tower of the Winds** (c. 50 B.C.)	Athens	
1-	**Octagonal market pavilion** (c. 8 B.C.)	Leptis Magna in North Africa	
2-	**Hunting Baths** (Late 2nd or early 3rd century AD)	Leptis Magna in North Africa	
3-	**Diocletian's Mausoleum** (c. 303 AD)	Asphalatos in Croatia	  

3-	**Baptistery Milan** (c. 350-380 AD)	Milan	
4-	**Martyrium of St Philip** (Early 5th century AD)	Asia Minor	
5-	**Baptistery of Constantine** (c. 432-440 AD)	Rome (Italy)	
6-	**Lateran Baptistery** (c. 461-468 AD)	Rome (Italy)	
7-	**St. Sergius and Bacchus** (c. 525-530 AD)	Constantinople	
8-	**St. Vitale** (c. 526-547 AD)	Ravenna Italy	
9	St. Lorenzo (c. 6th century AD)	Milan	

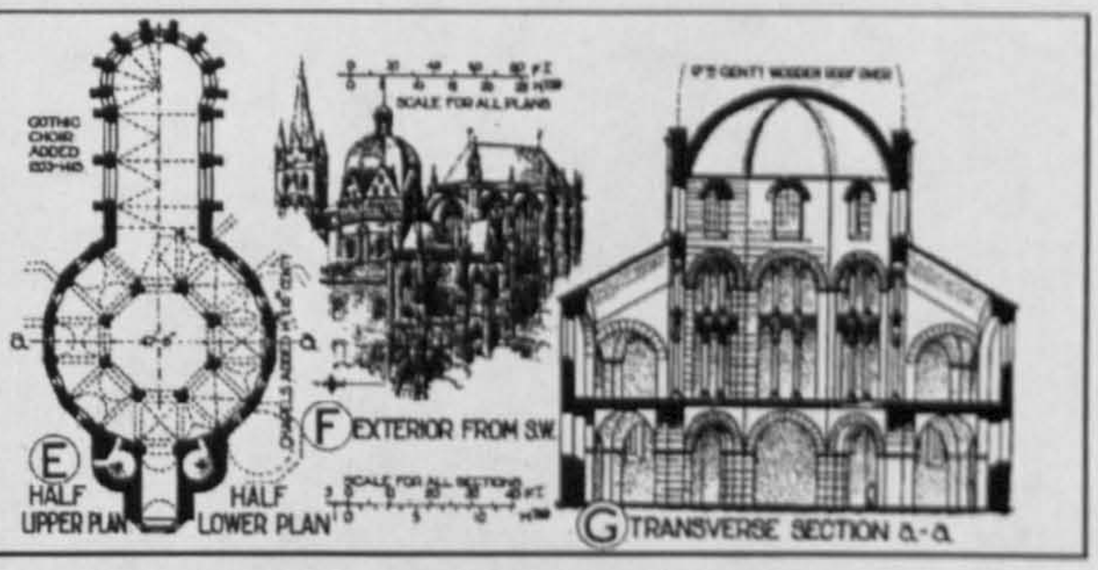
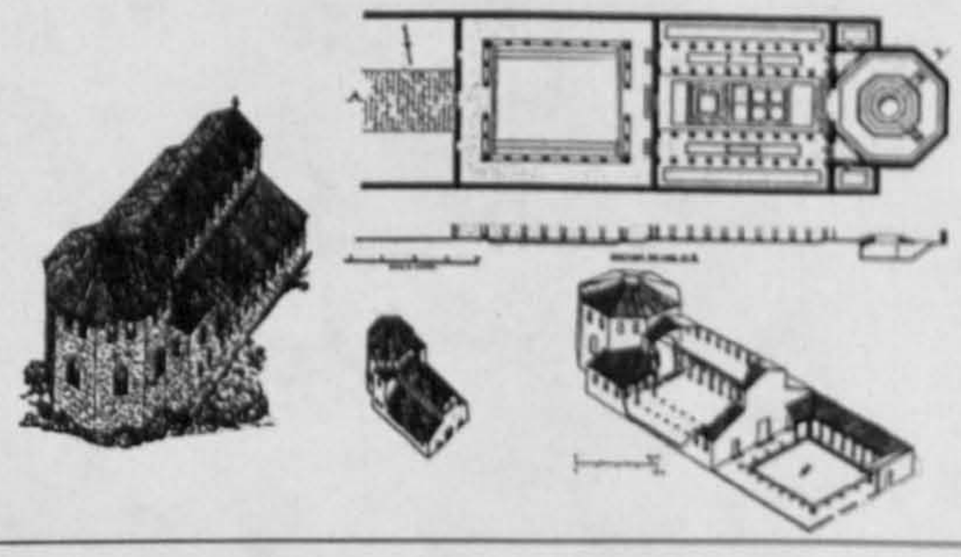
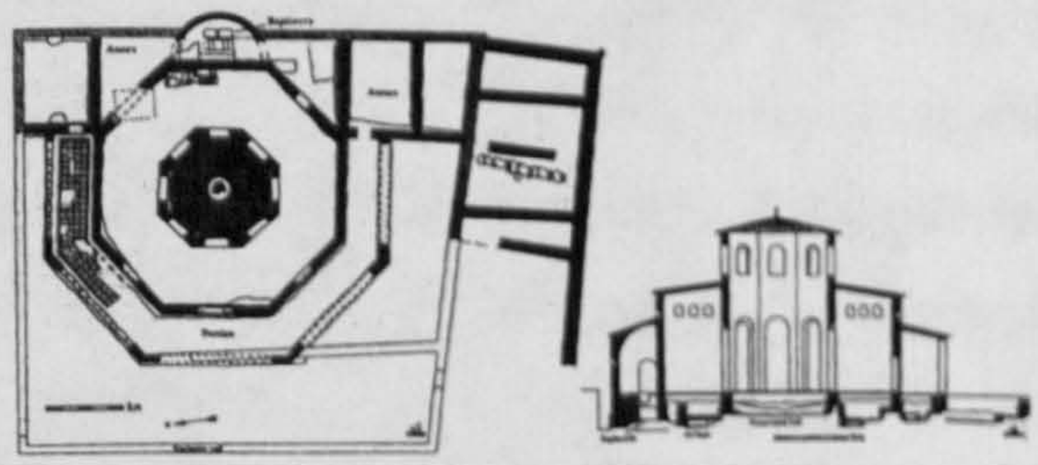
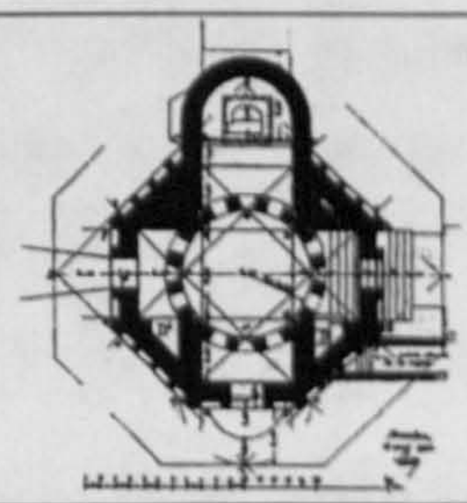
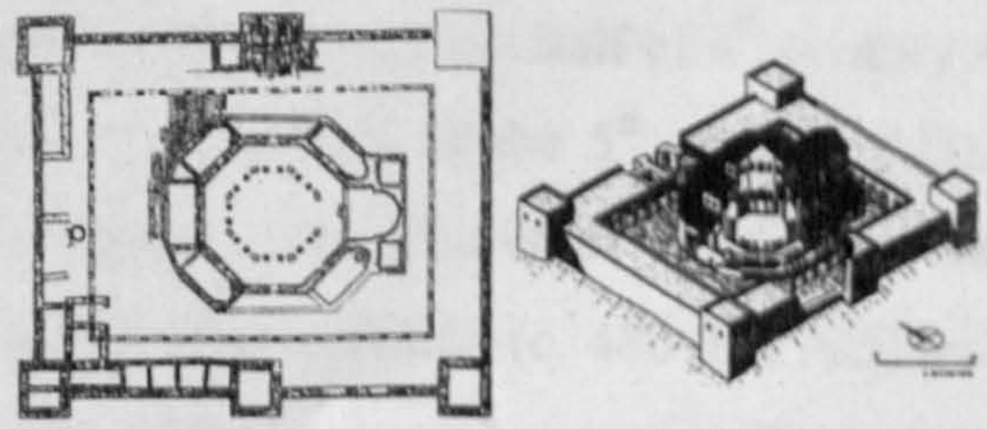
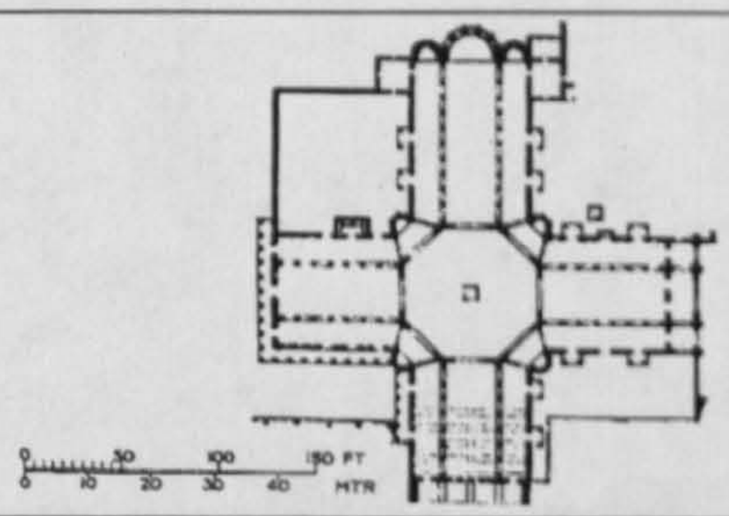
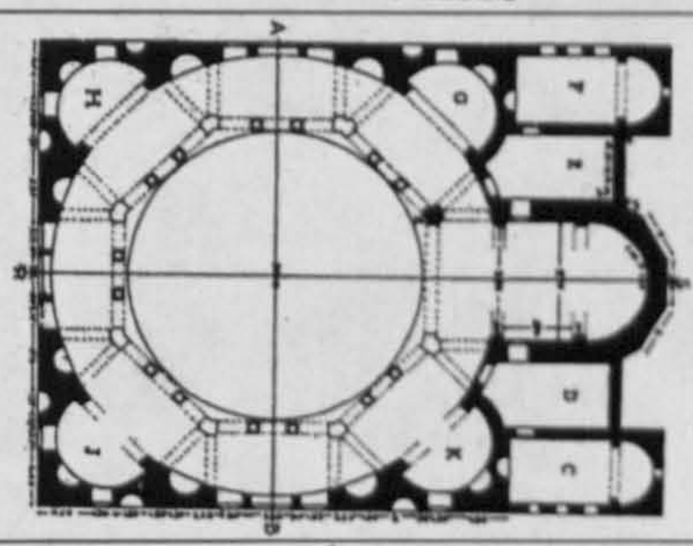
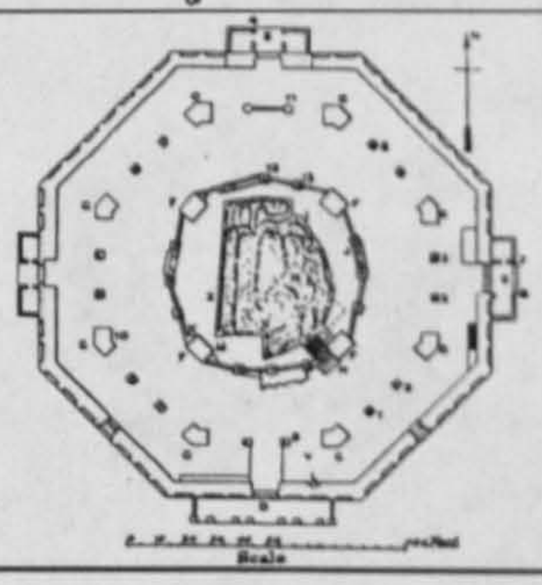
10-	**Aix-La-Chapelle Cathed.** (c. 6th century AD)	Aachen in Germany	

Table 8.4 **Octagonal buildings in Historical Syria prior to the 8th Century.** (Source: Fletcher, 1975 and 1987, pp. 256-402 and pp. 210-386; Magen, 1993, pp. 86-87; Clermount-Ganneau, 1899, 1: p154).

Description

No.	Monument	location	Plan
1-	**Church of the Nativity** (First half of 4th century AD)	Bethlehem	
2-	**Church at Capernaum** (First half of 5th century AD)	Capernaum near Lake of Tiberias	
3-	**Tomb of Virgin** (probably 5th century AD)	Jerusalem	
4-	**Church of Mary** (c. 485 AD)	Nablus	

5-	**Martyrium of St. Simeon Stylites** (c. 480-490 AD)	Hūrān in Syria	
6-	**Busrā Cathedral** (c. 512-513 AD)	Busrā in Syria	
7-	***Qubbet al-Sakhra*** (c. 688-691 AD)	Jerusalem	

Although the Tower of the Winds and the Mausoleum of Diocletian are octagonal buildings from the outside, neither of these buildings has an inner circle of supports. The famous European ancient examples of octagonal buildings are the Baptistery in Milan (c.350-380 AD), the Martyrium of St. Philip in Asia Minor (early 5th century AD), the Baptistery of Constantine (c. 432-440 AD) and Lateran Babtistery (c. 461-468 AD) in Rome, St. Vitale in Ravenna (c. 526-547 AD), the St. Lorenzo in Millan (c. 6th cemtury AD) and the cathedral of Aix-La-Chapelle in Aachen (c. 6th century AD) (see Table 8.4). These buildings correspond to each other, but none of these examples presents an annular plan identical to that of *Qubbet al-Sakhrah*.

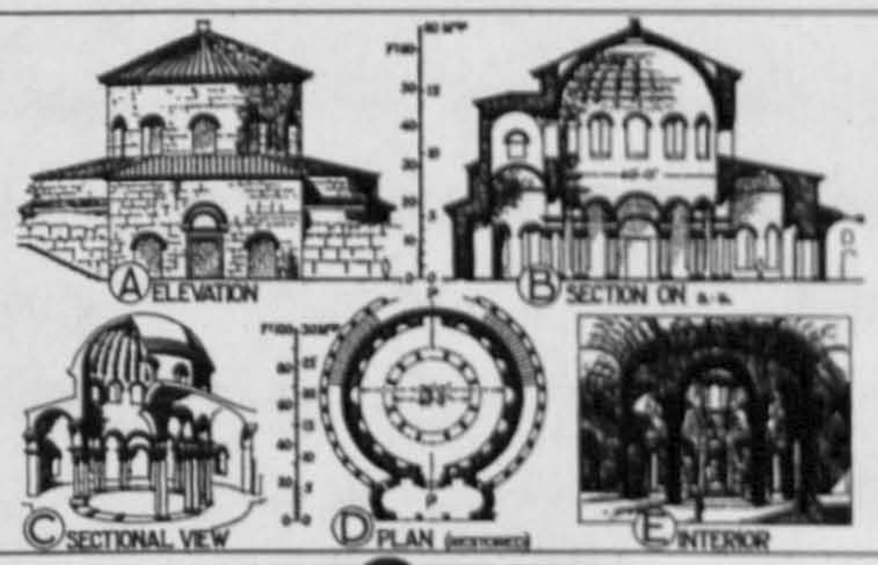
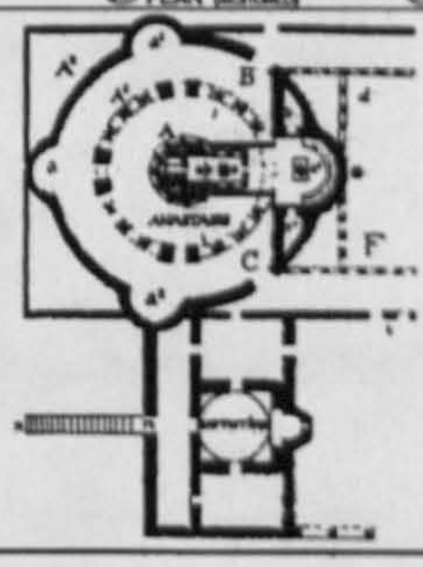
Additional examples of octagons have also been found in Historical Syria (see Table 8.4): in the plan of the Church of Nativity in Bethlehem (first half of 4th century AD), the Church of Capernaum near Tiberias (c. first half of the 5th century AD), the Tomb of the Virgin in Jerusalem (5th century AD), the Church of St. Mary in Nablus (c. 485 AD), the Martyrium of St. Simeon Stylites in Hūrān (c. 480-490 AD) and the Cathedral in Busrā (c. 512-513 AD). Some of these examples, especially the Church

of St. Mary in Nablus, are closer in plan to *Qubbet al-Sakhrah* in comparison to the European examples. This may well indicate that the plan was generated locally rather than influenced by external examples.

Furthermore, the coordination of the piers and columns that exist in the Mausoleum of St. Costanza in Rome and the Christian Church of Anastasia in Jerusalem, which are usually compared with those of the rotunda of *Qubbet al-Sakhrah*, are also not displaying identical arrangement (see Table 8.5).

Table 8.5 **Two examples of rotundas that rest on piers and columns frequently compared with *Qubbet al-Sakhrah*.** (Source: Fletcher, 1975, pp. 256-402).

Description

No.	Name	Location	Architectural drawings
1-	**St. Costanza** (c. 330 AD)	Rome	
2-	**The Anastasis** (as it looked in 616 AD)	Jerusalem	

For example, St. Costanza has double rows of columns with no piers at all and the Church of Anastasia has double piers, which were coordinated to face the cardinal points and both are circular. These are in contrast to the coordination of the piers in *Qubbet al-Sakhrah* which are single and divert 45 degrees from the cardinal points and *Qubbet al-Sakhrah* is octagon. However, one example that exists in Palestine suggesting that a local geographical building tradition and coordination has been employed in *Qubbet al-Sakhrah* is the inner octagonal colonnade of the Church of St. Mary in Nablus, constructed in 485 AD, that also contains a tomb (see Table 8.4,

No.4) [Magen, 1993, p83]. This colonnaded enclosure of the church would be a corresponding example with the intermediate octagon of *Qubbet al-Sakhrah*, regardless of the difference of their size. It can be deduced from this architectural example that local building traditions have indeed contributed to the design of *Qubbet al-Sakhrah*.

This closest geographical example may also show that local masons, living in Jerusalem or in its vicinity, were employed in constructing the monument and not foreigners. The only piece of evidence concerning the nationality of those who are employed in building *Qubbet al-Sakhrah* is a reference by the Jerusalemite historian Ibn al-Murajjā in 430 AH/ 1038AD. The reference states that 'Abd al-Malik chose Rajā' Ibn Hayāh[1] and Yazīd Ibn Salām from Jerusalem to supervise the building of *Qubbet al-Sakhra* [Ibn al-Murajjā, 1995, p59].

In general, the Christian buildings in Historical Syria tend to use the octagon inside, whereas in *Qubbet al-Sakhrah* the importance of the octagon is presented inside as well as outside. No example of three annular concentric enclosures –two are octagons and the inner is circular–exists among the Christian buildings. Consequently, as mentioned by Creswell, the process of development of annular concentric building types may be epitomized [Creswell, 1969, 1: p108]:

1- A circle surrounded by circle (classical architecture).

2- A circle surrounded by octagon (classical and Christian architecture).

3- A circle surrounded by octagon surrounded by another octagon (early Muslim architecture).

The scale of the octagon of *Qubbet al-Sakhrah* may reinforce the suggestion of the typological development of the concentric annular buildings that contain octagons. Comparing the exterior octagon of *Qubbet al-Sakhrah* with those octagons of the precedent buildings, it is evident that the scale of the octagon of *Qubbet al-Sakhrah*

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[1] Originally from Bīsān, a city located in the northern part of Palestine. Rajā' moved to live in Jerusalem probably in the second half of the 1st century AH/ the late of the 7th century AD [Sharāb, 1993, p76].

does not exist among these earlier buildings. Indeed, *Qubbet al-Sakhrah* has the largest octagon ever built in the Roman and Christian world (see Table 8.6).

8.5.2 The Cross-Section of *Qubbet al-Sakhrah*

Further information regarding the originality of *Qubbet al-Sakhrah* and other comparative precedents are provided by their cross-sections. It is of considerable importance to understand not only the plan configuration but also the volumetric form as part of the typological development of these annular buildings (see Table 8.7).

The three dimensional architectural form of *Qubbet al-Sakhrah* is quite unique. Particularly, the size of the dome and the relation between its rotunda and the surrounding octagons are quite different from precedent octagonal buildings as a study of the section as in Table 8.7 will make clear.

Ettinghausen and Grabar highlighted another original feature in the architectural composition of *Qubbet al-Sakhrah* during their study on the architecture of the building. It is the way of which the dome of the building itself projects out of the octagons. The effect is quite different from that of the Church at Capernaum, St. Vitale in Ravenna and St. Sergius and Bacchus in Constantinople (with which *Qubbet al-Sakhrah* is frequently compared). The architect of *Qubbet al-Sakhrah* made the dome more significant from the outside than from the inside, where it is nearly invisible because of the height and the location of the Rock [Ettinghausen & Grabar, 1994, pp.28-34]. The dome and its circular rotunda are also clearly distinguished from the other annular octagonal enclosures. In geometric terms: it proclaims repose and stresses the significance of the central object.

In short, *Qubbet al-Sakhrah* was generated in a geographical area in which octagonal enclosures are customarily used in memorial Christian churches. But the design of the building does not seem to be inspired by any of the Christian buildings; rather it may well have been influenced by the *Ka'bah* as was explained in chapter seven.

Table 8.6 **The area of the exterior octagon of *Qubbet al-Sakhrah* in comparison with that of Roman and Christian octagonal buildings.**

Description

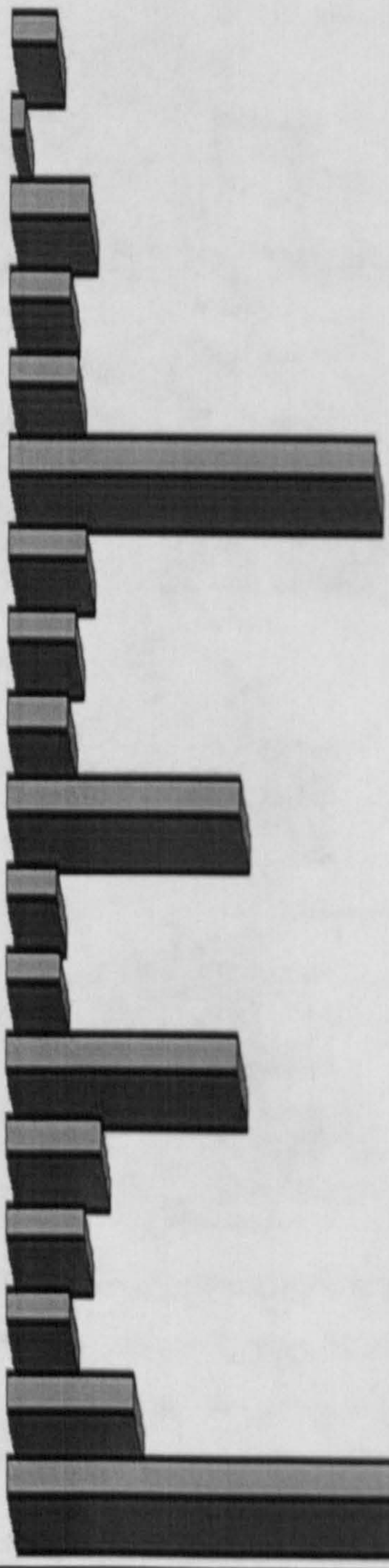
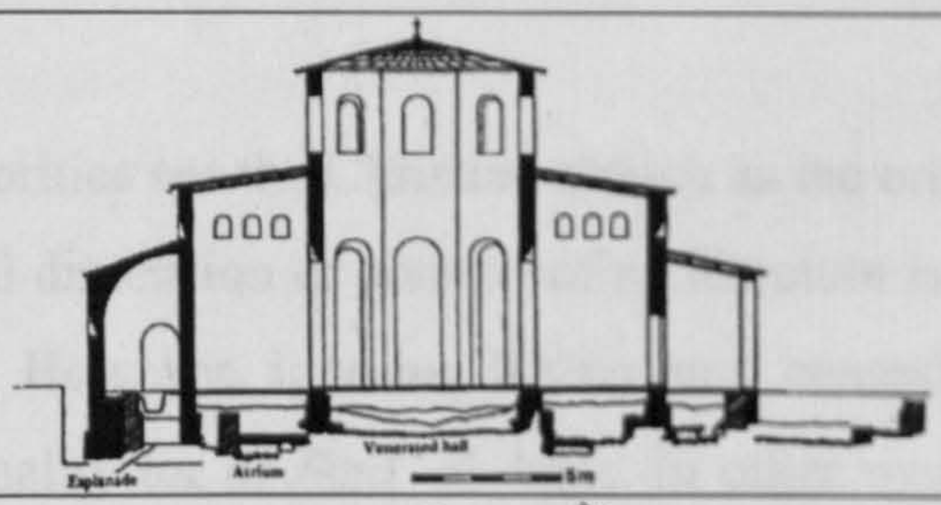
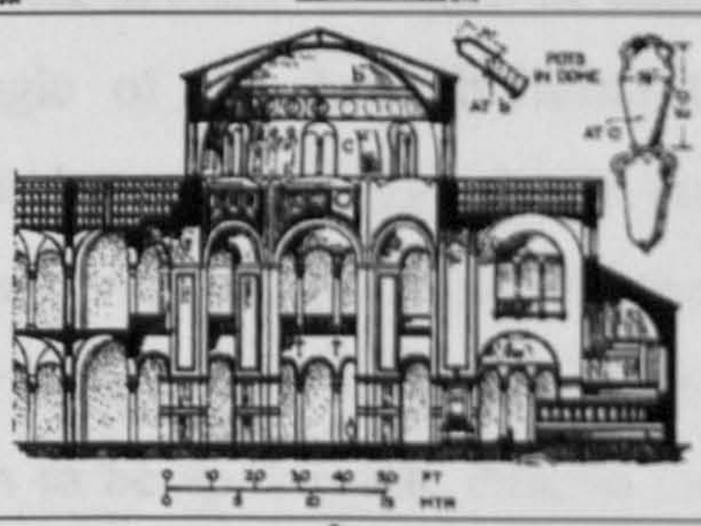
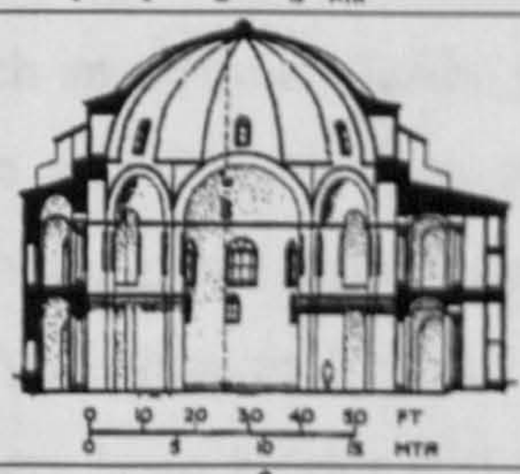
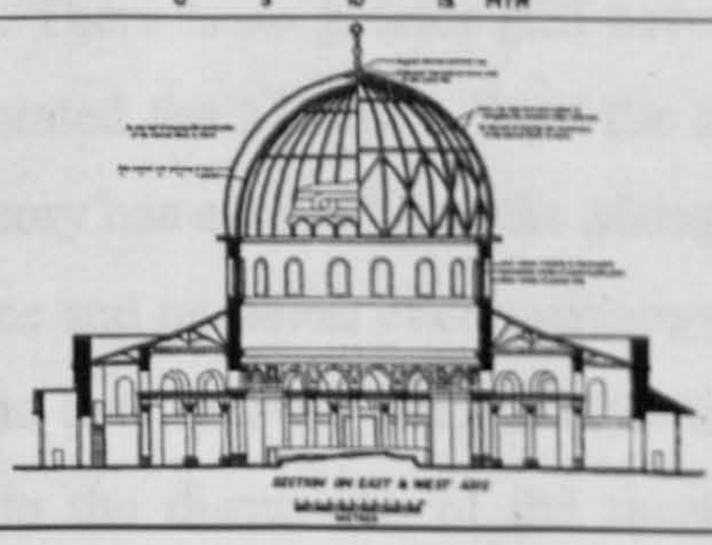
No.	Name	Location	Area in m^2	Graph
1-	**Octagonal market pavilion**	Leptis Magna	**186**	
2-	**Hunting Baths**	Leptis Magna	**53**	
3-	**Diocletian's Mausoleum**	Asphalatos	**331**	
4-	**Baptistery Milan**	Milan	**253**	
5-	**Church of the Nativity**	Bethlehem	**283**	
6-	**Martyrium of St Philip**	Asia Minor	**1531**	
7-	**Baptistery of Constantine**	Rome	**325**	
8-	**Lateran Baptistery**	Rome	**382**	
9-	**St. Sergius and Bacchus**	Constantinople	**353**	
10-	**St. Vitale**	Ravenna	**986**	
11-	**Church at Capernaum**	Capernaum	**212**	
12-	**Tomb of Virgin**	Jerusalem	**225**	
13-	**Church of Mary**	Nablus	**981**	
14-	**St. Simeon Stylites**	Hūrān in Syria	**400**	
15-	**St. Lorenzo**	Milan	**331**	
16-	**Aix-La-Chapelle**	Aachen	**268**	
17-	**Busrā Cathedral**	Busrā in Syria	**539**	
18-	***Qubbet al-Sakhrah***	Jerusalem	**2050**	

Table 8.7 **A cross-section of examples of precedent annular octagonal buildings and *Qubbet al-Sakhrah*.** (Source: Virgilio Corbo, 1993, p76; Fletcher, 1975, pp. 256-402; Richmond, 1924, p7).

Description

No.	Monument	Location	Cross-section
1-	**Church at Capernaum** (1st half of 5th century AD)	Capernaum near Tiberias	
2-	**St. Vitale** (c. 526-547 AD)	Ravenna	
3-	**St. Sergius and Bacchus** (c. 525-530 AD)	Constantinople	
4-	***Qubbet al-Sakhrah*** (c. 688-691 AD)	Jerusalem	

Unique original architectural features in plan, scale and cross-section of the building, examined before, indicate a typological development of concentric annular buildings. The unique geometrical coordination and precision of the plan, section and elevation of the building as examined in chapter seven of this thesis reinforces this conclusion. Nevertheless, the local building traditions and construction methods were preserved.

8.6 ORIGIN AND TYPOLOGY OF *AL-JĀMI'* AL-AQSA

An opinion has been held by some leading scholars of Jerusalem such as Warren and Creswell that the design of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) in Jerusalem and those early Mosques of Historical Syria are based on the design of the Christian church.

It is not surprising that some leading authorities see the Christian church as the origin of *al-Jāmi'* al-Aqsa. The Muslims cultural dimension or context of architecture is an important matter in Muslim architecture. However, ignoring the cultural context is problematic when investigating the originality for *al-Jāmi'* al-Aqsa. In other words, investigating architecture only from the angle of the local building tradition, particularly by breaking it down into a number of components, is unsuitable. Consequently, the question of originality of *al-Jāmi'* al-Aqsa will only be loosely defined. It is true that locality and building traditions are very influential regarding architectural form, however, they do not seem to be appropriate criteria for tracing the architectural typology of *al-Jāmi'* al-Aqsa. Such an approach leads, for example, Saladin –who took the same position as Warren and Creswell– to consider that Muslims in Egypt borrowed ideas of massing, grouping, and monumental planning of the Mosque from ancient Egyptian temples. According to Briggs "There is no evidence that such aspects ever troubled them. There is no greater gulf between any two types of architecture than that which separated the Mosques from the temples" [Briggs, no date, p15]. In Mesopotamia, the theory has evolved that the Mosque there is based on the Persian Palaces; in another place and occasion even synagogues were suggested as an origin of the Mosque [Fikrī, no date, p280]. What is relevant to the geographical region of Historical Syria and to the discussion of the thesis is the opinion of the church. Indeed, the church forms part of the architectural legacy of the region prior to its conquest by Muslims.

Warren believed that "various alterations were made by the caliph 'Abd al-Malik in al-Aqsa Mosque, which was the new name given to Justinian's Basilica of St. Mary" [Warren, 1970, p39]. In 1983 Avigad discovered the remains of this church ouside al-Aqsa enclave, and since that time no other early church has been considered the

site of *al-Jāmi'* al-Aqsa [Avigad, 1993, pp.128-135; Rosen-Ayalon, 1989, p4]. But the argument of Creswell still exists that "in the early days, when Muslims conquered a town, they generally took one of the churches and used it as a Mosque, or shared one of the churches with Christians" [Creswell, 1969, 1:p12].

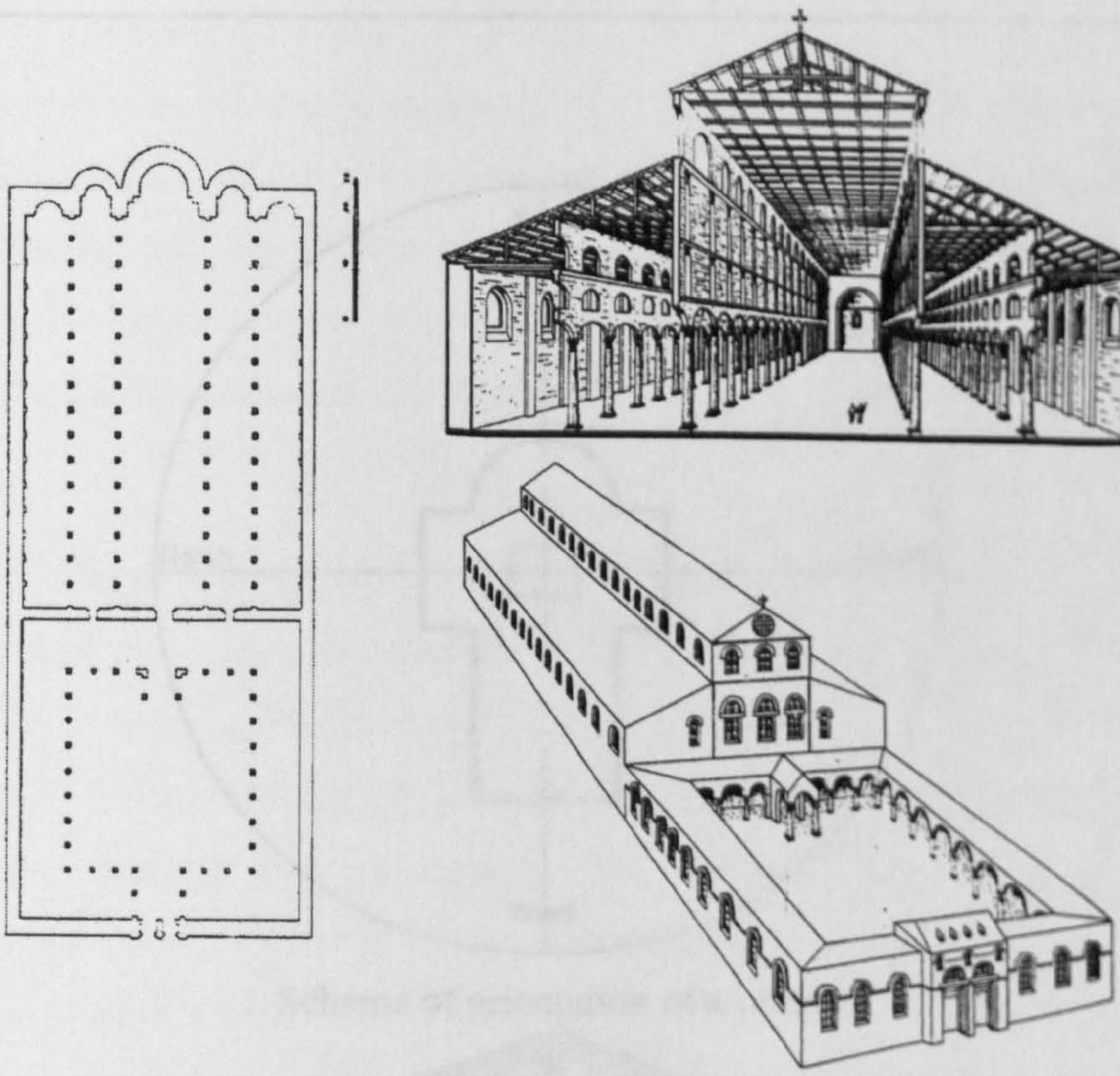
Creswell and Sauvaget are among other scholars that took such a questionable position because they inexplicably believed that Muslims did not build Congregation Mosques at all **before** their conquest of Historical Syria and Persia [Creswell, 1969, 1: p.3; Sauvaget, 1947, pp.134-143]. Creswell who exemplifies this position listed different cases where Muslims converted Churches –as Roman basilica adopted as Christian church– and used them as Mosques. It seems that his attempt is designated to prove that Muslims become familiar with the planning of churches. These planning principles were, therefore, naturally employed for the planning of Mosques. [Creswell, 1969, 1: p12]. In contrast, Sauvaget strongly criticized the suggestion of the Christian church as an origin of the Mosque in Historical Syria, but she could not escape the illusive question of originality. She came up with another suggestion that the early Mosque was derived from the Roman Basilica. According to her, the Roman Basilica is like the Mosque, not exclusively for religious duties, but multifunctional [Sauvaget, 1947, p157].

It is true that some churches in Historical Syria were adopted to serve as Mosques and such occasions were mentioned by the early Muslim historian Balādthurī [Balādhurī, 1983, pp.136, 147]. But this was only a matter of expedience. Fikrī argues that the examples of converted churches of Damascus, Homs and Allepo are few in comparison to the number of early Muslim Mosques, and were only for a temporary use [Fikrī, no date, p270]. Hillenbrand agrees that there were only few cases in particular occasions. According to him "The briefest acquaintance with Muslim liturgy is enough to explain why the places of worship employed by the other faiths of the time were fundamentally unsuitable for the needs of Islam" [Hillenbrand, 1994, p33].

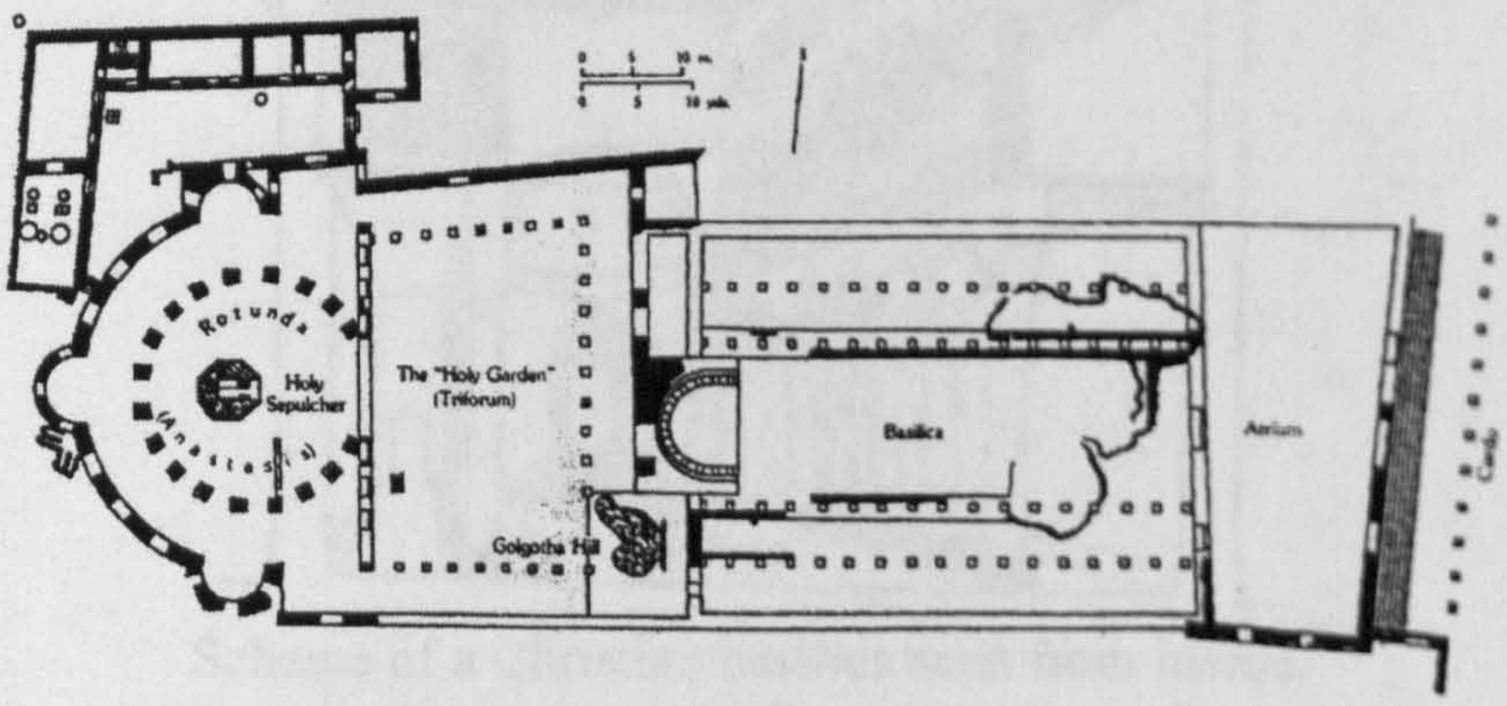
It has already been explained in chapter four of this thesis that Mosques are mentioned in the Qurān in different verses and that the Qurān encourages their building. Part of the evidence regarding the early Congregation Mosques also exists

in Islamic teaching and its history. One should bear in mind that Muslims were asked to perform prayers directly after Muhammed's *Isrā'* (Nigh Journey) to al-Aqsa Mosque. A description of Congregation Mosques built by Muhammad himself, including the designation of the *Qiblah* (direction of prayer) and Muslims' congregation prayer are mentioned in all Muslim sources. These assert that *al-Jāmi'* (the Congregation Mosque) and its idea existed already prior to any Muslim conquest. Indeed, such evidence weakens or invalidates the basis of the theory that was adopted by Creswell and Sauvaget. Even more contradictions regarding the Church as a model for Mosques can be found in Creswell's book where he describes the marking-out of the Muslim congregation Mosque in Basra (14AH/ 635AD), Kūfah (16AH/ 637AD), and Fustāt (21AH/ 641AD). Creswell acknowledged the reference of Balādhurī [Balādhurī, 1983, p.174] that 'Utbah Ibn Ghazwān is the designer of the Mosque of Basrah and 'Amr Iibn al-'Ās is the planner of the 'Amr's Mosque in Fustāt. These two men were, among others, builders of the early Mosques and they were neither Christians nor native Syrian residents. Nevertheless, Creswell maintained his position, and did not investigate how these men developed their design and planning practice [Creswell, 1969, 1: p12; al-Sayyād, 1996, p12]. Consequently, this raises the question who taught Muslims planning principles of Mosques?

In seeking the originality of *al-Jāmi'* al-Aqsa, the general planning of the Syrian Christian church should be understood first. Two examples of churches in Jerusalem: the Constantine Church of the Holy Sepulchre and Justinian *Nea* Church, may well illustrate the basic planning features of the Syrian Church (see Fig. 8.25). Each has generally a rectangular plan divided into a central nave terminating in an apse, and in some cases one or two aisles on each side. The basilica has an elongated linear form (see Fig. 8.26). The height of the nave is often greater than the aisles so it is distinguishable in its hierarchy. This section enables windows on the side-walls of the nave that provide light for the inner area of the Church. The orientation of the main church axis is always east-west (see Fig. 8.26). These planning components truly indicate that the plan of the Christian church is based on the Roman basilica. But these planning features do not exist in the early Muslim al-Aqsa enclave nor *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque).



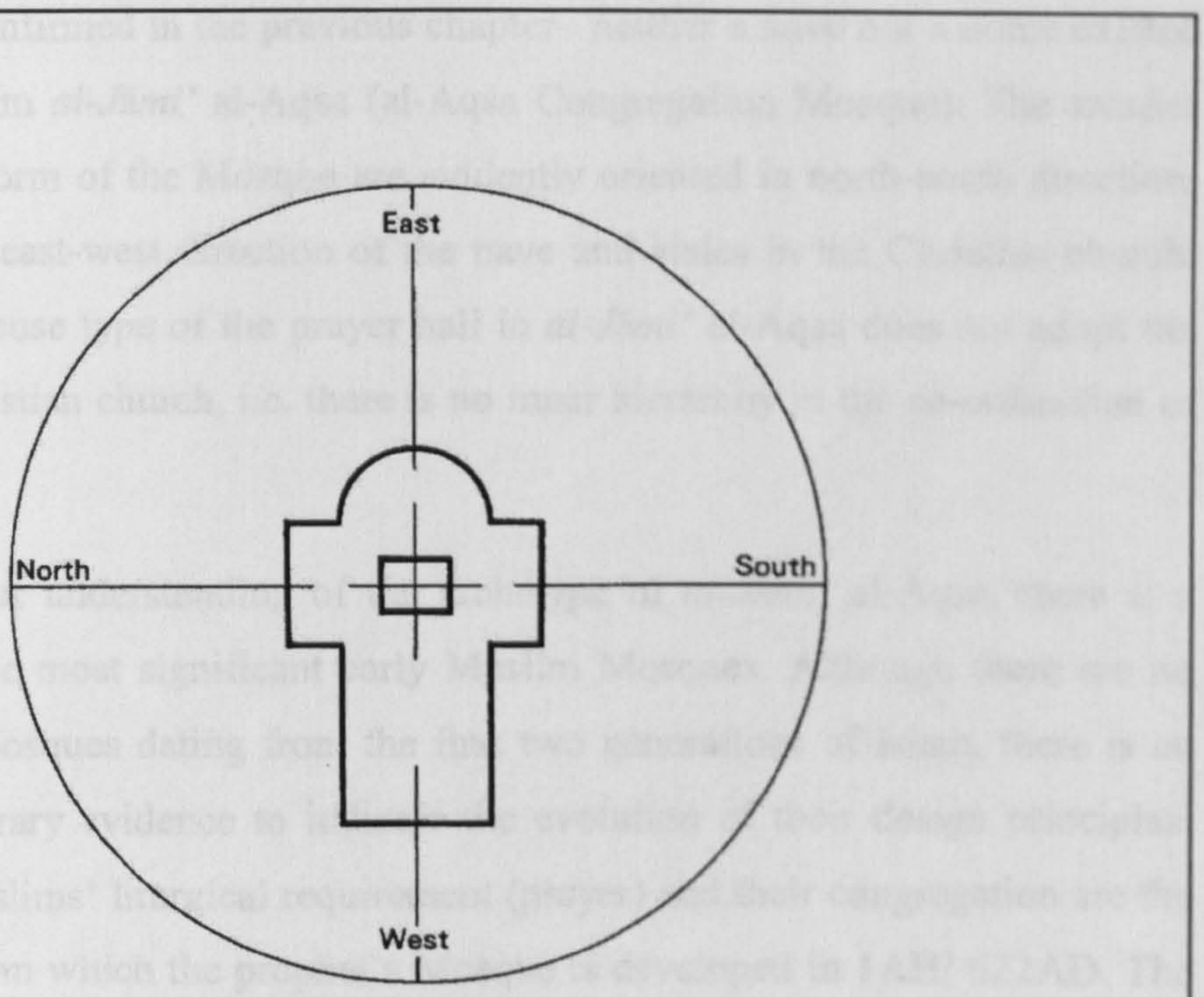
Reconstruction of the *Nea* Church in Jerusalem as it was constructed by the Emperor Justinian.



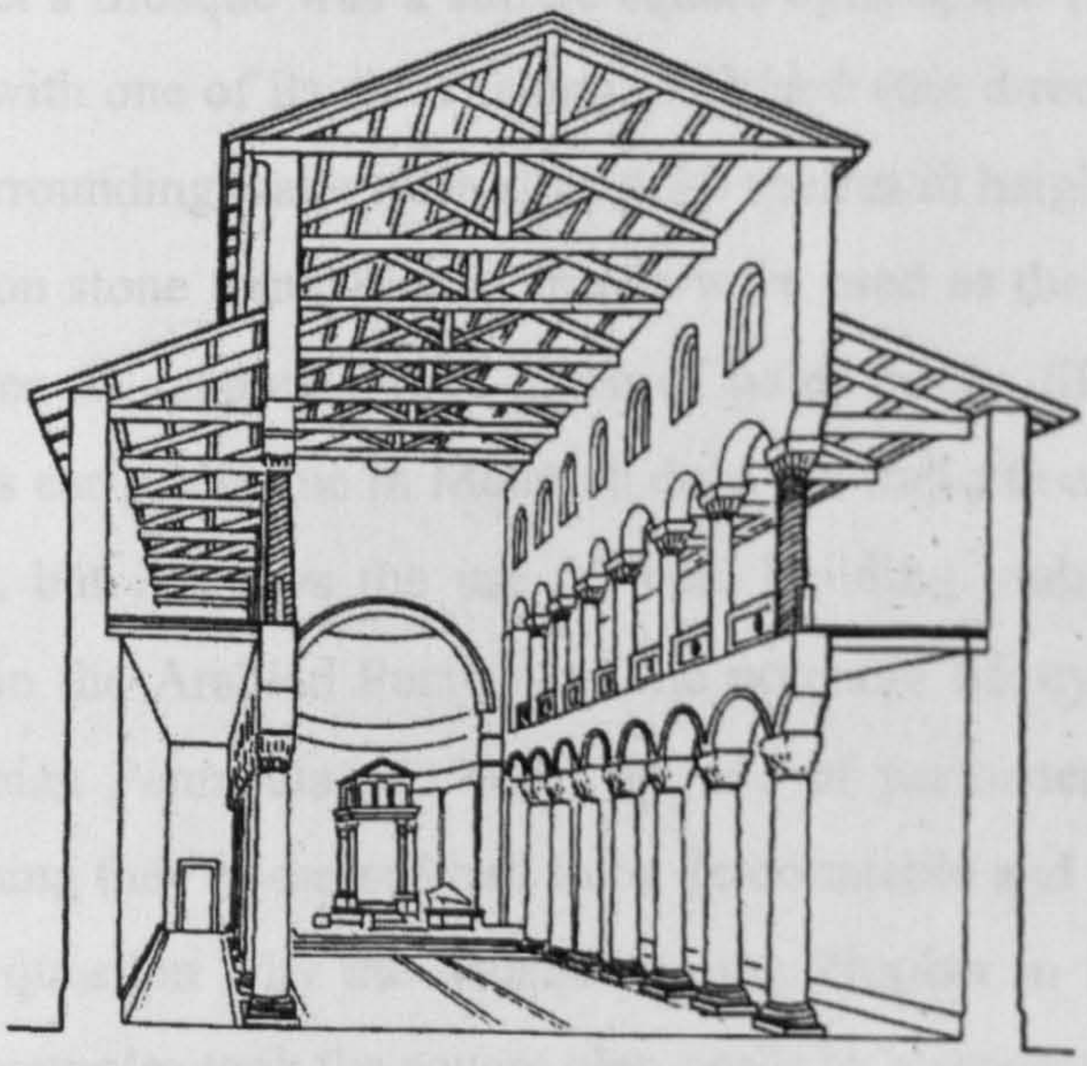
The Church of the Holy Sepulchre in Jerusalem as it was in 335AD.

Fig 8. 25 **Historical Syria: Tow Christian Churches in Jerusalem that may well exemplify the general planning of the Christian church in Syria.**

Source: Top: Ben-Dov, 1985, pp.228-229. Bottom: Bahat, 1996, p71.



Scheme of orientation of a church.



Scheme of a Christian basilica seen from inside.

Fig 8. 26 **Schematic interior representation of a Christian basilica and church orientation in Historical Syria.**

Source: Burckhardt, 1976, pp. 18-19.

In contrast, –as confirmed in the previous chapter– neither a nave nor a dome existed in the early Muslim *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). The arcades of the hypostyle form of the Mosque are evidently oriented in north-south direction, in contrast to the east-west direction of the nave and aisles in the Christian church. Even the broad-house type of the prayer hall in *al-Jāmi'* al-Aqsa does not adopt the design of the Christian church, i.e. there is no inner hierarchy in the co-ordination of space.

To develop a clear understanding of the archetype of *al-Jāmi'* al-Aqsa, there is a need to review the most significant early Muslim Mosques. Although there are no surviving early Mosques dating from the first two generations of Islam, there is an abundance of literary evidence to indicate the evolution of their design principles. The nature of Muslims' liturgical requirement (prayer) and their congregation are the principal basis from which the prophet's Mosque is developed in 1AH/ 622AD. The form of the Prophet's Mosque was a simple square open space (measuring about 50 metres each side, with one of its sides facing to *Qiblah* (the direction of prayer) (see Table 8.8). The surrounding walls were almost 3.5 metres in height, constructed from dried clay resting on stone foundations. Trunks were used as the Mosque's columns at the southern area to support a roof made of palm trunks filled with mud. The simple form of this early Mosque in Madīnah does not indicate a lack of thinking or design experience, but it shows the use of local building traditions and materials customarily used in the Arabian Peninsula. The nomadic lifestyle of most Muslim Arabs in the Arabian Peninsula precluded the use of permanent buildings of any kind, since everything they possessed had to be demountable and portable [Frishman, 1994, p30]. The question why the Mosque of the Prophet in Madīnah and many subsequent early examples took the square plan needs to be answered.

The closest comparable religious building in the geographical proximity of Madīnah is the famous Semitic sanctuary of the Ka'bah (the cube) in Makkah which is believed to be built by Abraham (see Fig. 8.27). Although it was examined in chapter four, the discussion needs to return to it here. The name of the building, the Ka'bah (the cube), reflects the simple cubic form of this religious building. The impact of

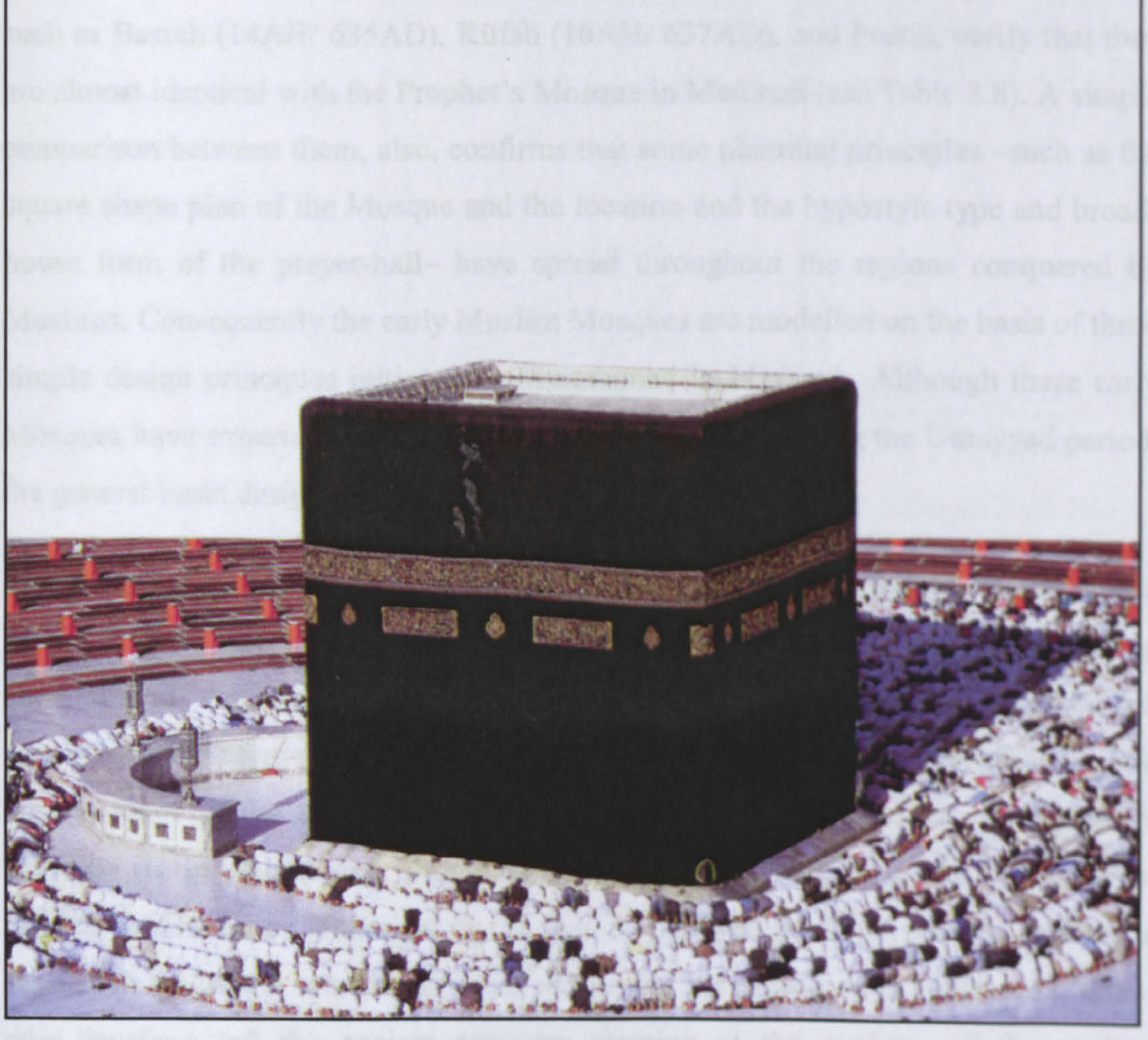


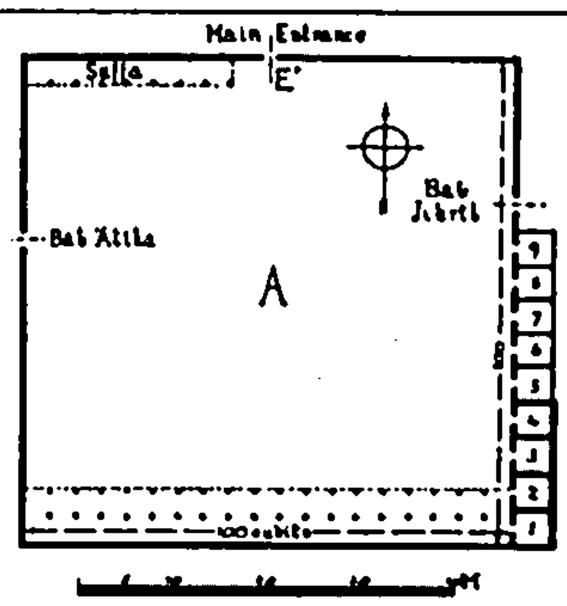
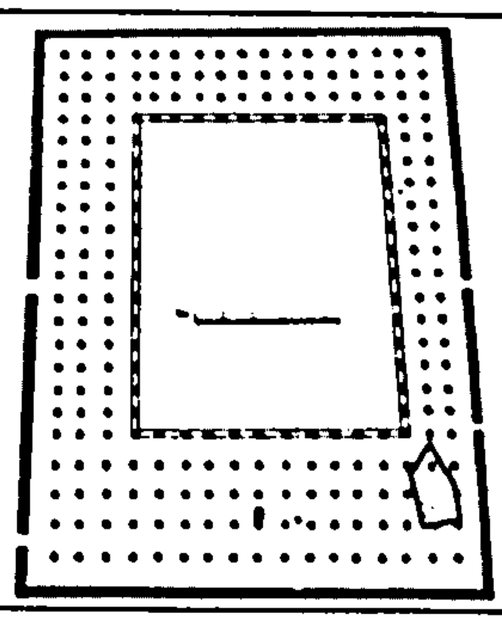
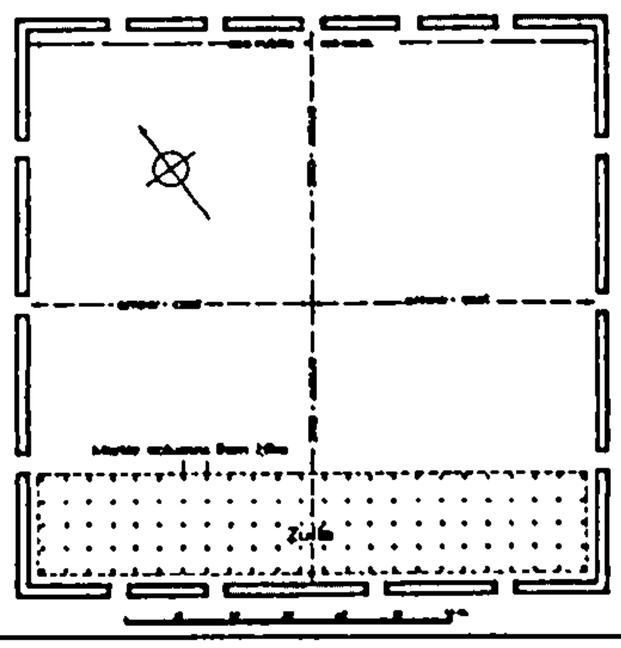
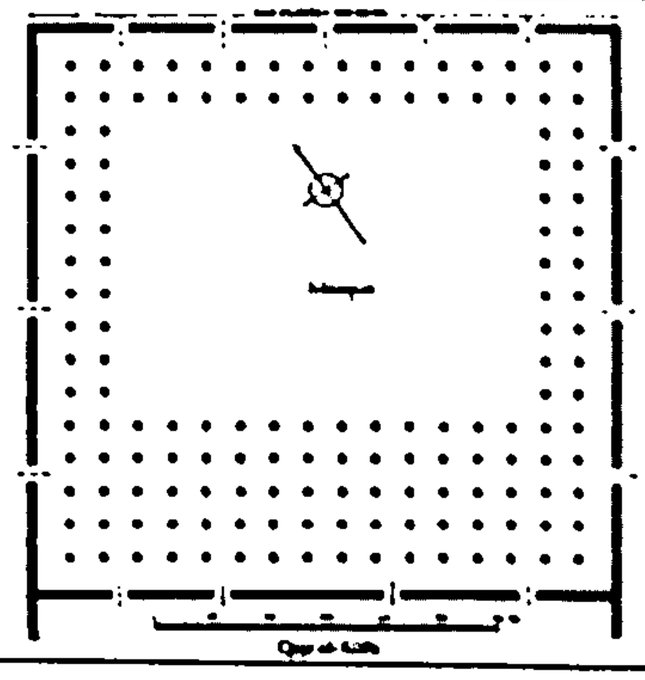
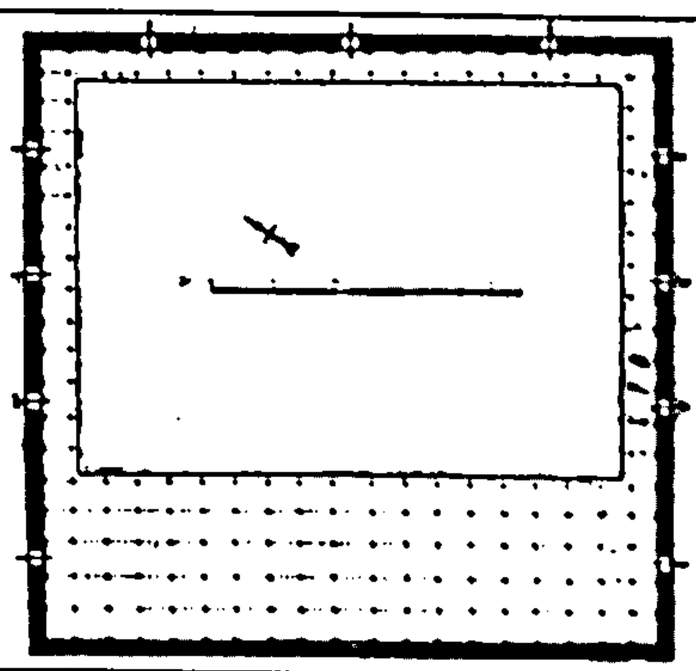
Fig 8. 27 **The Ka'bah in Makkah as it looks today.**
Source: http://www.csupomona.edu/~plin/ews430/images/ka'ba_big.jpg.

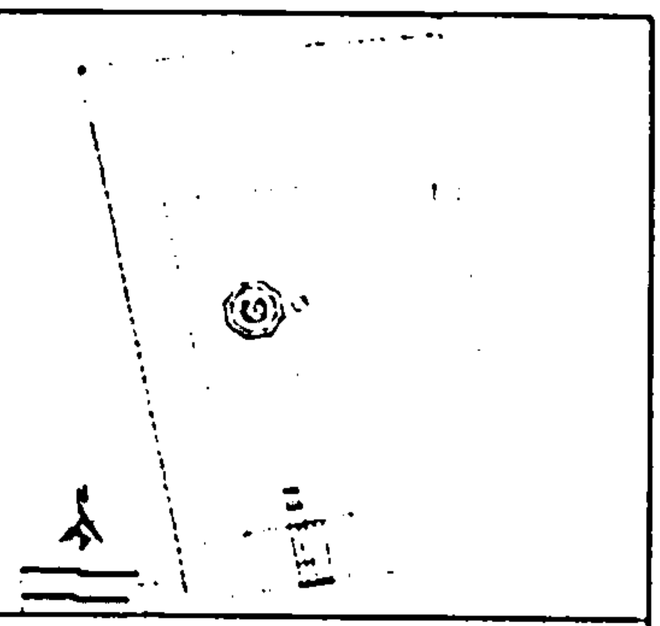
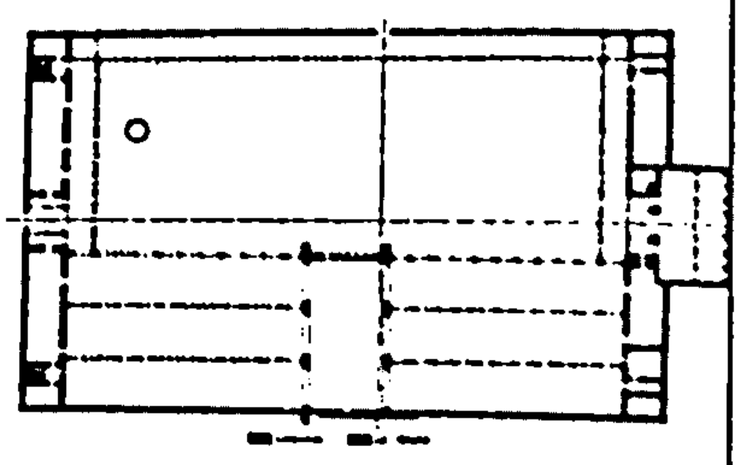
this Semitic sanctuary on residents of Arabia caused Makkah to become the greatest religious centre in the Arabian Peninsula. The idea of the square plan of the Ka'bah has inspired the early Muslim Mosque in Madīnah. One simple reason, among others, is that Muhammad is a native Makkian. According to Ibn Ishāq (d. 213 AH/ 828AD) and al-Azraqī [Ibn Hishām, 1987, 1: p223; al-Azraqī, 1969, 1: p173], he himself was involved in rebuilding the Ka'bah before he migrated to Madīnah. Indeed, the powerful emotional impact upon devout Muslims by Makkah is unquestionable; and the pictorial representation of the Ka'bah is commonly found elsewhere in the early Islamic period in tiles, textile and wall decoration.

The reconstructed plans of the early Mosques which were designed from scratch, such as Basrah (14AH/ 635AD), Kūfah (16AH/ 637AD), and Fustāt, verify that they are almost identical with the Prophet's Mosque in Madīnah (see Table 8.8). A simple comparison between them, also, confirms that some planning principles –such as the square shape plan of the Mosque and the location and the hypostyle type and broad-house form of the prayer-hall– have spread throughout the regions conquered by Muslims. Consequently the early Muslim Mosques are modelled on the basis of these simple design principles initiated by Muhammad in Madīnah. Although these early Mosques have experienced some enlargements before or during the Umayyad period, the general basic design and components were preserved.

However, exceptions to the square plan type of Muslim Mosques can be found among those Mosques that have been developed in places with some planning constraints. If the nature of the designated site of the Mosque is not simple and has topographical variations and archaeological remains, this may well influence the outline shape of the Mosque to some extent. This is the case of the early Muslim schemes in Jerusalem and Damascus. Al-Aqsa enclave is the only example of Muslim Mosques in Historical Syria that is believed to have already existed in Jerusalem before the Muslim conquest of the city. As examined in chapter six, this is why Muslims left the ancient masonry remains of the outlines of the enclave untouched. Moreover, the interesting feature of the site at that time–which might reinforce Muslims' claim that al-Aqsa Mosque existed in Jerusalem before their conquest– is that its southern wall is perpendicular in the direction of Makkah.

Table 8.8 **Examples of reconstructed plans of the major early Muslim Mosques initiated before and contemporary to al-Aqsa Mosque in Jerusalem.** (Source: Creswell, 1969, 1: pp. 8, 23, 47, 172)

No.	Name	Location	Description Plan	Plan
1-	**Mosque of the Prophet**	Madīnah in Hijāz		
			2 AH/ 623AD	87-97AH/ 705-715AD
2-	**First Great Mosque**	Kūfah in Iraq		
			17AH/ 638AD	50AH/ 670AD
3-	**Mosque of Wāsit**	**Wāsit in Iraq**		
				75 AH/ 694 AD

4-	**Al-Aqsa Mosque**	**Jerusalem**		
				72AH/ 691AD
5-	**Umayyad Mosque**	**Damascus**		
				87-97AH/ 705-715AD

Another comparison between the reconstructed early Mosques of the Umayyad period reinforces the fact that the simple planning practice of the Mosque continues to exist even after the employment of new building materials and construction methods in the different places. An area examination of the Umayyad Mosques evidently demonstrates the large size of these Mosques in comparison to those that existed earlier (see Table 8.9). The largest Mosque is al-Aqsa in Jerusalem, followed with a considerable distance by the Umayyad Mosque in Damascus, a place designated to be the political capital of the Umayyads (see Table 8.10). The reason why al-Aqsa enclave has such a huge area is that it was designated for the use of a large number of Muslims coming from all over the Muslim countries and not only to fulfill the religious requirements of Muslims in the city. In other words, it does not correspond to the scale of the city as generally expected in the urban planning of Muslim cities but has a regional scale.

In short, the Mosque of the Prophet in Madīnah is the prime example in tracking down the typological development of al-Aqsa Mosque, not only for its earlier date but also because Muhammad himself delineated it. Although Muslims' liturgical

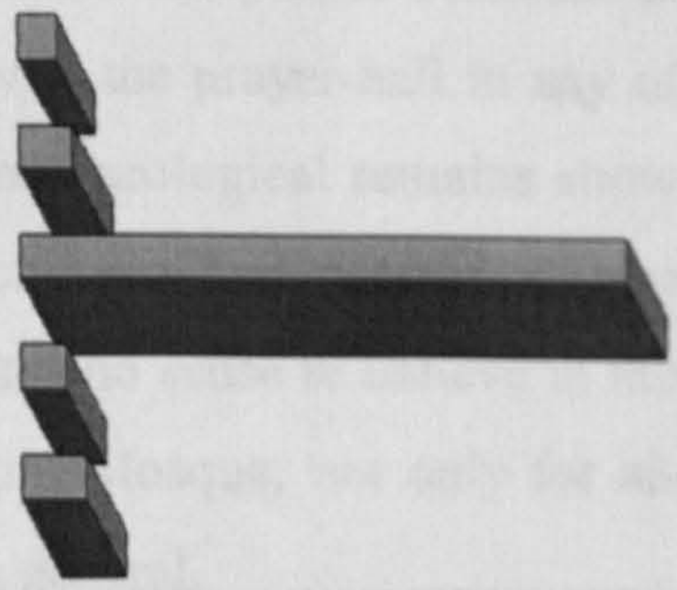
Table 8.9 **Principal measurements and estimated areas of reconstructed plans of the major early Muslim Mosques initiated before and contemporary to al-Aqsa Mosque in Jerusalem.**

Description

The monument			General dimensions and area of the building			Dimension and area of the prayer area		
No.	**Name**	**Date of construction**	***Qiblah* Wall m.**	**Width m.**	**Area m^2**	***Qiblah* Wall m.**	**Width m.**	**Area m^2**
1-	**Mosque of the Prophet in Madīnah**	2AH/ 623AD	51.8	51.8	**2683**	51.8	7	**362.6**
		87-97AH/ 705-715AD	85.5	103.6	**8857.8**	85.5	28.5	**2436.8**
2-	**First Great Mosque in** Kūfah in Iraq	17AH/ 638 AD	103.6	103.6	**10733**	103.6	20	**2072**
		50AH/ 670AD	110	116	**12760**	110	30	**3300**
3-	**Al-Aqsa Mosque in Jerusalem**	72AH/ 691AD	281	488	**142000**	--	52 m.	--
4-	**Mosque of Wāsit in Iraq**	75 AH/ 694 AD	103	104	**10712**	103	26	**2678**
5-	**Umayyad Mosque in Damascus**	87-97AH/ 705-715AD	157	98	**15386**	136	38.3	**5208.8**

Table 8.10 **Graphic area representation of some reconstructed plans for major early Muslim Mosques initiated before and contemporaries to al-Aqsa Mosque in Jerusalem.**

Description

No.	The building	Location	Total Area	Graph
1-	**Mosque of the Prophet**	Madina in Hijāz	**8857.8**	
2-	**First Great Mosque**	**Kūfa in Iraq**	**12760**	
3-	**Al-Aqsa Mosque**	**Jerusalem**	**142000**	
4-	**Mosque of Wāsit**	**Wasit in Iraq**	**10712**	
5-	**Umayyad Mosque**	**Damascus**	**15386**	

activity dictated the type of the prayer hall as a broad-house, the overall shape of the Mosque as a square may well have been inspired by the Ka'bah. The close geographical location of the Ka'bah to Madīnah and Muhammad's involvement in it are among the reasons that encourage belief in this inspiration.

The simple type of architecture of the Mosque, or as called by Frishman 'minimalist thinking' [Frishman, 1994, p30], is a natural result of the life style and environmental conditions in the Arabian Peninsula. Nevertheless, the planning components and spatial organisation of the Prophet's Mosque in Madīnah that suits the Muslims liturgical and social needs qualified it as a model on which the architecture of the Mosque was based. This is reinforced by the planning evidence of the early Mosques which are almost identical. In the case of al-Aqsa Mosque, the variation of the environmental conditions, building materials and construction traditions, in comparison to those of the Arabian Penensula, gave *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) a local Syrian character. Despite the special nature of the site and its topography, the Arabian planning components –the type of broad-house form of the prayer hall, its location at the *Qiblah* wall, and the idea of orientation– are preserved.

From what has been examined so far, it can be concluded that the general planning of al-Aqsa enclave and the origin of *al-Jāmi'* al-Aqsa closely followed the planning components employed in the Muslim Mosques that had always tended to take a long *Qiblah* wall. *Al-Jāmi'* al-Aqsa is distinguished in architecture with hypostyle type and broad-house form for its prayer-hall. The horizontality is very distinguishable in its physical form and its outlines which could be interpreted as conveying the meaning of rest and security. These features do not seem to exist among the Roman or Christian religious buildings. There is no Christian Church in Syria or Palestine at that time that reflects the same or similar proportions with the prayer-hall in any of the early Muslim Mosques. In contrast, the Umayyad archaeological remains show that the arcades inside *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) of the Umayyad period extended north-south. Therefore it makes no sense to believe in the Christian church theory as an origin of the early Muslim Mosque; not only for al-Aqsa in Jerusalem but also for early Muslim Mosques in general.

8.7. SUMMARY AND CONCLUSION

The art and the architecture of the early Muslim period in Jerusalem and in Historical Syria developed in a region full of precedents of a wider cultural context. The Holy Land was one of the important centres where the Hellenistic, Roman and Byzantine architectural achievements flourished. Different religious building types were developed side by side with local building practice. The employment of new architectural elements by Roman architects, such as arches, vaults and domes, brought with it a new structural problem of thrust. These considerations stimulated the ancient builders and architects to develop or to invent appropriate architectural and structural solutions.

Like Roman and Byzantine civilisations, the early Muslim architecture in al-Aqsa enclave cannot have occurred overnight. It benefits from the existing local building practice that had already developed a long time ago. However, the manner of their buildings, which reused a lot of ancient elements, necessitated a careful consideration of the structural requirements of their buildings. The tie-beams, the elliptical arches, barrel vaults, heavy buttresses, and other elements, all have been designed to fulfil structural and architectural purposes.

There are some architectural features in the early Muslim architecture of the enclave, such as the shallow domes and spherical-triangle pendentives, which indicate a local Syrian style. Such features show that native Syrian architects were employed in the building of the enclave rather than builders from outside Syria.

Significantly, the evolution of the spherical triangular-pendentives as examined in this chapter has occurred after the 2nd century AD. This is yet more evidence which supports the early Islamic date of the domes as examined in chapter six of this thesis.

The requirements of Muslims' religious life, their donation of *Zakāt* (charity) and other Muslims financial resources collected and deposited in the Mosque necessitated the evolution of a new kind of building in the early Islamic period to host the treasury in the Mosque. For that purpose a chamber supported by columns, known as *Bayt al-Māl* (the treasury) was erected. Sometimes it was combined with a

fountain underneath. It is difficult to find any analogies for this kind of building, simply because practices were different in other cultures. This type of building was also developed for other secular activities within the religious sanctity of al-Aqsa Mosque. The corresponded diameter of the inner enclosure of *Qubbet al-Silsilah* (the Dome of the Chain) with the *Bayt al-Mãl* of the Umayyad Mosque in Damascus may suggest a link between these two kinds of buildings. Consequently, it could well be that *Qubbet al-Silsilah* is a modified version of the dome of the treasury, developed to serve a different purpose, namely, to provide a restful place for the caliph. In any event, an annular open structure of a hexagon surrounded by an originally twelve–now eleven–sided enclosure does not exist in Roman or Byzantine buildings. Therefore, it is difficult to resist the conclusion that this building type evolved after the Roman and Byzantine periods. But the elusive question that will remain open for further research is which of these buildings inspired the other.

A kind of commemorative annular building was developed around the top of the Rock. This type of building is generally referred to as a central object. It is *Qubbet al-Sakhrah* (the Dome of the Rock) that is often erroneously compared to a Christian memorial building. The important difference between them lies in their concept; the comparative Christian buildings were usually martyria in the strict sense of structures built over martyrs' tombs, while *Qubbet al-Sakhrah* was built to commemorate the significance of the Rock in Islam. A circle surrounded by two octagons does not exist among the Roman and Byzantine buildings. This configuration indicates, therefore, a new stage in the evolution of central annular buildings. The symbolic significance of the octagon in Islam corresponds with the octagonal form of the building which has a size much larger than those of Roman and Byzantine buildings.

Bayt al-Mãl, *Qubbet al-Silsilah* and *Qubbet al-Sakhrah* are, in fact, centralised buildings. The annular buildings were developed in the enclave for functional and cultural reasons.

The requirements for the Muslim prayers were simple: a space where Muslims could practice their liturgical activity in parallel rows facing the *Qiblah* (the direction of Muslim prayers). For this purpose a simple broad-house plan for the prayer space was the obvious and universal choice of the early Islamic mosques, emphasised by

the building of the Mosque in Madina erected by Muhammad. With it came a strong emphasis on the axis of the prayer space perpendicular to the *Qiblah* and the dominance of horizontality over verticality.

The conclusion is that the early Muslim architecture and the annular form and the broad-house type of *al-Jāmi'* al-Aqsa were originated in response to the Muslim's cultural and religious requirement in the enclave. *Bayt al-Māl* (combined dome of the treasury and fountain) was a new building type to serve the needs of a new social Muslim practice. *Qubbet al-Sakhrah* (the Dome of the Rock) marks a new evolutionary stage of annular and centralised buildings in response to the importance and meaning of the Rock for Muslim beliefs. It is evident that this development is closely linked to Jerusalem with religious inspiration from the archetype of Makkah, and that influenced most early Muslim buildings inside al-Aqsa enclave.

CONCLUSIONS

CHAPTER NINE

CONCLUSIONS AND RECOMMENDATIONS

This chapter summarises the findings of Part One, Part Two and Part Three of this thesis and gives recommendations for further research.

This chapter presents the main findings of the present research, explaining the nature of al-Aqsa Mosque in the context of the early Muslim building scheme in Jerusalem. In addition, it puts forward recommendations that may help and encourage other researchers in further study and investigation.

9.1. CONCLUSIONS

The contradictory interpretations of some parts of al-Aqsa Mosque and the observation of different building types of the early Muslim period of al-Aqsa enclave sparked an interest in the subject of this thesis. The initial impulse for this interest was given in 1995 AD when the researcher concluded that al-Aqsa Mosque is a complex of buildings and not only *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) located at the south of the enclave. Even more intriguing was the realisation that al-Aqsa Mosque has been mentioned in the Qurān before the Islamic conquest of Jerusalem. How could there have been a Mosque at a time when there were no buildings on the site? Since then other questions arose: who built the Mosque, when and why, and how was the early Muslim architecture in the enclave established? These questions motivated the pursuit of this research. So a primary aim of this thesis has been to discover and investigate the sources from which the sacred architecture of the Mosque comes and to find out about the process that guided its evolution. The section in this thesis on the conception of the Mosque confirms that 'mosque' basically means a 'defined place'. It is an encompassed space that could be developed into a particular building or set of buildings. There is, indeed, a history of such development. The thesis elaborates on the parameters of the design of the early Muslim architecture of al-Aqsa enclave, namely form, function and culture, all of which were seen as relevant to the endeavour of understanding the sacred early Muslim architecture of the enclave through the expression of place and its wider cultural context.

The physical condition of the site itself at that time still invites contention. If the site had been completely destroyed by the Romans in 70 AD and was entirely abandoned by the Roman and Byzantine successors why would, as has been suggested, a huge

derelict area without any significance become a part of a new Roman city (*Aelia Capitolina*)?

It cannot be claimed that research into al-Aqsa Mosque is anything new, yet very few scholars have explored the significance of the early Muslim architecture of al-Aqsa Mosque. The vast majority of researchers are orientalists and non-Muslims; many of whom have investigated the architecture solely through abstract formal analysis. Furthermore, most of the literature on the early Muslim architecture of the enclave interprets the different parts of the enclave from a biblical point of view. To investigate the architectural development of al-Aqsa Mosque in the early Islamic period as a whole and from the wider cultural context and upon reflection of wider religious values is believed to be unique. To research this period requires not only the contribution of a variety of disciplines such as history, archaeology, art, architecture, theology, urban design, but also accessibility to the site in order to obtain data from archaeological fieldwork for the analysis and comparison of evidence, and this is extremely difficult. The dedicated site of this research is a holy Muslim site and is a key political issue in the Palestinian and Israeli conflict. Working in the enclave proved difficult at the time of the establishment of this research because of the political sensitivity of the situation, and has since become extremely dangerous. Indeed, it was fortunate that most fieldwork and site observations and commentaries were carried out early despite the continual interruption and interference of policemen and soldiers. This political conflict is, indeed, discouraging the neutral (objective) research of the site, especially when there is a need to obtain unrestricted entry and to carry out fieldwork. This could be one reason why very little research has been carried out on the early Muslim architectural development of al-Aqsa enclave. The scarcity of references on early Muslim architecture –scattered across different disciplines such as history, archaeology, theology, architecture– is certainly another reason that prevents research on Jerusalem from exploring the significance of this early Islamic period.

In responding to these difficulties the study concentrated on the elaboration of the process of the production of the enclave's architecture. The fundamental link between culture and architectural form and function is a key issue of the thesis. The

findings provide important explanations and interpretations of the production of the early Muslim architecture in the enclave. They are also important for realising and understanding the characteristics of early Muslim architecture in other Muslim countries.

It would have been possible to limit the investigation of the architectural development of the enclave to approaches usually employed by art and architectural historians. Instead, the study adopted several different approaches in order to fill the historical, archaeological and architectural gaps in the existing interpretations that become evident during the investigation. The process of generating the early Muslim architecture in the enclave is certainly dependent upon the accumulation of cultural experience and construction skills in response to human needs. In some cases, the study employed the inductive method of investigation while in others it elaborated on comparisons of architectural forms and shapes. Critical analysis is always explicit, while depending on the context of arguments and the acquired evidence, the research methodology varies from chapter to chapter.

An important research task was to trace the sequence of the architectural development of al-Aqsa Mosque. From its theological conception to the production of particular buildings, this sequence has informed the structuring of the thesis. Another essential task was to trace the development of the urban context of the site; how the enclave was before the development, how it developed, and how it looked after development are important matters in this procedure. A further task was to examine the political, cultural and religious circumstances that accompanied the development; the aim was to discover the different reasons and impulses that encouraged the development of the enclave as they are of considerable value in the interpretation of the early Muslim architecture of al-Aqsa Mosque.

Another important aspect of the research has been to relate the physical production of al-Aqsa Mosque of the early Islamic period –the main concern of architects, archaeologists and historians– with contemporary cultural values and life style. People's production of religious buildings are not be seen as some kind of independent rhetorical premise nor merely as an interpretation of an epistemological notion. The study intended to show that the production of the sacred architecture of

the enclave with all its symbolic forms and signals was a response to cultural experience and needs. This production must have developed within a cultural-specific environment and cannot, therefore, be interpreted without reference to this cultural context. Interpreting the form, function and meaning of architecture requires, therefore, the response to the fundamental religious and cultural conditions. The significance of this approach is that it increases the awareness of the contextual principles and the cultural values behind the new architectural forms and patterns in the enclave. This awareness could also be achieved by tracing the origins and the evolution of the architectural forms and how they responded to human needs and religious functions. Comparative examples of each building type of the early Muslim monuments were introduced for the purpose of confirming the idea that the sacred architectural forms in the enclave respond to various physical, social, cultural and religious requirements which give them their real meaning. This necessitated extending the analysis beyond the elaboration of the mere abstract formal and geometrical principles of architecture.

The outcome of this thesis, the cultural, historical and contextual significance of al-Aqsa Mosque may be epitomized as follows:

The different stages of the urban development of the enclave are related to the prosperity of the city of *Bayt al-Maqdis* (Jerusalem). The geographical setting of the city and its moderate climate possibly attracted the early Canaanites to settle at the place since the 4th millennium BC. Archaeological evidence confirms that "Jerusalem" as a city had been established on the eastern ridge south of the eastern hill of the present al-Aqsa Mosque area in the 3rd millennium BC. But the city's religious significance may well have encouraged the architectural and urban prosperity of the place as its earliest name *Uru-Salim* refers to the name of the Canaanites' God. In around 1000 BC, Jerusalem was occupied by David and since then it becomes a significant city for Jews. According to the Bible, Solomon, David's son, built the House of the Lord in the city. It was the Greeks (332-37 BC.) who first brought part of today's al-Aqsa enclave within the boundaries of Jerusalem. However, the site was entirely abandoned after the Roman destruction of the city in 70 AD and had lost its importance by the time the city was re-developed around the

site of the present location of the Church of the Holy Sepulchre. Muslims immediately proceeded to al-Aqsa enclave after their conquest of Jerusalem and affirmed the religious sanctity of the place. They certainly brought the site back to life for it and became the major religious place of Historical Syria and a place of considerable building activities. This influenced the urban structure of *Bayt al-Maqdis* and the city consequently expanded eastwards.

The function of the site and its condition before its development in the early Islamic period are important issues for its historical and architectural consideration and interpretations. Architectural references to al-Aqsa enclave site are not conclusive before the construction of *Aelia Capitolina* (Jerusalem) by Hadrian in 135 AD. The vast majority of architectural information is still hypothetical because only some parts of the site have been excavated inside the enclave. The inconclusiveness of the studies is obvious; as a simple comparison of the number of architectural models developed for the enclave reveals the considerable extent of this controversy.

However, the conditions of the enclave at the beginning of the 4th century AD are relatively clearer than during the period before as Christian pilgrims have left important pieces of evidence on the urban context of the site. The thesis traced the path and the direction of the walkway of an early Christian visitor to the site with the help of the descriptions of some geographical landmarks that were already confirmed by archaeological excavations. On this basis it was possible to figure out an almost complete notional panoramic picture of how al-Aqsa enclave was before the Islamic period, a picture which confirmed that the area was entirely in ruins and abandoned. This conclusion is also reinforced by a 6th century map of Jerusalem discovered in Madaba in Jordan which does not depict the site of the enclave as part of the city. On the basis of such evidence as well as other historical references and archaeological analysis the thesis inclines towards the conclusion that al-Aqsa Mosque was outside the city of Jerusalem at the time of the Muslims' conquest of the *Bayt al-Maqdis*.

The mystical translocation of Muhammad from Makkah to al-Aqsa enclave is an event which stresses the sanctity of these religious focal places for Muslims. According to Islam, these references are rooted in the history of monotheistic religion. The concept of the Mosque as developed in the Qurān basically refers to a

defined place. It is either a defined place or a building. Thus al-Aqsa Mosque as mentioned in the Qurān must refer to the defined and encompassed space of the enclave of the 7th century AD determined by its existed physical boundaries.

The physical development of al-Aqsa Mosque was certainly commissioned in the early Islamic period and it was commemorated by the attendance of the Muslim caliph 'Umar Ibn al-Khattāb who granted an assurance of safety to the people of *Aelia* (Jerusalem). The legal position and juridical sovereignty on al-Aqsa enclave in relation to this assurance was certainly unique. It has been indicated that 'Umar's Assurance covers only the walled area inside Jerusalem; Muslims took political sovereignty over this area while Christians were granted sovereignty over their religious places. The area of al-Aqsa Mosque was under complete Muslim sovereignty. The significance of 'Umar's attendance at al-Aqsa Mosque and the Muslims' affirmation of it is linked to some controversial legends mentioned in historical sources, such as who led the Muslims and 'Umar to the enclave. These investigation traced the stories back to their origins and examined the character of the narrators as well as the different circumstances surrounding them. It concluded that these legends were invented in regard of the relations between Jewish and Christians or between Christian sets in the city.

The analysis of the enclave site, i.e. the size of the urban block, presented by archaeological excavations indicates that the development of al-Aqsa enclave and the area to the south was in the Byzantine period 'suburban' rather than urban. Thus the area was an appropriate location for Muslims to choose in developing the city. Consequently the area of the present al-Aqsa enclave, that to its south and probably the area to the north became part of the city's urban fabric.

The nature of the topography of the enclave was an important factor in determining appropriate architectural solutions and the location of the principal gates. But the religious beliefs related to the site were another equally important factor giving the project its specific meanings. The enclave is located on a hill, which forms part of the rock that is believed by Muslims to be sacred and this Rock represents the entire enclave. This means that the whole of the enclave is built over the sacred Rock.

The idea of al-Aqsa Mosque as a piece of building construction has been raised after the construction of the enclave in the early Islamic period, and since then its present boundaries remained unchanged. There is little evidence on who delineated the present area of the enclave. Archaeologically, the foundation of the northern wall of the enclave should be attributed to a later period in comparison to the other physical foundations of the walls of the enclave which date to the 1st century AD. The cutting techniques of the rock at the northern part of the enclave and the construction of the water cistern at the northern part of the enclave are also of a later date. This means that the enclave has been expanded northward to the present northern wall sometime after the 1st century AD. The historical references and circumstances of this expansion fit well into the context of the early Islamic construction activity.

Whatever monuments can be seen on al-Aqsa Mosque today postdate the Muslims' conquest. Some of them, which are of particular concern to this research, belong to the very earliest period –the first centuries of Islam. Even this limited period should be narrowed down to the days of the Umayyad caliph 'Abd al-Malik (66–86 AH/ 685–705 AD) and his immediate successor al-Walīd (86–96 AH/ 705–714 AD). However any monuments that might have been built prior to 'Abd al-Malik have not been preserved.

The early Muslim building activity in the enclave invested immense effort and manpower. The architecture of the buildings reflects a local style which may well indicate that local Syrian or Palestinian architects were employed. Unfortunately, no architects' names are mentioned in the historical sources, though those names mentioned in the sources as having been associated with the supervision or financial administration of the construction project are certainly those of Palestinians.

Various architectural and structural solutions have been employed in the early Islamic period. The builders of the enclave used two architectural design concepts in building the gates: the simple gate and the gatehouse form. These are presented in three patterns: single, double and triple and in a monumental character. Although these design concepts and architectural elements are shared by all gates of the enclave, none of them is an exact replica of any other. Each form fits its own place and function and in some cases reflects a meaning associated with an overall

religious concept derived from Muslims' religious beliefs regarding the Rock. The builders also had to consider the structural requirements, which represented another challenge for them, especially the lateral thrust of the arches and vaults. The building materials were generally relics of older buildings, which were reworked to fit their new place.

Bab-al-Rahma (or the Golden Gate) and *Bab al-Nabī* (or the Double Gate) are the most significant gates in the enclave and are heavily enriched with decoration. These two gates, generally erroneously dated to the Roman or Byzantine period, provide historical, archaeological, artistic and stylistic evidence that allows them to be dated to the early Islamic period. On the same basis the dating could be narrowed down to 'Abd al-Malik (66–86 AH/ 685–705 AD). Hints from the names of these gates, their decoration and their monumental form suggest a deliberate design to commemorate an important event. These reflect in one way or another the Muslims' religious and cultural beliefs regarding the Rock. Thus they display their own character in the context of the architectural formula for the enclave.

In addition to these gates, Muslims built three early Islamic monuments: *Qubbat al-Silsilah* (the Dome of the Chain), *Qubbat al-Sakhrah* (the Dome of the Rock) and *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). Several archaeological indications – the length of the arcades of the southern gates of the enclave and their roofing system– explain the initial overall design concept of the enclave. The Umayyads might have intended to roof all of the area adjacent to the southern wall of the enclave, as they had been doing in the early Muslim Mosques in Madīnah and Damascus. This concept was certainly abandoned before the construction of *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque). The early Islamic monuments of al-Aqsa enclave comprise an interesting relationship regarding the overall architectural formula and the concept. In seeking to relate these buildings with the given topography and the overall planning of the enclave, their placing was not accidental. The focal point of the enclave is the location over which *Qubbat al-Sakhrah* (the Dome of the Rock) was erected. The building of *Qubbat al-Sakhrah* and the co-ordination of its location with that of other buildings in the enclave must have been an important task in the overall planning consideration.

The builders of the enclave cleverly highlight the sanctity of the Rock in an architectural form that reflects all the symbolism and religious significance attached to it. The various relationships in the architectural and geometrical configuration are not less significant than the meaning behind the form, which reflects a religious reference to Makkah and to the idea of Muhammad's translocation to al-Aqsa Mosque. The artistic and architectural solution of *Qubbat al-Sakhrah* symbolises a divine notion of the throne of God which, in Muslim beliefs, will be placed on the Rock at the Last Day. In its dynamic and artistic expression, this building is indeed the most magnificent manifestation of the identity of Islam.

Regarding their appearance and their preserved decoration, the early Muslim monuments have distinctive design features, although some links to precedents in the late Antique Mediterranean buildings regarding construction method or architectural elements can be suggested. Similarities in architectural vocabulary and construction methods of the Muslim buildings corresponding with preceding buildings certainly exist as in most civilisations, yet no plans or forms of any precedent buildings identical with that of the early Muslim monuments have been discovered. The manifestation of the early Muslim art and the architecture of the enclave responds to the quality of the wider cultural context of the site which is inherited from period to period. The architecture consistently confirms the significance of the social and religious life style of the new faith of Islam.

Thus, it is quite safe to conclude that Muslims created a new architectural design concepts in al-Aqsa Mosque. The employment of certain architectural forms in a certain place for a certain function in a certain culture and reflecting certain values can only be indirectly and partially inspired by the putative precedent buildings of other cultures. The architecture of al-Aqsa Mosque is in effect a new creation.

The construction of each monument presents a realisation of its plan on a specific site fitting precisely into an overall concept, each monument relating in one way or another to all others. *Qubbet al-Sakhrah*, which has preserved almost completely its original art and architecture since the time of the construction, confirms the high quality of art and artistic skills. The surviving details in other parts of the enclave, such as *Bāb al-Rahmah* (or the Golden Gate) and *Bāb al-Nabī* (or the Golden Gate),

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which correspond with *Qubbet al-Sakhrah*, confirm that this high quality is one of the characteristics of almost all parts of the enclave at that time.

What then is al-Aqsa Mosque? It is a sanctified defined place, established on the Rock which is believed by Muslims to be sacred. The reason for revitalising al-Aqsa Mosque is certainly a religious one, but the reasons behind building the magnificent architectural projects of al-Aqsa Mosque could be partially religious, partially political. The Umayyad caliph 'Abd al-Malik saw Jerusalem as a place where he could proclaim his power which would be best established by good religious deeds. It was he who afforded the best available talents and highest quality of skills to develop al-Aqsa Mosque and produce beautiful buildings full of religious emotion and visual impact. He was the right man in the right place at the right time to develop a fully three-dimensional Muslim image of Jerusalem.

9.2. CHRONOLOGY OF AL-AQSA MOSQUE

The following chronology of al-Aqsa Mosque up to the early Islamic period summarises the development at the enclave.

CANAANITE PERIOD OR PRONZE AGE [3300—1200 BC]

No proven archaeological remains from this period have come to light within the area of al-Aqsa Mosque.

IRON AGE [1200—586 BC]

No proven archaeological remains from this period have come to light within the area of al-Aqsa Mosque.

BABYLONIAN, PERSIAN AND HELLENISTIC PERIODS [586—37 BC]

At the eastern wall of the enclave, the archaeological traces suggest that some parts of the present area of al-Aqsa Mosque would then have been within the city limits of Jerusalem during the Hellenistic period.

ROMAN PERIOD [37 BC —324 AD]

37 BC—70 AD	The surviving archaeological traces suggest that there were occupied buildings in the enclave.
70 —**135** AD	Destruction of the city of Jerusalem by Titus's Roman legions included al-Aqsa enclave.
135 AD	Re-establishing Jerusalem as *Aelia Capitolina*
135 — **324** AD	Al-Aqsa enclave was abandoned.

BYZANTINE PERIOD [324—638 AD]

324 — **638** AD	Al-Aqsa enclave continues to be abandoned.

EARLY ISLAMIC PERIOD [638—749 AD]

17 AH/ **638** AD	Conquest of Jerusalem and revitalization of al-Aqsa Mosque. Building of the Muslim House of Prayer ('Umar's mosque) in the enclave.
72 AH/ **691** AD	'Abd al-Malik commences rebuilding al-Aqsa Mosque, including an overall planning of the enclave, and starts the construction of: - The gates of al-Aqsa of the enclave (such as *Bāb al-Nabī* (or the Double Gate) and *Bāb al-Rahmah* (or the Golden Gate). - The south-eastern basement of al-Aqsa enclave. - *Qubbet al-Silsilah* (the Dome of the Chain). - *Qubbet al-Sakhrah* (the Dome of the Rock). - *Al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) which was completed by his son al-Walīd.
132 AH/ **749** AD	End of the early Islamic period and Umayyad rule over Historical Syria and starting of the 'Abbāsid period.

9.3. RECOMMENDATIONS FOR FURTHER REASEARCH

The issue of the early Muslim architecture of the enclave and its development is certainly complex and the thesis focuses only on certain aspects. Thus it cannot be claimed that the thesis gives answers to all the questions regarding the early Muslim architecture of al-Aqsa Mosque, nor does it claim that it could do so. The intention was to stimulate a process of investigation, which benefits from many disciplines and therefore presents better architectural interpretations and factual evidence of the early Muslim architecture of the enclave.

The following proposals for further research are considered to be essential in order to advance knowledge and understanding of the realisation and meaning of the early Muslim architecture of the enclave in particular and of Jerusalem in general as they emerge from the research for this thesis.

ONE: THE STATUS OF AL-AQSA MOSQUE IN THE EARLY MUSLIM ARCHITECTURE

It is very important that for a better understanding of the early Islamic architecture analysis should be based on more than one perspective and approach within the cultural context. The political, religious and cultural elements are very important in attempting to understand the real meaning of architecture and the reason initiating building schemes. The study suggests the need for an investigation of and elaboration on the impact of the architecture of al-Aqsa Mosque on early Muslim architecture in general. Case studies of other early Islamic Syrian Mosques (such as the Umayyad Mosque in Damascus) and even more outside Syria, also schemes that have been restored after the building of the enclave (such as the Sacred Mosque in Makkah and the Prophet's Mosque in Madīnah) can be compared. Investigations could be carried out in relation to historical, religious, architectural and political circumstances. On this basis it would be possible to ascertain the significance of the architecture of al-Aqsa Mosque for early Muslim architecture at large, specifically to identify the mutual interdependence of architectural design concepts as well as the function and symbolic meaning of all building in the enclave.

TWO: ARCHITECTURAL STANDARDS IN MUSLIM HISTORICAL SYRIA

The thesis highlighted several similarities between the different parts of the enclave. The aspect of standardisation of architecture is also an important new research field. A comparison between the dimensions of the early buildings of the enclave with other early Muslim Monuments such as the Umayyad palaces in Palestine and Jordan may well be useful. An investigation of the modular system used in the early Muslim architecture may well facilitate the investigation. The significance of this investigation would enable researchers to find out what kind of practical building traditions have been employed and on what basis the width and height of the buildings and their openings have been determined.

THREE: THE FORM OF THE MOSQUE IN RESPONSE TO FUNCTIONAL REQUIREMENTS

An important question that has been raised during the research for the thesis is what the maximum width of a mosque is that still allows all those praying to hear *Imām* (the preacher) clearly at the farthest point. The size of the mosque and the shape and even its form have an important impact on its functionality. The researcher suggests investigating the design of the Mosque in relation to its functional requirements. The elaboration of acoustic properties and lighting conditions inside the mosque may make it possible to understand the different architectural solutions and reveal the reasons why the mosque has adopted a particular form. This research may well reveal important guidelines for the design of the Mosque and inspire certain design principles of Islamic architecture.

FOUR: TOWARDS CULTURAL AND RELIGIOUS RELEVANCE OF THE ARCHITECTURE OF THE MOSQUE

Another aspect that has been raised during the investigation process is the degree of cultural dimension inherent in early Muslim architecture. The type of building materials and architectural elements used in building the enclave highlight aspects of functionality and a response to the cultural context which require broader investigation and discussion. Research into the relevance of the architecture of the

enclave may well require an investigation of wider cultural and religious dimensions that continue to exist since that time. The consideration of such aspects are of considerable importance in order to produce today a sustainable, environment-friendly architecture.

FIVE: SAVING THE ANCIENT MONUMENTS IN JERUSALEM: AN ARCHITECTURAL AND CONSERVATATIONAL STUDY.

Architectural conservation plays a significant role in the prolonging of the life of the buildings of the early Islamic period. This can demand the appropriate use of ancient construction techniques and building traditions. Awareness should be raised to preserve those ancient art and architectural handicrafts using traditional local technology and methods which are today generally no longer in use. The objective of this research is not only to safeguard the valuable heritage of the country and of al-Aqsa enclave in particular but also to investigate the advantages of the employment of these techniques in contemporary architecture. This would certainly have considerable benefits and contribute to the quality of human life.

SIX: ARCHITECTURAL RECORDING OF EARLY MUSLIM MONUMENTS OF JERUSALEM

Architectural recording is the main concern of many international organisations anxious to prevent the loss of historical knowledge. It is ironic that al-Aqsa enclave, inevitably a significant reference point for almost any research on the Muslim architecture, still lacks a full recording for its different parts. Unfortunately, much if not all, present research still depends on old drawings that contain many errors. The researcher noticed that some of the architectural drawings relevant to this thesis do not precisely reflect the actual state of the monuments of al-Aqsa enclave. It is of vital importance to carry out a full survey and generate detailed computerised architectural drawings and pictures for all parts of the enclave.

SEVEN: EXCAVATIONS BELOW AL-AQSA MOSQUE

To establish much needed information, archaeological excavations should be carried out inside the enclave in the context of properly academic non-political study.

Although at present such excavations seem impossible they might become possible in future with the support of UNESCO and other concerned neutral authorities.

It is hoped that this study has raised awareness regarding the significance of the early Muslim architecture of al-Aqsa enclave and that it paves the way for further research not only on early Muslim architecture but also on the history and archaeology of the enclave and Jerusalem itself.

It is hoped that this study –which examined some of the principles on the basis of which the sacred early Muslim architecture is produced– will be used as a foundation for more comprehensive investigations and critical studies of different aspects of early Muslim architecture. It is also hoped that this study will encourage an analysis of the relationship between culture and architectural form as means to define Muslim architecture and the early Muslim presence in Jerusalem and to re-evaluate the conclusions presented here.

Finally, for the paramount benefit of this study and for the successful implementation of its recommendations and the realisation of its main objectives the following conditions are necessary:

1- Educational programs and lectures on early Muslim architecture, explaining the cultural and human dimension behind the sacred architecture.

2- The employment of all available publicity means in order to increase the public awareness of the Muslim cultural heritage and its significance.

3- Conferences on sustainable Muslim architecture and traditional construction technologies.

Without these conditions being met it is difficult to understand the real meaning of Muslim architecture and the different dimensions that co-ordinate its physical forms.

APPENDIX

APPENDIX A: DATA ON AL-AQSA MOSQUE

A.1. WARREN'S EXCAVATION (1867-1870 AD)

The excavation Warren carried out on the behalf of PEF has generated important information on al-Aqsa enclave specifically on its topography as a result of Warren's excavated shafts, sunken into the ground around the walls of the enclave. Warren numbered the masonry courses of the walls (see Fig. A. 1), which enabled him to relate the different points of the walls he investigated (see Table. A.1).

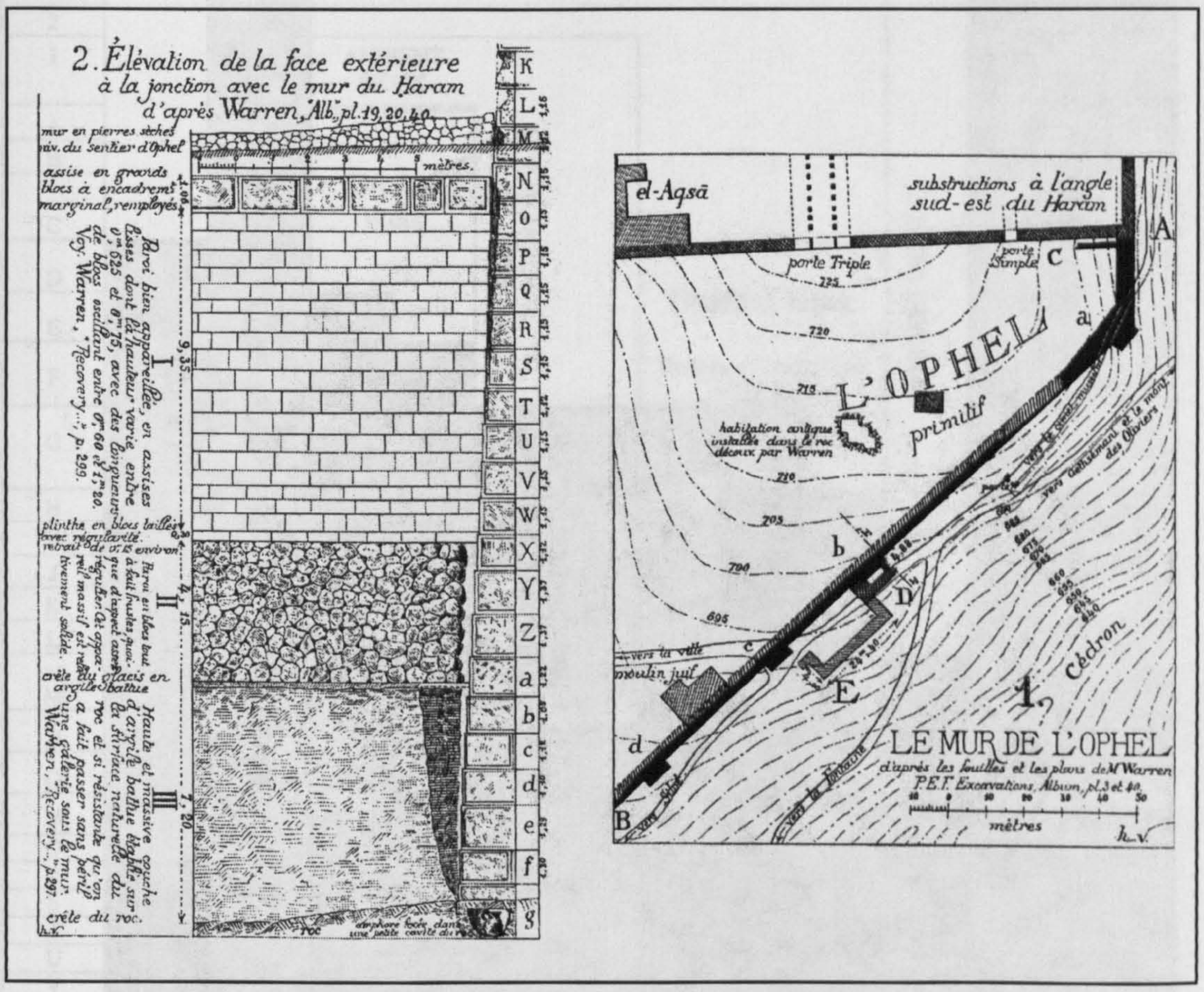
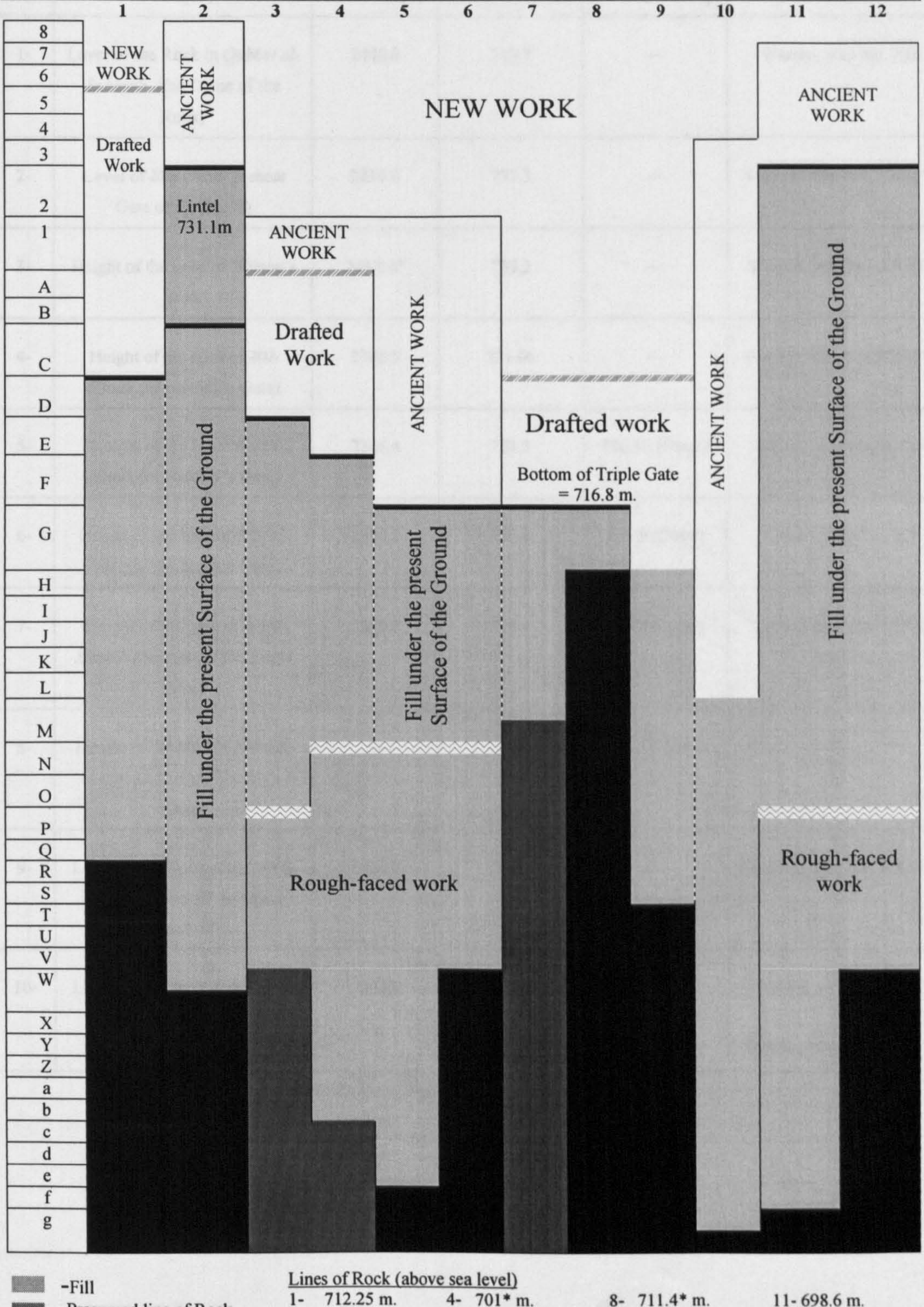


Fig. A. 1 **Al-Aqsa Mosque: Warren's drawing of al-Aqsa Mosque as resulted from his excavations. The picture on the left-hand side shows the courses of masonry of the south-eastern corner of the enclave as numbered by Warren and the picture on the right-hand side shows the plan of the south-eastern corner of al-Aqsa enclave.**

Source: Warren, 1884, Excavations Album/ plate 3, 19, 20, 40.

Table A.1 **The height of stone courses of the walls of al-Aqsa enclave as exposed by Warren on site and in several excavation shafts.** (Source: Warren, 1970, p120)

N0. of letter given to each course	Wilson's Arch	*Bāb Hittah* (or Barclay's Gate)	S.W. Angle	19.7m. east of S.W. Angle	27.5m. east of S.W. Angle	65m. east of S.W. Angle	West of *ABāb Mihrāb Mariam*	*ABāb Mihrāb Mariam*	Present Single Gate	S.E. Angle	South end of Tower, N.E. Angle	N.E. Angle, 5.8m. to south
	1	2	3	4	5	6	7	8	9	10	11	12



Lines of Rock (above sea level)

1- 712.25 m.	4- 701* m.	8- 711.4* m.	11- 698.6 m.
2- 702.2 m.	5- 698 m.	9- 725.5 m.	12- 709.3 m.
3- 707.2* m.	7- 707.9 m.	10- 719.6 m.	(* = Presumed)

A.2. ELEVATIONS ON AL-AQSA MOSQUE

Table A.2 **Levels of al-Aqsa enclave (above the Mediterranean Sea level) (30.38 cm. = 1.0 foot).** (Source: http://www.templemount.org/table1.html)

Description

No.	Subject	Level in feet	Level in metres	Current survey	Sources and notes
1-	Level of the Rock in *Qubbet al-Sakhrah* (the Dome of the Rock)	2440.0	743.7	—	Warren, map No..XII
2-	Level of *Bāb Dāūd* (present Gate of the Chain)	2419.0	737.3	—	Warren, map No..XXXIV
3-	Height of the apex of Wilson's arch	2412' 4"	735.3	—	Warren, map No..XXXII
4-	Height of the apex of *Bāb Hittah* (or Barclay's Gate)	2398.5	731.06	—	Warren, map No..XXXIV
5-	Height of the base of *Bāb Hittah* (or Barclay's Gate)	2366.4	721.3	720.10 (Caspi)	Warren, map No..XXXII
6-	Height of the base of *Bāb al-Nabī* (or the Double Gate)	2380.1	725.4	725.9 (Caspi)	Warren, map No..XX
7-	Height of the base of *ABāb Mihrāb Mariam* (or the Triple Gate)	2380.0	725.4	725.9 (Caspi)	Warren, map No. XXVI, XXVII
8-	Height of the base of *Bāb Dār Umm Khalīd* (or Warren's Gate)	—	—	728.6 (Caspi)	—
9-	Level of the Rock at the north-eastern corner of al-Aqasa enclave	2460.0	749.8	—	Warren, map No. XXVII
10-	Level of the Rock at the north-eastern corner of al-Aqasa enclave	2434.0	741.2	—	Wilson, map No. 1864 Warren, map No. XXXVII

APPENDIX B: SOME ILLUSTRATIONS OF AL-AQSA MOSQUE.

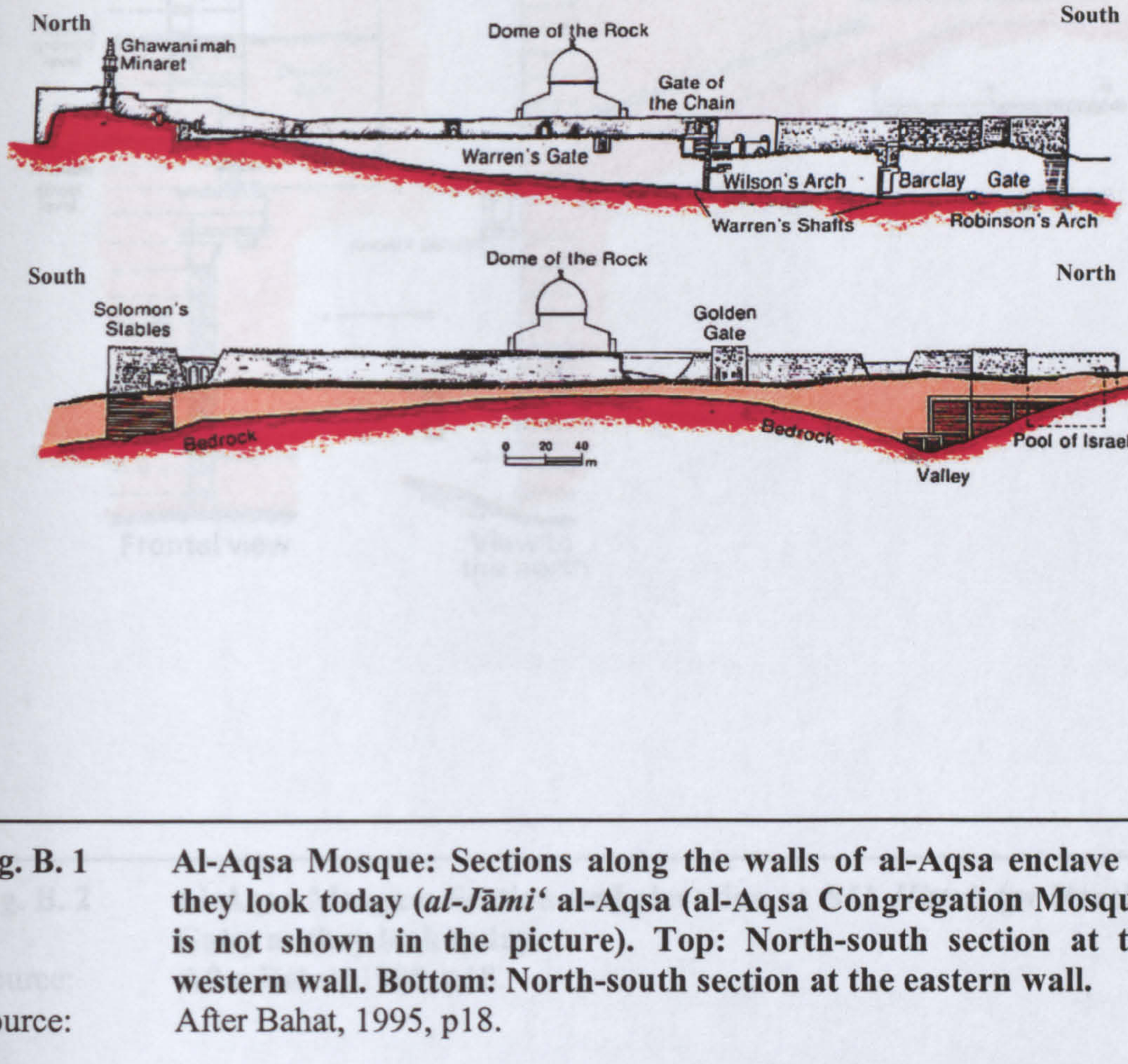


Fig. B. 1 **Al-Aqsa Mosque: Sections along the walls of al-Aqsa enclave as they look today (*al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) is not shown in the picture). Top: North-south section at the western wall. Bottom: North-south section at the eastern wall.**

Source: After Bahat, 1995, p18.

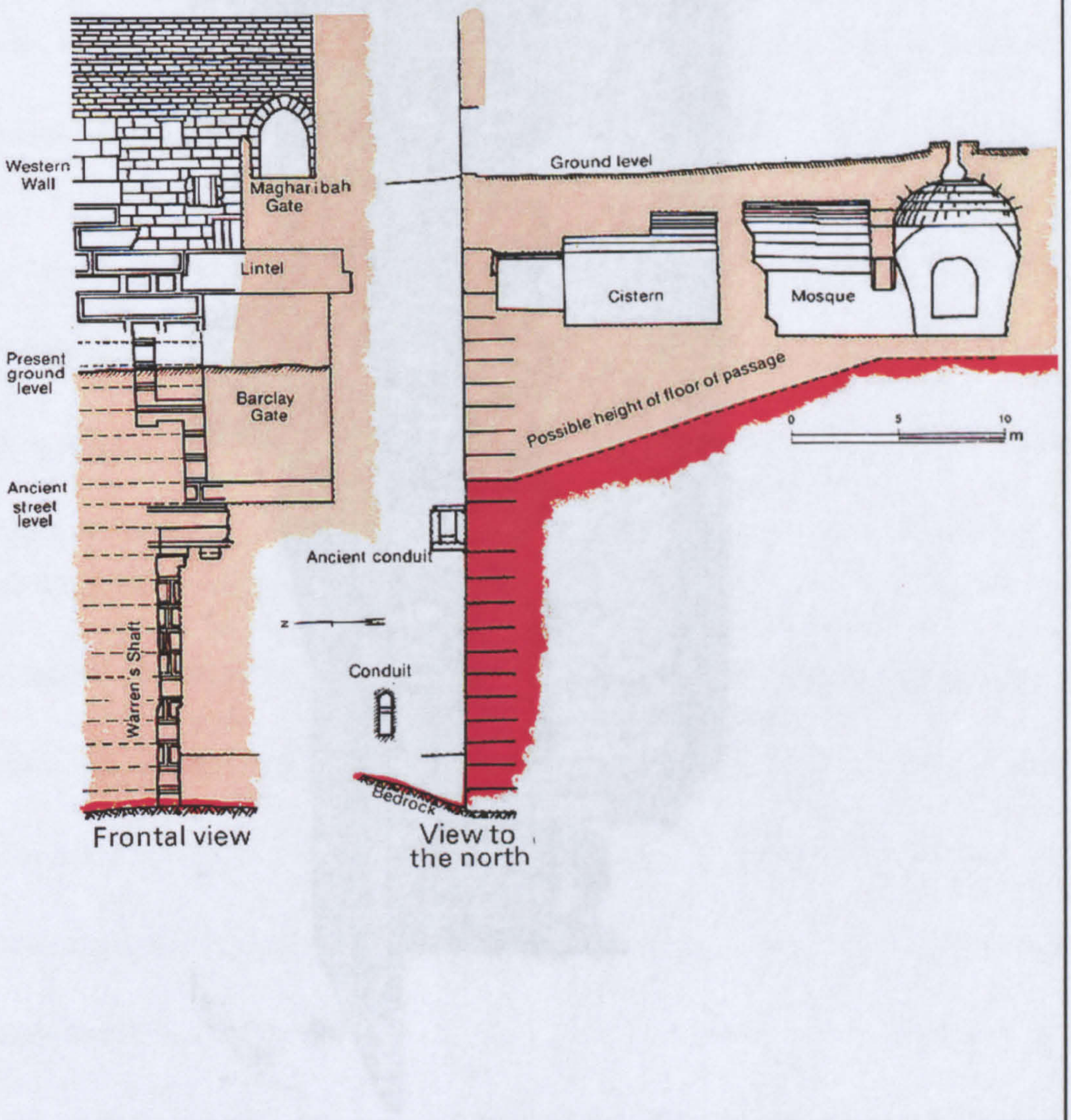


Fig. B. 2 **Al-Aqsa Mosque: Section and elevation at *Bāb Hittah* (or Barclay Gate) as they look today.**

Source: After Bahat, 1995, p18.

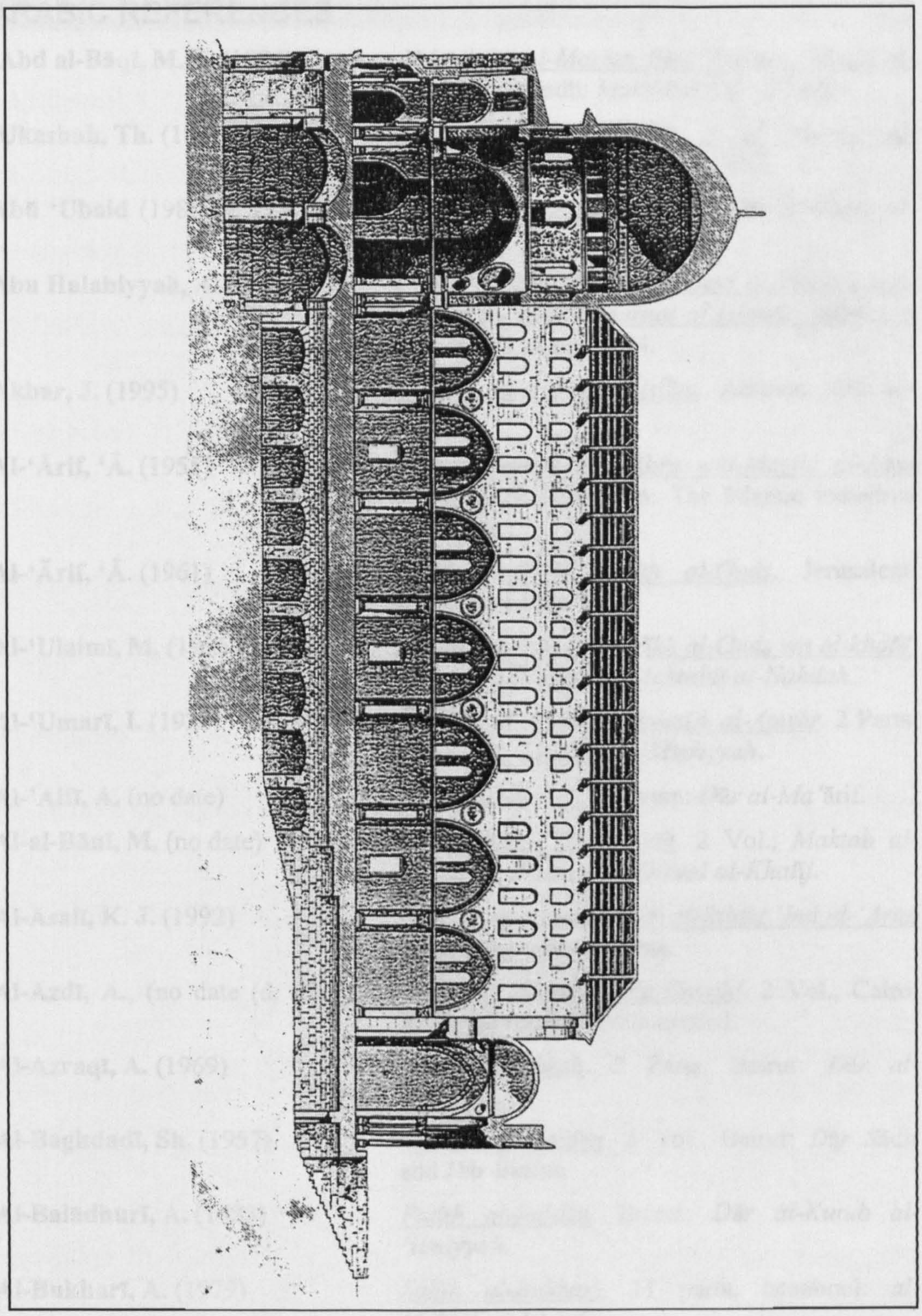


Fig. B. 3 **Al-Aqsa Mosque: North-south section through *al-Jāmi'* al-Aqsa (al-Aqsa Congregation Mosque) and *Bāb al-Nabī* (or the Double Gate) below it as it looked in the middle of the 19th century AD.**

Source: Melchior de Vogüé, 1864, plate XXXI.

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