

2

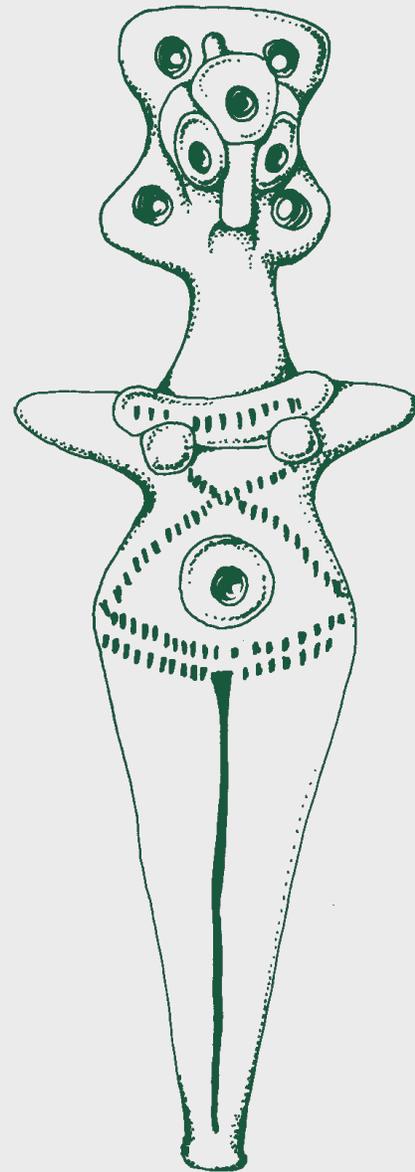
ICAANE

Proceedings of the 2nd International Congress
on the Archaeology of the Ancient Near East

Volume 2

Islamic Archaeology, General

Islamic Archaeology, Symposium



Department of History and Cultures, University of Bologna
Eisenbrauns

*Proceedings of the 2nd International Congress on
the Archaeology of the Ancient Near East*

22-26 May 2000, Copenhagen

ALMA MATER STUDIORUM – UNIVERSITY OF BOLOGNA

ORIENTLAB
SPECIAL ISSUE

DEPARTMENT OF HISTORY AND CULTURES

*Proceedings
of the
2nd International Congress
on the
Archaeology of the Ancient Near East*

22-26 May 2000, Copenhagen

Volume 2

Islamic Archaeology, General
Islamic Archaeology, Symposium

Edited by

Ingolf Thuesen

with the assistance of Alan George Walmsley

Department of History and Cultures, University of Bologna / Eisenbrauns
Bologna
2016

OrientLab. Special Issue

www.orientlab.net/pubs

© 2016 The individual authors

Cover image: Middle Bronze IB female clay figurine 5A847 from Tomb II at Hama (after N. Marchetti, *La coroplastica eblaita e siriana nel Bronzo Medio. Campagne 1964-1980. Materiali e Studi Archeologici di Ebla V.* Roma 2001, pl. CCXLI: 1)

Jointly published by the Department of History and Cultures and Eisenbrauns

Department of History and Cultures, Alma Mater Studiorum – University of Bologna

www.disci.unibo.it

Eisenbrauns Inc., Winona Lake, Indiana

www.eisenbrauns.com

ISBN 978-88-6113-006-7

doi: [10.12878/orientlabsi2icaane-2](https://doi.org/10.12878/orientlabsi2icaane-2)

Contents

VOLUME 1

Preface	xi
INGOLF THUESEN	
Introduction	xiii
INGOLF THUESEN	
 <i>Section I: The Environment</i>	
The Landscape Archaeology of Jordan—Early Villages, Towns and Cities: Opening Speech	3
ZEIDAN A. KAFABI	
Policy, Activities, and New Archaeological Discoveries in Israel	11
UZI DAHARI	
Five Years of Archaeology in Palestine	23
HAMDAN TAHA	
Housing First Farmers: The Development and Evolution of Built Environments in the Neolithic of the “Hilly Flanks”	29
E. B. BANNING	
From Pre-Halaf to Halaf—The Changing Human Environment in the Khabur Headwaters, Northeastern Syria.	41
OLIVIER NIEUWENHUYSE AND ANTOINE SULEIMAN	
Climatic Variability and the Logic of Ancient Settlement Patterns	55
FRANK HOLE	
Tribal and State: The Changement of Settlements and Settlement Pattern in Upper Mesopotamia during the 3rd and 2nd Millennium B.C.	67
JAN-WAALKE MEYER	
Climate Change and the Aegean Bronze Age.	81
JENNIFER MOODY AND L. VANCE WATROUS	
Animal Remains from the Middle Bronze and Iron Age settlements at Tell Tuqan (Syria).	95
CLAUDIA MINNITI	
Archaeological Survey around the Jabal Harûn—Comparison of Methodology and Survey Strategies	109
M. LAVENTO, A. SIIRIÄINEN, H. JANSSON, S. SILVONEN, P. KOUKI, AND A. MUKKALA	
An Unexpected Window of Opportunity for Settlement on the Red Sea Coast of Yemen in the Mid-Holocene	123
EDWARD J. KEALL	

Climate, Weather and History (Summary of a Workshop Held on May 23rd 2000).	137
B. BRENTJES	
Desertification and Cultural activity—Interactions in the West African Sahel	139
HANNELORE KUSSEROW	
Origin of Cattle Pastoralism in Africa—Chronological and Environmental Aspects.	147
BALDUR GABRIEL	
 <i>Section II: Images of Gods and Humans</i>	
Gods and Humans in Mesopotamian Art:	
A Communication System through Visual Expression	153
PAOLO MATTHIAE	
Images of Mesopotamian Gods and Kings: Light, Radiance and The Limits of Visual Representation	167
IRENE J. WINTER	
The Case of The Missing Cult Statue	181
JUDY BJORKMAN	
Archaeology and Ancient Israelite Iconography:	
Did Yahweh Have a Face?	191
WILLIAM G. DEVER	
La communication du roi avec les dieux célestes: quelques remarques sur une imagerie courante dans la glyptique paleo-babylonienne	203
SILVANA DI PAOLO	
Style and Prestige in the Early Dynastic Society.	213
DOMINIK BONATZ	
Nimrud-Kalakh and Ancestor Worship	227
B. BRENTJES	
A 'New' Near Eastern Bronze from Olympia	231
ELEANOR GURALNICK	
Diversity in Ammonite Religious Iconography.	243
P. M. MICHÈLE DAVIAU	
Mermaids and Squatting Women: Interlacing Motifs between Prehistoric Mesopotamia and Medieval Europe	263
FRANCES PINNOCK	
Divine Symbols or Apotropaic Animals? A Contextual Approach to Animals in Babylon	275
CHIKAKO ESTHER WATANABE	
Near Eastern and Egyptian Iconography for the Anthropomorphic Representation of Female Deities in Cypriote Iron Age Sanctuaries	289
ANJA ULBRICH	
Reproducing a Foreign Dress. A Short Evaluation of the Archaic Cypro-Egyptian Kilt	305
FANNI FAEGERSTEN	

Section III: The Tell

The Birth of a Tell. Site Formation Processes at Tell Shiukh Fawqani (Upper Syrian Euphrates)	323
MAURO CREMASCHI AND DANIELE MORANDI BONACOSSÌ	
The Afterlife of Tells	337
RAPHAEL GREENBERG	
Archaeological Stratigraphy. Analysis and Interpretation of Ancient Near Eastern Settlements. A Summary	345
DAVID WARBURTON	
'Tell' Stratigraphy: A 'Post-Processual' Alternative?	349
ILAN SHARON	
Adobe in the Jordan Rift Valley	361
KONSTANTINOS D. POLITIS	
Architecture as Source of Chronological Information	377
BUSHRA FARAH-FOUGÈRES	
The "Kranzhügel" Culture: Fact or Fiction?	391
ALEXANDER PRUSS	
Estimating Ancient Settlement Size: A New Approach and Its Application to Survey Data from Tell Halula, North Syria	405
MANDY MOTTRAM	
Planning Activity in Ancient Mesopotamia, Some Questions and Hypotheses . . .	419
R. DOLCE AND F.M. NIMIS	
From Monument to Urban Complex: The City of Ebla as Symbol of Royal Ideology	435
A. DI LUDOVICO, D. NADALI, A. POLCARO AND M. RAMAZZOTTI	

Section IV: Excavation Reports and Summaries

Four Seasons at Gavurkalesi.	445
STEPHEN LUMSDEN	
Şaraga Höyük 1999 Salvage Excavations.	467
KEMAL SERTOK AND FIKRI KULAKOĞLU	
From Tell Khoshi (Iraq, Sinjar) to Tilbeshar (South-East Turkey), 3rd Millennium Urbanism of the Jezireh	483
CHRISTINE KEPINSKI-LECOMTE	
Canals and Drains. Sewers in the Early Jezireh Palatial Complex of Tell Beydar	489
MICHEL DEBRUYNE AND VÉRONIQUE VAN DER STEDE	
Recherches récentes dans le Moyen-Euphrate: Terqa et Masaikh (1999)	501
OLIVIER ROUAULT	
The Excavation of the Northern Fortress at Tell Mardikh-Ebla	515
S. BRACCI, S. DI PAOLO AND C. PEZZETTA	
L'acropole de Tell Mardikh à l'époque perse achéménide	529
MARCO ROSSI	

The Prehistoric Settlement Patterns of the Rouj Basin.	541
AKIRA TSUNEKI	
The Syrian-Italian-German Mission at Tall Mishrife/ Qatna:	
Results of the first season in 1999	553
AMMAR ABDULRAHMAN, MARTA LUCIANI, DANIELE MORANDI BONACOSSO, MIRKO NOVÁK AND PETER PFÄLZNER	
Excavations at Wadi Mataha: A Multi-component Epipalaeolithic Site in Southern Jordan.	569
JOEL C. JANETSKI AND MICHAEL CHAZAN	
Preliminary Report on the Third and Fourth Seasons of Excavations of the Italian-Palestinian Expedition at Tell es-Sultan/Jericho, 1999 and 2000	581
NICOLÒ MARCHETTI, LORENZO NIGRO AND HAMDAN TAHA	
Tel Rehov: The Contribution of the Excavations to the Study of the Iron Age in Northern Israel	599
AMIHAI MAZAR	
New Results from the Excavations at Tell el-Ghaba, North Sinai, by the Argentine Archaeological Mission (1998-1999)	619
PERLA FUSCALDO	
A Recently Discovered Cemetery at Tell el-Dab'ā	625
IRENE FORSTNER-MÜLLER	
 <i>Section V: Varia (Chronology, Technology, Artifacts)</i>	
Staggered Development and Cultural Mutation	635
LUC WATRIN AND O. BLIN	
Traders, Warriors and Farmers: Reanalyzing the Egyptian Expansion into Southern Palestine at the end of the Fourth Millennium.	661
LUC WATRIN	
La transition du Bronze Récent II au Fer I dans le Sud de la Palestine: étude des processus.	689
MICHAEL JASMIN	
A Middle Kingdom Settlement at Ezbet Rushdi in the Egyptian Nile Delta: Pottery and some Chronological Considerations	699
ERNST CZERNY	
Stratum b/3 of Tell el-Dab'ā: The MB-Corpus of the Settlement Layers	711
KARIN KOPETZKY	
From Canaanite Settlement to Egyptian Stronghold: The LB I–IIA Ceramic Corpus from Tel Beth Shean.	721
ROBERT A. MULLINS	
The Pottery of Level 12 from Tell 'Arqa in North Lebanon	733
HANAN CHARAF	
The Organisation of Pottery Production at Middle Assyrian Tell Sabi Abyad, Syria: a Brief Sketch	745
KIM DUISTERMAAT	

The “Black Top Pottery” from the Gaziantep Region: Pottery Distribution and the Expansion of the Akkadian Empire	757
RYOICHI KONTANI	
Vorläufiger Bericht über die römisch-kaiserzeitlichen und spätantiken Tonöllampen aus Seleukeia Sidera in Pisidien (Südwesttürkei)	765
ERGÜN LAFLI	
Human Agency in Prehistoric Technological Development. A Case Study of PPNB Plaster Production	779
LEA REHHOFF-KALISZAN	
The Bronze Age Moulds from the Levant: Typology and Materials	789
SILVIA FESTUCCIA, GIUSEPPE FIERRO, GIOVANNI GERBASI AND MAURIZIO PALMISANO	
Excavations at Pyrgos/Mavroraki Cyprus: The Metallurgical Installation of Early-Middle Bronze Age	803
MARIA ROSARIA BELGIORNO	
Iron Smelting and Smithing in Northern Syria: the Context and Its Interpretation	823
MARTA LUCIANI	
Worked Bones At Tell Mardikh-Ebla. Objects and Tools from the Early Bronze to the Iron Ages: Preliminary Remarks on Typology, Function and Archaeological Context	839
LUCA PEYRONEL	

VOLUME 2

Section VI: Islamic Archaeology, General

Archaeology of the Islamic Period: Opening Speech.	3
CLAUS-PETER HAASE	
Caesarea Maritima and the Sea-Borne Trade During the Early Islamic Period	9
YAEL ARNON	
The Pros and Cons of Using Written Texts in Islamic Archaeological Enquiry.	23
INGRID HEHMEYER	
Les réseaux hydrauliques des Marges Arides de Syrie du Nord: exemples de ‘Umm al-Qalaq et Ma’aqar al-Shamali.	35
MARIE-ODILE ROUSSET	
Erste Überlegung zum Stuckdekor in Kharab Sayyar.	51
JAN-WAALKE MEYER	
Una documentazione archeologica dell’espansione aghlabita da Baghdad verso occidente	65
ENRICA FIANDRA	
La produzione ceramica del periodo aghlabita a Leptis Magna (Libia)	81
ANNA MARIA DOLCIOTTI	
Karawanen-wege und Karawanen-bauten im Nahen Osten.	93
WOLFRAM KLEISS	

Islamic Iconography in a Nomadic Funeral Context	111
INGE DEMANT MORTENSEN	

Section VII: Islamic Archaeology, Symposium

The Umayyad Congregational Mosque and the Souq Square Complex at Amman Citadel. Architectural Features and Urban Significance	121
IGNACIO ARCE	
Water Systems and Settlements in the Badiyat al-Sham	143
ALISON BETTS	
The Citadel of Aleppo: The Islamic Periods	157
JULIA GONELLA	
Making the Invisible Visible: Nessana in the Early Islamic Period	171
JODI MAGNESS	
Islamic Archaeology in Lebanon	179
SAMI AL-MASRI	
The Change of Caliphate Ideology in the Light of Early Islamic City Planning.	193
MIRKO NOVÁK	
‘Al-Hayr’ in Abbasid Iraq	217
ALASTAIR NORTHEGE	
Approaches to the Islamic Built Heritage.	231
ANDREW PETERSEN	
Umayyad Building II in Jerusalem.	243
KAY PRAG	
Early Islamic Arsuf: The Archaeological Aspect of an Urban And Maritime Centre of the Eastern Mediterranean Shore.	253
ISRAEL ROLL	
The Contribution of “Light” Archaeology to the Study of Fortified Sites in Northern Syria	269
CHRISTINA TONGHINI	
The Ancient Macellum of Gerasa in the Late Byzantine and Early Islamic Periods: The Archaeological Evidence	281
ALEXANDRA USCATESCU AND TERESA MAROT	
Then and Now—Now and Then: Strategies for Islamic Archaeology in the 21st Century	307
ALAN WALMSLEY	
2nd ICAANE Programme	315

SECTION VI

Islamic Archaeology, General

Archaeology of the Islamic period: Opening Speech

CLAUS-PETER HAASE

Carsten Niebuhr Institute, University of Copenhagen

In the context of a Congress of the Archaeology of the ancient Near East, the Islamic period which so boldly reaches into our own age means to some colleagues the study of things which one should remove as quickly as possible: first, because these things sometimes disturb, we admit, the easy and methodological approach to the development of cultures by chronology, as archaeology often—but not always—inverts this chronological approach by starting with the earliest periods; secondly medieval monuments tend to stand up wholly or nearly complete; and whereas archaeologists easily remove a Neobabylonian ruin—after having produced plans and some drawings—for getting at the level of a supposed old Babylonian palace, it needs more discussion and thoughts – that means costly time—to handle a medieval high palace for reaching at a possibly Sasanian level beneath it—at least one unique example of the Mongol period was sacrificed for that reason; or one has to think of costly methods to dig under the foundations of a mosque without too great disturbances of its daily function. Difficulties after difficulties.

These problems I notice myself—with the most generous sponsoring of the professorship for Islamic art and archaeology at Copenhagen's University by the David Foundation, students of Art History, Oriental Studies and Near Eastern Archaeology are invited to add this new field to their studies, and I think the considerable number of participants in the Islamic section of this Congress demonstrates the actuality of the rather recent subject. A small group of students from Copenhagen have already joined me in the mediaeval excavations of Madinat al-Far/Hisn Maslama in Syria—but apparently especially Near Eastern archaeologists show a certain reluctance to study walls standing up for more than 30 cm and complete objects. The more we appreciate the invitation of the preparatory committee for this Congress to open this section as one of the first experiments with the subject; the first general *Congrès de l'archéologie Islamique* in Cairo in 1992 had not yet found its regular continuation.

The workshop Alan Walmsley has kindly organized for this Congress will deal with many future aspects of the field, so we may briefly consider three more basic questions:

Why should one study Archaeology of the Islamic periods, how could one do this with reasonable specialization, and finally who might do this—this will be a provocative question, with respect to whether it should be done with a special inclination and whether there are some who should not do it.

Why should one study Archaeology of the Islamic periods?

As a living culture, the Islamic world shows its multicultural mixture and the many political and economical attractivities and problems until today, its “archaeology” is of an

indigenous as well as of an external interest—indigenous: archaeology contributes as one major factor to the feeling of identity for various countries and peoples; high emotions are well understandable in detecting the history and origins of places of heroic deeds, in materializing the original life attributed by certain symbols to the ancestors of a particular community, in showing holy places of venerable fame and sometimes their shift from one community to another etc. The "external" interest helps in the understanding of exactly these emotional attitudes towards history.

The complicated history of many Oriental regions which were so attractive to several indigenous peoples and to Western and Eastern expansionist forces has brought a seemingly unsolvable interlace of cultural life and symbols—the rise of Islam in the 7th–8th centuries as an epochal political force gives the overall name to their history and general culture. This, even if it does not mean that other and older cultures and religions are not living on in the same regions, I think is justified, as we notice that the products and buildings in the medieval periods are to a great extent marked by a new formal and stylistic uniformity common to all communities under Muslim political government, sometimes in a sort of "imperial style".

The Arab term *athar* may help in defining one of the new elements spread by the new forces: a Nomad, better the newly defined "Beduin" tribal culture which in several parts guided the strategic success of early Islamic conquests—and its material relics show how complicated its study is: the term leads us into Arab poetry of high emotions and reflections on the fugitiveness of material culture. The Arabic sources themselves describe in a stylized way the success of the Beduin rogues against the highly sophisticated Byzantine and Sasanian court culture, how they peaked their spears into brocade cushions—and in the end, just about half a century later, the successful Arabic Umayyad caliphate had adapted and reshaped to fresh function these same Byzantine and Sasanian traditions, was founding cities in Hellenistic outlines and mixing ancient Oriental traditions from various regions like Mesopotamia and Egypt with Byzantine, Iranian, Central Asiatic and Far Eastern elements of art and culture. Its older cities remained populated by Christians of various confessions, Jews, Muslims and Neomuslims, the new city foundations attracted obviously different communities as well, though no official cult places were conceded. With some severe losses, this cultural mixture under an interregional, unifying domination remains vivid until today in many Islamic countries.

The Islamic style was not only expressed in the new architectural forms of mosques—in the decorative arts an example of the interregional unifying element from late Umayyad or early Abbasid 8th century building ornament may be seen in stucco decorations in the Mesopotamian style, to be found spreading into Syria, Egypt, as well as to Iran and Central Asia, slightly reshaped as a sentimental record also in the Umayyad caliphate of Spain/al-Andalus. Apparently the effect was produced by wandering workshops of craftsmen who may have followed the Arab warriors.

The interlaced identities of the several religious and ethnic communities can be followed up archaeologically or art-historically, if one looks carefully enough or is lucky enough to detect their symbols. But in general, most architectural features of profane as well as sacred buildings of the different communities under Islamic dominion become the same, the differentiation lies mainly in inscriptions and symbols and a few architectural features; even functional forms like prayer niche, Thora niche and Zoroastrian dome over the altar are in certain periods being interchanged among the designers. This means, that styles and the architectural or other workshops producing them were accepted more or less

by all who could afford it. We should try to study more of the reasons for this complexity, and should not forget to compare the similar developments in Europe in certain periods. It is more difficult to remain serious, if someone wants eagerly to find a proof for some idea, ideology or theory. When someone studies one of the great so-called Mamluk carpets and finds in marginal position a trifle plant (“trifolium”), which also appeared in old Egyptian representations and as a hieroglyph, the proof for the “Egyptian genuity”, we are not so much impressed (it was not an Egyptian scholar, by the way). Also the idea of connecting representations of a prehistoric goddess or adorant woman on wall paintings with ornaments on some Turkish or Kurdish kelims, and its implications, will not correspond to severe methodological scrutiny, but it has found enthusiastic echoes among collectors and nationalists’ fiction of a Kurdish or even Turkish presence in Antaolia since the late Neolithic.

We have crossed the borders to art history, which will usually happen if the archaeologist wishes to define and compare his so-called small object finds. The two groups of scholars often don’t like each other, but this may be amusing for students and these might profit from their methodological quarrels. There is more “exterior” interest in the archaeology: with all technical means and help we could try to define the interactions in technological development for getting to know the long distant or peripheral contacts in trade, arts and crafts and sciences between certain regions, e.g., in ceramic techniques, their origins and the reasons for their development. Here again the David Foundation is to be mentioned as one of the institutions which have allowed laboratory investigations of a series of their ceramics, the results of which seem to be most promising and should be made public as soon as possible.

The study of interrelationship, of cross cultural contacts and their effects on production and aesthetics appears to be easier from outside the patrimony of a region, I dare say. As Islamic political rule dominated one of the greatest coherent Empires between East and West, and for some period even under one ruler as the Caliph, and as this situation promoted multifold contacts between very different cultures, it offers most exciting insights into the various stages of their effects, into the roots of “advance” and change in East and West, and into the reasons for stagnation and disruption. Also the varying effects of such contacts on the different regions of the Islamic World are more precisely to be studied from material finds in archaeology—how these conveyors of rapid cultural changes themselves reacted on and chose from the seductions of neighbouring achievements.

How to study archaeology of the Islamic periods?

Speaking as a representative of a very small country, Denmark, the necessity of concentrating on a restricted choice of subjects, regions or periods is even more obvious to me. Which doesn’t mean that one tries not to adduce as many problems and questions as possible to the available range of material. Also this Congress offers wide Museum contacts and hands-on sessions, and this is an advantage over against Art History congresses, where you are never allowed to lick at certain oil paintings for finding out about their material composition. Now the Islamic period finds from excavations tend to be either stored away in magazines in the local Museums or to be dispersed by find division also in the countries of the excavators (study collections may also be found with the legacy of the excavators). The special workshop will certainly deal with the problem why this amount of material is not satisfying our curiosity about the general aspects of Islamic culture and periods. Even taking the main exhibits of Museum collections as a balance to the village wares from Tell tops—as

they contain at least some courtly pieces of high technical refinement or leading our insight into cross cultural contacts—does not suffice. The selection of early Islamic products is haphazard.

The complexity of questions and problems has risen enormously, and though we may fly more safely and freely than the famous old travelers, many sites, collections and museums remain unknown or inaccessible to us. We are too few specialists, and in many countries or universities this will remain so for the next future. This is unfortunately also true for the universities in Near and Middle Eastern countries. For a long time it was not the primary concern there to offer studies and to do research in Medieval archaeology; Art History had some more success. The outlook was a little bit better in the first half of the 20th century, when several international expeditions and the international staff of universities shaped the interest according to the model of European Medieval archaeology. But great experts of the Near East, like Ernst Herzfeld, Jean Sauvaget, Ugo Monneret de Villard, had very few or no students in this field, none from the Near East.

Special interests and relations allowed for an exception in the Maghreb: until today students from these countries abound in French universities, where there is also a special concentration of offers in the Islamic and archaeological studies. An exception were the extended archaeological and expeditionary activity and the studies in the former Soviet Union Republics, and it would be a great loss indeed if this eminent scholarly tradition would die out because of economic or even political reasons. I don't know whether Donald Whitcomb for example produces enough students to cope with the needs in the several countries, where this subject is not taught at all. And the Danish courage to introduce it to the academic canon of subjects should be crowned by opening Copenhagen's University system for an easier access for foreign students.

A problem is the complexity of study. One person cannot offer sufficient introductions into the wide range of preliminary, methodological and main subjects in the so-called "Islamic archaeology". A combination with Prehistory is always helpful for methodology, classical (field)archaeology, Byzantine and/or early Mediaeval studies would be helpful. The study of Oriental languages is a different approach and especially stimulating for Islamic art history, but for the actual need of archaeologists ("*haffir*", "*futur*" may be sufficient) a co-operation would be more successful. Of course also in mediaeval archaeology the find of epigraphy is a great emotional event—as great as the first cuneiform tablet brought to light on a site, but not as fruitful in sponsorship, unfortunately. The decipherment cannot be left to the local inspector, but in case the home university has cancelled the chair of Arabistics for economic reasons, one might as an emergency ask for help at an Arab university. Still, a travelling epigrapher visiting different campaigns would be acceptable, if he arrives in time.

The very small number of experts in the Near and Middle Eastern countries is regrettable. Training is meanwhile encouraged by all governments, and this should—at least for some time—be a major stimulus for Western universities to accept more students from those countries at their better equipped institutes. There is less reason for a trained Islamic archaeologist to stay in Denmark and not to go home than for a trained medical doctor, perhaps.

Among the difficulties of mediaeval archaeology and monument preservation rising from modern economic projects, the problems of dams, especially at great rivers, are the most serious. Rivers have attracted humans since the beginning, so archaeological remains are very dense there and one could say no space might be left for dam building without hurting some archaeologist. Just to name one example from our subject for the many lost or endangered

sites—the mediaeval city of Hasankeyf/Hisn Kaifa on the Tigris in Eastern Turkey with a bridge, five mosques, a mausoleum, madrasas and houses as well as a large unexplored archaeological area is endangered by a mammoth dam project probably within the next years—at the parallel Turkish National Congress of Archaeology a paper is read pertaining to this problem. Turkish colleagues in this field are equally very few, and they could not convince the government yet to establish a commission and to ask UNESCO help for alternative solutions—we hope to be able to support them as members of this Congress. But surely there are many other cases of imminent and of unknown danger, as one has not sufficiently studied the effect of the floods on different sites and soils. Even monuments still sticking out of the artificial lakes like the submerging Titanic may be endangered, as the sandy grounds give way.

Who may study Archaeology of the Islamic periods?

The “How to study” question hinted already at one of the central items: the interest in things “Islamic”. For some time, in the 17th–18th and in the 2nd half of the 19th centuries it was very fashionable to study, imitate and collect Islamic art, the Persian carpet in many Western homes is the last remnant of it. Since some decades, the success of exhibitions of Islamic art and the study travels into the Orient have been stagnant. There may be several reasons to this; one is an ongoing cliché about the stagnation of Islamic culture in mediaeval forms and about its religious zeal having destroyed much of the by far more appreciated antique and ancient Near Eastern culture. The cliché forgets the difference between some ruling institutions with their coercive power and the multicultural masses of population; also it leaves aside the up and downs of taste and style. It meant a lot of energy to the specialists of history and fiction to counterbalance this *idée fixe*, and the outcome is an intensified conscience of “political correctness”, which still does not seem to be appreciated by the general public of both sides.

Our provoking and stimulating colleague of the seventies, the political scientist Edward Said, has formulated and spread what several ideologists of anti-imperialist movements had postulated earlier, namely, that the interest of outsiders in the “Orient”—this Western or Eurocentric view and curiosity—was rather insensitive to the interests of the countries that were the objects of interest; and that behind the old traveler with his imperial national flag on the tent or the Carsten Niebuhr in his disguise as an Arab (he didn’t mention him, but would have done so if he had read him) lurked the spy ready to inform his government of potential economic riches and military weaknesses abroad. The economic wealth of archaeology is of course found in collectors’ items—but this is a long discussion. I know it is still a touchy subject, and it is no consolation that the debate is not confined to the Near and Middle East. Expressions of political correctness and financial aid for building museums in the Near Eastern countries should have altered the stereotypes, and if a contemporary excavator makes a mistake, the departments should not overreact but apply the normal fines. Thus, one should compare archaeologists to professional athletes—nearly every country buys several foreign champions in order to improve their chances of winning: by skill and training they achieve great success and the national team earns international prestige.

But there are some disturbing examples to the contrary—I just heard about one from a European university, where a Lutheran Protestant was severely criticized for having dealt with a Calvinist subject—he could not have the right feeling for it—by a Calvinist, of course. The idea that national scholarship would deal more seriously and more within the range of

interests of the modern regional culture is fine and could become a matter of discussion. Only it needs to be proven and there are enough serious experts without ideological concerns who can give expertise on this. But one might say that the international standards of scholarship, preservation of monuments and museum work are as broad as to allow for a range of national peculiarities, without the need of ideological claims.

The mutual contacts of Islam and the West were not so friendly in history, and both sides used defamatory attributes for the other. Today it is a matter of conscience and of “learning by lessons from history” to dispense with the historical hatred and not to take differences in ideas and views as offences. In some fundamentalist movements on several sides we experience zealot exaggerations today in the aversion and accuses against “alien” ideas—the “sacred history” is recounted as the ideal status of society by some and archaeological finds are being dealt with in a heuristic way. This sadly affects again cultural monuments of pre-Islamic or pre-Nationalist periods. It needs more attention of the archaeologists to explain their work and to promote a better understanding of international values. It seems as if not all modern approaches try to fulfill this zeal, as a recently published Introduction “*The Archaeology of Islam*” by Timothy Insoll for example shows. This is announced as a “social archaeology” in the old sense of archaeologia as the knowledge of several aspects of a historical culture, but in some chapters is focusing on an ideal contemporary Islamic interpretation of historical material, without hinting at the problems of for example textual authenticity.

Just to quote a remote example for a nationalist utilization of archaeology: Uzbekistan will get no help from the UNESCO as long as its conservators destroy medieval monuments by rebuilding them in concrete. One can apparently reverse the effect of excavation, that is emptying spaces and rooms from debris, into heaping up debris on ruins. That is what the rebuilding of the Great Mosque of Samarqand (“Bibi Khanum”) after more than five hundred years of ruin state in the 90s looks like. And the idea was shaped, we must admit, to the Soviet model of creating “Museum towns” in reconstruction, to demonstrate to tourists and students what feudal life was about.

It is of no help that the aesthetic principles, dimensions and details have been carefully observed—the idea of rebuilding the past on original sites, especially in cheap materials and modern technology, and especially on original sites of great reknown is a distortion of history per se (it is something quite different, if Paul Getty builds a Pompeian villa somewhere in the U.S.). More helpful are the cases where the population has moved out of a village, like in East-Iranian Bam, and a city of mainly 18th–19th century buildings could be preserved in an exemplary manner. And our hope is with the transitoriness of all earthly material, as the Beduins had taught us at the beginning of this mediaeval period.

Selected bibliography

- Insoll, Timothy
 1999 *The Archaeology of Islam (Social Archaeology)*. London.
- Vernoit, Stephen A.
 1997 History of Islamic Archaeology. *Muqarnas* 14: 1–10. Leiden.
- Gayraud, R.P. (ed.),
 1993 *Congrès d'archéologie islamique, Cairo*.

Caesarea Maritima and the Sea-Borne Trade During the Early Islamic Period (~700~1192)

YA^ṢEL D. ARNON
University of Haifa

Abstract

The strategic location of Caesarea along the Mediterranean coast line, with the fertile Sharon plain as its hinterland, raises a legitimate question concerning the existence of a natural or an artificial harbour in Caesarea during the Early Islamic period, although historically undocumented.

The archaeological and geological data unearthed during the last ten years, substantiated beyond any doubts that Caesarea flourished as a city from the mid 9th century on, reaching its apogee at the late 10th and the beginning of the 11th. The great amount of warehouses and the large quantity of imported vessels mostly originated in Egypt, was a mute but real testimony for the city's commercial character. The geological data were indicating that the northern bay was drained and cleaned same time between the 8th and late 9th century. Taking under consideration the archaeological and geological evidence and the existence of the trade route between Egypt and Turkey, it seems that Caesarea situated on the way, enjoyed these trade links and was an integral part of it.

There is no city more beautiful. . . —al-Muqaddasi, 985

A fine city, with running water and palm gardens, and orange and citron trees. Its walls are strong and it has an iron gate. There are springs that gush out within the city. . . —Nasir-i-khusraw, 1047

Preface

Since the dawn of seafaring, the coast has been the line of contact between cultures and often where large-scale commercial activity took place. The cities that emerged along the shore naturally became commercial centers, a fact reflected in their architecture, material culture and their population: from merchants and travelers to those providing a variety of services. The geographical location of Caesarea, by the sea (Fig. 1), with the fertile Sharon plain as its hinterland, was one of the principal reasons for its economic prosperity during the Hellenistic, Roman and Byzantine Eras.

Caesarea, the Capital of Palestina Prima and the last Byzantine stronghold in Palestine, fell to the Arabs' armies in Shawwal- 19 H./September—October 640 C.E., after a prolonged siege (Donner 1981: 153, Marmardji 1951: 169–170). Apparently the new masters of the country maintained the Roman-Byzantine administrative subdivision—Palestina Prima and Palestina Secunda—but gave them new names and new capital cities. Palestina

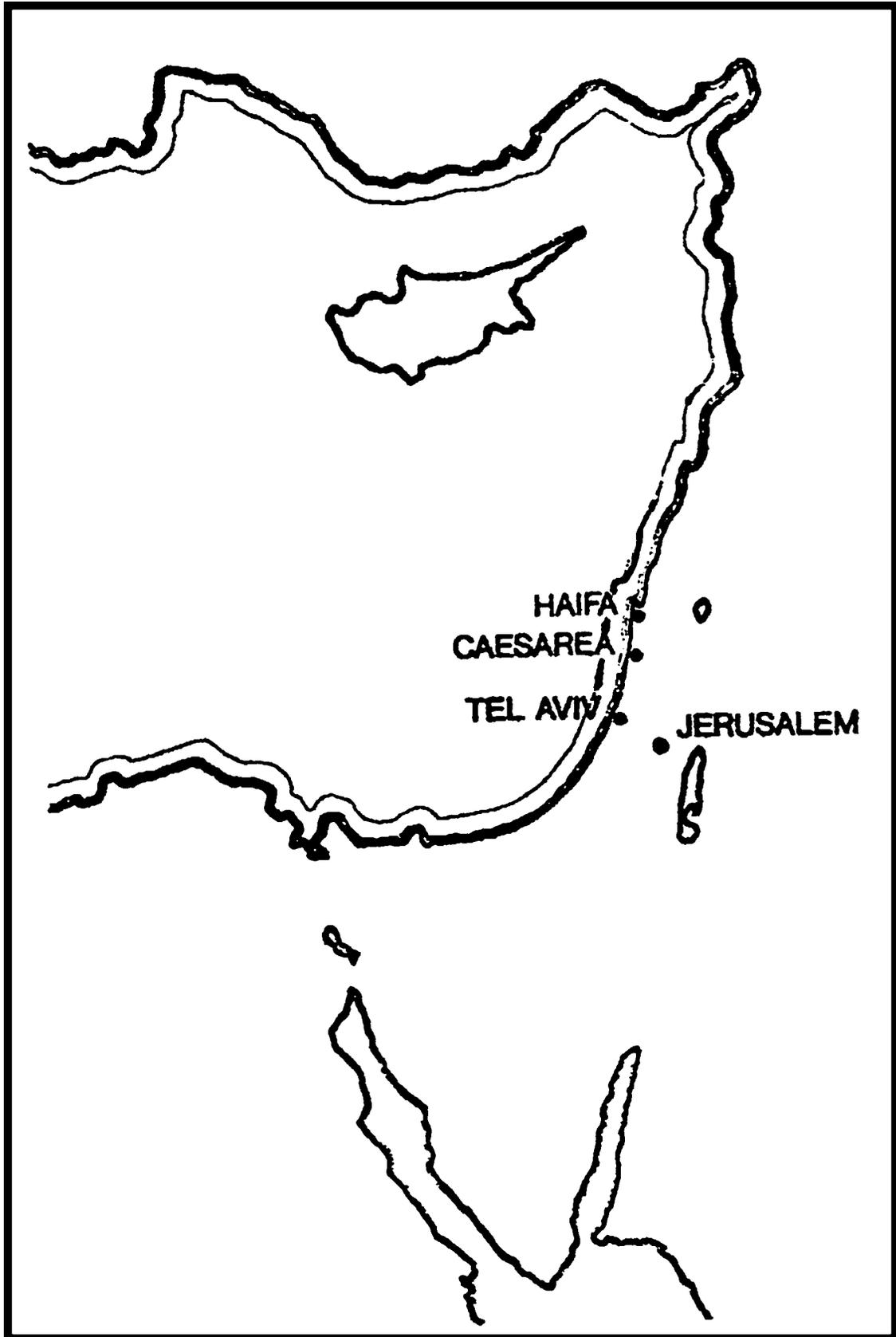


FIGURE 1.

Prima became Jund Filastin—an adaptation of the Roman name—with its administrative capital in Lydda, and later Ramla.

The strategic and economic importance with which the first Moslem rulers viewed the coastal region, led them to repair and rebuild cities that had been damaged during their conquests and in the years that followed. Constructions and rehabilitation began immediately after the conquest, by order of Umar ibn al-Khattab (634–44) and continued intermittently throughout the entire Early Islamic period. Caesarea was among these cities (Fahmy 1966: 52–4, Elad 1978: 57). Unfortunately Caesarea is barely documented in the historical sources. Only few Moslem historians and geographers refer to the city, mainly as for its geographical location. Caesarea is mentioned as one of the important ones at the coast of *Jund Filastin*. and also located on “the highway”, linking *al-Jazira* with Gaza, via northern Syria, the seaports and the coast of the Levant, (Ibn Khurdadhbih 1955: 31–32, Elad 1989: 287). But the descriptions given by the tenth century geographer al-Muqaddasi and by the eleventh century Persian Traveler Nasi-i-Khusrau reflect beyond any thing the economic wealth Caesarea enjoyed (Le Strange 1890: 162–63). In the 11th century Caesarea is mentioned in a letter send from Ramla to Fustat and was found in the Gniaza. The letter was written by a jewish merchant named Jacob b. Salman al-Hariri describing a maritime voyage between Tyre and Jaffa. The passengers were forced to lend and find a shelter in Caesarea anchorage due to a heavy storm (Gil 1992: 251, Gil 1983: 267).

The consequence of the poorly documented historical sources is, that most of the information in this study is driven from archaeological and geological research, conducted at the site during the last 10 years, by the Combined Caesarea Expedition—University of Haifa and the University of Meriland and the Israel Antiquity Authorities (Holum 1988 and Raban and Holum 1996).

Most of the data was unearthed in area I, Located in the silted Herodian Inner Harbour, in areas Z and TP on the Temple Platform and it’s margins and in KK and CC situated to the south of the medieval walls (Fig. 3).

The Stratigraphic sequence

We have a non-disturbed sequence of remains of urban architecture almost everywhere and we have phased the sequence as follows (from top to Bottom):

Stratum		
1	Bosnian	post 1265.
2	Late Crusader	13 C.E.
3a	Early Crusader	12 C.E.
3	Late Fatimid	second half of the 11 C.E.
4	Middle Fatimid	First half of the 11 C.E.
5	Early Fatimid	second half of the 10 C.E.
6	Tulunid and Ikshhidid	Late 9th–Mid 10th C.E.
7	Abbasid	Mid 8th–Late 9th C.E.
8a	Umayyad	Late 7th–Mid 8th C.E.
8b	Early Caliphate	Mid 7th–Late 7th C.E. = Transitional Byzantine/Islamic

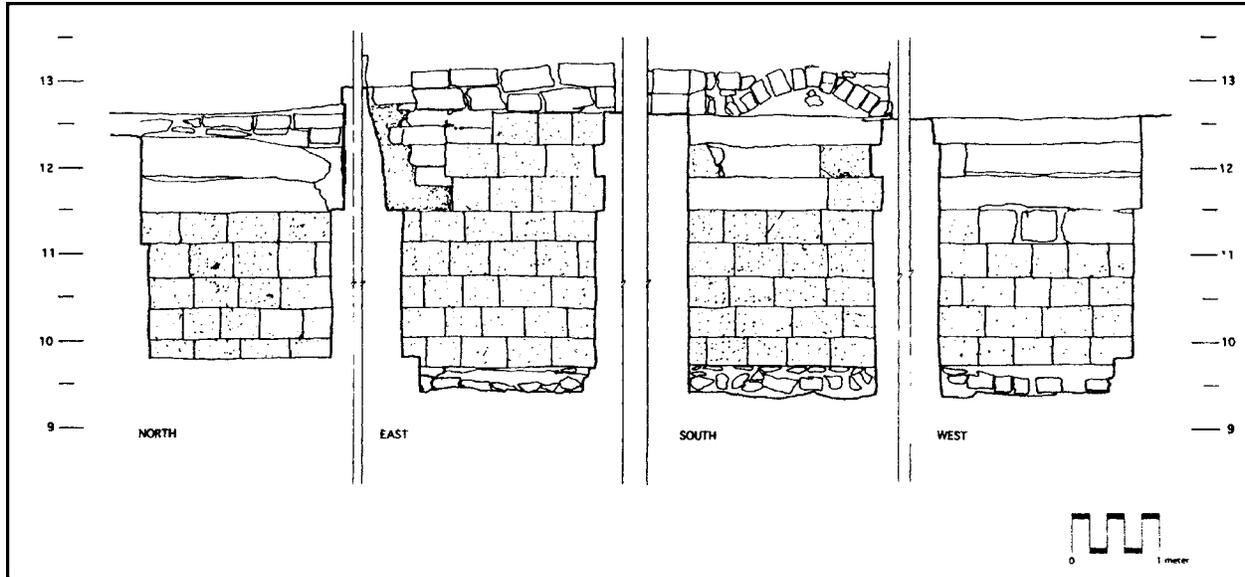


FIGURE 2. Area TP/8, storage bin 8054 elevation. James Solomon drawing.

9	Late Byzantine B	Late 6th–Mid 7th
10	Late Byzantine A	Mid 6th–Late 6th
11	Middle Byzantine	Late 5th–Mid 6th
12a	Early Byzantine B	5th C.E.
12b	Early Byzantine A	Early 4th–5th C.E.
13a	Late Roman	Mid 3rd–Early 4th C.E.
13b	Middle Roman B	Late 2nd–Mid 3rd C.E.
14a	Middle Roman A	Early 2nd–Late 2nd C.E.
14b	Early Roman B	Late 1st–Early 2nd C.E.
14c	Early Roman A	Early 1st–Late 1st C.E.
15	Herodian	Late 1st B.C.E.–Early 1st C.E.
16	Late Hellenistic	2nd–Late 1st B.C.E.

The presented study relates to strata 3 through 8b, all of which are clearly related to the Early Islamic Period and were defined as post conquest occupation levels.

The architectural remains

Area I was occupied by a well planned dwelling quarter which was constructed some times in the second half of the 8th Century (Stratum VII) and existed till the Crusader conquest in 1101 (Stratum II) (Raban et al. 1999). The most prominent architectural element in this area as well as in areas TP and Z, where the subterranean storage (Fig. 2), which were first exposed in stratum V—dated to the second half of the 10th century. This structures appear as singles, pairs, quadruplets and even octets. They are characterized by an excellent water-

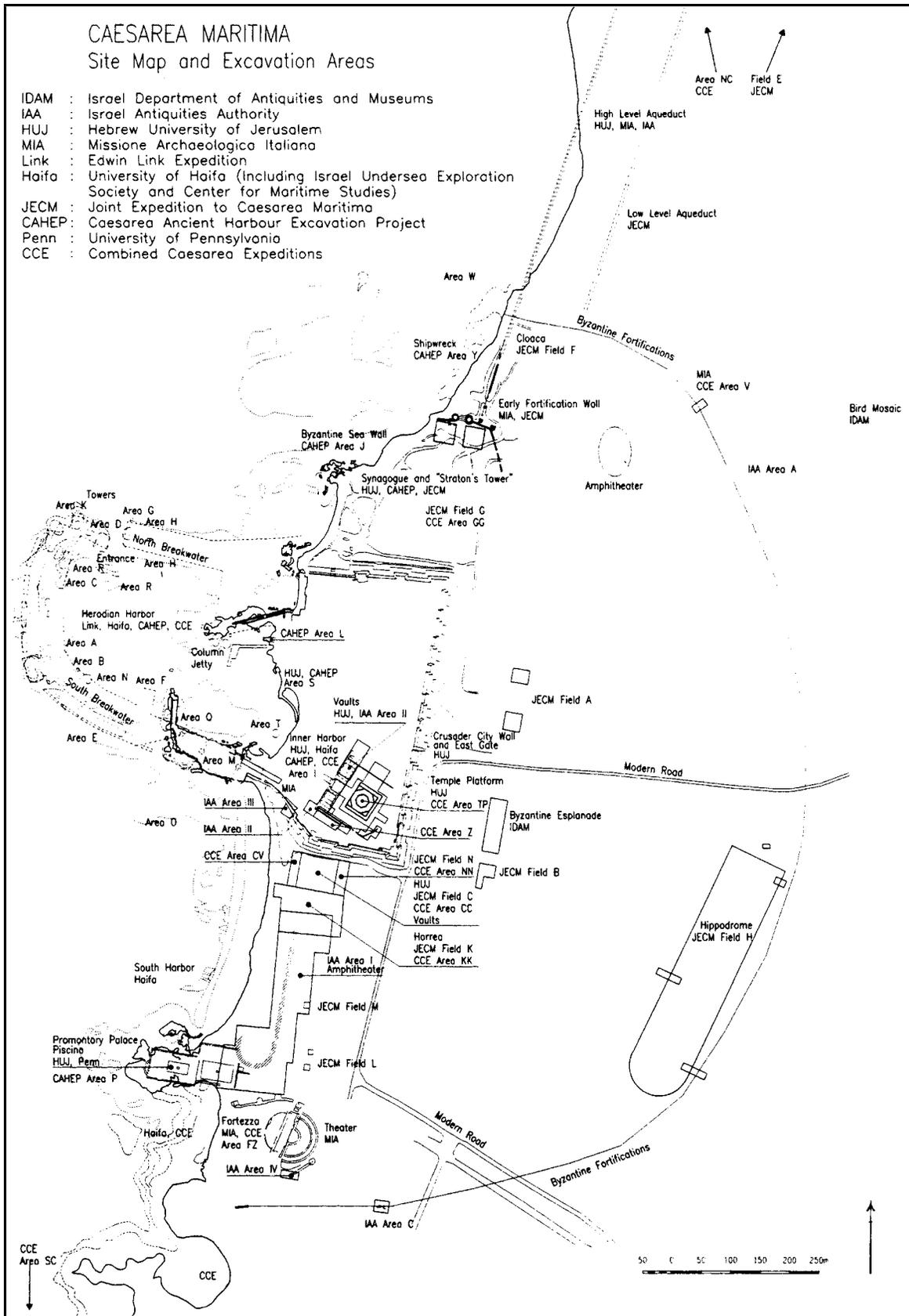


FIGURE 3. Site map and excavation area.

proof construction technique, the walls are ashlar coated and the bottom is covered with a rough mosaic floor containing a hemispherical depression. In most cases the floor is placed on top of a field stone infrastructure. All warehouses with out exceptions were related to a dwelling unit from one side and to the streets from the other. The streets orientation was toward the west meaning to the sea. The storage were found in various magnitudes with an average size of 3 m × 4 m × 2 m height, 80 units were exposed so far.

The content of these structures is not clear yet, but the absence of ceramic remains such as storage jars and the existence of a round depression in the floor, might indicate that the content was of a dry nature and was stored in bulk, may be the grain of the white wheat which is mentioned in al Muqaddasi description (Sharon 1996: 406). What ever will these content be, it is quite clear that the volume of the content is beyond the cities consumption.

The ceramic data

The ceramic evidence was even more convincing as for the existing of any kind of a commercial activity in the city. Types such as: Porcelain, which were revealed in strata V, IV and III and Luster Ware which appeared already in stratum VI, although in small amount, but increased in strata V, IV and III were beyond a shadow of a doubt imported (Fig. 4.1–3). As for the Porcelain, there is no doubt of a far eastern origin, but the Luster Ware could be originated in Iraq or Egypt. All the Caesarea Luster Ware were monochrome painted in olive green and golden brown. Considering the strata they were revealed, and the type of clay they were produced of, and following the studies conducted on the Provenance of the Early Islamic Luster Ware, it seem to us that the Caesarea specimen were originated in Egypt some time after 975 C.E. (Frierman et al. 1979: 111 and Mason 1997: 218–223).

Except of the obvious—petrographic study was carried out in order to locate types that were suspected of a foreign origin.

This section analysis revealed that types such as: “Red slipped”, “Coptic style Color painted” bowls and “Coptic glazed” ware share the same petrographical features, which point to a single provenance or even the same work shop (Figs. 4–5). They are characterized by a pinkish porous past, prepared from schistose, non calcareous, or poorly calcareous shales, abundant of a polymineral nature distribution, which seems consistent with an Egyptian origin. The same mineral features appear in “fine Coptic Ware” description (Ballet and Scanlon 1991: 481) and in the Bronze age vessels studied by Ne'omi Porath and were distinguished as Nilotic clay (Porath 1988: 52).

The “Red slipped ware” and the “Coptic style color painted” vessels (Fig. 4.4–7) that first appear in Egypt in the Byzantine era (Hayes 1972: 387 and Egloff 1977: Pl.40.8), were exposed in 8th and 9th centuries occupation levels as well in Alexandria and Fustat (Rodziewicz 1976: Pl.26.23 and Kubiak and Scanlon 1986: 37). According to Rodziewicz, glazing on decorated Coptic vessels namely, “Coptic Glazed” ware (Fig. 5.1–2) appear already in Alexandria at the 8th century and rapidly replace the unglazed ones. Towards the 9th century they are exclusive (Rodziewicz 1983: 73–75). The “Coptic Glazed” ware share very good parallels in Egypt and Trans Jordan (Hitcomb 1989: 182, and 1988: Fig. 1.3j, Walmsley 1991: Fig. 5.5–7 and Rodziewicz 1984: Fig. 346.1–6). The first two types were exposed in strata VIII and VII, while, the glazed one started to appear in stratum VII.

Assuming that no trade in raw materials was carried on, it is quite reasonable to suggest that these type of ware were imported. Moreover, following Rodziewicz's study on clay types from Alexandria, Scanlon's report from Fustat and Mason's study on the Pottery from Fus-

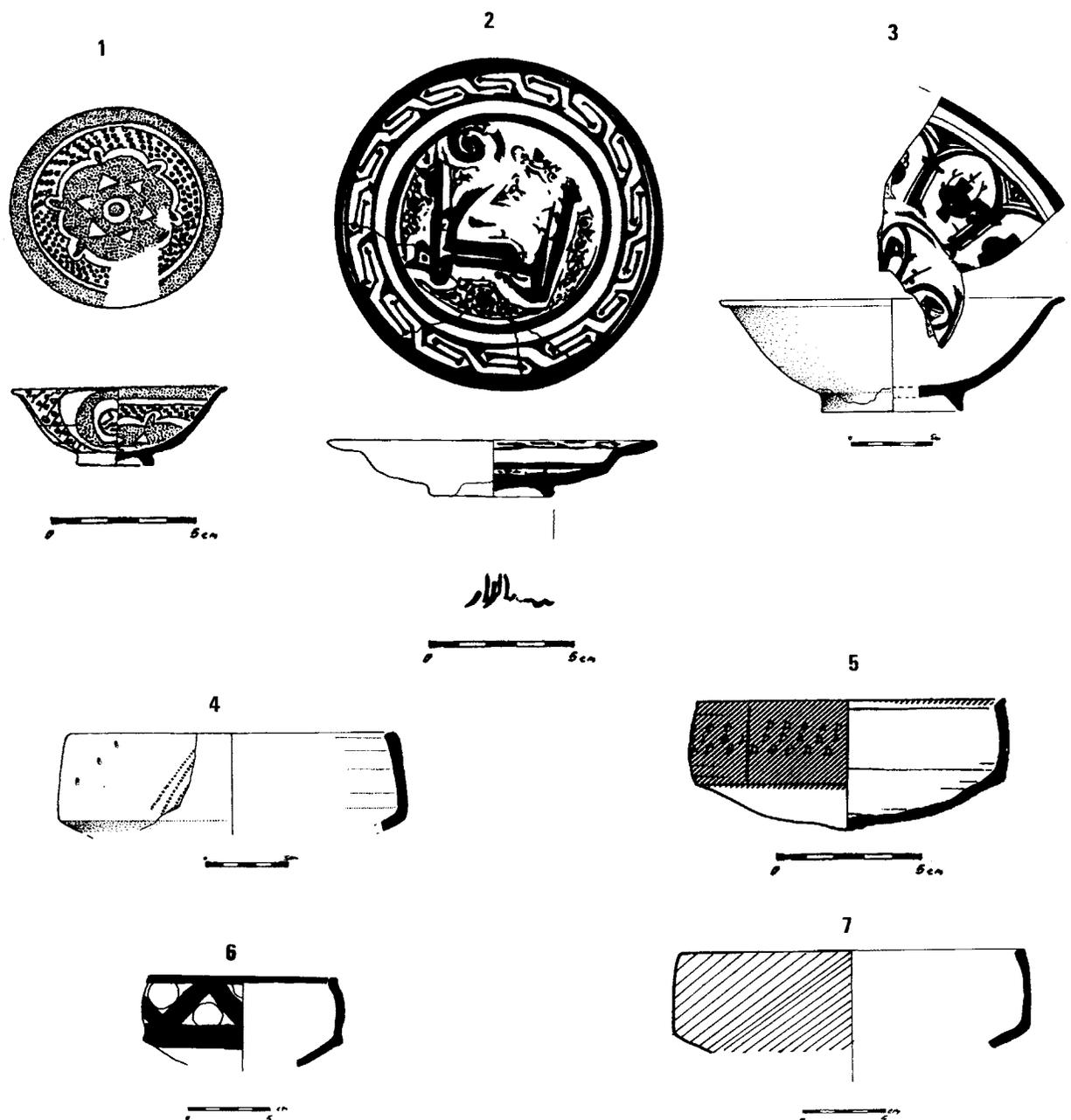


FIGURE 4. 1–3 Luster Ware; 4, 5, 7 Red slipped; 6 Coptic style painted.

tat, it seems to us that the Caesarea types, mentioned above, were originated in the delta zone or even in Alexandria (Rodziewicz 1976: 55, Ballet and Scanlon 1991: 487–8 and Mason 1997: 205–6).

The last type relating to stratum VII and was suspected as an imported vessel is characterized by a dark brown micaceous ware, white slipped under a red/brown painted decoration (Fig. 5.3). Such vessels were recorded in Fustat (Scanlon 1981: Figs. 13,14 and 32) and were designated as “Nubian Ware”. In his study on the “Nubian ware” Adams suggest that the micaceous dark brown white slipped clay is characteristic to jugs and jars originated in Aswan (Adams 1986: 538ff). The petrographic analysis supported the assumption that its provenance might be in South of Egypt or Sudan (Arnon 1996: 83).

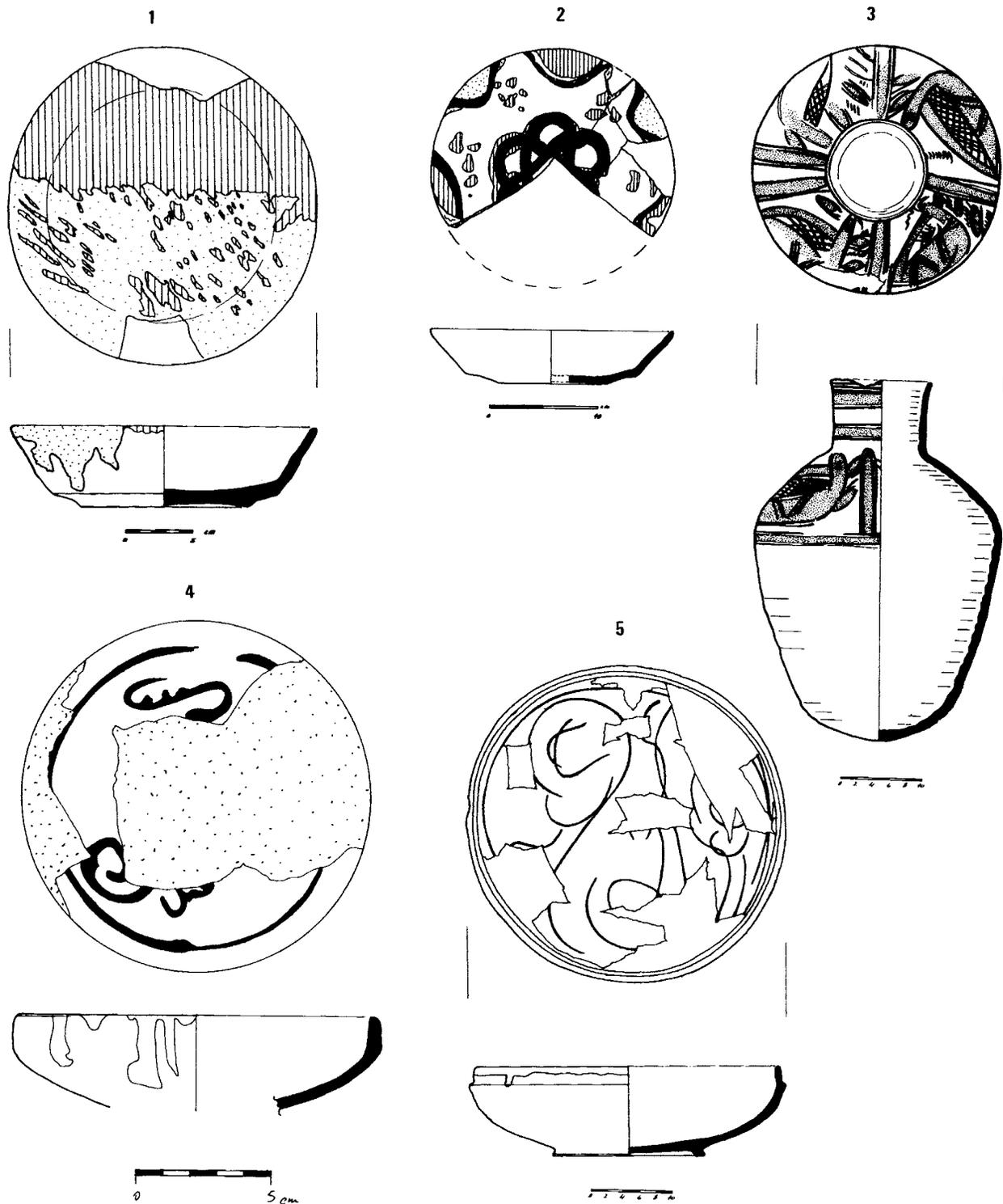


FIGURE 5. 1–2 Coptic Glazed; 3 Nubian ware; 4–5 Serçe Limani Ware.

During the late 10th century and the beginning of the 11th, a new type of bowls made their first appearance (Fig. 5.4–5). They are characterized by a hemispherical shape ending with a ring base. The ware is red, white or pinkish slipped under a *Sgraffito* or *gouged* monochrome or color splashed glaze. Such bowels were revealed in the Serçe Limani wreck, dated

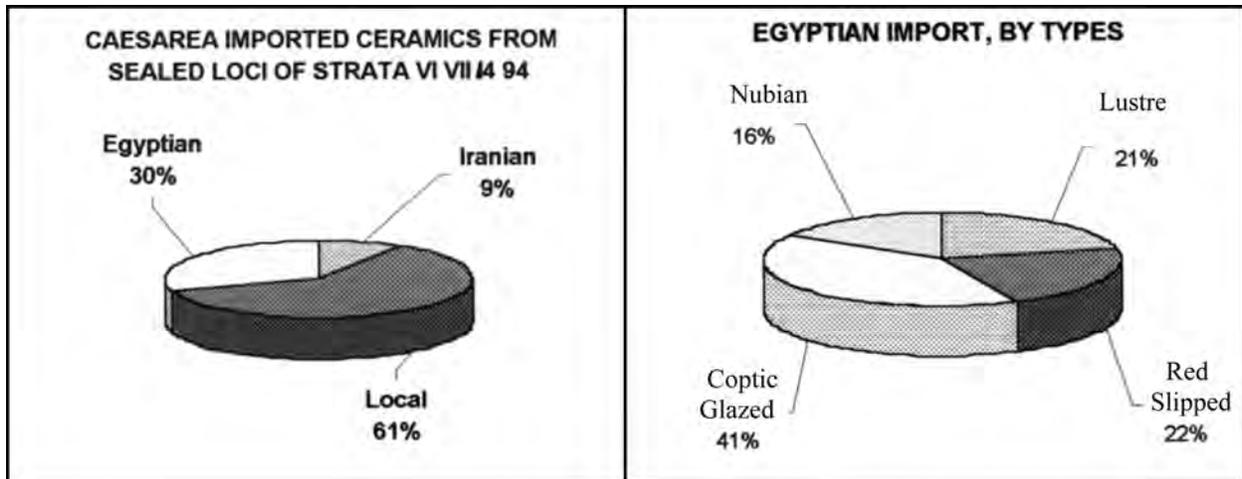


FIGURE 6.

to the first quarter of the 11th century (Bass and von Doorninck 1978: 126). The bowls from Caesarea and from Serçe Limani are identical in all means. The NAA (Neutron Activation Analysis) and the petrographic analysis shows a definite identity between the two (Jenkins 1992: 61–2). Moreover, the petro fabric of both is similar to a Luster Ware produced in Fustat (Jenkins 1992: 62)

It is clear that the Serçe Limani ware and the Caesarea bowls share the same production origin.

Statistics analysis

The identification of imported pottery was the main catalyst for a statistic study. The counting was conducted just in well stratified and sealed loci, relating to strata VII and VI in area I/4 within the silted Herodian inner harbour. One hundred forty-four baskets of pottery were checked; 48.9% of the baskets contains imported shards. In 32% of the baskets were shards of Egyptian origin (Fig. 6). It seems that the main trade was with Egypt which is not surprising at all considering the long trade history, Caesarea possessed with this center.

Summing the archaeological data we might say that considering the existences of the large scaled store houses and their location by the streets which led to the sea, as well as the presence of abundance of imported wares that we are witnessing the existence of an international commercial activity.

Archaeo-Geological Study

Except of the archaeological study an archaeo-geological research was taken place on the southern dune in area KK and CC, before removing it (Thomas and Buyce 1993: 74–5) (Fig. 2). A section was performed along the dune and five definite strata were revealed (Fig. 7):

Stratum I—construction level dated to the last Byzantine Era (7th century)

Stratum II—a clean aeolic dune layer

Stratum III—Clay layer mixed with plenty of water worn sherds bearing marine incrustation

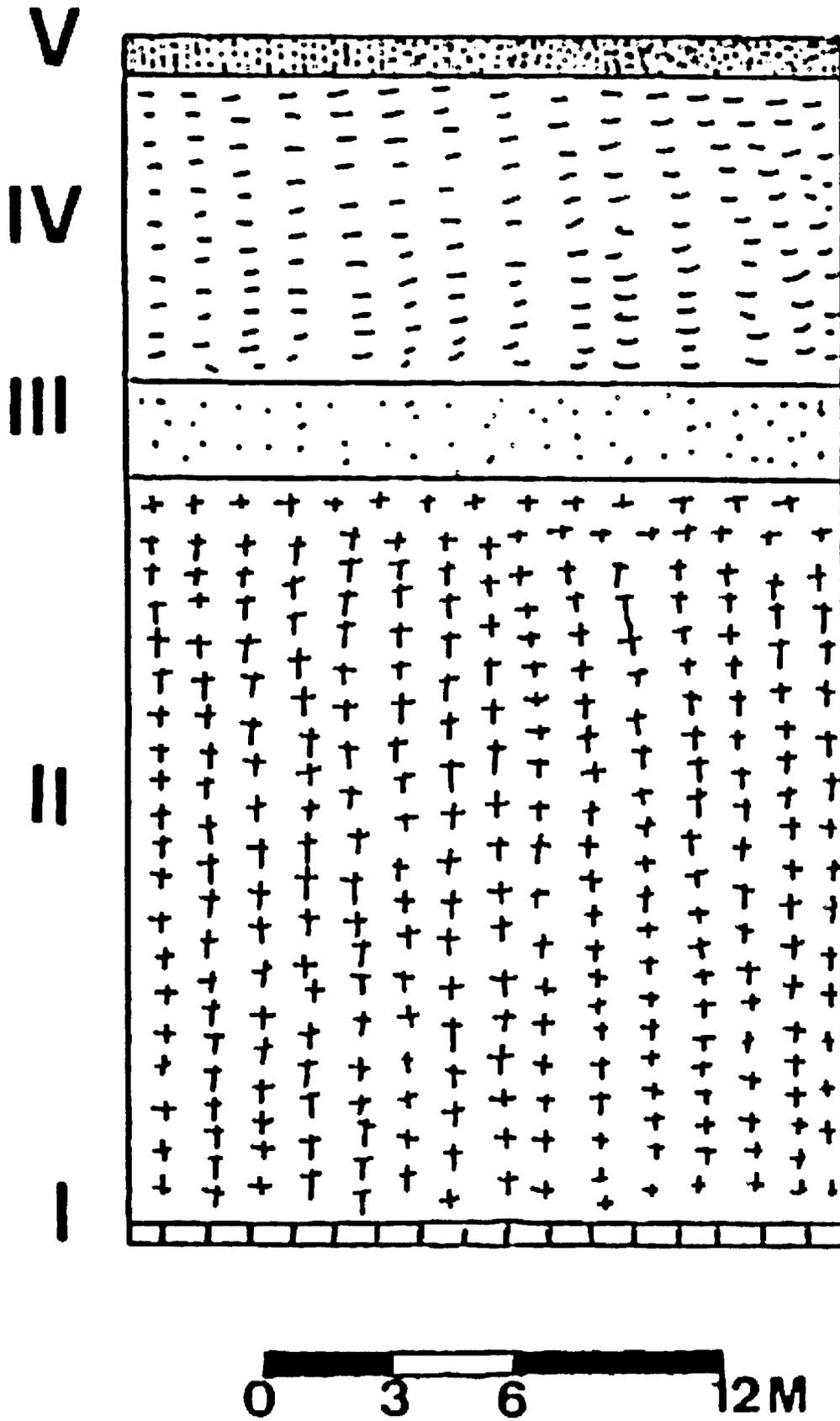


FIGURE 7.

Stratum IV and Stratum V—Clay layer mixed with an abundance of shells. This was also the first strata where burials were dug through.

Following the dune's stratigraphical analysis it became evident that stratum II is a natural dune which was anchored on the late Byzantine structures. Stratum III was a man-made refuse site which contained identical components to those which were driven out from area TN located in the main basin (Fig. 3). The presence of marine incrustation on the sherds indicates that these sherds were driven out some time from a marine environment. This data might be an evidence of cleaning this basin in order to reuse it for maritime activity, but when? It has to be some time after the Byzantine structures and before the burials. The earliest date for the burials is fixed by an epitaph dated to 896.

Conclusions

Although no remains on land or in the sea, have been found so far, which might indicate the existence of a built and protected harbour during this period, the quantity and significance of the archaeological remains demonstrate beyond any doubt that the city had commercial contacts with the cultural centers of the far and near East. Taking under consideration the archaeological and geological data it seems that in spite of the lake in historical evidences Caesarea faced the sea and was conducting maritime activity mainly with Egypt.

The 11th century Serçe Limani wreck and the 9th century Tantura wreck which contained among other, Egyptian "Red slipped" bowls (Wachsmann and Kahanov 1997: 18, Wachsmann et al. 1997: 15) brought to light the existence of a seaway between Egypt and Turkey along the Israeli shore. It seems that Caesarea situated on the way, enjoyed these trade links and was an integral part of it.

Acknowledgements

I would like to thank Prof. Avner Raban, Prof. Kenneth G. Holum and Prof. Joseph Patrich, directors of the Combined Caesarea Expedition and Dr. Joseph Porat from the Israel Antiquity Authority for providing the material and allowing me to study it. A special gratitude to Prof. Moshe Sharon from the Hebrew University for reading the Caesarea inscriptions, including the one mentioned in the paper.

Bibliography

- Adams, W.Y
1986 *Ceramic Industries of Medieval Nubia*, vol. 1–2. Lexington, Kentucky.
- al Muqaddasi, Shams al-Din Muhammad b. Ahmad
1906 *Ahsan al taqasim fi ma'rifat al-aqalim*. Bibliotheca Geographorum Arabicorum III. Leiden.
- Arnon, Y.D
1996 *The International Commercial Activity of Caesarea During the Early Islamic II Period (~750–~960), According the Ceramic Evidence*. MA thesis. University of Haifa (Hebrew with English Abstract).
- Ballet, P. and T. G. Scanlon
1991 *Coptic Ceramic*. The Coptic Encyclopedia vol. 2: 480–511
- Bass, G. F. and H. H. Jr. Van Doorninck
1978 An 11th Century Shipwreck at Serçe Limani, Turkey. *The International Journal of Nautical Archaeology and Underwater Exploration* 7: 119–132.

- Donner, F. M.
1981 *The Early Islamic Conquests*. Princeton University Press.
- Egloff, M.
1977 *Kellia, La Poterie Copte*. Tome 1–2. Genève.
- Elad, A.
1978 The Coastal Cities of Palestine During the Early Islamic Period (640–1099), According to the Arab Sources. *Cathedra* 8: 156–178 (Hebrew).
1989 *Arsuf during the Early Islamic Period*. In *Apolonia and the Southern Sharon Plain*. I. Roll and E. Ayaolon, eds. Pp. 289–301. Tel Aviv (Hebrew).
- Fahmy, A. M.
1966 *Muslim Naval Organization in the Eastern Mediterranean from the Seventh to the Tenth Century A.D.* Cairo.
- Frierman, J. D., with F. Asaro, and H. V. Michel
1979 The Provenance of Early Islamic Lustre Wares. *Ars Orientalis* 11: 111–126.
- Gil, M.
1983 *The land of Israel During the Early Islamic Period (634–1095)*. Vols. 1–3. Tel Aviv (Hebrew).
1992 *A History of Palestine 634–1099*. Cambridge: Cambridge University Press.
- Hayes, J. W.
1972 *Late Roman Pottery*. London.
- Hazard, H. W.
1975 Caesarea and the Crusades. The Joint Expedition to Caesarea Maritima, vol. I. *BASOR Supplementa studies* 19: 79–114.
- Holum K. G. et al.
1988 *King Herod's Dream. Caesarea on the Sea*.
- Ibn Khurdadhbih
1955 *Kitab al-masalik wa'l Mamalik*. Leiden: V. De Goeje. Translation in *Medieval trade in the Mediterranean World*. R. S. Lopez, and I. W. Raymond, eds. Pp. 31–32.
- Jenkins, M.
1992 Early Medieval Islamic pottery, the 11th Century, Reconsidered. *Muqarnas* 9: 56–66.
- Kubiak, W. and G. T. Scanlon
1986 *Fustat Expedition Final Report* vol. 2. American Research Center in Egypt.
- Le Strange G.
1886 *Muqaddasi, Description of Syria Including Palestine*. London.
1890 *Palestine under the Muslims: A Description of Syria and the Holy Land from A.D. 650–1500*. London.
1893 *asir-i-Khusrau, Diary of a Journey Through Syria and Palestine*. London.
- Mason B. R. and E. J. Keall
1988 *Islamic Ceramics: Petrography and Provenance. Proceedings of the 26th International Archaeometry Symposium*. Toronto 1988. Pp. 184–187.
1990 Petrography of Islamic Pottery from Fustat. *Journal of the American Research Center in Egypt* XXVII: 165–184.
- Mason, B. R.
1997 Medieval Egyptian Luster-Painted and Associated Wares: Typology in Multidisciplinary Study. *Journal of the American Research Center in Egypt* XXXIV: 201–237.
- Marmardji, O. P.
1951 *Textes Géographiques Arabes Sur la Palestine*. Paris.
- Porath N.
1988 *Composition of Pottery-Application to the Study of the Interrelations Between Canaan and Egypt During the 3rd Millennium B.C.* thesis submitted for the degree Doctor of Philosophy. Hebrew University. Jerusalem.
- Raban, A. and K. G. Holum, eds.
1996 *Caesarea Maritima. A Retrospective after Two Millennia*. Lieden: E.G. Brill.

- Raban, A., with R. Toueg, S. Yankelevitz, and Y. D. Arnon
1999 Land Excavations in the Inner Harbour (1993–1994). *Caesarea Papers* II: 198–225.
- Rodziewicz, M.
1976 La Céramique Orange Émaillée. In *Alexandrie I. La Céramique Romaine Tardive d’Alexandrie*. Pp. 63–64. Varsovie.
1978 La Céramique Émaillée Copte De Komel Dikka. *Études et Travaux* 10: 337–345.
1983 Egyptian Pottery of the 8th to 9th centuries. *Bulletin de la Societe d’Archéologie Copte* 25: 73–75.
1984 *Alexandrie III*. Varsovie.
- Scanlon G. T.
1981 Fustat Expedition Preliminary Report 1972, part I. *Journal of the American Research Center in Egypt* 18: 57–84.
- Sharon, M.
1996 Arabic Inscriptions from Caesarea Maritima: A Publication of the Corpus Inscriptionum Arabicarum Palaestinae. In *Caesarea Maritima. A Retrospective after Two Millenennia*. A. Raban and K. G. Holum, eds. Pp. 401–440.
- Thomas, D. and R. Buyce
1993 Geoarchaeological Survey. In *The Combined Caesarea Expedition Field report of the 1992 season*. Part I. A. Raban., K. Holm., and J. A. Blakely, eds. Pp. 74–75. Recanati Center for Maritime Studies No. 4. University of Haifa.
- Walmsley A. G.
1991 Architecture and Artifacts from Abbsid Fihl: Implications from Cultural History of Jordan. In *Bilad al Sham During the Abbasid Period (132 A.H./750 A.D.–451 A.H./1059 A.D.)*. *the Fifth International Conference of the History of Bilad al Sham*. M. A. Al Bakhit and R. Schick, eds. Pp. 135–159.
- Wachsmann, S. and Y. Kahanov
1997 The INA/CMS Joint Expedition to Tantura Lagoon, Israel. *Institute of Nautical Archaeology Quarterly* 24.1: 3–18.
- Wachsmann, S. et al
The Tantura B Shipwreck: The 1996 INA/CMS Joint Expedition to Tantura Lagoon. *Institute of Nautical Archaeology Quartely* 24.4: 3–15.
- Witcomb, D.
1988 A Fatimid Residence at Aqaba, Jordan. *Annual of the Department of Antiquities of Jordan* 32: 207–223.
1989 Coptic Glazed Ceramic from excavations at Aqaba, Jordan. *Journal of the American Research Center in Egypt* 26: 167–182.

The Pros and Cons of Using Written Texts in Islamic Archaeological Enquiry

INGRID HEHMEYER

Royal Ontario Museum, Toronto

Abstract

The Islamic period enjoys a rich body of written historical sources. However, interpreting the texts and matching them with the archaeological evidence can be a tricky task. All too often, the excavated evidence has a different quality than what is reported in the texts, and ground-proof for significant historical events cannot be found. Contradicting statements from different texts are an additional problem. The archaeologist who needs to interpret the texts may have a natural pre-disposition towards one group of people, or a favourite ruler, or conversely a bias against them. An example for how different interpretations can be made from the same facts can be found in the Canadian Archaeological Mission's City of Zabīd Project, Yemen, where credit must be ascribed to someone for creating the infrastructure that gave Zabīd its medieval prosperity. Was it the opportunistic military conquerors—the Ayyūbids, or the long-time residents, their successors—the Rasūlids?

1. Introduction

One of the peculiarities of working in Islamic archaeology is the fact that, besides the archaeological record, we are left with an enormous body of written texts, so that the Islamic archaeologist does not have to spend a lifetime to define—through field-work—a people's identity. In the introduction to his recent publication "The Archaeology of Islam", Insoll (1999: 2) emphasizes that the Islamic archaeologist is "in a privileged position" due to the availability of—among others—historical sources which add information to, and aid in, the interpretation of a culture.

In terms of the written historical record, a suitable comparison might be the cuneiform corpus for ancient Mesopotamia. But, here, the matching archaeological record has been well developed for the past 150 years. In the case of Islam, this has been only rarely executed. In addition, even the archaeology that has been done, was motivated for quite some time by the drive to unearth art objects, rather than as a study of social life. The world of Islam is also far broader than Mesopotamia, so that the numbers of possible variants in terms of local differences is multiple. Consequently, interpreting the written sources and matching them with the archaeological evidence can be a tricky task.

This paper is based on observations made during the annual field-seasons of the Canadian Archaeological Mission of the Royal Ontario Museum (CAMROM) in Zabīd, Yemen (see map, Figure 1). CAMROM's mandate is to use any archaeological site or standing historical building to evaluate the status of Zabīd as a medieval Islamic city. Part of the archaeological work has involved investigating the relationship between the city and its agricultural

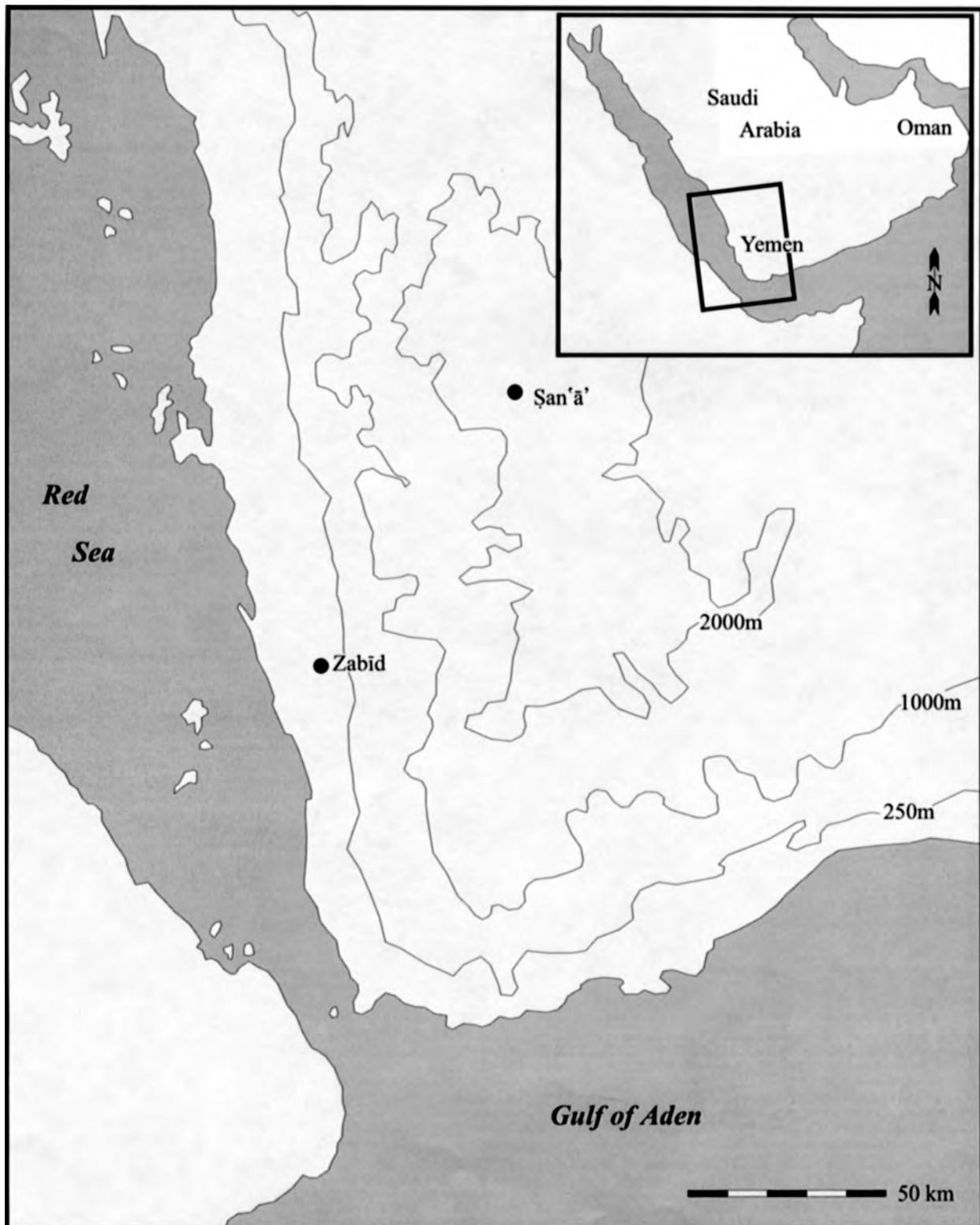


FIGURE 1. Location of Zabid on the Red Sea coastal plain of Yemen.



FIGURE 2. The Citadel mosque/*madrassa* in Zabīd (al-Iskandariyya).

hinterland, including features that corroborate statements made by medieval writers like Ibn al-Dayba^c about underground water supply systems (see Hehmeyer 1995).

2. Al-Iskandariyya *madrassa*

(or: how the archaeological/art-historical assessment is confirmed through a text)

2.1 *The historical implications*

The north-eastern corner of the compound of the Citadel of Zabīd is occupied by the so-called Citadel Mosque, as seen in Figure 2.¹ In 1997 the Canadian Mission began a programme of conservation of this mosque, in the course of which an inscriptional panel on either side of the prayer niche, the *miḥrāb*, emerged from under many layers of whitewash that had obscured it from view (Figure 3). Surprisingly, the inscription was found not to contain the expected Koranic text, but rather a dedication of a long forgotten *waqf*, a charitable trust, specifying sponsorship of a *madrassa*, or a religious college (Keall and Hehmeyer 1998). The name of the patron is given as Iskandar bin Barsbāy, and since the inscription is dated to A.H. 940/A.D. 1533, this man is understood to be Iskandar b. Sūlī, also known as Iskandar Mawz (al-Nahrawālī 1967: 56).² Iskandar was the last Lawandi commander who gained power in Zabīd in 1530.

1. For a plan of the Zabīd Citadel and the Citadel Mosque see figures 1 and 4 in Keall 1984.
2. Blackburn (1971: 64) vocalizes Iskandar's name as "Mūz"; CAMROM rather uses the vocalization "Mawz", see Keall 1984: 54.



FIGURE 3. Al-Iskandariyya: *waqf* inscription panels on either side of the *mihrāb*.

In order to understand who these Lawandis were, the political events around the year 1516 need to be addressed briefly, when the Egyptian Mamluk sultanate and the Ottoman Turks jointly invaded Yemen. The expedition was commanded by a Mamluk, and the Ottomans contributed a force of 2,000 Lawandis. The Lawandis were a mixture of freebooters from Mediterranean coast lands, the Levantine, conscripted into the Ottoman navy.³ Zabīd was taken in June 1516.

In 1517, when the Mamluk sultanate in Cairo was overthrown by the Ottomans, the situation in Yemen got complicated. A series of Mamluks and Lawandis seized control of what was now a semi-autonomous regime, living by the skin of their teeth and variously murdering one another.⁴ None of them were around long enough nor ruled under conditions that would have allowed them major investments, with the exception of one—namely the last one, Iskandar Mawz. He ruled successfully for six years, and acquired a local reputation for justice and munificence. The 16th century chronicler al-Nahrawāli (1967: 58) conveniently refers to this Iskandar Mawz as having built a *madrasa* in Zabīd by the name of al-Iskandariyya, and since the Citadel Mosque has long since been known locally by this name, it has generally been taken by scholars that the Citadel Mosque was built by Iskandar.⁵ On this basis, the building was often dismissed by academics rather cavalierly as be-

3. Blackburn (1971: 31–65) gives a detailed description of the events.

4. It is worth mentioning at this point that the Mamluks and the Lawandis who had invaded Yemen jointly, remained confined largely to the Yemeni Tihāma (Blackburn 1971: 55).



FIGURE 4. The letters *kāf*, *nūn*, *dāl* of Iskandar’s name, as shown on the modified courtyard inscription of the Iskandariyya mosque/*madrasa*.

ing moderately recent, an Ottoman mosque,⁶ and therefore of no great interest in terms of Yemeni architecture.

As early as 1983, however, Keall (1983: 59) suggested that the building itself was, originally, a 14th century Rasūlid construction. He based his argument on an assessment of the building’s layout and its original painted ceiling decorations. He then speculated (1984: 54) that the associated al-Iskandariyya attribution was likely due to a donation of monies given by Iskandar to the mosque. This suggestion was corroborated by the 1997 restoration programme which also permitted some strategic sondages to be made inside the mosque. The association with Iskandar, the patron of the *madrasa*, is to be connected with this later period of re-decoration and renovation, when the existing mosque was turned into a *madrasa*. A retroactive modification of an earlier inscription running along the courtyard of the Iskandariyya shows Iskandar’s name; the letters *kāf*, *nūn*, *dāl* can be seen in Figure 4.⁷ The same *kāf*, *nūn*, *dāl* can be seen on the minaret—along with a scarcely legible, but nevertheless discernible date giving the month of Ramadan of the year *arba‘in wa-tis‘mi’a*, that is A.H.

5. E.g. Finster (1998: 24 and fn. 40). Finster errs twice here by attributing the construction of the mosque to Iskandar and by stating that the mosque was constructed around the year 1520.

6. See also Finster (1992: 135). As pointed out by Keall (2001: fn. 4), the mistake made by Finster is “not distinguishing between the somewhat unstable period, when the Lawandi mercenaries rivalled for power (1517–1539), and the formally administered Ottoman occupation (after 1539)”.

7. Keall (2001: 221–222) gives a description of Iskandar’s major renovation of the building.

940 = A.D. 1533, which also allows the minaret to be attributed to Iskandar, who ruled between 1530–36.⁸

2.2 *The agricultural implications*

The carved-in-stone text next to the *mihṛāb* also reflects important practical details of Iskandar's dedication of a *waqf* foundation trust in support of the *madrasa*. The inscription specifies three different areas in the Wādī Zabīd network which are named after the respective canal—here called *sharij*—irrigating them (see Figure 5). For each of these three irrigated areas the text lists a number of individual properties of land, and levies derived from them. The text is a reflection of the importance of sponsorship for the sustenance of Zabīd's economic, cultural and religious life, in this case derived from the agricultural hinterland.

For CAMROM, the text is a priceless document because it meshes with everything that the Project has learned from the archaeological work about the irrigation system of the Wādī Zabīd, the rights of water distribution and the maintenance of the canal systems. In this instance, then, the text simply complements the archaeology.

3. **Ayyūbids versus Rasūlids**

(or: how textual information is subject to interpretation)

3.1 *Historical context*

Who was responsible for creating the infrastructure that gave Zabīd its medieval prosperity as reflected in Iskandar's *waqf* from the first half of the 16th century?

Zabīd was founded in 820 by a certain Ibn Ziyād, an 'Abbāsīd military emissary (Kay 1968: 4, Arabic text 3). He chose the site to found what one might call a new city, though there is little sense of what form it took. How far the Wādī Zabīd was already being controlled for irrigation agriculture at this time, remains for future enquiry to explore.

For almost two centuries after around 1000, rather chaotic conditions prevailed in the region of Zabīd. It is, however, remarkable that both the textual and archaeological evidence tell us that investment in a water distribution system had started during this period. An underground water conduit that was excavated on the east side of Zabīd can be dated to the 11th/12th century on the basis of a palm-of-the-hand sized pottery sherd used deliberately in its original footing (Hehmeyer 1995: 48–50 and plate IV, bottom). The source of the water can only have been the piedmont of the mountains some 15 km to the east of the site, where either the water table or a modest base-flow in the Wādī Zabīd was tapped.

Conveniently, Zabīd's famous historian of the Rasūlīd period, Ibn al-Daybaʿ, writes about the water supply to the district of the city: "There is a spring which flows abundantly, the water comes from the east in an underground passage [. . .]."⁹ Concerning the original construction of this underground canal, Ibn al-Daybaʿ continues: "The first to channel the aforementioned stream and to make the watercourse for it and to direct it to the city was the Qāḍī al-Rashīd [. . .] b. al-Zubayr [. . .] from al-Aswān. He was the first of his age in the science of engineering and the religious sciences" (Croken 1990: 182–183). Ibn al-Zubayr, the Egyptian water engineer, died in 1167–68; he had been sent out to Yemen around 1138.¹⁰

8. For the minaret inscription see Keall 1989: 68.

9. The translation follows Croken 1990: 182.

10. See Hehmeyer (1995: 49–50) for references.



FIGURE 5. *Waqf* inscription panel on the left side of the *mihrāb* in the Iskandariyya mosque/*madrasa*, top lines, showing the word *sharij* at the (left) end of both lines.

This writer is not making a definitive statement here that CAMROM actually dug up Ibn al-Zubayr’s underground water conduit, but the speculative connection between the textual reference and the archaeological evidence is tempting. Part of our justification as practising archaeologists is trying to give definition to a cultural record. The association of an excavated feature with a reference in a historical text seems to be a logical part of our work, because it means putting a name-tag on an otherwise no-name feature. But “the seduction of the power of a written name should not allow us to stretch the truth to allow a name association to colour the interpretation of what one digs up” (Keall 1999). This is of particular significance with regard to the following thoughts.

It is important to acknowledge that controlling the violent wadi spate for farming purposes requires a great deal of investment and subsequent maintenance. Since the texts tell us of intense instability in the 11th century (Chelhod 1978: 56–57, 59–62; Kay 1968: 81–87, Arabic text 60–64) and of the rather disruptive behaviour of a certain ‘Alī b. Maḥdī around the middle of the 12th century who reportedly terrorised the countryside and actually besieged Zabīd in 1160 (Smith 1978: 56–62), one might tend to look into the two great dynasties of the medieval period, the Ayyūbids and the Rasūlids, as being responsible for the major schemes being put in place.

3.2 The Rasūlids

Let us first consider the Rasūlids who ruled a large part of Yemen from 1229 to 1454. We know of a clear government involvement in agriculture and horticulture under the Rasūlids

due to the fact that the Rasūlid sultans took great personal interest in these subjects (Varisco 1994: 3). We also know of the Rasūlids' investment in water distribution systems, both from texts which refer to flood diversion barrages in the Wādī Zabīd,¹¹ and from the archaeological record, such as glazed earthenware pipes laid into a masonry bed of baked brick (Hehmeyer 1995: 50–52 and plate V, bottom). Under the Rasūlids a number of new plants were introduced into Yemen (e.g., Meyerhof 1944: 56–57). Horticultural experiments were conducted in the royal gardens, and the observations and results, the failures and successes were then reported in texts (Meyerhof 1944: 59–62 and *passim*; Serjeant 1974: 35, 54). A number of the agricultural texts from Rasūlid Yemen were actually compiled by the sultans themselves, or at least in the name of a sultan.¹² Besides agriculture, the Rasūlid rulers were also great patrons of other sciences (Varisco 1994: 3). They bear major responsibility for making the 13th and 14th centuries into one of the most prosperous periods in Yemen's history.

3.3 *The Ayyūbids*

This evaluation of the Rasūlids' achievements is not unanimous. There are those among the commentators who rather are in favour of their predecessors, the Ayyūbids. In his commentaries of texts dealing with the late 12th/early 13th century Ayyūbid occupation of Yemen, the British historian Smith (e.g., 1995: 456) invariably gives credit to the Ayyūbids for the installation of policies and infrastructure following their successful unification of the territory. One might, however, counter Smith's enthusiasm for the Ayyūbids by exposing the numbers of times in their short period of rule that there was no Ayyūbid ruler present in the country (see Smith 1987: 138–139 for a dynastic list), apparently due to the fact that they were rather uncomfortable in Yemen (Smith 1969: 187 and *passim*; Smith 1978: 89–90). In fact, each time a new governor was installed, they had to spend an inordinate amount of time, resources, and energy in re-installing Ayyūbid authority (Smith 1987: 136).¹³ What chances did they have to initiate significant programmes of development? Certainly they can be given credit for various reconstruction programmes—rebuilding the Grand Mosque of Zabīd which also included the addition of a minaret, for instance, a creditable act of munificence (Keall 1983: 59).

But the Wādī Zabīd, we can argue, may not have been the recipient of too much Ayyūbid investment.

3.4 *Ayyūbids or Rasūlids?*

It is just as easy to praise the Rasūlids as it is to put down the Ayyūbids. The point is that our own personal likes and dislikes can be rather dangerous when it comes to assessment of historical contributions, because it means that the archaeologist leans towards interpreting finds in the light of his pre-established attitudes.

11. Al-Khazrajī, the official court historian of the Rasūlids, reports among the events of the year A.H. 802/A.D. 1399 the breaking of a diversion barrage—*ʿaqm*—in the Wādī Zabīd by a strong flood (Redhouse and ʿAsal 1906–1918, 2: 284, 5: 314). He refers to “al-ʿaqm al-kabīr al-mujāhidi” which implies that this barrage was erected by al-Malik al-Mujāhid ʿAlī, the fifth Rasūlid sultan who reigned between 1322 and 1363 (Smith 1995: 455).

12. For an annotated bibliography of these texts see Varisco 1989.

13. Smith 1983: 60–64 gives a detailed account of the political problems that the Ayyūbids faced during their rule in Yemen.

Giving credit to one's favourite people goes hand in hand with assigning dynastic names and dates to define archaeological periods, with the inherent danger of obscuring the differences between political history and archaeology. This problem has been stated very succinctly by Whitcomb (1992: 386), and it becomes particularly clear when looking at the results of dynastic change. If the Rasūlids take control of Yemen in 1229, it does not mean necessarily that the potters started manufacturing vessels according to a new standard that very year, even more so because the transfer of power from the Ayyūbids to the Rasūlids happened bloodlessly, implying a general tendency of continuity (see Smith 1969). Perhaps 20 years later we may see new trends developing, but a clear distinction between an Ayyūbid period pot and an early Rasūlid period pot in Yemen is not going to be easy to make.¹⁴

A neutral periodization, based, for instance, on two-century intervals as used by the Canadian Archaeological Mission's Zabīd Project (Ciuk and Keall 1996: 4–6), is a clear attempt to eliminate this bias, and not to give credit to the wrong people, based on our pre-disposition towards one group of people, or conversely our bias against them.

4. The problem of bias in historical sources

(or: the conflict between interpretation derived from the archaeological record and the historical texts)

Having covered the topic of bias on the part of modern academics, we can now turn to the issue of compilers' bias. A suitable example is the 14th century historian al-Khazrajī who died in 1410 at the age of over 70 (Bosworth 1978: 1188), after living under four Rasūlid sultans. He chronicled the history of the dynasty in a text poetically entitled "the Pearl Strings" (*al-ʿUqūd al-luʿluʿiyya*).¹⁵

In this text al-Khazrajī informs us about one of the deputy governors, a certain Qādī Shihāb al-Dīn Amad b. Qabīb, who in the year 1353 out of malevolence encouraged a provincial governor in his attempt to extort money from the tribesmen in the Zabīd environs, with subsequent military action and displacement of some of the tribesmen (Redhouse and ʿAsal 1906–1918, 2: 78, 5: 94).¹⁶ According to al-Khazrajī these events mark the beginning of a dramatic economic decline and virtual tribal anarchy in the countryside around Zabīd during the last century of Rasūlid rule, that is approximately 1350–1450.

In fact, the archaeological record suggests the opposite. Extensive settlements across the landscape associated with high quality pottery imply a high degree of economic prosperity and high levels of consumer activity.¹⁷ During surface surveys, sites of this kind have been recorded in many different parts of the study region, whether along the main north-south highway, towards the coast, or in the now largely sand desert stretches in between.

One may therefore question what al-Khazrajī's observations are worth and how far we can trust him. May one suggest that al-Khazrajī might have had his own personal reasons to develop a bias against Ibn Qabīb, the local governor? Reading the malicious anecdotes around Ibn Qabīb as reported by al-Khazrajī makes one wonder what it was that caused al-Khazrajī to write not even one respectful word about a man who apparently had a very successful career at the Rasūlid court. The most explicit example of al-Khazrajī's contempt for

14. As for Jordan, Whitcomb (1992: 386) suggests at least two generations for the time necessary for the transformation of styles to take place.

15. See Redhouse and ʿAsal 1906–18.

16. A detailed description of the circumstances is given in Stookey 1978: 122–123.

17. This observation is elaborated in Keall 1990.

Ibn Qabib comes from a story where he describes an incident of treachery towards an official guest in Zabid, who was incapacitated by his host secretly administering hemp in the food. On his way home the man fell off his horse and died. According to al-Khazrajī (Redhouse and ‘Asal 1906–1918, 2: 90–91, 5:), it was Ibn Qabib who was behind this plot.

5. Conclusion

We have to acknowledge that with limited resources, limited fieldwork and limited academic and public support for Islamic archaeology, it would be impossible to create a context for our findings without texts. The structure of early and medieval Islamic society, its political organizations, its religious tenets, its social complexities, and its regional diversities—it would be impossible to invent all of these from a few holes in the ground.

But Islamic field archaeology deals with a tangible reality, which is a unique opportunity to refine social, economic and political issues based on irrefutable facts. The modern anthropologist would call this “ground-truthing”.

Bibliography

- Blackburn, J. Richard
1971 *Turkish-Yemenite political relations, 1538–1568*. Ph.D. dissertation, University of Toronto.
- Bosworth, Clifford E.
1978 *Al-Khazradjī*. In *The Encyclopaedia of Islam*. New edition, IV: 1188. Leiden: Brill.
- Chelhod, Joseph
1978 Introduction à l’histoire sociale et urbaine de Zabīd. *Arabica* XXV: 48–88.
- Ciuk, Christopher, and Edward J. Keall
1996 *Zabid Project Pottery Manual 1995: Pre-Islamic and Islamic Ceramics from the Zabid area, North Yemen*. BAR International Series, 655. Oxford: Tempus Reparatum.
- Croken, Barbara E.
1990 *Zabid under the Rasūlids of Yemen, 626–858 AH/1229–1454 AD*. Ph.D. dissertation, Harvard University.
- Finstler, Barbara
1992 An Outline of the History of Islamic Religious Architecture in Yemen. *Muqarnas* 9: 124–147.
- Finstler, Barbara
1998 Geschichtlicher Abriss der islamischen Sakralarchitektur im Yemen. *Eothen: Jahreshefte der Gesellschaft der Freunde Islamischer Kunst und Kultur* 4–7 (1993–96): 15–32, 182–198.
- Hehmeyer, Ingrid
1995 Physical evidence of engineered water systems in mediaeval Zabid. *Proceedings of the Seminar for Arabian Studies* 25: 45–54, pls. 3–5.
- Insoll, Timothy
1999 *The Archaeology of Islam*. Oxford: Blackwell Publishers.
- Kay, Henry Cassels, ed. and trans.
1968 *Yaman, its early mediaeval history, by Najm ad-Din ‘Omārah al-Ḥakami; also the abridged history of its dynasties by Ibn Khaldūn and an account of the Karmathians of Yaman by Abu ‘Abd Allah Baha ad-Din al-Janadi*. [1892]. Farnborough, England: Gregg International Publishers.
- Keall, Edward J.
1983 Zabid and its hinterland: 1982 report. *Proceedings of the Seminar for Arabian Studies* 13: 53–69.

- 1984 A preliminary report on the architecture of Zabīd. *Proceedings of the Seminar for Arabian Studies* 14: 51–65.
- 1989 A few facts about Zabīd. *Proceedings of the Seminar for Arabian Studies* 19: 61–69, pls. 1–4, figs. 1–8.
- 1990 *Zabīd and environs before the year 1000*. Paper presented at the Annual Meeting of the Middle East Studies Association, San Antonio, TX, November.
- 1999 *Persian Castle Saga*. Paper presented at the Millennium Wisdom Symposium, York University and Royal Ontario Museum, Toronto, October 4.
- 2001 The Syrian Origins of Yemen's National Mosque Style. *Bulletin of the Canadian Society for Mesopotamian Studies* 37: 219–226.
- Keall, Edward J., and Ingrid Hehmeyer
 1998 Sponsorship of a madrasa, reflecting the value of farmland in the urban economy of Zabīd, Yemen. *Al-ʿUṣūr al-Wuṣṭā* 10: 33–35, 47.
- Al-Khazraji, ʿAlī ibn al-Ḥasan
 see Redhouse, James W., and Muammad ʿAsal, trans. and ed.
- Meyerhof, Max
 1944 Sur un traité d'agriculture composé par un sultan yéménite du XIVE siècle (deuxième partie). *Bulletin de l'Institut d'Égypte* 26: 51–65.
- Al-Nahrawālī, Quṭb al-Dīn Muḥammad ibn Aḥmad
 1967 *Al-Barq al-Yamānī fī ʿl-fat al-ʿUthmānī*. [1387]. Ḥamd al-Jāsir, ed. Riyadh: Manshūrāt Dār al-Yamāma li-ʿl-Baḥ wa-ʿl-Tarjama wa-ʿl-Nashr.
- Redhouse, James W., and Muammad ʿAsal, trans. and ed.
 1906–18 *The pearl-strings; A history of the Resūliyy dynasty of Yemen*, by ʿAliyyu ʿbnu ʿl-Ḥasan ʿel-Khazrejiyy. 5 vols. E. J. W. Gibb Memorial Series, III. Leyden and London: Brill and Luzac.
- Serjeant, Robert B.
 1974 The cultivation of cereals in medieval Yemen. (A translation of the Bughyat al-Fallāḥīn of the Rasūlid Sultan, al-Malik al-Afḍal al-ʿAbbās b. ʿAlī, composed circa 1370 A.D.) *Arabian Studies* 1: 25–74.
- Smith, G. Rex
 1969 The Ayyūbids and Rasūlids—the transfer of power in 7th/13th century Yemen. *Islamic Culture* XLIII: 175–188.
- 1978 *The Ayyūbids and early Rasūlids in the Yemen (567–694/1173–1295). A study of Ibn Ḥātim's Kitāb al-Simṭ including glossary, geographical and tribal indices and maps*. E. J. W. Gibb Memorial—New Series, XXVI.2. London: Luzac.
- 1983 The Early and Medieval History of Ṣanʿāʿ, ca. 622–953/1515 (*sic*). In *Ṣanʿāʿ: An Arabian Islamic City*. Robert B. Serjeant and Ronald Lewcock, eds. Pp. 49–67. London: World of Islam Festival Trust.
- 1987 The political history of the Islamic Yemen down to the first Turkish invasion (1–945/622–1538). In *Yemen: 3000 Years of Art and Civilization in Arabia Felix*. Werner Daum, ed. Pp. 129–139. Innsbruck and Frankfurt/Main: Pinguin Verlag and Umschau Verlag.
- 1995 Rasūlids. In *The Encyclopaedia of Islam*. New edition, VIII: 455–457. Leiden: Brill.
- Stokey, Robert W.
 1978 *Yemen: the politics of the Yemen Arab Republic*. Boulder, CO: Westview Press.
- ʿUmāra al-Yamanī, Najm al-Dīn
 see Kay, Henry Cassels, ed. and trans.
- Varisco, Daniel M.
 1989 Medieval agricultural texts from Rasulid Yemen. *Manuscripts of the Middle East* 4: 150–154.
- 1994 *Medieval Agriculture and Islamic Science: The Almanac of a Yemeni Sultan*. Publications on the Near East, University of Washington, 6. Seattle and London: University of Washington Press.

Whitcomb, Donald

1992 Reassessing the Archaeology of Jordan of the Abbasid Period. *Studies in the History and Archaeology of Jordan* IV: 385–390.

Les réseaux hydrauliques des marges arides de Syrie du Nord: exemples de 'Umm al-Qalaq et Ma'aqar al-Shamali

MARIE-ODILE ROUSSET

IFAO - CairR

Résumé

Dans le cadre du programme “Marges Arides de la Syrie du Nord”, la prospection de la région de Salamiyya a permis jusqu'à ce jour l'identification de 850 sites et de nombreux et divers aménagements. Ils reflètent les différentes solutions apportées par les hommes au problème de l'occupation du sol dans une région aux conditions difficiles. Des systèmes hydrauliques ont été construits dans la zone centrale, non loin de la ville d'Andarin, lors de la mise en valeur généralisée de la région à l'époque byzantine. Les deux exemples présentés dans cet article ont également été utilisés au début de la période islamique et prouvent que l'exploitation agricole de la grande dépression centrale a été continue, du V^e jusqu'au X^e siècle.

Le programme “Marges Arides” dirigé par Bernard Geyer (géomorphologue, GREMMO, Maison de l'Orient, Lyon), entreprend, depuis 1995, l'étude géoarchéologique des marges arides du Croissant fertile, dans la steppe syrienne.¹ La région prospectée correspond à la carte de Salamiyya au 1: 200,000, soit une surface d'environ 10,000 km² (fig. 1). Elle est

1. Les thèmes de recherche abordés, paléoenvironnement et occupation du sol à l'Holocène, relations Homme-milieu en domaine semi-aride et aride et problèmes de désertification, mobilisent une équipe pluridisciplinaire: l'analyse du milieu physique est dirigée par Jacques Besançon (UMR 5647 GREMMO) et Bernard Geyer. La télédétection et la création d'un système d'information géographique sont confiés à Françoise Debaine (UMR 5647–Université de Nantes). La prospection archéologique se déroule sous la responsabilité de Sultan Muhesen (Direction des Antiquités de Syrie et UMR 5647), Yves Calvet (UMR 5649, Lyon) et Marie-Odile Rousset (IFAO–Le Caire), avec Nazir Awad (étudiant en histoire et archéologie, Université de Damas). L'étude ethnoarchéologique est réalisée par Olivier Aurenche (UMR 5647) et celle des textes et inscriptions par Pierre-Louis Gatier (UMR 5649). L'analyse de la mise en valeur actuelle de la région est supervisée par Ronald Jaubert (UMR 5647/IUED–Genève) et Mohammed al-Dbiyyat (IFEA Damas). L'analyse des paléoenvironnements est faite par Jacqueline Argant (GREMMO), Henri-Georges Naton (micromorphologue), et Jean Vaudour (URA 903, Aix-en-Provence). Les relevés des sites les plus représentatifs sont effectués sous la houlette de Catherine Duvette, par Bissan Chalich, Jean-Christophe Moncel et Hélène Morel-Renel. Collaborent également au projet Olivier Barge (GREMMO), Laure Belmont (université Lyon2), Éric Coqueugniot (MOM, Gremmo), Patrick Desfarges (MOM, UF2), Marina Leybourne (Université de Sydney, Australie), France Métral (UMR 5647), Sara Mignard (université Lyon2), Jean-Baptiste Rigot (université Lyon2) et Myriam Traboulsi (UMR 5647, Université libanaise de Beyrouth).

située au sud-est d'Alep et recouvre à la fois des territoires appartenant au Croissant fertile et des terres soumises à un régime de précipitations beaucoup plus aléatoire (Geyer et al. 1998, Geyer 1998).

Les premiers résultats montrent que les modes d'occupation du sol varient selon les époques, dans une région qui, aujourd'hui encore, abrite des sédentaires, des semi-nomades et des nomades. Les raisons de ces variations (climatiques, historiques...), témoignent de la plus ou moins grande adaptabilité des hommes à un milieu difficile qu'il faut maîtriser. La limite de l'occupation sédentaire au cours des différentes périodes suit un mouvement de va et vient, d'est en ouest. Entrecoupées de hiatus parfois importants, deux périodes sont très représentées: l'âge du bronze (Calvet et Geyer: à paraître) et l'époque byzantine. Au cours de cette dernière, il y a eu une volonté délibérée d'occuper tout l'espace, avec des types d'installation adaptés aux différents micro-milieus. Cinq grandes zones ont été définies, illustrant les différents procédés de mise en valeur agro-pastorale, des terres les plus fertiles au territoire de nomades (Geyer et Rousset: à paraître). Dans la zone 2, l'exploitation agricole de la grande plaine au sud-est d'Andarin a nécessité la construction d'un réseau de galeries drainantes (*qanats*) composé de trois grands ensembles: le réseau autour de la ville byzantine d'Andarin (non abordé ici), celui de la région des tertres de sources artésiennes de l'est, et le réseau sud, qui dépend de la chaîne des Palmyrénides (Jaubert et al. 1999: 59–60). Nous avons choisi de décrire dans cet article deux exemples représentatifs des réseaux est et sud: les *qanats* de 'Umm al-Qalaq et Ma'aqar al-Shamali. En compléments des observations de terrain, nous avons la chance de disposer de plusieurs séries de photographies aériennes: vues verticales (à l'échelle approximative de 1: 80,000) du 17/03/1961 et de l'automne 1958 (n° 319), clichés des archives de Poidebard (Geyer 2000) et photographies prises par les membres de l'équipe lors d'un survol de la région en hélicoptère le 22 avril 1997.²

1. La région des *qanats* issues des tertres de source: l'exemple 'Umm al-Qalaq—Rasm Abu Miyal.

Située approximativement au centre de la région étudiée, la *qanat* 'Umm al-Qalaq (site n° 97/64) est la plus méridionale d'une série de quatre *qanats* prenant l'eau de tertres de sources et venant alimenter la grande *faïdha* centrale.³ Les tertres de source, qui constituent un ensemble hydrologique particulier, sont le siège de l'implantation humaine la plus ancienne de la région (au Paléolithique moyen, au Kébarien et au Natoufien).⁴

1.1. *Qanat* 'Umm al-Qalaq (fig. 2)

Longue d'environ 12.5 km, la *qanat* de 'Umm al-Qalaq suit un tracé assez sinueux, afin d'une part de conserver une pente régulière et, d'autre part, de profiter au maximum des différentes possibilités d'alimentation en eau. Contrairement aux autres *qanats* de cet ensem-

2. Nous remercions la Direction Générale des Antiquités et Musées de Syrie qui nous a permis d'avoir accès à cette couverture de photographies aériennes et de réaliser les vues d'hélicoptère.
3. La dénomination locale *faïdha* désigne un aplanissement localisé, abondamment recouvert de limons et assez souvent imbibé par les eaux de crues pluviales des oueds: élargissement limité des vallées ou glaciés d'épandage terminaux.
4. La région des tertres de source a fait l'objet d'une communication lors d'un colloque, le 27 mars 1999: Besançon et al. 2000. On dénombre à ce jour environ une vingtaine de sources artésiennes dont certaines sont encore en eau. Les plus grands tertres atteignent vingt mètres de hauteur pour un diamètre d'environ 350 m.

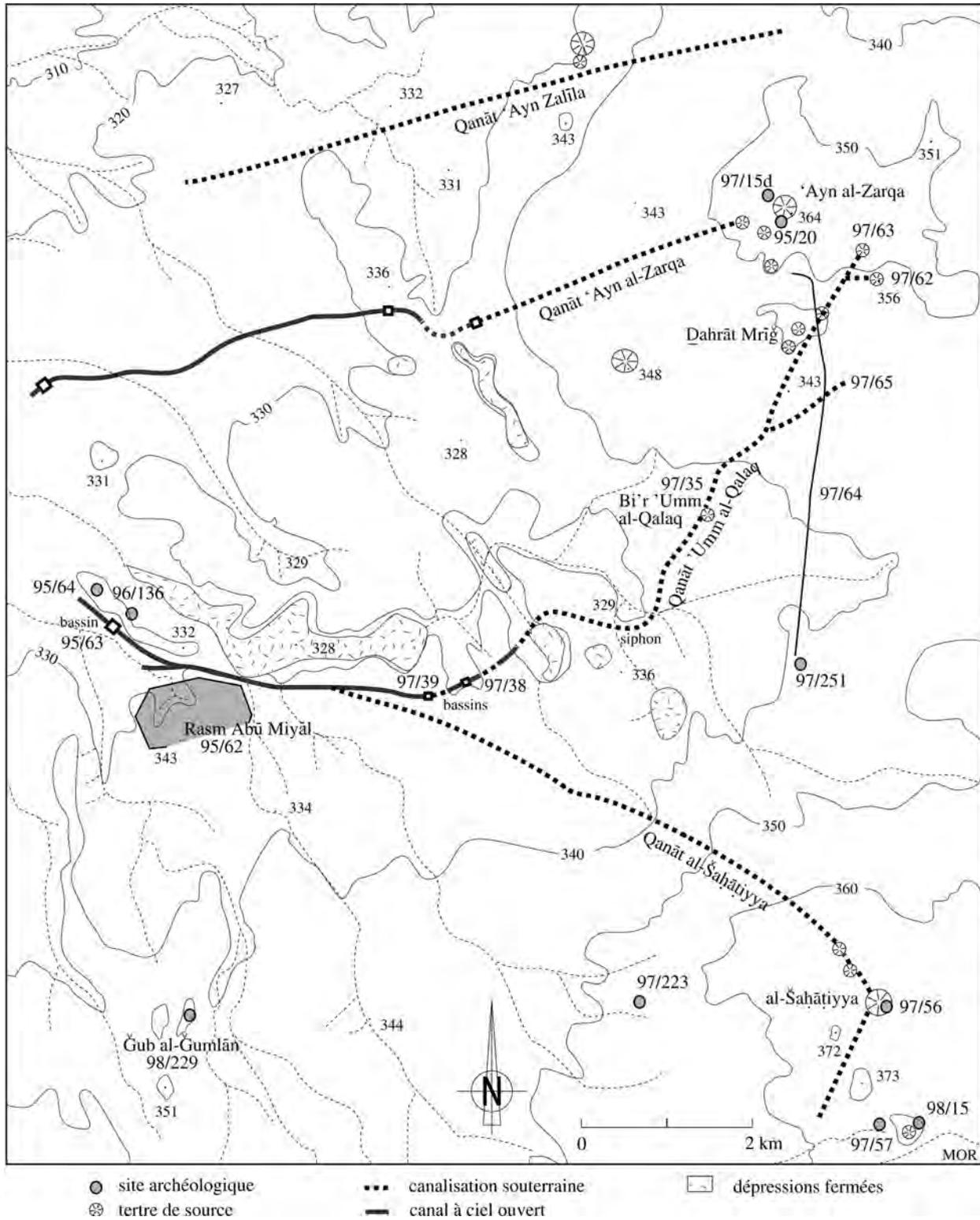


FIGURE 2. Tracé des qanats issues des tertres de source d'après la prospection.

ble (de direction ouest–sud-ouest), elle suit d’abord une direction sud–sud-ouest, pour la première moitié de son parcours, puis oblique vers l’ouest.

Le départ de la *qanat* s’effectue en plusieurs points, au sud-est de la plate-forme de ‘Ayn al-Zarqa. Sur une très grande vasque, très plate, dans laquelle se trouve au moins un tertre cratérisé (97/62), plusieurs petites branches captent l’eau. Certains des trous de suffusion percés dans le matériau gypseux ont été recreusés ou directement abouchés au conduit des *qanats*. La prise 97/63 s’opère dans un ensemble de petites vasques bien soulignées par la végétation et profondes d’environ 1 m.

Une branche secondaire assure un apport d’eau supplémentaire, environ deux kilomètres en aval de la source (97/65). Là, nous n’avons observé que quelques trous de suffusion aux alentours du premier puits.

Le trajet de la *qanat*, au kilomètre 4 (depuis la tête), traverse une source (sans tertre apparent) à laquelle elle s’alimente: Bi’r ‘Umm al-Qalaq (97/35). A 700 m de la source, elle sort en canal avec une trace large de 5 m. 200 m plus loin, elle oblique vers l’ouest sur un remblai artificiel de 2 m de hauteur.

La *qanat* traverse ensuite une *sebkha*, rétrécie artificiellement par une digue pour faciliter le passage. Les regards sont visibles uniquement sur la digue et sur la rive opposée. Il pourrait s’agir là d’un siphon.

A 5.4 km elle passe un petit oued en canal.

Plus loin (km 7.150), la canalisation souterraine passe un oued en le coupant. Un barrage a été construit pour la soutenir et aussi pour retenir l’eau des crues. Il s’agit d’un conduit maçonné, en pierre et mortier gris cendré.

Elle se transforme ensuite en canal à ciel ouvert (km 7.550) pour alimenter un premier bassin (97/38 Qanat ‘Umm al-Qalaq 1, km 8.2), d’environ 16 m de diamètre, puis redevient souterraine et aboutit à un second bassin (97/39 = 98/54 Qanat ‘Umm al-Qalaq 2), 500 m plus loin, d’environ 17 m de diamètre. La fonction de ces bassins était probablement l’alimentation en eau du bétail et des populations avoisinantes (les fragments de céramique ramassés à proximité proviennent essentiellement de cruches); ils pouvaient également servir de bassins de régulation.

Avant d’atteindre le site de Rasm Abu Miyal 1 (km 10), le canal est rejoint par une branche souterraine, longue d’environ 7.5 km, prenant sa source sur une plate-forme gypseuse et récupérant l’eau de plusieurs tertres de sources, à l’est–sud-est (*qanat* d’al-Shahatiyya).⁵ Les puits sont espacés d’environ 40 m.

Elle traverse ensuite toute la vallée à fond plat suivant une direction est–ouest. Il y avait probablement une dérivation alimentant le vaste bassin ou *birkat* (97/45A) à l’intérieur du site de Rasm Abu Miyal 1.

Au-delà du site, le canal se divise en deux branches (les travaux agricoles récents ont détruit les traces dans ce secteur). L’une se jette directement dans la *faïdha*, et un petit canal secondaire part de son extrémité. L’autre branche, qui épouse le tracé sinueux de la colline, alimente un grand bassin carré, de 40 m de côté environ (95/63 = 96/135 = 97/58, Qanat ‘Umm al-Qalaq 3), taillé dans la formation caillouteuse à dalle. Un canal, issu du bassin, longe la bordure de la *faïdha*, sur environ 500 m puis va se perdre dans la *faïdha*. Sa trace, difficile à suivre, était soulignée, sur le terrain, par la végétation de printemps.

5. Nous avons pu observer une carcasse de voiture en voie d’enfouissement dans une doline de suffusion traversée par la *qanat*.



FIGURE 3. Réseau de 'Umm al-Qalaq et site de Rasm Abu Miyal. Extrait de la photographie aérienne n °319 de l'automne 1958.

Il ne fait aucun doute que cette installation a été construite dans une perspective de mise en valeur agricole, dans la mesure où, comme les autres *qanats*, elle vient irriguer une dépression propice à l'agriculture. Cependant, la présence de plusieurs bassins et d'une dérivation probable à l'endroit du site montre également son rôle dans l'alimentation en eau des hommes et du bétail.

Les deux branches principales de la qanat portent les traces de tentatives récentes de surcreusement, à partir des tertres de source. Dans la région de 'Ayn al-Zarqa, la *qanat* a été réexploitée jusqu'à la confluence des deux premières branches; quelques puits ont été creusés, en direction du sud, à partir du tertre d'al-Shahatiyya. Ils sont beaucoup plus profonds que les puits antiques sans doute à cause de l'abaissement progressif du niveau de l'eau de la vasque.

1.2. Les sites prospectés en relation avec la qanat

Les sites en relation possible avec la *qanat* se situent au débouché de celle-ci. Ils sont au nombre de trois.

Le plus important d'entre eux est le site de Rasm Abu Miyal 1 (95/62, 97/45 ABCDE à 97/49, fig. 3 et 4), dont le toponyme fait référence à la présence de colonnes. Il est entouré d'un mur d'enceinte enfermant un espace de 1.5 km est-ouest et de 1 km nord-sud. Seules des traces de ce mur subsistent sur le terrain. Il est situé à la confluence de deux oueds, dans un secteur très favorable à l'agriculture irriguée. Il y avait un vaste bassin intérieur (97/45A:

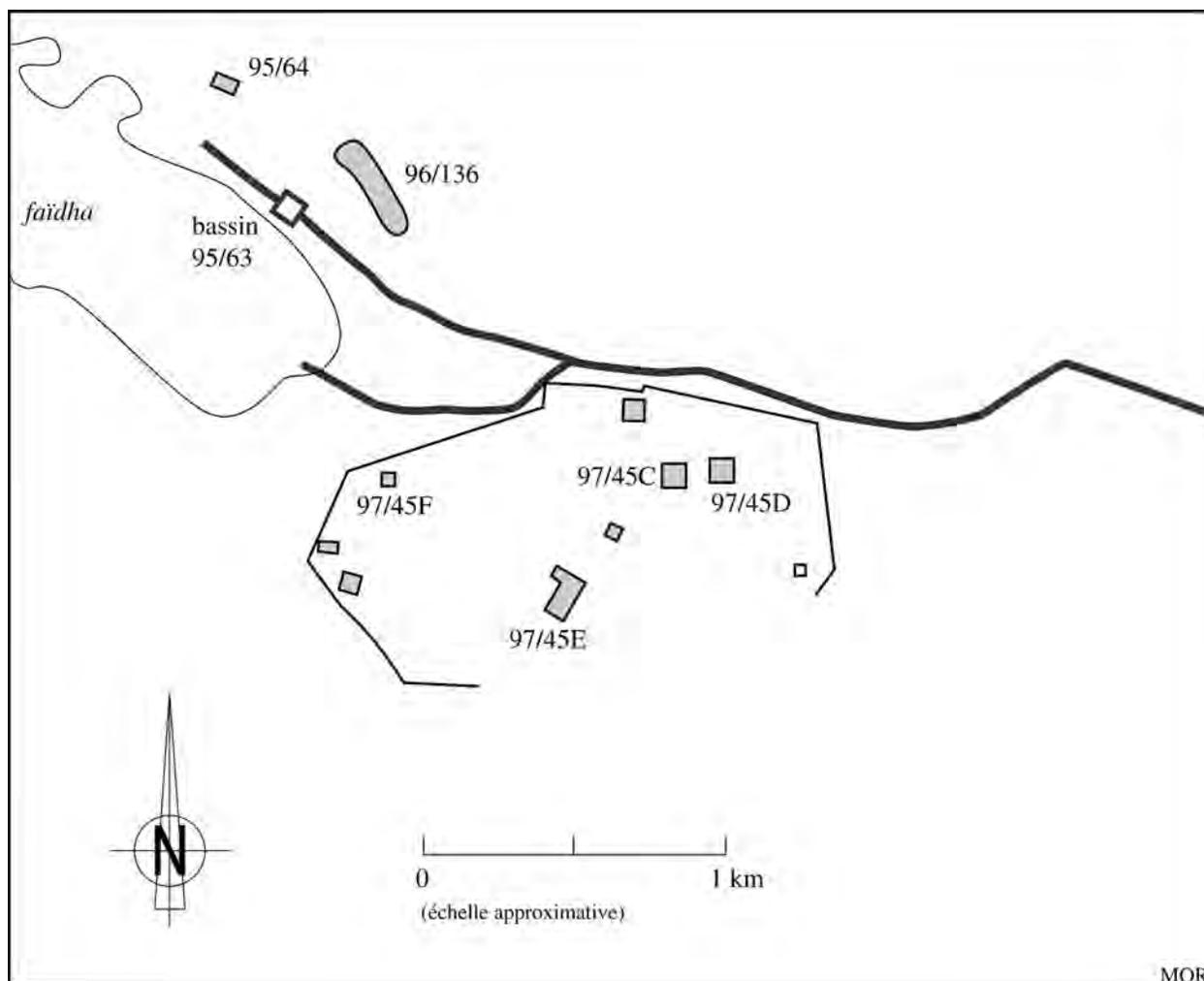


FIGURE 4. Région de Rasm Abu Miyal. Croquis d'après la photographie aérienne n° 319 de l'automne 1958 et la prospection.

une dépression avec au moins trois côtés orthogonaux) probablement alimenté en eau par la *qanat*. Plusieurs grands bâtiments forment des buttes qui sont bien distinctes les unes des autres.

L'un, de 40 m de côté (97/45C), est une construction en brique crue avec une demi-douzaine de colonnes en calcaire nummulithique et une en basalte. Il est entouré d'un fossé. La céramique est abbasside (IXe siècle).

Le second bâtiment (97/45D) a des murs en petits moellons, d'environ 0.55 m de largeur. L'assemblage céramique date des époques omeyyade et abbasside.

Un troisième bâtiment (97/45E), au sud-ouest, a pu être une résidence omeyyade. Il est situé sur la plus haute des buttes et est construit en briques crues mais utilise aussi des pierres de basalte et des briques cuites. Des fouilles clandestines ont mis au jour un bassin en basalte et des fragments de revêtement de marbre polychrome, de dalles en pierre, de tuiles plates, d'enduits peints, de vitraux, ainsi que de la céramique caractéristique de cette période (VII^e–VIII^e siècles). L'entrée était surmontée d'un linteau sculpté byzantin, retaillé et remployé, portant une inscription en grec.

Le quatrième bâtiment (97/45F) est situé dans la partie nord-ouest de l'enclos et assez proche du mur. Quelques blocs de basalte subsistent aux alentours, dont l'un avec une inscription fragmentaire de facture similaire à celle du bâtiment 45 E. Le matériel céramique, très pauvre, peut être attribué à la période byzantino-omeyyade.

L'observation de la photographie aérienne permet de discerner d'autres constructions qui n'ont pas été prospectées sur le terrain, dans la partie ouest du site.⁶

Deux petits sites ont été repérés au nord-est du bassin terminal:

- Rasm Abu Miyal 3 (95/64) a fourni de la céramique de l'époque omeyyade. Des murs de briques crues forment un carré de 25 à 30 m de côté, avec une avancée au nord-est.

- Rasm Abu Miyal 2 (96/136), à environ 150 m du grand bassin, est un site allongé sur une centaine de mètres, le long du fond très plat de l'oued. Il se compose de buttes de terre à brique et d'arases de murs, ainsi que de buttes surbaissées, qui pourraient être plus anciennes. La présence d'une citerne avec une margelle en basalte pourrait indiquer un mode d'alimentation en eau indépendant du grand bassin. La céramique récoltée sur ce site est datée de l'époque byzantine.

1.3. *Les éléments de datation*

La question de la datation d'aménagements hydrauliques tels que les *qanats* reste délicate: avec uniquement les données de la prospection, il est souvent impossible de déterminer des liens de chronologie relative avec les sites à proximité. De plus, les céramiques sont généralement absentes dans les canaux et rares auprès des bassins. Cependant, le site de Rasm Abu Miyal n'a pas pu exister sans aménagements hydrauliques assurant son alimentation en eau. On peut donc penser qu'une partie au moins des *qanats* 'Umm al-Qalaq et al-Shahatiyya était en activité aux époques omeyyade et abbasside.

Qu'en est-il de l'époque byzantine? Très peu de céramique attribuable à la période byzantine a été retrouvée sur le site. Dans les assemblages ramassés, le seul fragment de sigillée tardive, pourtant fréquente même sur les petits sites, est une forme de phocéenne (forme 10A), datée de la fin du VI^e (après 580)—début du VII^e siècle (Hayes 1972: 346). Le linteau réutilisé, dont un deuxième fragment a été observé en 97/45 F, peut provenir de ce bâtiment ou avoir été apporté d'un autre site. En effet, nous avons pu observer à plusieurs reprises que de tels blocs peuvent voyager relativement loin de leur lieu d'origine.

Parmi les sites repérés pour l'instant vers le départ de la *qanat* d'al-Shahatiyya, deux sont de l'époque préhistorique (97/56 et 97/223—kébariens), tandis qu'un troisième, à près de deux kilomètres de la prise, est daté de l'époque romano-byzantine (97/57, al-Shahatiyya 2), sans plus de précision possible. Ce dernier site, constitué d'une construction carrée d'environ 20 m de côté, plaquée contre un mur d'environ 50 m de longueur, appartient peut-être à un très long mur, dont un autre segment (97/64) recoupe ou est coupé par les deux branches de départ de la *qanat* 'Umm al-Qalaq. Cette partie, conservée sur 5 km, est construite avec des dalles de travertin, parfois posées de chant, qui proviennent du tertre de source. Quatre structures carrées et deux cercles de pierre sont accolés à ce mur. Nous avons là un élément de chronologie relative entre deux sortes d'aménagements. Il est peu probable que les deux soient contemporains car il paraît difficile d'imaginer que la prise d'eau de la *qanat* ait été isolée, de l'autre côté d'un mur de limite, du reste de la *qanat*.

L'interprétation chronologique des différents éléments pourrait être la suivante:

6. Voir aussi la photographie oblique de A. Poidebard publiée dans Geyer 2000: 120.

- il y a pu y avoir, en premier lieu, un petit établissement d'époque byzantine, avec ou sans enclos, semblable à ceux répartis sur le pourtour de la grande *faïdha* centrale. En effet, le site de Rasm Abu Miyal 1 n'a pas été prospecté en totalité et il est possible que des vestiges de cette époque nous aient échappé ou aient été masqués par l'occupation postérieure. De plus, il apparaît logique que cet ensemble fasse partie du vaste système de mise en valeur de la région mis en place à l'époque byzantine, l'irrigation de la dépression centrale étant l'un des points principaux de ce système.

- en second lieu, une résidence omeyyade s'est installée dans cette région propice à l'agriculture et à proximité des terrains de chasse, réplique réduite des "châteaux du désert" comme Qasr al-Hayr al-Gharbi, avec une propriété ceinte de murs et un apport d'eau artificiel.

- Le site et les aménagements hydrauliques afférents ont été utilisés de manière continue jusqu'à l'époque abbasside (X^e siècle). De nouveaux bâtiments ont été construits avec, pour certains, un caractère défensif inusité jusqu'alors.

2. Les *qanats* issues des Palmyrénides: l'exemple de Ma'aqar al-Shamali

Le réseau auquel appartient la *qanat* de Ma'aqar al-Shamali a été construit pour drainer les eaux d'infiltration provenant du glaciais du massif montagneux des Palmyrénides, au sud, vers la grande dépression centrale (*faïdha*), au nord. Deux sous-ensembles se distinguent (fig. 1): en amont, des petites *qanats*, de faible longueur (moins de 3 km), dites "d'intérêt local", et, en aval, une série de quatre *qanats*, beaucoup plus longues (entre 7 et 12 km environ), destinées à l'irrigation de la *faïdha* centrale, comme celles issues des tertres de sources. La *qanat* de Ma'aqar al-Shamali est la plus occidentale d'entre elles.

2.1. *Qanat de Ma'aqar al-Shamali* (fig. 5 et 6)

La *qanat* de Ma'aqar al-Shamali suit une direction grossièrement sud-ouest-nord-est. Longue d'environ 7 km, la canalisation souterraine débute en amont du site de Ma'aqar al-Qibli (95/99) et suit le lit d'un oued jusqu'à son aboutissement dans le bassin terminal de Ma'aqar al-Shamali (95/102 = 97/184 = 98/56). Une branche secondaire, creusée dans le fond d'un oued affluent, complète son alimentation en eau.

Elle est de construction moins élaborée que celle de 'Umm al-Qalaq car son trajet ne nécessite pas l'édification d'ouvrages particuliers. En effet, il suit le tracé, sinueux, de l'oued.

Sur son parcours, la *qanat* recoupe un angle de mur, large de 0.60 m, construit en blocs de dalle. Il s'agit d'un enclos de propriété, qu'elle traverse en diagonale.

Le grand bassin, qui jouxte le village actuel de Ma'aqar al-Shamali (95/102 = 97/184 = 98/56), est installé sur un promontoire d'un glaciais à dalle qui domine une vallée large à fond plat. Cette disposition est idéale pour un début d'irrigation. De plan rectangulaire (environ 48 × 36 m), il est orienté au nord-est, c'est à dire dans le prolongement de la *qanat*. L'eau arrive au milieu de l'un des petits côtés et ressort à l'opposé, par un petit canal. Il est entièrement maçonné de blocs calcaires parfaitement taillés, à joints vifs (1 m × 0.40 m de haut), y compris le plancher. La paroi nord a été bétonnée lors de la réfection du bassin après son déblaiement, il y a une dizaine d'années. Cependant, le bassin n'a pu être utilisé pour cause de fuites.

L'observation du conduit de la *qanat* de Rahjan, qui appartient au même réseau, à l'est de celle de 'Umm Miyal, montre qu'elle est creusée juste au-dessus de la formation compacte



FIGURE 5. Réseaux de Ma'aqar al-Shamali et 'Umm Miyal. Extrait de la photographie aérienne n° 1719 du 17/03/1961, à l'échelle approximative de 1: 80,000.

imperméable, sur laquelle s'écoulent les eaux d'inféoflux. Le conduit a une section d'environ 0.50 m de largeur pour une hauteur totale d'environ 0.90 m. Le sommet peut être plat, avec une voûte en plein cintre ou surbaissée, suivant le type de sédiment.

La qanat a été remise en état il y a environ 40 ans et détournée vers une petite *birkat* juste en aval. Elle servait probablement à l'irrigation de la *faïdha* au nord-est du village, au moins jusqu'en 1988.

2.2. Les sites aux alentours de la qanat de Ma'aqar al-Shamali

Les données de la prospection nous permettent maintenant de répartir les différents sites, signalés sur la figure 6, en plusieurs catégories bien distinctes: gros site, fermes à enclos et hameaux.

2.2.1. *Abu 'Ajwa*. Bien au-delà du débouché de la qanat, sur le bord de la grande *faïdha* centrale, le site de Abu 'Ajwa (93/97 = 95/15) est le plus étendu de ce secteur. Il est établi à la confluence d'un petit talweg et d'un plus gros oued. Des restes d'une structure subsistent, sur le point culminant, avec des fondations en gros blocs de dalle conglomératique qui pourraient avoir été un temple, avec son téménos.⁷ Dans la "ville basse", des axes de circulation,

7. Il s'agit, avec Ithriyya, des deux seuls sites (prospectés) de la région sur lequel nous avons pu reconnaître un temple.

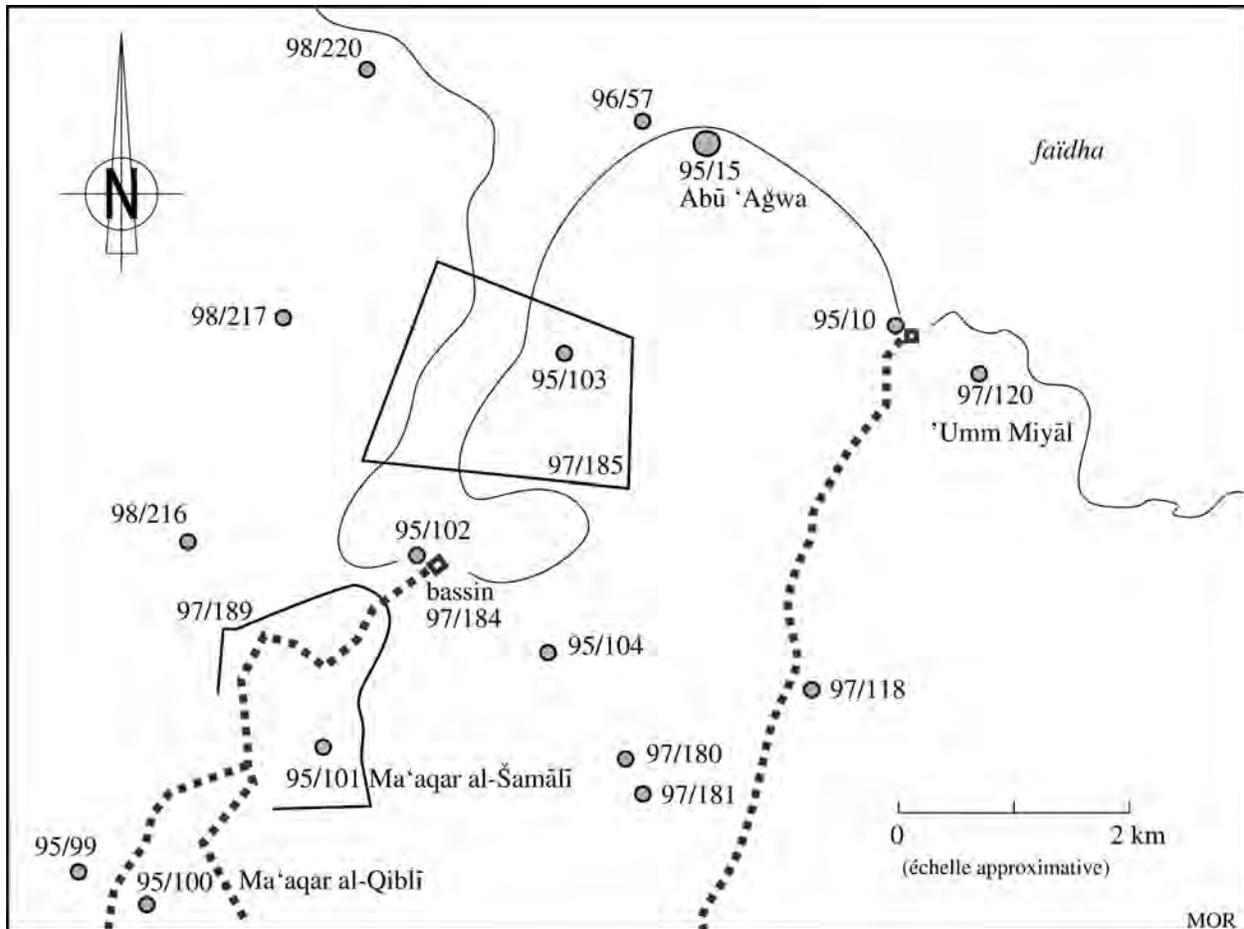


FIGURE 6. Région de 'Umm Miyal et Ma'aqar al-Shamali. Croquis d'après la photographie aérienne n° 1719 du 17/03/1961 et la prospection.

dont un est-ouest, sont visibles. De très nombreuses arases de murs et des alignements apparaissent dans les champs, au nord. Il est possible parfois d'identifier certaines constructions. Dans la partie est, des arasements réguliers font penser à un camp militaire. Ailleurs, une église est signalée par deux fragments de dalle de chancel et des tesselles de mosaïque. Enfin, il y a probablement une nécropole à l'est et une carrière au sud.

L'alimentation en eau était assurée, entre autres, par un puits construit en moellons de dalle bien équarris, sur 2 m, puis foncé dans la formation en place. Un deuxième puits a été observé dans le site; il est bouché à moins 10 m.

Le matériel céramique ramassé date des périodes romaine et byzantine. Il pourrait s'agir d'une ville—garnison romaine, avec temple, occupée de manière continue et relativement importante jusqu'à l'époque byzantine.

2.2.2. Deux fermes à enclos ont été repérées dans ce secteur: La propriété de Rasm M'am-mash (95/101 = 97/189 et 97/191) est installée de part et d'autre d'un oued qui débouche dans une indentation de la *faïdha*. Un enclos polygonal est matérialisé par des murs de 0.8 m de largeur, à double parement de blocs bruts de dalle. Il englobe un terrain vallonné et actuellement cultivé en sec. De petits enclos postérieurs sont venus se greffer sur le mur et

réutilisent les pierres de construction. Un départ de mur, en direction du nord, vient se raccorder perpendiculairement au segment septentrional.

Le site est installé sur la terrasse à dalle, elle-même sur la roche, et surplombe l'oued. Plusieurs quadrilatères plus ou moins imbriqués, en brique crue, apparaissent comme de petits tells rougeâtres. Des alignements de pierre orthogonaux ont été observés au nord et à l'est du site. Les installations hydrauliques sont constituées d'au moins une citerne, au nord-est et peut-être d'une *birkat*. Il devait y avoir, pour élever l'eau, une machine à godets; en effet, nous avons ramassé deux bords de godets de noria parmi la céramique.

Des fragments de basalte et des tesselles de 2 cm de côté, blancs, reposent ça et là. Le matériel céramique donne une datation de l'époque byzantine (douteuse cependant; les rares tessons sont peu représentatifs) et abbasside.

A l'ouest-nord-ouest du site, un caveau voûté, entièrement pillé, est construit en blocs de basalte taillés. D'après les restes alentours, la partie supérieure des murs devait être construite en brique crue et la couverture en tuiles plates. Les quatre faces étant entièrement maçonnées, l'accès devait se faire par un puits supérieur. La céramique recueillie sur ce point date de l'époque romaine.

L'ensemble a été réutilisé comme un puits avec dromos d'accès latéral (d'après le paysan interrogé). Des trous de pillage ont été pratiqués, à côté, pour chercher d'autres caveaux, sans succès.

'Umm al-Ka'iybat (95/103 = 97/186 = 98/234).⁸

Cette seconde propriété s'étale en aval du débouché de la qanat et inclut un oued large à fond plat potentiellement irrigable (Ka'iybat: an arabe, pluriel de "cube").

Le site se présente sous la forme d'une éminence au milieu des champs cultivés en sec.⁹ Il s'agit d'un ensemble de bâtiments au cœur d'un grand enclos trapézoïdal d'environ 300 ha (97/185). Des murs de séparation délimitent trois ou quatre parcelles à l'intérieur de l'enclos. Il y a des cavités dans l'une d'elles, à l'est. Au moins deux terrasses ont été construites en travers de l'oued, dans sa partie aval, pour retenir les eaux des crues.

Les bâtiments sont au centre de la propriété. Le plan est esquissé par les restes de nombreux murs aux fondations de pierre (blocs jusqu'à 0.40 m débités sommairement dans la dalle conglomératique) et les grosses buttes de briques crues provenant de l'effondrement des substructures. Il y avait probablement un étage, comme le suggère la hauteur actuelle du tell et le fait que des tesselles de mosaïque aient été retrouvées au sommet des buttes.

L'alimentation en eau était assurée à la fois par des citernes ouvertes dans la dalle et par un puits bouché, en partie dégagé.

Parmi les objets recueillis ou observés, citons des fragments de basalte, dont une base de moulin à olives (diamètre 1.10 m, hauteur 0.30 m), un bloc de 0.60 m de long en calcaire tendre bien taillé, des fragments de grosses jarres de stockage, des tuiles plates (rares), des fragments d'enduits muraux (gris et blanc), et des tesselles de mosaïque (de 2 cm de côté, blanches, gris foncé, gris rosé et gris clair). La céramique est abondante et date, sans doute possible, de la période byzantine. A signaler un fond et un bord de godet de noria, vestige d'une machine pour élever l'eau.

Ces exploitations agricoles présentent des caractéristiques bien établies: position, enclos, bâtiment à étage et présence systématique de gros tesselles de mosaïque utilisés pour paver les sols.

8. Ce site a fait l'objet d'un relevé en 1998.

9. Il y a également un peu de cultures irriguées, notamment du coton.

2.2.3. *Les hameaux.* Les hameaux en contact direct avec la qanat sont peu nombreux. Vers sa prise ouest, les sites 95/99 et 95/100 sont implantés de part et d'autre de l'oued. Très peu d'arbres poussent dans les environs. La majeure partie des cultures est non irriguée.

- Ma'aqar al-Qibli (95/99), dans un village actuel (hameau de sédentaire avec école) comporte un édifice carré (20 m × 20 m), avec soubassement en blocs de dalle et murs de briques crues, au nord seulement. Il y avait un ancien puits, qui a été bouché, à proximité. La céramique, peu abondante, pourrait être attribuée à la période byzantine.

À 500 m au sud-est du village de Ma'aqar al-Qibli, Rasm Ma'aqar (95/100) est un site double. Un tell gris est daté, par le matériel, du Bronze ancien. Une zone bosselée, rougeâtre, avec de nombreuses arases de murs, s'étend largement à l'est, au sud et à l'ouest du tell. Sur une éminence au sud-est du site, passée au bulldozer, des blocs de calcaire taillés subsistent d'une tour arasée. Vers l'est, un quadrilatère de brique crue avec des blocs de pierre calcaire taillée a également été récemment ravagé.

Des fragments de tuiles et de l'outillage de basalte ont été remarqués. Outre celle du Bronze, les périodes romaine (peu), à l'ouest, et byzantine, à l'est, sont également représentées par la céramique.

- A nord-ouest du bassin de Ma'aqar al-Shamali, un bâtiment en briques crues, de plan carré, pourrait être un poste de garde. Le cimetière du village actuel s'est installé sur cette butte. Il n'y avait pratiquement pas de céramique, sur le bassin et le site accolé. Les tessons recueillis sont représentatifs des époques byzantine et abbasside.

- Les hameaux à l'écart de la qanat sont assez stéréotypés (95/104 Rasm Mfitisha, 98/220 Al-Mishirfa, 98/217 Rasm al-Rahba). Ce sont généralement de petits sites d'interfluve, avec des bâtiments épars dont subsistent quelques buttes de briques crues et des arases de murs en pierre, large de 0.75 m. Des cavités ont été creusées sous la dalle, en périphérie. Tous ces sites ont fourni de la céramique d'époque romaine (peu abondante) avec quelques tessons d'époque byzantine, pour 98/220. Il y avait, à Rasm al-Rahba (98/217), un reste de meule dormante de moulin à olives, en basalte. Un fragment de lampe a également été trouvé sur ce site; il peut être daté du I^{er} siècle ou de la première moitié du II^e siècle.

Rasm al-Basal (98/216), quoique de même type, est plus étendu (environ 250 m de long). Il se compose de bâtiments avec buttes de briques crues, cours et dépendances, bien séparés les uns des autres, et de cavités. Un abreuvoir en basalte y est visible.

Les hameaux byzantins sont répartis sur les zones intercalaires entre les grandes qanats et plus éloignés de la qanat que les hameaux romains.

2.3. *Interprétation*

Nous disposons, pour cet ensemble, de plusieurs éléments de datation.

Tous les enclos que nous avons rencontrés à l'est de la zone prospectée sont implantés sur des talwegs d'oued afin de bénéficier d'un apport d'eau maximum: celui de Ma'aqar al-Shamali bénéficie lui aussi d'un tel dispositif. L'enclos est antérieur à la *qanat*, celle-ci conservant sa fonction drainante même après abandon (ce fait a été maintes fois mentionné par des gens de la région à propos de la réutilisation à l'époque moderne des *qanats* antiques). L'oued ainsi drainé ne pouvait plus être utilisé pour l'agriculture. Le site associé à l'enclos a livré de la céramique d'époque romaine (tombeau) et abbasside (95/101, 97/191) et quelques tessons attribuables à l'époque byzantine. Il semble vraisemblable qu'il ait été construit à l'époque romaine et réutilisé tardivement. Les éléments dont nous disposons sont pour l'instant insuffisants pour proposer une chronologie plus détaillée de l'occupation de ce site.

La répartition des sites aux environs de la qanat est significative. Les sites romains sont assez régulièrement répartis sur l'ensemble du secteur, espacés d'environ 2 km les uns des autres; les sites plus importants sont plus espacés. Les sites byzantins sont implantés soit en rapport direct (à proximité de la prise ou au débouché de la qanat), soit à l'écart de la qanat, ce qui suggère une prise en compte de cette dernière. Ils seraient, par conséquent, contemporains de la qanat.

Cette installation hydraulique était destinée à l'irrigation des cultures. Quelles étaient celles-ci? Actuellement, la région est essentiellement vouée à la culture de l'orge, cultivé en sec. Des plantations d'oliviers ont été effectuées récemment. Elles sont irriguées grâce à des puits profonds.

L'étude réalisée par Jean Baradez (1949: 199—201) dans le sud algérien, région aux conditions climatiques similaires à la nôtre, conclut qu'à l'époque romaine (du II^e au milieu du V^e siècles), les apports d'eau constants étaient destinés à l'arboriculture (oliviers et essences fruitières) et aux cultures maraîchères et que les eaux saisonnières arrosaient les céréales d'hiver. Là-bas, les indices d'huileries (moulins, contrepoids, broyeurs cylindriques, maies, cuves et restes de jarres) sont présents partout.

Des éléments de pressoirs ont été observés sur deux des sites proches de la qanat de Ma'aqar al-Shamali (95/103 et 98/217). Ces installations étant généralement peu éloignées des lieux de production,¹⁰ on peut penser que l'olivier était effectivement cultivé à proximité. En ce qui concerne la datation de ces installations et, par conséquent, des cultures d'oliviers, les deux exemples présentés donnent une fourchette large: l'un des sites est daté par la céramique des I^{er}–II^e siècles et l'autre des V^e–VI^e siècles. Les restes de pressoirs identifiés ailleurs dans la région prospectée sont associés à des sites très majoritairement byzantins.

Un site, Hjayla (97/280), situé à environ 20 km au sud-ouest de Ma'aqar al-Shamali, est intéressant pour notre propos. Une grosse ferme est installée dans un enclos dont le terrain est régulièrement percé de trous (tous les 5–7 m), pratiqués dans la dalle pour pouvoir atteindre les sédiments meubles. Plusieurs citernes sont régulièrement réparties dans les champs. Cette installation a été découverte par un agriculteur qui l'a récemment réutilisée pour planter des pistachiers. Même si rien ne permet d'affirmer qu'il s'agissait d'oliviers, elle atteste de l'arboriculture dans cette partie de la région à l'époque byzantine.

3. Conclusion

Ces deux exemples permettent d'esquisser un schéma d'évolution économique de la région, au cours du premier millénaire ap. J.-C.:

(1°) A l'époque romaine

A l'ouest, l'aridité est moindre, du fait de conditions climatiques et édaphiques propices et par conséquent la mise en valeur plus facile. C'est là que l'on retrouve les traces les plus anciennes d'exploitations agricoles, comme la propriété de Ma'aqar al-Shamali, fondée surtout sur la culture en sec et peut-être sur des irrigations ponctuelles à partir de puits. Il semblerait que l'arboriculture ait été pratiquée assez tôt, probablement dès l'époque romaine. L'économie était alors essentiellement de subsistance, sans doute tournée plus sur l'élevage.

(2°) A l'époque byzantine

10. Pour plusieurs raisons, entre autres à cause de la faible durée de conservation des olives après ramassage (Callot 1984: 17).

C'est la période de l'installation des grands systèmes hydrauliques. La mise en valeur agricole s'est intensifiée mais surtout l'économie a pris une tournure différente de celle de la période précédente, plus tournée vers une économie de rente avec des produits transformés (huile), le tout grâce à l'irrigation, dans un contexte politique "stable".

(3°) A l'époque omeyyade

Poursuivant le système mis en place à l'époque byzantine, l'occupation de l'époque omeyyade est concentrée dans certains secteurs. A l'est, l'utilisation des structures hydrauliques est continue alors qu'il semble y avoir un *hiatus* dans l'occupation à l'ouest. Cela peut-il être dû au mode de répartition des terres? On sait par les textes qu'à cette époque, de grands projets d'aménagements agricoles ont été menés à bien en Jordanie ou dans la vallée de l'Euphrate par exemple (Kennedy 1992: 293). En effet, les dignitaires se voient octroyer, comme revenus, des terres à faire fructifier.

(4°) A l'époque abbasside

Dans les deux cas décrits ci-dessus, le fort avec fossé, construit à l'époque abbasside, dénote un besoin de surveillance qui n'existait pas à l'époque antérieure. Ceci est la conséquence directe des conflits entre Byzantins et Abbassides. La limite entre les deux empires est mouvante, et les raids fréquents, de part et d'autre. A partir de 960, les incursions byzantines se font plus dures. Les villes attaquées voient leur récoltes détruites et leurs arbres coupés (Tate 1992). D'où la nécessité, pour les populations sous domination abbasside, de renforcer les éléments essentiels au maintien de leur moyen de subsistance—l'activité agricole: le système hydraulique (c'est pourquoi, des établissements ont été installés vers la prise, sur le parcours et surtout à côté du bassin terminal).

Bibliographie

Baradez, Jean

1949 *Vue aérienne de l'organisation romaine dans le sud algérien, Fossatum Africae*, Paris.

Besançon, Jacques et Geyer, Bernard

1999 "Les marges du désert en Syrie du Nord. Premières observations sur les fluctuations de l'environnement géo-écologique et de l'occupation du sol", *Actes du colloque d'Alep "Aleppo and the Silk Road"*, A.A.A.S. XLIII, p. 37–49.

Besançon, Jacques avec Geyer, Bernard; Muhesen, Sultan et Rousset, Marie-Odile

2000 "Les plateformes gypseuses et les tertres de sources de la région de 'Ayn al-Zarqa (Syrie du Nord)", *B.A.G.F* 77/1, p. 10–16.

Callot, Olivier

1984 *Huileries antiques de Syrie du Nord*, BAH CXVIII, Paris.

Calvet, Yves et Geyer, Bernard

sous presse "Le Bronze ancien des steppes arides de la Syrie du Nord ou la 'conquête de l'est'", *Conquête de la steppe et appropriation des terres du IIe au VIIe siècle de notre ère*, T.M.O., Lyon: Maison de l'Orient.

Geyer, Bernard

1998 "Géographie et peuplement des steppes arides de la Syrie du Nord", *Actes du colloque de Québec "Espace naturel, espace habité en Syrie du Nord (10e–2e millénaires av. J.-C.)"*, 1997, p. 1–8.

Geyer, Bernard

2000 "Des fermes byzantines aux palais omeyyades, ou l'ingénieuse mise en valeur des plaines steppiques de Chalcidique", *Aux origines de l'archéologie aérienne*, A. Poidebard (1878–1955), édité par L. Nordiguan et J.-F. Salles, Beyrouth, PUSJ, p. 109–122.

- Geyer, Bernard avec Besançon, Jacques; Calvet, Yves et Debaine, Françoise
 1998 "Les marges arides de la Syrie du Nord: prospection géo-archéologique", *Bulletin de l'Association des Géographes Français*, 75/2, p. 213—223.
- Geyer, Bernard
 in press "Transformations to landscapes, how the conditions of landuse evolved in the Byzantine world", in *Economic History of Byzantium*.
- Geyer, Bernard et Rousset, Marie-Odile
 in press "Les steppes arides de la Syrie du Nord à l'époque byzantine ou 'La ruée vers l'Est'", dans P.-L. Gatier et B. Geyer: *Conquête de la steppe et appropriation des terres du IIe au VIIe siècle de notre ère*, T.M.O., Lyon: Maison de l'Orient.
- Hayes, J. W.
 1972 *Late Roman Pottery. A Catalogue of roman fine wares*, Londres: The British School at Rome.
- Jaubert, Ronald avec Debaine, Françoise; Besançon, Jacques; Dbiyat Mohammed; Geyer, Bernard; Gintzburger, Gus et Traboulsi, Myriam
 1999 *Land use and vegetation cover in the semi-arid and arid areas of Aleppo and Hama provinces (Syria)*, Cahiers du GREMMO, hors série.
- Kennedy, Hugh
 1992 "The impact of muslim rule on the pattern of rural settlement in Syria", P. Canivet et J.-P. Rey-Coquais, *La Syrie de Byzance à l'Islam VII^e–VIII^e siècles*, Actes du Colloque International, Lyon-Paris, 11–15 Septembre 1990, Damas: IFEAD.
- Muhesen, Sultan avec Besançon, Jacques; Geyer, Bernard et Jaubert, Ronald
 1998 "Les marges arides de la Syrie du Nord. Chronique d'une prospection géoarchéologique: 1997", *Chronique archéologique en Syrie II*, DGAM, Damas, p. 99–102.
- Rousset, Marie-Odile
 in press "Le peuplement des Marges Arides (région de Salamiyya) à l'époque islamique", Actes du colloque de Hama.
- Tate, Georges
 1992 *Les campagnes de la Syrie du Nord du II^e au VII^e s.*, tome 1, IFAPO, BAH CXXXIII.

Erste Überlegungen zum Stuckdekor in Kharab Sayyar

JAN-WAALKE MEYER
Goethe University ~ Frankfurt

Abstract

Im Herbst 1999 fand die zweite Grabungskampagne in Kharab Sayyar statt, einer frühislamischen Stadtanlage in der syrischen Djezire, etwa 16 km südlich von Tell Chuera gelegen. Angeschritten wurde ein offenbar recht großes Gebäude, dessen vollständigen Ausmaße immer noch nicht bekannt sind. Es besteht aus einer Reihe von parallel zueinander angelegten Räumen, die zweifellos zu dem Südteil einer offenbar ausgedehnteren Anlage gehört, die sich nach Norden, über einen Hof, erstreckt.

Zwei Räume dieser Anlage waren mit einem weißen Gipsverputz versehen, auf dem ein umlaufender, etwa 1.50 m hoher Stuckdekor aufgetragen ist, der noch weitgehend an den Wänden erhalten war. Weitere Bruchstücke fanden sich in der Raumverfüllung, so daß der Dekor weitgehend vollständig rekonstruierbar ist. Die einzelnen Wandfläche weisen keinen einheitlichen Dekor auf, sondern jede Wand ist in mehrere, deutlich voneinander getrennte Paneele mit jeweils unterschiedlichen Dekorformen unterteilt.

Die Muster sind tief in aufgetragenen Stuck eingeschnitten und weisen sowohl in Einzelmotiven, als auch in der Anordnung der Muster,—z.B. den einzelnen Flächenmustern, die Verwendung des unendlichen Rappports—Ähnlichkeiten mit Samarra, Stile A und B, auf; jedoch lassen sich auch deutliche Unterschiede finden. In dem Vortrag kann nur eine erste, summarische Beschreibung und stilistische Einordnung des Stuckdekors erfolgen.

Die Grabungen in Kharab Sayyar, etwa 16 km südlich von Tell Chuera in der nordsyrischen Steppe (Abb. 1), finden als syrisch-deutsches Gemeinschaftsunternehmen zwischen dem Antikendepartement Damaskus und der Goethe-Universität Frankfurt statt.¹ Bisher wurden zwei Grabungskampagnen durchgeführt.² Die Ruine gliedert sich in zwei Besiedlungsbereiche: eine etwa 650 m auf 650 m große, massiv befestigte frühislamische

1. Dem Direktor des syrischen Antikendepartements, Dr. Sultan Muhesen, sei an dieser Stelle für die Erlaubnis zur Durchführung der Grabungen sowie für die personelle und finanzielle Unterstützung des Projekts gedankt. Direktor der syrischen Seite ist Dr. Mohammad Gadour.
2. An der Grabung 1999 nahmen von der syrischen Seite Murhaf al Khalaf sowie Salam Qantar und Abd al-Rahman teil, von deutscher Seite Prof. Dr. Jan-Waalke Meyer (Universität Frankfurt), Dr. Martina Müller-Wiener (Universität Bonn), Angieszka Zysek (Universität Warschau), Dr. Wolfgang Meyn, Angelina Poppe, Sabine Doerner, Ralph Hempelmann, Michael Würz (alle Universität Frankfurt) sowie Roland Niebling und Veronika Kudlek (FH Frankfurt) als Geodäten. Einen großen Teil der Finanzierung leistete die Fazit-Stiftung, außerdem waren mehrere private Geldgeber beteiligt. Ihnen allen sei an dieser Stelle ganz herzlich gedankt. Seit 2000 ist die DOG als Kooperationspartner an den Ausgrabungen beteiligt.

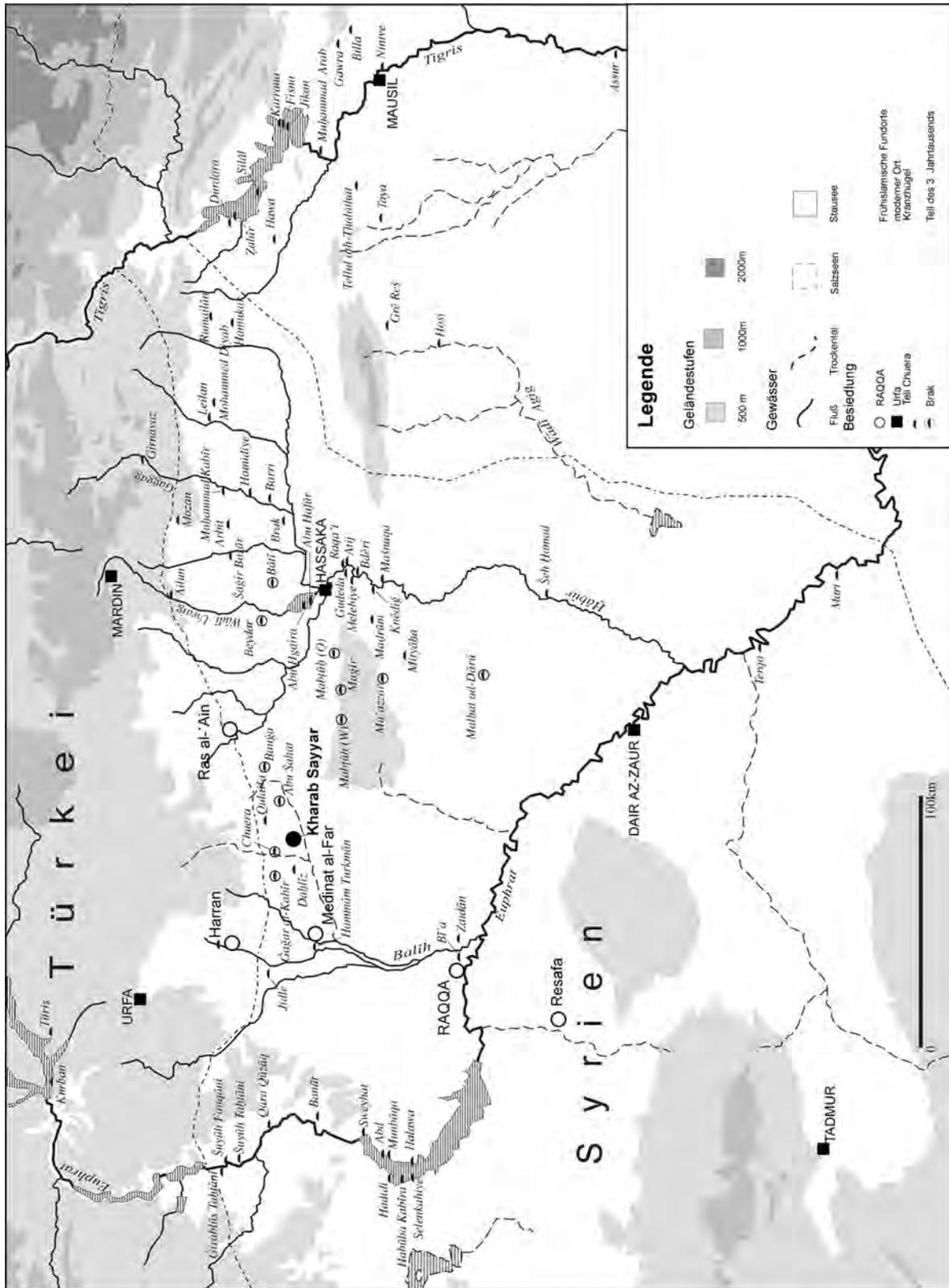


ABBILDUNG 1. Karte von Obermesopotamien mit den wichtigsten Fundorten.



ABBILDUNG 2. Plan von Kharab Sayyar mit den Grabungsbereichen (Stand 1999).

Anlage und einen antiken Siedlungshügel im Südosten der Stadt, der allerdings ebenfalls mit islamischen Anlagen überbaut ist (Abb. 2). Ziel der Arbeiten ist es, einerseits eine offenbar bedeutende frühislamische Siedlung zu untersuchen, andererseits aber auch, zusammen mit den Ergebnissen der Ausgrabungen in Tell Chuera und denen eines Surveys, Aussagen über die Besiedlungsgeschichte und -struktur dieses Gebietes vom Neolithikum bis in die

frühislamische Zeit vorlegen zu können.³ An dieser Stelle soll allerdings nur über einen Aspekt dieser neuen Ausgrabung berichtet werden, über den frühislamischen Stuckdekor, der die Wände von zwei der freigelegten Räume verziert.

In der ersten Kampagne wurde eine Reihe von parallel zueinander angelegten Räumen angeschnitten, die zweifellos zu einem größeren Komplex gehören, der sich über den Hof I weiter nach Norden erstreckt (Abb. 3). Die Ausmaße dieser Anlage bleiben allerdings noch ungewiß, da ein funktionaler Zusammenhang bisher nicht geklärt werden konnte. Möglicherweise handelt es sich um eine ausgedehnte mehrhofige Anlage, zu der drei weitere Höfe gehören, deren Existenz anhand entsprechender Depressionen im Gelände deutlich zu erkennen ist. In diesem Fall würde auch der isoliert wirkende Raum Z, dessen Wände vollständig mit Stuckdekor versehen sind, ebenfalls noch zu diesem Gebäude gehören.⁴

Auch nach Süden geht dieser Komplex offenbar noch weiter; Raum M bildet eine Art Vorhalle zu Raum D, bei dem es sich aufgrund des Wanddekors mit Sicherheit um einen Empfangsraum handelt. Westlich an diese Vorhalle anschliessend finden sich Reste weiterer Mauerzüge, die u.a. einen ursprünglich hier vorhandenen Zugang zu Raum B verschliessen. Dieser Befund, zusammen mit weiteren Beobachtungen, wie das leichte Abweichen der Mauern von Raum M gegenüber der allgemeinen Ausrichtung und die Anlage von zwei Fußböden in Raum D, sprechen für eine Zweiphasigkeit des Gebäudes.

Nahezu alle Räume waren mit einem weißen Gipsverputz versehen, auf den in den Räumen D und Z ein umlaufender, tief eingeschnittener etwa 1.50 m hoher Stuckdekor aufgetragen ist, der noch weitgehend an den Wänden erhalten war. Weitere Bruchstücke fanden sich in der Raumverfüllung, so daß die verwendeten Muster, insgesamt mehr als 20 verschiedene, vollständig rekonstruierbar sind. Die einzelnen Wandflächen weisen keinen einheitlichen Dekor auf, sondern jede Wand ist in mehrere, deutlich voneinander getrennte Paneele mit jeweils unterschiedlichen Mustern unterteilt. Eine Ausnahme bildet offenbar nur die Nordwand von Raum Z, die einen symmetrischen, die ganze Wand umfassenden Dekor besitzt. Im Folgenden kann nur eine erste, summarische Beschreibung und der Versuch einer stilistischen Einordnung erfolgen; die zeichnerische Dokumentation sowie die wissenschaftliche Bearbeitung soll nach der nächsten Kampagne durch einen Spezialisten erfolgen.

Frühislamischer Stuckdekor aus Kharab Sayyar ist der Fachwelt seit langem bekannt,⁵ doch handelte es sich bisher nur um Einzelstücke, die bei gelegentlichen Besuchen aufgefunden wurden. Die daraus resultierende zeitliche Einordnung in den Umkreis der Stukkaturen aus Samarra, d.h. in die Mitte des 9. Jhs., kann jetzt präzisiert werden.⁶ Ebenso lassen sich jetzt erste Aussagen über das verwendete Bildprogramm treffen.

Grundsätzlich ist zunächst einmal festzustellen, daß der Dekor in Kharab Sayyar sowohl aus flächendeckenden Einzelmotiven (z.B. Raum D, Ostwand, nördl. Paneele; Nordwand, Mittelpaneele) als auch aus Zentralmotiven (Kreise, Quadrate) aufgebaut ist; auch letztere sind flächendeckend, bestehen jedoch kompositorisch aus geometrischen Rahmen

3. Ein erster Vorbericht der Kampagne 1999 erscheint demnächst als Jan-Waalke Meyer, Die zweite Grabungskampagne in Kharab Sayyar 1999, MDOG 132, 2000, 235–247.
4. In der Kampagne 2000 konnte festgestellt werden, daß der Raum Z zu einem anderen Gebäude gehört und beide durch eine Freifläche voneinander getrennt sind.
5. Sarre 1933: 93–96; Moortgat-Correns 1992.
6. Meinecke 1991: 236 wies darauf hin, daß zwar Ähnlichkeiten mit dem Stuck aus Samarra bestehen, die Mehrzahl der aus Kharab Sayyar bekannten Fragmente jedoch stilistisch einer eigenen, bisher nicht bekannten Gruppe angehören würden.

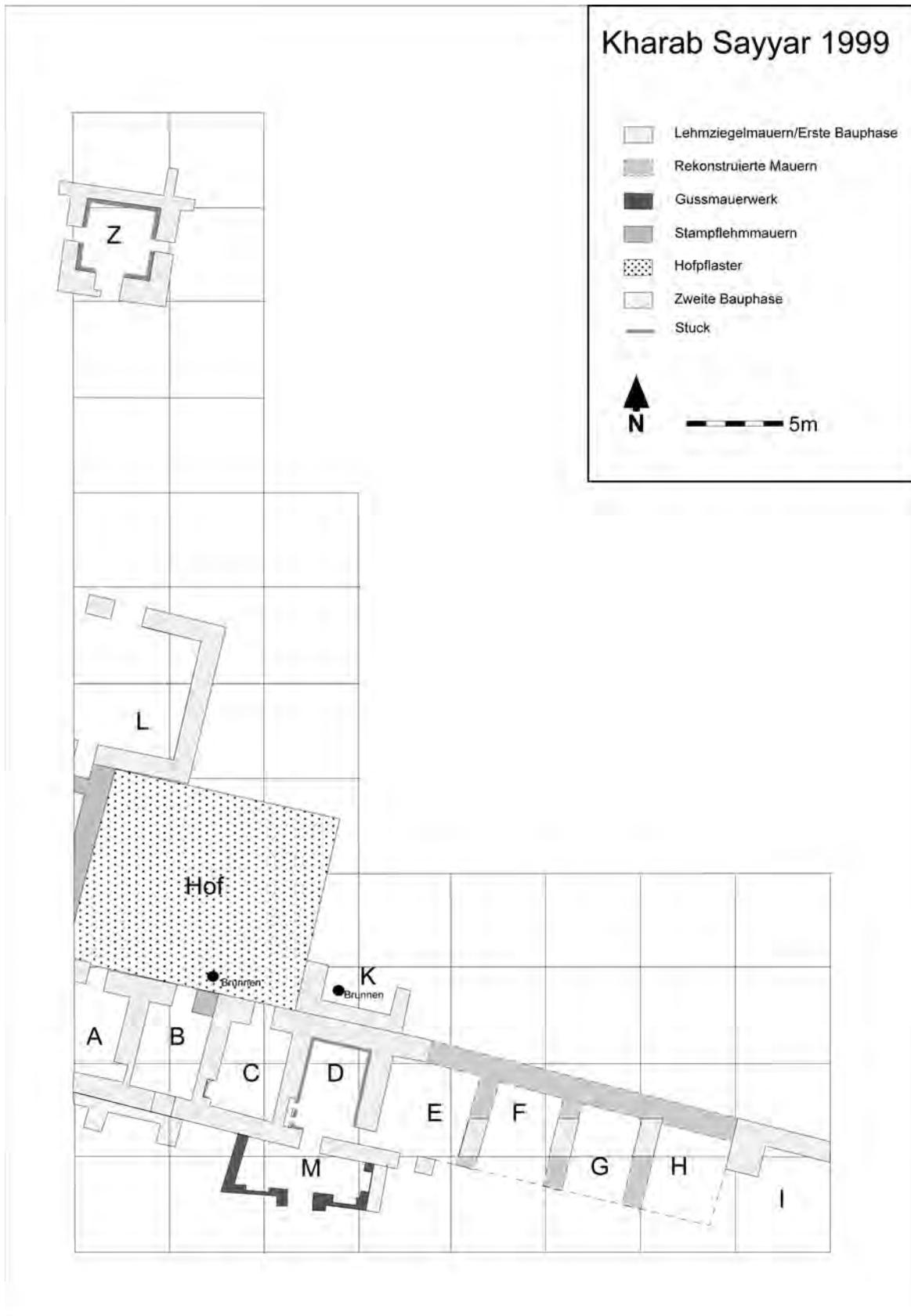


ABBILDUNG 3. Plan des Hauses (Stand 1999).

als Begrenzung von floralen Füllungen und auch die Seitenfelder sind mit Blüten und Blättern gefüllt (z.B. Raum D, Nordwand, Seitenpaneele).

Die einzelnen Paneele werden durch unterschiedlich gestaltete Kanten eingefasst; diese können glatt sein, einen einfachen Ritzdekor aufweisen (Raum Z, Westwand) oder durch Mäander, Flechtbänder oder Blattmotive (u.a. die zweispältige Lotusblüte) ornamentiert sein. Weiterhin kommen als Begrenzung auch Halbsäulen vor (z.B. Raum D und Z, jeweils Südwand), deren Oberflächen wiederum glatt oder aber u.a. mit dem sogenannten Astragalmotiv, mit einfachen Perlreihen (z.B. Raum Z, Südwand) oder stilisierten Perlstäben (z.B. Raum D, Südwand) versehen sind.

Anbringung und Organisation sowie das Motivrepertoire des Stuckdekors in Kharab Sayyar stehen in einer künstlerischen Entwicklung, die von vor-islamischen Anfängen⁷ über die Dynastie der Umayyaden⁸ bis in die frühabbasidische Zeit⁹ reicht. Für die abbasidische Entwicklung liegt seit langem das umfangreiche Material aus Samarra vor, doch hat sich in den letzten Jahren unser Wissen durch Neufunde aus Syrien, u.a. Raqqa und Medinat al-Far¹⁰ erheblich erweitert.

Versuchen wir kurz die Gesamtkomposition sowie einzelne Motive des Dekors in Kharab Sayyar mit dem bisher bekannten frühabbasidischen Stuck, vor allem mit den Beispielen aus Raqqa und Samarra zu vergleichen, um dadurch zu einer stilistischen und zeitlichen Einordnung zu gelangen. Zur Anbringung ist zunächst einmal ein formaler Unterschied festzustellen: Während in Raqqa nur die Türdurchgänge mit Stuckdekor lisenenartig gerahmt sind, werden in Kharab Sayyar, zumindest in diesen beiden Räumen, wie in Samarra die Wandflächen vollständig bedeckt. Dieser kompositorische Unterschied ist am ehesten mit unterschiedlichen Traditionen zu verbinden: während die lisenenartige Verzierung der Durchgänge am ehesten auf antike und spätantike Vorbilder aus Nordsyrien und Anatolien zurückgeht und von hier aus Verbreitung bis nach Südarabien fand,¹¹ läßt sich der flächendeckende, teppich- oder textilartige Dekor (Abb. 4)—wie z.B. in Samarra und Kharab Sayyar—mit vorislamischen Beispielen aus Iran vergleichen.¹²

Weiterhin besteht der Dekor in Raqqa zu einem großen Teil aus aufsteigenden Ranken von Weinblättern (Abb. 5), die nach Meinecke ebenfalls auf antike Vorbilder zurückgehen und schon an der Fassade von Mschatta Verwendung fanden.¹³ Dies gilt vor allem für die Bauten, die aufgrund von Münzfunden eindeutig in die Regierungszeit Harun al-Rashids (786–809) zu datieren sind. Diese Weinblattornamentik breitet sich dann über das ganze

7. Dazu Kröger 1982; zu Tradierung sasanidischer Vorbilder durch die Umayyaden, Meinecke 1996: 139–143; vgl. Ettinghausen 1972; Keal 1995: 11–23; zur Übernahme antiker und spätantiker Vorbilder, s. auch Anm. 13.19.

8. Creswell 1969: 506–514.

9. Dazu Meinecke 1996: 142–143, 147–148 mit weiterer Literatur.

10. *Samarra*—Herzfeld 1923; *Raqqa*—Heusch und Meinecke 1985: 85–105; *Medinat al-Far*—Salibi 1983: 69–88; Haase 1991: 206–225, 1996: 165–171.

11. Meinecke 1991: 226–235; Meinecke und Schmidt-Colinet 1993: 352–359; vgl. Keal 1995: 18–21, der vorislamischen Dekor aus Südarabien auf nordsyrische Vorbilder zurückführt; der Transfer soll durch Mitglieder des Kinah-Stammes erfolgt sein. Bei den angeführten Beispielen aus Husn al-ʿUrr handelt es sich ebenfalls um lisenenartige Verzierungen von Durchgängen.

12. Dazu Keal 1995: 11–21. Zur Bezeichnung und Herkunft, Goldman 1952–53: 13–20.

13. Herzfeld 1923: 217–222. Vgl. Enderlein und Meinecke 1992: 137–172.



ABBILDUNG 4. Raum D, Stuckdekor.

Abbasidenreich aus. Doch schon in al-Hira¹⁴ und dann vor allem in Samarra werden in Anlehnung an umayyadischen Baudekor, z.B. Mschatta, geometrische Formen wie Kreise, Rechtecke, Quadrate oder Vielecke entweder in Reihen angeordnet oder als Zentralmotive verwendet und mit Weinranken gefüllt.¹⁵ Diese Art des Dekors findet bis nach Nishapur in Nordost-Iran Verbreitung.¹⁶

Auch in Raqqa läßt sich dieser Wechsel von einer stärker naturalistischen, der spätantiken Tradition verhafteten Darstellungsweise zum geometrischen Stil belegen, da auch dort die Weinranken z.T. schon in geometrische Muster gesetzt werden, die mit vegetabilen Einzelformen ohne erkennbaren organischen Zusammenhang gefüllt sind, so z.B. in Palast B.¹⁷ Dieser wiederum ist inschriftlich auf den Kalifen al-Mu‘tasim (833–842) datiert, der auch Samarra gründete (836). Allerdings wird der Weindekor in Samarra großflächig angebracht und zusätzlich mit kleinen Löchern zwischen den Blattspitzen (Samarra, Stil A nach Creswell) und mit einer dichten Füllung des Hintergrundes versehen.¹⁸ Möglicherweise ist

14. Rice 1934: 51–73; dort findet sich auch der eingeschränkte Gebrauch—als Lisenen—von Stuckdekor. Vgl. Reuther 1939: 34; vgl Keall 1995: 18–21.

15. “Geometrischer Dekor”, vgl. dazu Meinecke 1991: 230–232. Auch in Qasr al-Heir as-Sharqi findet sich ein vergleichbarer geometrischer Dekor, der erst nachträglich, in abbasidischer Zeit, angebracht wurde. Grabar et al. 1978: 67–68, 175–178.

16. Wilkinson 1986.

17. Abdul-Hak 1951: 111–121; Meinecke 1991: 230 Anm. 16 weist allerdings darauf hin, daß zumindest in der Keramik Ähnlichkeiten zwischen al-Hira und harun al-rashidzeitlichen Bauten in Raqqa (Palast A) festzustellen sind. Daher besteht durchaus die Möglichkeit, daß beide Stilformen bereits zu Beginn des 9. Jhs. nebeneinander entwickelt wurden.

18. Nach Meinecke 1991: 231 ist auch der kompositorisch vergleichbar konzipierte Stuckdekor an der Fassade des abbasidisch gegründeten Qasr al-Heir al-Sharqi eher diesem Zeitraum zuzuordnen, dazu Grabar et al. 1978: 67–68, 175–178.



ABBILDUNG 5. Raum D, Stuckdekor.



ABBILDUNG 6. Raum D, Stuckdekor.

auch der Dekor der Grabmoschee des Sohnes von Sheikh ‘Abd el Kader el Gilani in Gharra am Nordabhang des Djebel Abd el ‘Aziz diesem Stil zuzuordnen.¹⁹

Etwa gleichzeitig setzen die ältesten Belege für einen dritten Stil, den schräg eingeschnittenen Stuckdekor (*bevelled style*) mit abstrakten Mustern ein.²⁰ Hierfür finden sich ebenfalls Beispiele aus Raqqa.²¹ Auch in Kharab Sayyar sind offenbar beide Stile nebeneinander verwendet worden. Dort sind es stets großflächig angelegte Paneele (wie in Samarra), die durch geometrische Muster wie Dreiecke, Rechtecke, Kreise gegliedert sein können, aber nicht müssen (Abb. 6). Der weitaus größte Teil steht vielmehr kompositorisch und motivisch dem eingeschnittenen Stil (*bevelled style*) nahe. So sind die Verwendung des unendlichen Rappports sowie der großflächigen Schuppen- (Raum D, Nordwand) und Netzmuster (Raum Z, Nordwand), aber auch Einzelmotive wie zweiseitig entwickelte Dreiecke, an deren Spitze sich konzentrische Kreise befinden (Raum D, Ostwand; Abb. 7)), und, wie wir schon gesehen haben, auch unendliche Blätter (z.B. Raum D, Ostwand), Fischblasen (Raum D, Nordwand), steigende Palmettranken (Raum D, Ostwand), Wellenranken aus einem fünffingrigen Palmettblatt (Raum Z, Ostwand; Abb. 8) durchaus im Repertoire beider Orte belegt. Ein stilistisch durchaus vergleichbarer Dekor, ebenfalls auf großflächigen Paneelen angebracht, ist wiederum in Nishapur (Nordost-Iran), besonders in dem als Sabz Pushan bezeichneten Ruinenfeld zu finden;²² möglicherweise sind diese Stukkaturen etwas stärker dem (etwas älteren?) floralen Stil verbunden.

Schließlich ist noch der Fund von mehreren, leider noch nicht zusammengesetzten Fragmenten von vier Inschriftenbändern mit Korantexten²³ zu erwähnen (Raum Z). Auch in Sa-

19. Bereits von Baron v. Oppenheim bei einer seiner Reisen entdeckt und eingeordnet, erwähnt in: Moortgat-Correns 1992: 66.

20. Creswell 1940: 286–288; vgl. Ettinghausen 1952: 72–83; Allen 1988: 1–15. Meinecke 1991: 226–267.

21. U.a. die Mihrab aus der Großen Moschee, Meinecke 1991: 234, Fig. 23.

22. Wilkinson 1986: bes. 229–242.

23. Information von C.-P. Haase.



ABBILDUNG 7. Raum D, Stuckdekor.



ABBILDUNG 8. Raum Z, Stuckdekor.

marra kommen, wenn auch überraschend selten, Stuckinschriften vor²⁴ und sie sind auch für diese Zeit aus Nordostsyrien²⁵ sowie den Iran belegt.²⁶

Im Gegensatz zu Samarra fehlen allerdings die oben erwähnten systematisch angebrachten Löcher in den Blättern und vor allem treten in Kharab Sayyar zumindest die An-

24. Herzfeld 1948: 275.

25. U.a. Tell Aswad, al-Khalaf und Kohlmeyer 1985: 137.

26. U.a. Nishapur, Wilkinson 1986: 131–136 mit weiterer Literatur.



ABBILDUNG 9. Raum Z, Stuckdekor.

fänge von Überschneidungen und Verflechtungen der Bänder auf (z.B. Raum Z, Westwand; Abb. 9), wodurch zwei Darstellungsebenen entstehen und die so im Dekor von Samarra nicht zu finden sind.²⁷ Dadurch wirken die Beispiele aus Kharab Sayyar insgesamt etwas komplexer und entwickelter als diejenigen aus Samarra.

Allerdings ist auf eine von Moortgat bei einem Besuch in Kharab Sayyar entdeckte Stuckwand hinzuweisen, bei der eben diese Überschneidungen offenbar fehlen.²⁸ Sie soll von dem großen Gebäude auf der Zitadelle stammen. Eventuell ist dieses Stück demnach älter zu datieren, als der Stuckdekor, der im vergangenen Jahr freigelegt wurde.²⁹ Das gleiche dürfte auch für den Stuckdekor zutreffen, der sich heute im Islamischen Museum Berlin befindet, und der ebenfalls aus Kharab Sayyar (oder Medinat al-Far) stammen soll.³⁰ Stilistisch und kompositorisch ist dieses Stück am ehesten an die jüngeren Beispiele aus Raqqa Palast B anzuschliessen, d.h. etwa aus der Zeit al-Muʿtasims (833–842). Damit wäre, zumindest in gewisser Weise, eine Zweiphasigkeit des Stuckdekors nachgewiesen, die die für die Architektur belegte Zweiphasigkeit bestätigt.

Am ehesten scheint der Stuckdekor von Kharab Sayyar stilistisch und motivisch mit dem aus der Ibn Tulun Moschee in Kairo vergleichbar zu sein. Auch im tulunidischen findet sich eine Vermischung der Stile Samarra A und B,³¹ der u.a. auch die oben erwähnten Überschneidungen aufweist. Diese Stukkaturen sind nach 870 entstanden,³² ein Datum, das durchaus für die betreffende Nutzungsphase in Kharab Sayyar zutreffen könnte. In

27. Hinweis von Frau Dr. M. Müller-Wiener, bei der ich mich herzlich dafür bedanke. Auch in Nishapur finden sich, wenn auch selten, vergleichbare Überschneidungen, z.B. Wilkinson 1985: Abb. 3.33; 3.35; 3.42.

28. Moortgat-Correns 1992: Abb. 10.

29. Ein stilistisch vergleichbares Stück, das zumindest den Neufunden ferner zu stehen scheint, wurde 1997 bei der Grabung auf der Zitadelle gefunden (bisher unpubliziert).

30. Sarre 1933: 93–96.

31. So schon Creswell 1919; diese Vermischung ist auch in Samarra selbst belegt, z.B. im Bab al-ʿAmmā, Northedge 1993: 148.

dieser Zeit gehörte die syrische Djezire zwar zum Abbasidenreich, politisch jedoch unterstand dieses Gebiet bereits den Tuluniden. Für die stilistische Herkunft des Stuckdekors ist jedoch auf die Ähnlichkeiten mit dem Dekor aus Nishapur hinzuweisen; offenbar war zur Zeit des Kalifen al-Maʿmun (813–833) ein Abd Allah b. Tahir, der Sohn des Begründers der Tahiriden-Dynastie, die ihren Sitz in Nishapur hatte, Gouverneur der Djezire.³³ In dieser Zeit könnten durchaus Kontakte entstanden sein, die u.a. auch zu einem Austausch der Handwerker geführt hat.

Sollte die hier vorgeschlagene Dreiteilung des Stuckdekors in der Provinz Raqqa zutreffen, dann läßt sich dessen frühislamische Entwicklung recht gut nachvollziehen: Die aus den antiken Vorbildern entstandenen Stukkaturen in den Anlagen aus der Zeit Harun al-Rashids, der unter Muʿtasim entwickelte Dekor im Stil von Samarra A und B in Raqqa und Kharab Sayyar sowie die neuen, etwas jünger—um 870—zu datierenden Wandverkleidungen ebenfalls aus Kharab Sayyar.

32. Die Stukkaturen in der Muhammad ibn Khairun Moschee in Qairawan werden etwas älter, etwa gleichzeitig mit Samarra datiert.
33. Nach Meinecke 1991: 232 m. Anm. 24; vgl. Wilkinson 1986: 41. Nach seiner Herrschaftsübernahme im Osten ist eine rege Bautätigkeit belegt. Darüber hinaus war er aber auch der Betreiber der Vergöberung der ʿAmr Ibn al-Fustat-Moschee (827), die zweifellos als Vorbild für den nachfolgenden Moscheebau in Kairo sein sollte.

Bibliographie

- Abdul-Hak, S.
 1951 Les fouilles de la Direction Générale des Antiquités à Rakka. AAS 1/1: 111–121.
- Allen, T.
 1988 *The arabesque, the bevelled style, and the mirage of an Early Islamic Art. Five Essays on Islamic Art.* Sebastopol.
- Creswell, K. A. C.
 1919 *Some newly discovered Tulunide ornament.* Burlington Magazine.
 1940 *The ornament of Samarra.* Early Muslim Architecture 2. Oxford.
 1969 *Early Muslim Architecture I, 1–2, Umayyads, A.D. 622–750.* Pp. 506–514. Oxford.
- Enderlein, V. und M. Meinecke
 1992 Graben. Forschen—Präsentieren. Probleme der Darstellung vergangener Kulturen am Beispiel der Mschatta-Fassade. Jahrbuch der Berliner Museen. *Neue Folge* 34: 137–172.
- Ettinghausen, R.
 1952 The “bevelled style” in the post Samarra period. In *Archaeologica orientalia in memoriam Ernst Herzfeld.* G. C. Miles, ed. Pp. 72–83. Locust Valley.
 1972 *From Byzantium to Sassanian and the Islamic world. Three modes of artistic influence.* Leiden.
- Grabar, O., with K. R. Holod, G. Knudstad, and W. Trousdale
 1978 *City in the Desert: Qasr al-Hayr East.* Cambridge.
- Goldman, B.
 1952–53 The allover pattern in Mesopotamian stuccowork. *Berytus* 10: 13–20.
- Haase, C.-P.
 1991 Medinat al Far/Hisn Maslama. *First archaeological soundings at the site and the history of an Umayyad domain in Abbasid times.* In M. Adnan al-Bakhit and R. Schick, eds. Pp. 206–225.
 1996 Medinat al-Far. *The regional late antique tradition of an early Islamic foundation.* In K. Bartl and R. Hauser 1996: 165–171.

- Herzfeld, E.
 1923 *Der Wandschmuck der Bauten von Samarra und seine Ornamentik*. Die Ausgrabungen von Samarra I. Berlin.
 1948 *Geschichte der Stadt Samarra*. Hamburg.
- Heusch, J.-C. und M. Meinecke
 1985 Grabungen im 'abbasidischen Palastareal von ar-Raqqa/ar-Rafqa 1982–1983. *SaMit* 2: 85–105.
- Keal, E. J.
 1995 Forerunners of Umayyad art: Sculptural stone from the Hadramaut. *Muqarnas* 12: 11–23.
- al-Khalaf, M. und K. Kohlmeyer
 1985 Untersuchungen zu ar-Raqqa/Callinicum. *DaMitt* 2: 137.
- Kröger, Dazu, J.
 1982 *Sasanidischer Stuckdekor*. BaF 5. Mainz.
- Meinecke, M.
 1991 Early Abbasid stucco decoration in Bilad al-Sham. In *Bilad al-Sham during the abbasid period (132 A.H./750 A.D.–451 A.H./1059 A.D.)*. M. A. al-Bakhit, and R. Schick, eds. Pp. 236. Amman.
 1996 Die frühislamischen Kalifenresidenzen: Tradition oder Rezeption. In *Continuity and change in Northern Mesopotamia from the Hellenistic to the Early Islamic period*. K. Bartl, and S. R. Hauser, eds. Pp. 139–143. Proceedings of a colloquium held at the Seminar für Vorderasiatische Altertumskunde, Freie Universität Berlin, 6th–9th April, 1994. BBVO 17. Berlin.
- Meinecke, M. und A. Schmidt-Colinet
 1993 Palmyra und die frühislamische Architekturdekoration von Raqqa, Syrien. In *Von den Aposteln zu den Kalifen*. E. M. Ruprechtsberger, ed. Pp. 352–359. Ausstellungskatalog. Linz.
- Moortgat-Correns, U.
 1992 *Charab Sejar. Eine frühabbasidische Ruinenstätte in Nordmesopotamien*. Berlin.
- Northedge, A.
 1993 An interpretation of the palace of the caliph at Sammara (Dar al-Khalifa or Jawsaq al-Khaqani). *Ars Orientalis* 23: 148.
- Reuther, O.
 1939 *Die Ausgrabungen der deutschen Ktesiphon-Expedition im Winter 1928/29*. Berlin.
- Rice, D. T.
 1934 The Oxford Excavation at Hira. *Ars Islamica* 1: 51–73.
- Salibi, N.
 1983 Al.Tanqib fi Midinat al-Far/Hisn Maslama 1981. *AAS* 33/1: 69–88 (arab. Sektion).
- Sarre, F.
 1933 Eine frühislamische Wanddekoration aus Nordmesopotamien. In *Aus fünf Jahrtausenden morgenländischer Kultur. Festschrift Max Freiherr von Oppenheim*. AfO Beiheft 1: 93–96. Berlin.
- Wilkinson, C. K.
 1986 *Nishapur: Some early Islamic Buildings and their Decoration*. New York.

Una documentazione archeologica dell'espansione aghlabita da Baghdad verso Occidente: l'insediamento arabo di Leptis Magna (Libia)

.....ENRICA FIANDRA
...MiBAC...: RPH

Abstract

Sulla riva meridionale del Mediterraneo, nella città romana di Leptis Magna (Libia)—patria dell'imperatore africano Settimio Severo—le rovine di un tempio gemino romano di età flavia, che si ergeva a baluardo sulla banchina occidentale del porto, presentano oggi l'attestazione più tangibile e cronologicamente più certa di una tappa dell'espansione araba verso occidente.

Gli scavi dell'area templare hanno dimostrato che, a Leptis Magna, ha avuto vita un insediamento di vasai arabi. L'evidenza più concreta di questa presenza è rappresentata dalla ceramica di uso comune prodotta in loco, in forme che divengono caratteristiche della produzione islamica comunemente diffusa.

Il rinvenimento di forni per ceramica e di numerosi scarti di vasi tra le murature superstiti hanno gettato luce sulle testimonianze di storici e viaggiatori arabi che volevano Leptis Magna sede di un nucleo stanziato arabo. Le monete ritrovate ci hanno permesso di datare il quartiere di ceramisti all'ultimo periodo della dominazione in Africa della dinastia aghlabita (X sec. d.C.). E' così possibile, ora attraverso le sopravvivenze archeologiche, iniziare a delineare l'estensione della città araba, nata sulla sabbia, che obliterò la Leptis bizantina e già romana.

Introduzione

La Missione Archeologica Italo-Libica "Tempio Flavio" opera dal 1964, con un intervallo di dieci anni, dal 1969 al 1979, nell'area del tempio gemino di età domiziana situato sulla banchina occidentale del porto, all'estremità della via Colonnata (Fig. 1).¹

Il tempio flavio è una complessa costruzione con destinazione funzionale e sacra che si inserisce a "cerniera" tra il Foro Vecchio ed il porto, comprendendo, in una sistemazione unitaria, anche la banchina d'attracco (Fig. 2).²

Sulla traiettoria visiva di chi entrava nel porto, il complesso si presentava con l'imponenza della sua basis porticata. Al disopra sulla platea, circonscritta da una porticus a colonne ioniche, si ergeva il podio del tempio a due celle, prostile, tetrastile con capitelli corinzi.

1. Fiandra 1997: 191–194.

2. La zona è stata oggetto di numerosi interventi di scavo e di ripulitura dal limo del wadi che periodicamente ha ricoperto lo stesso tratto di banchina. In particolare con lo scavo del Trenta (cfr. *infra* nota 10), la ripulitura del 1957 (Bartoccini) e del maggio 1984 (Missione T. Flavio). L'area è stata di nuovo parzialmente ricoperta dal limo portato dalle alluvioni del 1987–1988. La banchina è stata liberata completamente dal limo durante le campagne del 2000 (aprile e ottobre).

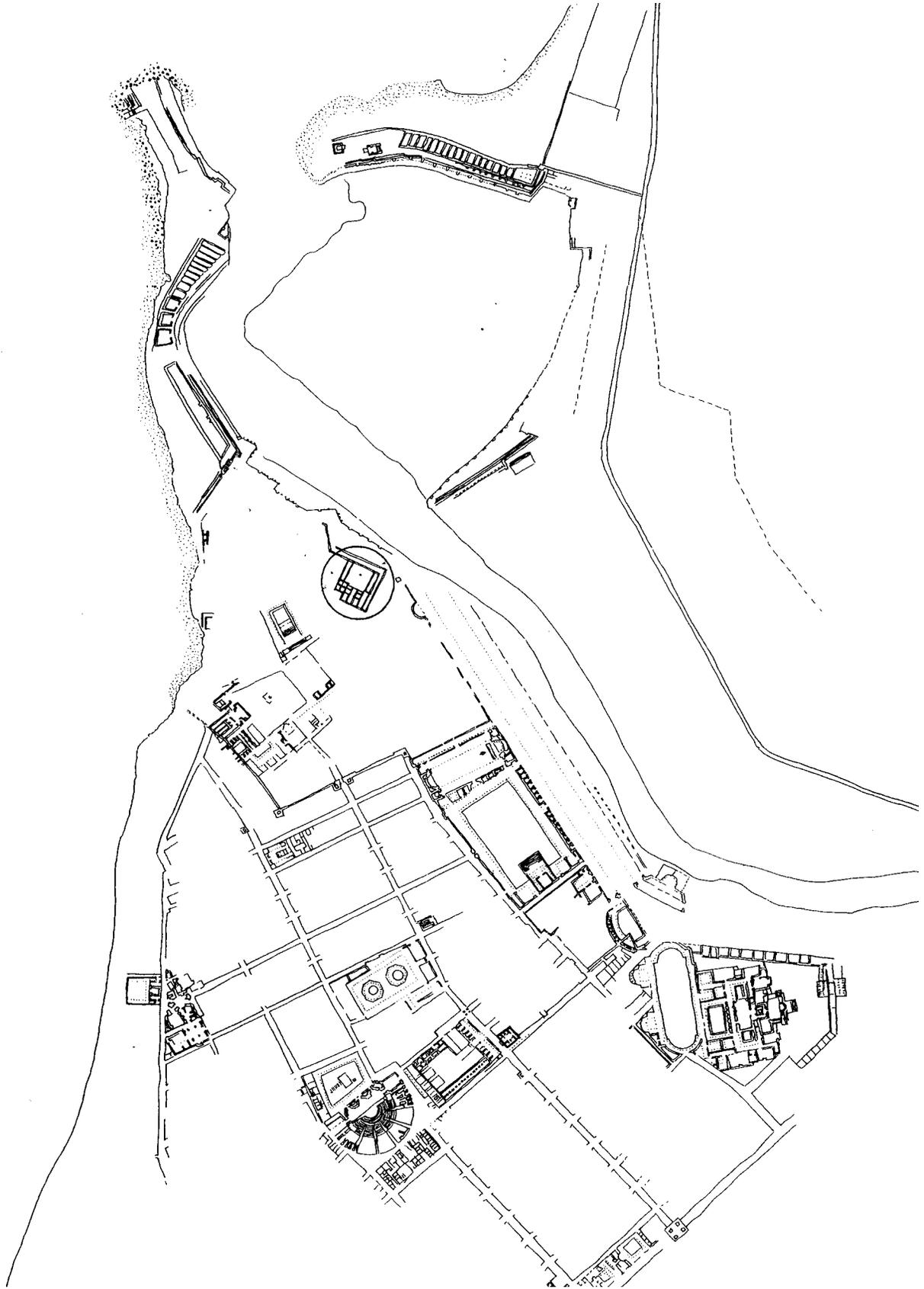


FIGURE 1. Pianta di Leptis Magna con i resti del tempio flavio.

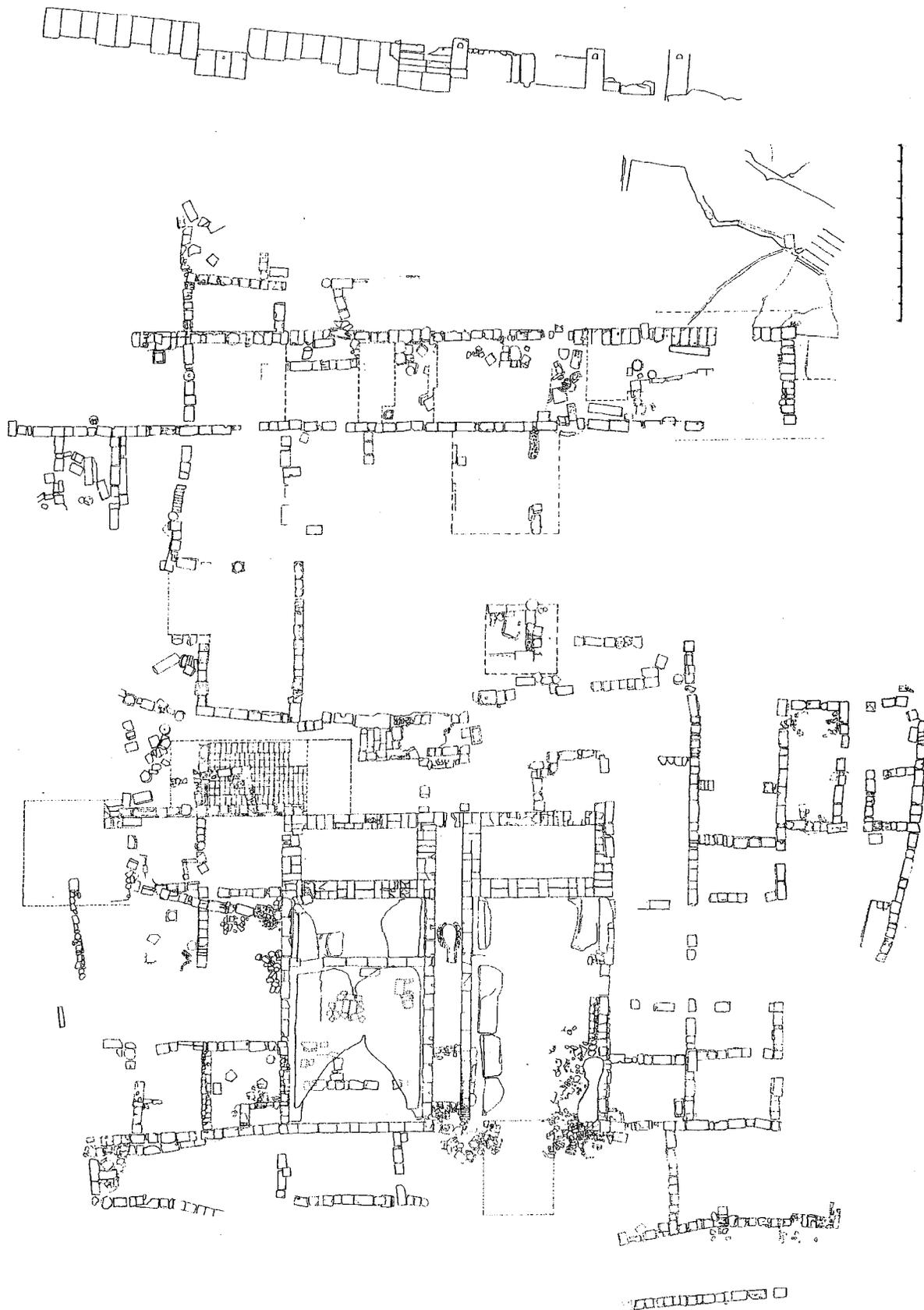


FIGURE 2. Pianta dei ruderi del tempio flavio sui quali si sono insediati i ceramisti aglabiti.



FIGURE 3. Il tempio flavio; sullo sfondo il foro severiano, il teatro e il foro vecchio.

La scenografia della complessa struttura, che doveva sovrastare con la sua imponente altezza gli altri edifici dell'area (Fig. 3), mostrava evidenti suggestioni del gusto paesistico di derivazione ellenistica³ cui si richiamano, ad esempio, alcune raffigurazioni di porti di città presenti su produzioni note di lucerne di I sec. d.C. come negli esemplari da Sabrathae da Cartagine (Fig. 4a, b).⁴

Il tempio gemino è dedicato a Vespasiano e Tito Divi ed a Domiziano vivente, da parte della domina [---]DIA, come recita l'iscrizione, che fissa cronologicamente l'edificazione della struttura agli anni 93–94 d.C.⁵

3. A proposito di edifici con portici colonnati a due piani in prossimità dei porti: cfr. Romanelli 1970: 97.
4. Cfr. Joli 1974: Cat. 147, Inv. 878, Tav. X Fig. 2 (della *Regio* VII). Si tratta di una lucerna a volute della fabbrica di *Augendus* raffigurante una veduta portuale. In primo piano due barche di pescatori; sullo sfondo, una costruzione a due piani con portico ad archi e colonnato superiore, oltre il quale è visibile un edificio con tetto a due falde, visto di tre quarti (tempio?). La manifattura con firma *Augendi* è la più attestata a Sabratha. E' opinione che si tratti di una fabbrica della Bizacena (cfr. E.A.A., Suppl. '70, pag. 426). L'A. non esclude, tuttavia che nella stessa Sabratha possano essere sorte officine-comprese la Bizacena-dipendenti dalla principale che Ella colloca piuttosto in Italia (cfr. Joli.: 87). L'esemplare simile di Cartagine (cfr. Deneuve 1974: 212, Cat. 1049, Inv. 46575, Tav. XCV), a differenza di quella di Sabratha, non presenta l'edificio superiore con tetto a doppio spiovente, mentre è meglio raffigurato il porticato.
5. Cfr. Magi 1968–69: 348–355.

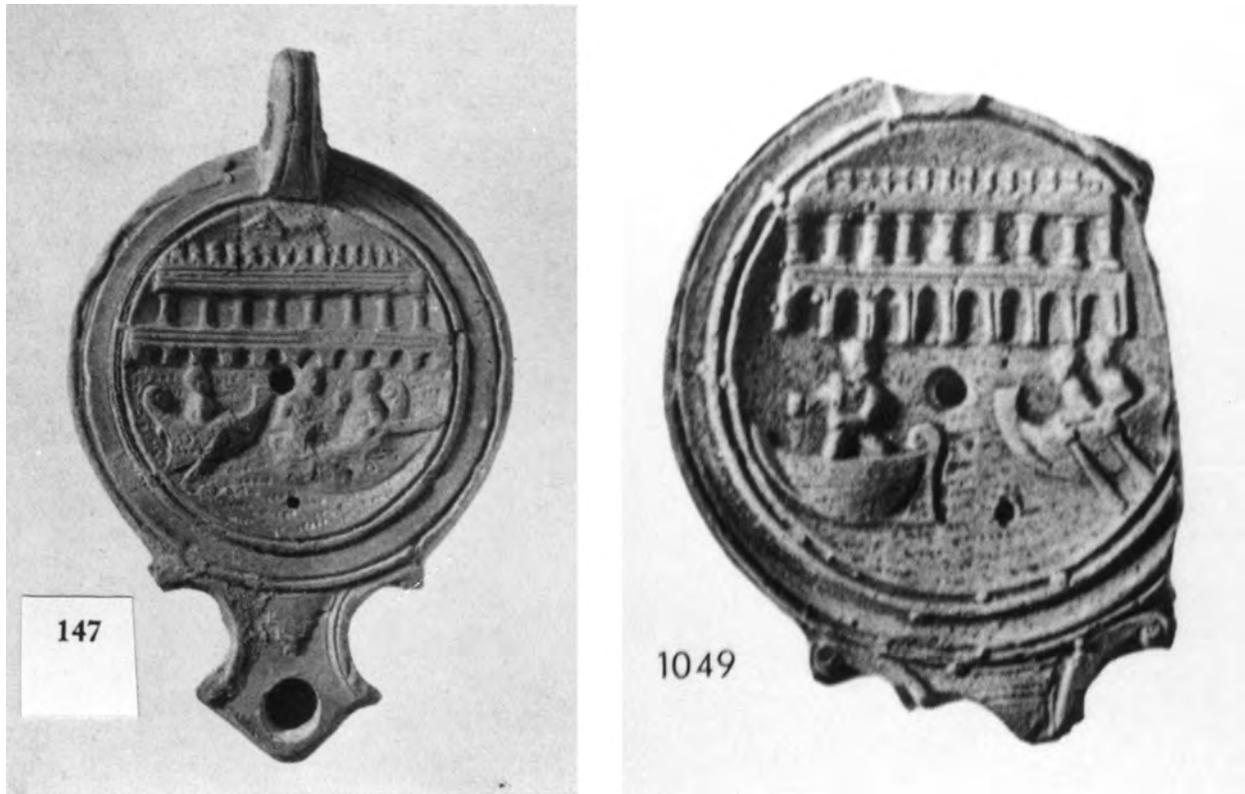


FIGURE 4. a, b—Lucerna con raffigurazione di porto (da Joli); Lucerna con raffigurazione di porto (da Deneuve).

E' molto probabile che l'edificio, verso il lato a mare, rispettasse e inglobasse nel fronte unico del porticato, altri edifici ancora sepolti dalla sabbia (Fig. 5). Solo lo scavo completo dell'area adiacente verso Nord potrà confermare tale supposizione.

Tutta la struttura, caratterizzata dalla raffinatezza degli elementi architettonici che giocavano sul colorismo dell'alternanza degli ordini corinzio, ionico, corinzio (Fig. 6 a, b, c), sopravvisse a lungo, pur se con diversi utilizzi e sistemazioni, grazie alla sua posizione strategica sulla banchina del porto, alla sua notevole altezza ed alla sua particolare tessitura muraria resistente ai sismi.⁶

Tuttavia un violento terremoto, ascrivibile probabilmente al 365 d.C., danneggiò gravemente il complesso. Di esso sono tutt'ora leggibili gli effetti nella torsione degli archi e nelle modalità di caduta delle colonne. La struttura superstite, ancora imponente e robusta, venne più volte rimaneggiata e riutilizzata nel tempo, e, pur perdendo la primitiva destinazione d'uso, offrì l'occasione per successivi insediamenti in una continuità di vita pressoché ininterrotta nella storia della Leptis di epoca tarda.

Dopo gli eventi che videro un sicuro riutilizzo del complesso monumentale nel IV e nel VII secolo d.C., una fase di abbandono seguì e gran parte dei ruderi del tempio furono ricoperti dalla sabbia.

Lo strato di insabbiamento, che in alcuni punti supera il metro di spessore, sigillò il sottostante livello di frequentazione, lasciando tuttavia in vista le emergenze più consistenti come gli ambienti sottostanti le celle del tempio gemino, le cosiddette "favisse" coperte da

6. La struttura templare si elevava dal piano della banchina del porto per circa m 15 esclusa la copertura.



FIGURE 5. Area a Nord del tempio flavio.

volte a botte di conglomerato cementizio e le relative murature di sostegno, per un elevato di oltre 7 metri dall'originale piano pavimentale del porticato.

La consistenza dei ruderi del complesso e la sua fortunata posizione sul porto, o su quell'area del porto ancora praticabile nonostante le periodiche inondazioni del wadi Lebda ed i progressivi insabbiamenti, permisero, in un'epoca che può collocarsi tra la fine del IX e gli inizi del X sec. d.C., l'insediamento produttivo di un nucleo di ceramisti arabi.⁷

Il quartiere artigianale arabo

I laboratori ceramici si estendevano dal tempio flavio fino alle banchine occidentali del porto e verso la zona orientale del bacino ormai quasi del tutto interrato.⁸

7. Dolciotti 1998, in stampa.

8. Il quartiere è stato già ampiamente descritto da Fiandra nel 1975 che suppose già la contemporaneità dei resti murari, con i forni per la produzione ceramica, anche se, all'epoca, si ritenne di cronologia più alta, a causa del rinvenimento di una moneta di Arcadio nel battuto pavimentale di terra e *tin* (cfr. Fiandra 1974–1975: 147–150). Si può invece ora considerare che questo piano fondato completamente su sabbia, sia stato apparecchiato con materiali di risulta, utilizzando *tin* che, una volta battuto, è in grado di assicurare una certa consistenza al piano pavimentale dell'ambiente.



FIGURE 6. a, b, c—Capitelli corinzi e capitello ionico.



FIGURE 7. Resti di un piccolo forno per ceramica aghlabita.

Gli artigiani, utilizzando l'argilla presente e l'acqua dolce portata in quella zona dal wadi Lebda e fornita dai numerosi pozzi, fabbricavano differenti forme di ceramica, ma anche piastrelle da pavimento che cuocevano in piccoli forni sul luogo stesso di produzione (Fig. 7).

Sullo strato di riempimento della "favissa" meridionale furono trovati resti di altri numerosi forni (Fig. 8) con una grande quantità di scarti che ci hanno permesso di ricostruire le forme della ceramica prodotta. I resti di un forno per la cottura delle piastrelle che si trovava nel laboratorio sotto la volta della "favissa" di nord-ovest sono stati recuperati e restaurati e sono ora esposti nel nuovo Museo di Leptis Magna nel settore islamico.

Si tratta di piccoli forni, non permanenti, costituiti da un basso muretto di piccole pietre collegate e rivestite da malta di argilla. Riempito il piccolo spazio con alcuni strati di vasi da cuocere, si chiudeva la parte superiore del forno con scarti di ceramica in modo che il calore raggiungesse anche la parte superiore e nello stesso tempo permettesse l'uscita del fumo. A cottura avvenuta e dopo il raffreddamento, si toglievano i vasi e la cenere e, con alcuni interventi, il forno poteva essere riutilizzato. In ogni caso le dimensioni modeste dei forni e la loro struttura molto semplice consentivano un agevole rifacimento. Dai resti di forno trovati l'uno vicino all'altro si può anche ipotizzare che essi fossero messi in funzione contemporaneamente.

Uno strato nerastro superficiale è stato trovato per un largo raggio intorno al tempio a testimonianza dell'attività dei vasai.



FIGURE 8. Favissa sud con resti di piccoli forni sulla sabbia.

Questo semplice procedimento di cottura è ancor oggi testimoniato dalla produzione ceramica di uso comune, di argilla non depurata, reperibile nei mercati festivi della zona limitrofa a Leptis. In particolare, nelle campagne di Zliten e Suq el Khamis, tali ceramiche si cuociono in forni ottenuti scavando delle buche nella sabbia al centro delle quali si brucia il combustibile costituito da foglie di palma e arbusti. I vasi vengono collocati sopra la brace e ricoperti con sabbia. Dopo alcuni giorni, a raffreddamento avvenuto, si recuperano i vasi ormai pronti per la vendita. In questi casi, nella fase produttiva e commerciale si osserva una diversificazione dei ruoli, nell'economia familiare, tra l'uomo e la donna: a quest'ultima spetta il compito di formare i recipienti con l'ausilio del tornio lento (una semplice pietra tondeggiate, piatta in superficie, con una parte centrale sporgente nella parte inferiore che permette la rotazione). Si trasmettono, per via femminile, le tipologie ceramiche ormai stereotipate, mentre all'uomo spetta il compito di preparare il forno per la cottura dei vasi e di provvedere alla vendita.

L'architettura dell'insediamento e la città araba.

Le maestranze arabe, tanto sulle vestigia, che nei pressi della struttura templare, utilizzano per le loro costruzioni materiali di risulta. Quando le strutture del tempio erano conservate al di sopra dell'insabbiamento, le stanze venivano edificate spogliandone i resti. I blocchi del rivestimento del tempio, i capitelli e ogni altro elemento architettonico servivano a costituire le murature e, dove mancavano pietre di una certa dimensione, venivano impiegate pietre piccole che completavano l'intelaiatura dei muri (Fig. 9).

Usavano, invece, pietrame di piccole e medie dimensioni con cui erigevano muri non molto spessi, cementati con fango e poggiati per lo più direttamente sullo strato d'insabbia-



FIGURE 9. Resti di muro arabo nei pressi del tempio flavio.

mento, quando non erano più in vista e recuperabili i blocchi provenienti dai crolli dell'edificio romano o dalle ricostruzioni realizzate in epoche successive.

Nonostante l'impiego di materiale vario, i muri erano costruiti accuratamente con frequenti rinzeppature di frammenti ceramici e scaglie di pietra, quindi intonacati con calce di cui sono ancora leggibili le tracce. Erano curati in modo particolare gli stipiti.

Sono queste, finora, le prime testimonianze note e interpretate. A Leptis Magna gli scavi, in passato, sono sempre stati finalizzati al recupero ed al restauro degli edifici monumentali romani a tutto svantaggio delle strutture superficiali e meno appariscenti. E' per questo che è difficile poter delineare l'estensione della città di epoca araba da porta Oea fino al mare.⁹ Per far ciò sarà necessaria, alla luce delle testimonianze emerse nell'area del complesso flavio, una minuziosa analisi di tutti quegli indizi che potranno concorrere a delineare la topografia dell'abitato, con le sue case e le sue strade e riconnettere alla fase di vita araba di Leptis gli sporadici rinvenimenti di sepolture e di strutture murarie tarde rinvenute un po' dovunque durante i lavori di scavo di epoca coloniale.¹⁰

Su tutta l'area del porto, infatti, vennero in luce numerose costruzioni tarde, ora distrutte, per alcune delle quali gli stessi scavatori supposero l'origine araba.¹¹

9. Il viaggiatore Idrisi (sec. XII, muore nel 1160) dice che a Lebda c'era un castello. In tal senso può rivestire interesse il rinvenimento, all'interno del complesso flavio, dei resti di un bastione lungo il lato sud del porticato, andato distrutto nelle alluvioni del wadi Lebda del 1987-88.



FIGURE 10. La basilica severiana in corso di scavo.

Tombe tarde dell'XI sec. d.C. furono rinvenute nel foro severiano e, precisamente, al disopra del muro caduto verso la via colonnata (Fig. 10).¹²

Purtroppo, non si è dato mai un giusto peso a queste presenze, né si sono collocate cronologicamente, anche se, nel luglio 1930, nella zona del Porto, una testimonianza tangibile venne rinvenuta nei pressi della banchina nord. Si tratta di una iscrizione funeraria di marmo bianco, tuttora inedita—rara testimonianza dei tempi della prima invasione araba¹³—di una decina di righe in cui, oltre alle invocazioni ad Allah, si cita il nome Kelfallah,

banchina nord occidentale, erano stati condotti negli anni 1930–31, è stata esaminata la raccolta delle relazioni settimanali degli anni in riferimento. Si è potuto così rilevare che gli scavi nella zona sono stati condotti dal giugno 1929 fino al 4 gennaio 1931. Questo lavoro d'archivio è stato proseguito anche nella campagna di primavera del 2000 da parte della dottoressa di ricerca Giovanna Bandini con l'assistenza del funzionario del Dipartimento di Leptis Jabar M. Matoug.

11. Cfr. Bartoccini 1958: 129 e Tav. LXXXII, 2.

12. Cfr. Bartoccini 1961: 108 ss.

13. L'iscrizione di cm 30 × 25 × 4 è ora conservata negli uffici della Soprintendenza alle Antichità di Leptis (inventario italiano n. 68; inventario arabo n. 2960).



FIGURE 11. Veduta dei resti del tempio: la moneta aghlabita fu trovata sotto il tratto meridionale della volta di calcestruzzo della “favissa piccola” di N-E.

il giorno, il mese e l’anno di morte del personaggio. La data indicata è un venerdì del mese di settembre dell’anno 100 dell’Egira corrispondente all’anno 718 d.C.

In questa ottica, i rinvenimenti leptitani del tempio flavio possono gettare qualche lume sulle controverse e poco indagate vicende della Leptis di età tarda. Forse non è un caso che, tanto le fonti, quanto i dati di scavo tacciano per tutto il periodo che va dal VII al IX-X sec. d.C., cioè tra la prima invasione araba (663–664 d.C.) e la seconda (859–860 d.C.).

Lo iato tra il VII secolo e l’insediamento di età aghlabita è confermato proprio dalla presenza dello strato di insabbiamento che colmò le rovine in abbandono.¹⁴

14. Sappiamo tuttavia che Lebda fu sede di alcuni eventi tra il VII ed il IX secolo d.C. In particolare: nel 43 dell’Egira (663–664 d.C.) Lebda è meta di una scorreria da parte del governatore dell’Egitto; nel 245 dell’Egira (859–860 d.C.) il governatore di Tripoli si rifugiò a Lebda e la fortificò; nel 265 dell’Egira (878–879 d.C.) avvenne lo scontro tra il principe Tulunide d’Egitto e gli aghlabiti. Cfr. Romanelli 1925: 34.



FIGURE 12. a, b—Moneta di Abdallah II ben Ibrahim II (902–903 A.D.)

Anche alla luce dei rinvenimenti del tempio flavio, si deve considerare come elemento caratterizzante di questo vasto insediamento arabo lo strato di sabbia su cui è collocato che lo separa da quello bizantino.

Cronologia dell'insediamento arabo.

Come spesso accade nell'archeologia, anche l'elemento fortuito può apportare il contributo essenziale alla ricerca.

Durante il restauro del tratto di copertura superstite dell'ambiente minore della cosiddetta "favissa" sottostante il pronao della cella di nord-est, anch'essa utilizzata in epoca araba, al di sotto del blocco di calcestruzzo (Fig. 11), fu rinvenuta, nel 1966, una moneta di età aglabita e precisamente, un mezzo dirhem d'argento di Abdallah II, figlio di Ibrahim II, il conquistatore della Sicilia (Fig. 12).¹⁵ Una seconda moneta di bronzo venne rinvenuta nello strato superficiale di un saggio effettuato a Nord dell'area templare.¹⁶ Pertanto, con buona approssimazione, l'insediamento leptitano può essere ascritto cronologicamente ad un periodo tra la fine della dinastia aglabita e l'iniziale conquista fatimita della costa libica.

15. Durante il governo degli ultimi tre califfi aglabiti, con la presa di Siracusa nell'878 e la capitolazione di Taormina nel 902, venne portata a compimento la conquista araba della Sicilia e Palermo diventò la nuova capitale.

16. La moneta è ora in corso di studio da parte di M. L. Bates Curator of Islamic Coins of The American Numismatic Society.

Gli Aghlabiti.

Per meglio inquadrare storicamente l'insediamento arabo sorto sulle rovine del tempio flavio, è utile accennare brevemente alle vicende della dinastia aghlabita.

Gli Abbàsidi riuscirono a imporre la loro diretta autorità sulla Ifriqiya, dapprima con l'energico governatore Yazid ibn Hatim e, alla sua morte nel 787 d.C., con quell'Ibrahìrn ibn el-Aghlab at Tamimi che diede inizio ad un dominio ereditario e divenne poi capostipite dell'autonoma dinastia degli Aghlabiti e governò come califfo indipendente tra l'800 e l'810 d.C. I califfi o emiri che seguirono furono: il figlio di Ibrahìrn, Abu Abbas Abdallah I fino all'817 d.C., il fratello Abu Muhammad Ziyadat Allah I, colto, abile politico e stratega al quale si deve l'avvio della conquista della Sicilia nel momento in cui l'isola si trovava in una situazione di grande anarchia.

Nel giugno dell'827 Ziyadat Allah I organizzò una spedizione di 10.000 soldati con 100 navi; essa partì dal porto di Susa con a capo il cadì Asad ibn el Furat, di origine mesopotamica che sbarcò a Mazara il 16 giugno 827 d.C. Via via caddero nell'831 d.C. Palermo, nell'837 d.C. Enna. Nell'838 d.C. gli succedette il fratello Abu Iqal el Aghlab fino all'841 d.C. Il governo passò ad Abdul Abbas Muhammad I, figlio di quest'ultimo, fino all'856 d.C. Gli succedettero i figli Abu Ibrahim Ahmad grande costruttore di opere pubbliche e, nell'863 d.C., Abu Muhammad Zyadat Allah II, di grandi qualità umane e politiche, che governò soltanto per un anno. A questi succedettero i nipoti, figli di Abu Ibrahim Ahmad: Abd Allah Muhammad II, detto el Gharaniq, che governò fino all'875 d.C. e Abu Ishaq Ibrahim II capace ed energico. Quest'ultimo fu sconfitto nell'anno dell'Egira 265 (878–879 d.C.), nei pressi di Lebdah (Leptis Magna), dalle forze inviate da Abbas ibn Tulun, ma poco dopo, con l'intervento dei berberi Nefusah, messo in fuga il Tulunide, rimase al potere fino al 902 d.C.;¹⁷ Gli succedette il figlio Abu Abbas Abdallah II (289–290) che governò per un solo anno, assassinato dal figlio Zyadat Allah III che fu l'ultimo degli Aghlabiti e che regnò fino al 909 d.C.

E' durante il governo degli ultimi tre rappresentanti della dinastia aghlabita che si deve inquadrare lo sviluppo dei quartieri di ceramisti ritrovati nell'area del tempio flavio nella città di Lebdah.

Nel 909 d.C. la dinastia degli Aghlabiti fu esautorata dai Fatimiti. Contro questo nuovo califfato gli aghlabiti superstiti instaurarono, ma soltanto in Sicilia, una forte resistenza che durò fino alla caduta di Rometta (Messina) nel 965 d.C.

La dinastia semi-indipendente degli Aghlabiti ebbe, come si è visto, una breve durata, tuttavia è stata protagonista di avvenimenti eccezionali. Gli Aghlabiti furono anche i grandi costruttori del IX sec.; basti ricordare la moschea di Qairawan, quelle di Sus e di Sfax, il palazzo di Raqqada. Realizzarono anche lavori di utilità pubblica come cisterne, condotte d'acqua, ponti ecc. e vale la pena di ricordare qui che essi portarono nel nord Africa la carta.

Gli Aghlabiti seguirono fedelmente l'esempio del grande Oqba ibn Nafi, che, fondando Qairawan e costruendo la prima moschea nord-africana, si era ispirato all'arte orientale.

A Tunisi la grande moschea detta moschea al-Zaituna, costruita nel 732 d.C. fu demolita e rifatta al tempo degli Aghlabiti (seconda metà del IX sec.) e presenta molte analogie con la grande moschea di Qairawan.

Per l'influenza che l'architettura aghlabita ebbe sulle costruzioni posteriori si può ricordare tra i monumenti islamici, come esempio, la moschea di Sidi bu Marwan a Bona, costruita nel 1035 nello stile delle moschee aghlabite del IX secolo.

17. Cfr. Romanelli 1925: 34.

Il fervore costruttivo del periodo ghlabita non ha lasciato tracce consistenti a Leptis Magna, ma si riflette nelle attività minori di artigianato come la produzione ceramica dell'insediamento sul tempio flavio. L'antica città ormai decaduta e in rovina, in questa parentesi pacifica, è tuttavia ancora capace di manifestare la sua vitalità nelle attività quotidiane e non solo in occasione di scontri armati tra fazioni opposte.

Bibliografia

- Bartoccini, R.
 1958 Il Porto Romano di Leptis Magna. *Bollettino del Centro Studi per la Storia dell'Architettura* 13.
 1961 Il Foro Severiano di Leptis Magna-Campagna di scavo 1958. *Quaderni di Archeologia della Libia* 4.
- Deneuve, J.
 1974 *Lampes de Carthage*. C.N.R.S.
- Dolciotti, A. M.
 in corso di stampa. La ceramica dell'insediamento arabo di Leptis Magna. In *Atti della First Conference of the Archaeological Studies and Discoveries in Great Jamahiryia, Tripoli, 21-23 September 1998*.
- Fiandra, E.
 1974-75 I ruderi del tempio flavio di Leptis Magna. *Libya Antiqua* XI-XII, 1.
 1997 *Il Tempio Flavio a Leptis Magna. Missioni Archeologiche Italiane*. Roma: Ministero degli Affari Esteri. Direzione Generale delle Relazioni Culturali.
- Joli, E.
 1974 *Lucerne di Sabratha*. Monografie di Archeologia Libica XI.
- Magi, F.
 1968-69 Missione Archeologica dell'Università di Perugia a Leptis Magna (Libia). *Annali della Facoltà di Lettere e Filosofia della Università degli studi di Perugia* VI.
- Romanelli, P.
 1925 *Leptis Magna*.
 1970 *Topografia e Archeologia dell'Africa Romana*. Enciclopedia Classica XII.

La produzione ceramica del periodo aghlabita a Leptis Magna

ANNA MARIA DOLCIOTTI ·····
······: *RPH*

Abstract

La produzione del quartiere ceramico insediatosi tra le rovine insabbiate di un tempio romano offre l'occasione per delineare una prima classificazione della ceramica araba acroma di uso comune ed operare quella necessaria distinzione dalle produzioni "bizantine" a cui spesso è stata accomunata.

La situazione stratigrafica dei rinvenimenti e la certa contemporaneità delle forme in uso, prodotte in loco, confermano trattarsi di una produzione omogenea, che manifesta gli stilemi caratteristici delle più note produzioni islamiche, segnatamente la ceramica invetriata e dipinta.

Dai più di 2500 frammenti, consistenti prevalentemente in scarti di produzione, si sono al momento potute ricavare con certezza sette forme di contenitori chiusi ed aperti, la già nota lucerna di forma circolare con foro centrale e due tipi di anforischi.

L'interesse fornito da questa seriazione, di cronologia certa, offre l'opportunità di riconnettere alla medesima classe esemplari diffusi nel mondo islamico ed islamizzato, la cui tradizione è così forte e duratura da essere rintracciabile nelle produzioni contemporanee dell'area, non solo libica, ma più genericamente, mediterranea.

A conferma di quanto finora documentato dalle fonti letterarie dei viaggiatori arabi tra il XII e XIII secolo, circa la presenza, in epoca araba, di forme di vita aggregata sulle vestigia di quella che era stata la città più prospera e potente della Tripolitania, il dato archeologico ora—e forse per la prima volta nella storia di Leptis Magna—permette di sostenere con certezza che, tra la fine del IX e l'inizio del X secolo d.C., a Leptis Magna è presente un nucleo stanziale arabo.

La testimonianza materiale di questa certa frequentazione delle rovine della città è rappresentata dalla produzione artigianale del quartiere ceramico insediatosi tra le rovine insabbiate del tempio di età flavia situato sulla banchina occidentale del porto.

La situazione stratigrafica dei rinvenimenti e la certa contemporaneità delle forme in uso confermano trattarsi di una produzione omogenea che, manifestando quegli stilemi caratteristici delle più note e studiate produzioni islamiche segnatamente invetriate e dipinte, viene nettamente a distinguersi dalle tipologie ceramiche cosiddette "bizantine" con cui spesso, in alcuni contesti, talune di queste forme vengono accomunate.

La disamina dei frammenti ceramici, consistenti soprattutto in scarti di produzione, ha permesso di delineare una prima classificazione della ceramica acroma di uso comune di epoca aghlabita.¹

1. Dolciotti and Ferioli 1984: 329–332. Una comunicazione sull'argomento venne letta al II Congresso di Sorrento dall'arch. Maria Luisa Polichetti, per conto delle due autrici: 376–379.



FIGURE 1. Leptis Magna. Frammenti ceramici dal Tempio Flavio, deformati per cattiva cottura. In basso frammenti di mattonella.



FIGURE 2. Leptis Magna. Museo. La vetrina del settore islamico con i materiali ceramici provenienti dall'area del Tempio Flavio e dagli scavi italiani degli anni Trenta, nella zona del porto.

Alla stessa classe di produzione si sono potuti anche riconnettere alcuni esemplari integri che, ricerche di archivio, hanno dimostrato provenire dagli scavi italiani del 1930 condotti sulle banchine del porto. Il numero degli esemplari si è di recente accresciuto grazie ai rinvenimenti della Missione Archeologica Francese dell'Università della Sorbona, anch'essi condotti nella zona portuale della città.²

I più di 2500 frammenti documentati e schedati con la compianta amica e collega Piera Ferioli consistono, come si è detto, soprattutto in scarti di produzione: ne sono testimonianza il colore alterato dell'impasto, esposto a cattivo regime di cottura, le deformazioni e le fessurazioni presenti in vari pezzi (Fig. 1).

Le forme integre o ricostruibili rinvenute negli scavi dell'area templare hanno consentito di ricondurre i vari frammenti a poche forme di contenitori chiusi o aperti di piccole dimensioni cui è stato attribuito un numero identificativo. Si sono potute per ora riconoscere con certezza sette forme di contenitori, il classico tipo di lucerna circolare con foro centrale e due tipi di anforischi.

L'argilla è in genere friabile, polverosa al tatto con minuti inclusi bianchi e bolle d'aria.

I colori variano dal beige rosato all'arancio chiaro, al crema, al verdino, al rosso arancio, al camoscio, a seconda del grado di cottura. Non è presente alcuna traccia di ingobbio o vernice.

I materiali sono ora esposti nel settore islamico del Nuovo Museo di Leptis Magna (Fig. 2).

2. Materiale analogo, proveniente dai recenti scavi della Missione Archeologica Francese, diretta dal prof. A. Laronde, nella zona orientale del porto, è esposto anch'esso nel Nuovo Museo di Leptis Magna: Laronde 1996: 195-198.



FIGURE 3. a, b, c Leptis Magna. Orciuolo Forma 1; Vaso Forma 2; Vaso Forma 3.



FIGURE 4. Produzione attuale di Suq el Khamis (Libia). Vaso per latte. Da notare il ferma goccia al disotto del versatoio.

Le forme

Forma 1 (Fig. 3a)

Orciuolo monoansato con corpo globulare, fondo pieno e piatto. Il collo è stretto ed allungato, leggermente svasato verso il labbro ispessito e sottolineato da una risega. L'argilla in genere è abbastanza depurata, di colore beige o crema tendente al rosato in superficie. Si tratta di un contenitore per liquidi di uso domestico. Questo contenitore risulta in percentuale la forma più attestata numericamente in tutti i saggi di scavo.

Forma 2 (Fig. 3b)

Vaso con corpo svasato, stretta spalla, breve orlo diritto e larga bocca. Unica ansa impostata direttamente sul labbro generalmente appiattito superiormente. Il fondo è, in genere, ad anello non molto rilevato, a volte sottolineato da una incisione alla base. In alcuni casi il fondo è piatto. L'argilla è beige o crema tendente al verdino.

Forma 3 (Fig. 3c)

Vaso con corpo svasato stretta spalla, breve orlo diritto e larga bocca. Unica ansa impostata direttamente sul labbro. Dal lato opposto dell'ansa è presente un versatoio cilindrico leggermente svasato verso il labbro ispessito e sottolineato da una risega. Il fondo è piatto.

L'argilla è chiara, tendente al crema-verdino, nocciola-arancio nei fondi, verosimilmente più cotti.

E' da notare che le forme 2 e 3 quando si è in presenza di frammenti di orlo non possono essere distinte, data la somiglianza dell'orlo stesso, pur nelle numerose varianti del labbro. E' interessante riscontrare che, al presente, è ancora prodotto dalle fornaci di Suq el Khamis un vaso di forma analoga usato per il latte, ma in ceramica rozza con numerosi inclusi biancastri. (Fig. 4)

Tali vasi, definiti in idioma locale "Hellab", sono reperibili nel mercato che si svolge lungo la strada Zliten-Misurata, (Fig. 5) dove la produzione artigianale di tipo familiare—che comprende anche altre forme come i fornelli per il the o i forni per il pane, detti "tabune"—è posta in vendita dal capofamiglia. (Fig. 6)



FIGURE 5. (above) Mercato lungo la strada Zliten-Misurata (Libia). Vaso per latte di produzione attuale.



FIGURE 6. (right) Mercato lungo la strada Zliten-Misurata (Libia). Venditore accanto alla merce esposta.



FIGURE 7. (above) Leptis Magna. Vaso biansato con setto a filtro Forma 4.

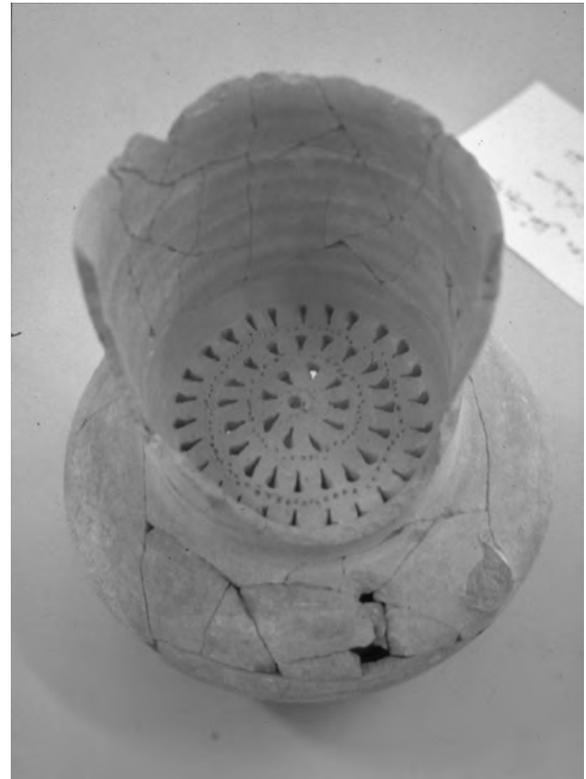


FIGURE 8. (right) Sultan. Museo. Vaso biansato con setto a filtro Forma 4.



FIGURE 9. Sultan. Museo. Frammento di setto a filtro.



FIGURE 10. Casale di Piazza Armerina (Libia). *Antiquarium*. Vaso con setto a filtro (da Gabrieli-Scerrato).

Forma 4 (Fig. 7)

Vaso con corpo biconico, alto e largo collo svasato, solcato da gruppi di incisioni orizzontali, con orlo rastremato verso l'interno (diametro oltre cm 10). Due anse a nastro apicate si impostano sulla spalla, poco al disopra dell'attacco del collo. All'interno della bocca, alla base del collo, è presente un setto a filtro costituito da un diaframma con gruppi di fori praticati dall'alto nell'argilla fresca quando il setto era già stato applicato al corpo del vaso.

I fori, ora circolari, ora quadrati e che non sempre costituiscono un motivo decorativo, erano con probabilità realizzati attraverso l'uso di un semplice bastoncino ligneo o una canna sottile.

Piede ad anello.

Argilla crema, tendente al verdino nei frammenti mal cotti.

E' assente la vernice.

Si tratta di un vaso da mensa per acqua, in cui la presenza del filtro garantisce la purezza del liquido contenuto da intrusioni da parte di insetti e corpi estranei.

Certamente è la forma che mostra più evidenti le analogie con produzioni islamiche classiche e maggiormente note, anche dipinte e con setto decorato. La forma è largamente attestata sia geograficamente sia cronologicamente.

Il confronto più diretto si è riscontrato con un analogo vaso, ricostruito da frammenti, conservato nel Museo della città di impianto fatimita di Medinet Sultan, sempre in ceramica



FIGURE 11. Produzione attuale di Garian (Libia).



FIGURE 12. Produzione attuale di Guallala (Tunisia).



FIGURE 13. Leptis Magna. Piatto Forma 5.

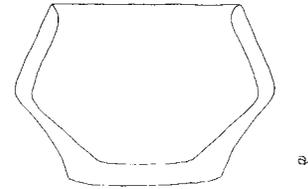


FIGURE 14. a,b Leptis Magna. Cop-petta carenata Forma 6; piatto coperchio Forma 7 (profilo).

comune (Fig. 8) Nella stessa vetrina sono esposti frammenti con setto elegantemente decorato (Fig. 9).

Tra la ceramica islamica di Ajdabiyah, il tipo “Jug Type 2” del Riley è certamente da ricondursi a questa forma.³

Non mancano attestazioni della forma anche in territorio italiano come documentato dagli esempi, più tardi, siciliani e pugliesi (Fig. 10).⁴

Il tipo di contenitore per acqua biansato e con setto a filtro è ancora di larga produzione nelle manifatture contemporanee del bacino del Mediterraneo.

Tuttavia, gli esempi del territorio di Garian, in ceramica comune acroma (Fig. 11) e quelli analoghi del centro manifatturiero di Guallala, (Fig. 12) nella prossima isola di Djerba, pur mantenendo la tipologia, hanno perduto, in parte, l’eleganza della forma da cui sono derivati.

3. Riley 1982: 85–104.

Forma 5 (Fig. 13)

Piatto con parete svasata, orlo leggermente portato all'esterno e labbro arrotondato. Il diametro dell'orlo può superare i cm 25.

Piede ad anello.

All'interno sono evidenti le solcature dovute alla tornitura tanto da far supporre anche un uso come coperchio.

Nell'ambito di questa forma si sono raggruppati vari esemplari di contenitore aperto accomunati da analoga funzione d'uso, prescindendo dalla presenza di un diverso profilo dell'orlo—in alcuni casi caratterizzato da un rigonfiamento del labbro all'esterno, sottolineato da una risega—che da origine a numerose varianti.

Argilla beige-rosata.

Anche questa forma è largamente attestata nel mondo islamico. In ceramica comune è nota dagli scavi di Sidi Khrebish,⁵ per restare in territorio libico, ma è soprattutto negli esemplari in ceramica invetriata che conosce la sua maggiore diffusione.⁶

Forma 6 (Fig. 14a)

Coppetta carenata con allargamento a circa metà dell'altezza. Orlo con labbro leggermente rastremato all'interno.

Fondo piano.

Le dimensioni sono contenute: l'altezza, il diametro della bocca e quello del piede si equivalgono (circa cm 7,5; 8).

E' probabile che la funzione, anche per la presenza del labbro rastremato, fosse quella di un vaso potorio.

Argilla beige-rosata.

Forma 7 (Fig. 14b)

Piatto-coperchio, con pareti oblique e labbro leggermente svasato, caratterizzato da una finitura più liscia della superficie esterna. Il piede è piano con un allargamento verso l'esterno che lo rende atto alla presa.

Pur se presente in esemplari limitati numericamente e non ricostruibili, per le caratteristiche dell'argilla, questo contenitore non si discosta dalla produzione leptitana qui illustrata.

Lucerna (Fig. 15)

Lucerna di forma circolare a riserva chiusa con foro centrale e becco di forma triangolare.

4. Scerrato 1993: 399–445 in particolare 420 e ss.; Ragona 1993: 599–609 (cfr. Fig. 14); Whitehouse 1966 3–4: 171–178, in particolare 174, 176, Fig. 29, 4–5 (vasi da acqua con filtri decorati). Si vedano anche gli esemplari rinvenuti nei saggi di scavo della Villa del Casale a Piazza Armerina: Ampolo et al. 1971: 261–266, in particolare: 263, Figg. 143–151 (Ampolo C.) E' interessante constatare che in associazione, tra i materiali di scarico della fornace "arabonormanna" della villa, erano presenti tanto la lucerna (262, Fig. 133) che il piatto denominato forma 5 (262, Figg. 134–135) ed un tipo di vaso con beccuccio che ricorda la forma 3, anche se biansato (263, Figg. 141–142). Nello stesso contesto figurano brocche e anforette con fondo umbonato (264, Figg. 153–158). In ordine a una classificazione dei setti a filtro e della tecnica di realizzazione degli stessi, si veda il significativo contributo di Kawatoko 1987.

5. Riley 1981: 372, Fig. 134.

6. Esemplari invetriati sono stati rinvenuti a Tell Barri cfr. Pecorella 1984: 351–368. In particolare 361, Fig. 8 nn. 11–17, 20–22, 25–27.



FIGURE 15. Leptis Magna. Lucerna.

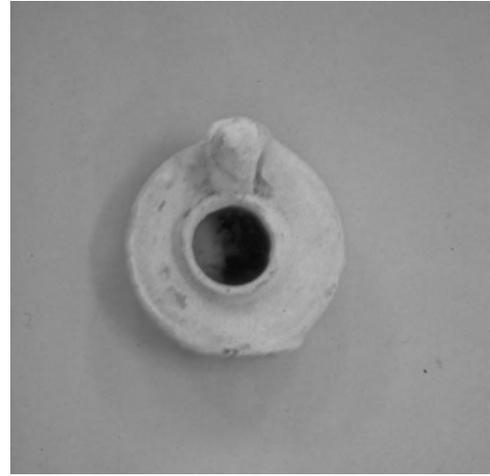


FIGURE 16. Sultan. Museo. Lucerna.



FIGURE 17. Leptis Magna. Anfora con fondo umbonato, ricomposta da più frammenti.



FIGURE 18. Leptis Magna. Anfora con fondo umbonato. Particolare del fondo.

Il tipo è documentato da vari esemplari dalla stessa Leptis Magna, da Sultan (Fig.16), da Sabratha, da Sidi Khrebish.⁷

7. Per Sabratha si veda: Joli 1974: 205, Cat. 1328, Tav. LVIII, 4, (senza inventario), definita del tipo con serbatoio cilindrico dall'A. (p. 57), datata per confronti, al IX-X sec. d. C.; per Sidi Khrebish cfr. Bailey 1985: 171-173, Pl. XXXVII-XXXVIII, C 1237- C 1250, si veda tuttavia anche un esemplare a Fig. 11, C 1235 e Tav. XXXVII, 170-171 che l'autore inserisce tra le *Local Late Roman wheel-made Lamps*, del tutto simile ad una lampada da Mila: cfr. Lassus: 218, Pl. IV.

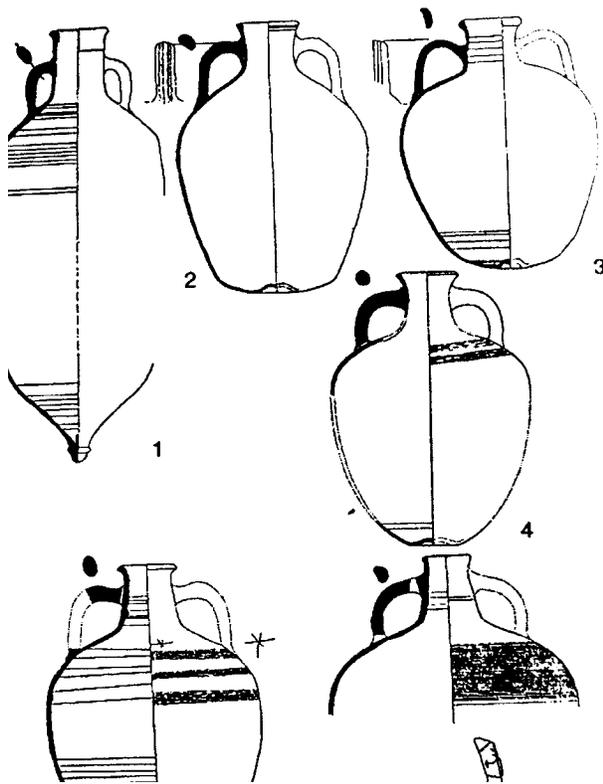


FIGURE 19. Finale Ligure (Italia). Anfore con fondo umbonato (da Murialdo).



FIGURE 20. Corinto (Grecia). Anfore con fondo umbonato (da Williams II e altri).

Anfora di piccole dimensioni con fondo umbonato (Fig. 17)

Di notevole interesse è il tipo di contenitore che è stato possibile ricostruire soprattutto grazie al rinvenimento di numerosi frammenti pertinenti ad una trentina di esemplari, relativi a più infornate, deformati per un cattivo regime di cottura.

Si tratta di un'anfora di piccole dimensioni con orlo "a collarino", corpo ovoidale segnato completamente dalle scanalature del tornio. In alcuni esemplari è presente una leggera strozzatura a metà dell'altezza. Anse a nastro impostate sotto l'orlo. Fondo arrotondato non distinto dal corpo—che tuttavia consente l'appoggio—caratterizzato da una depressione centrale conclusa con una sorta di bottone (Fig. 18).

L'orlo, pur con varianti, è sostanzialmente definito da una risega alla base della larga bocca che delinea una sorta di collare (cm 9–11). Possono essere presenti, a volte, articolazioni di questa solcatura più o meno complesse. Il labbro ingrossato è individuato da una o più scanalature .

Argilla in genere abbastanza compatta color arancio rosato o arancione.

E' molto probabile che tale contenitore sia un'anfora acquaria di uso domestico e di agevole trasporto, date anche le modeste dimensioni che oscillano tra i 33 ed i 44 cm di altezza e la capienza, tra i 4 litri e mezzo e i 9 litri.

Non è semplice, al momento, definire confronti puntuali per questo tipo di contenitori. E' certo, tuttavia, che gli esemplari leptitani sono stati prodotti in loco.



FIGURE 21. Bodrum (Turchia). Museo. Anfore con fondo umbonato provenienti da rinvenimenti sottomarini.



FIGURE 22. Bodrum (Turchia). Museo. Anfore con fondo umbonato provenienti da rinvenimenti sottomarini.

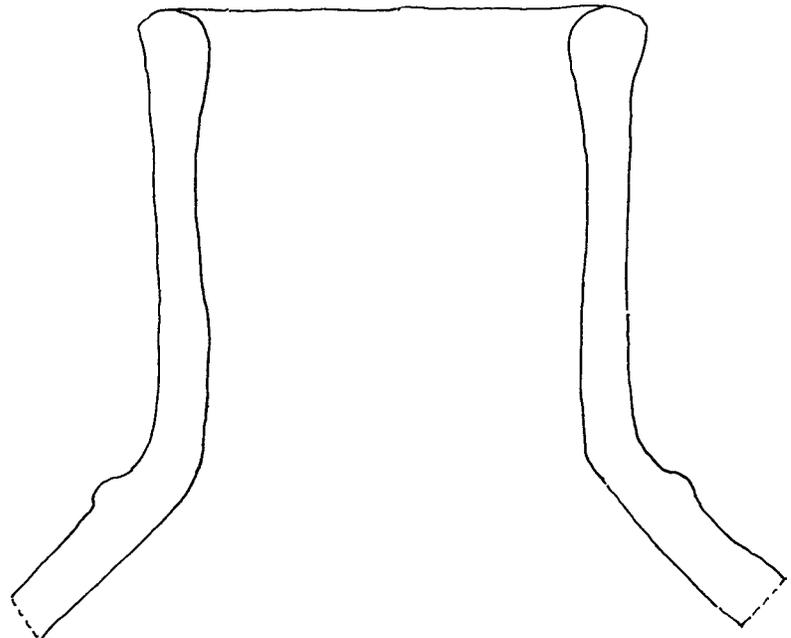


FIGURE 23. Leptis Magna. Anfora a collo cilindrico (profilo).

Parrebbe, comunque, da alcuni rinvenimenti di anfore con fondo umbonato e corpo globulare presenti a Sabratha⁸ e, in contesti di VI–VII sec. d. C., a Sidi Khrebish,⁹ che, per la sola caratteristica del fondo si possa tentare di delineare una tipologia di larga e varia diffusione sulle coste del Mediterraneo. Anfore con fondo umbonato sono state rinvenute in Italia negli scavi di Finale Ligure¹⁰ (Fig. 19), in Grecia a Corinto¹¹ (Fig. 20). Analogie si possono

8. cfr. Fiandra and Caloi 1974–1975: 147–163, in particolare 149, Tav. XLV c, d Fig. 31.

9. Esempolari con fondo umbonato sono presenti in contesti di VI–VII sec. a Sidi Khrebish cfr. Riley 1981: 397–398 Fig. 144, 1215; 106 Fig. 3.

anche riscontrare con le anfore provenienti dai rinvenimenti sottomarini lungo la costa turca e ora esposti al museo di Bodrum. (Figs. 21, 22)

L'indubbia funzionalità della forma, dettata da usi pratici, di questi contenitori, parrebbe averne determinato l'indiscusso successo per un così lungo periodo, almeno dal VI al XII sec. d. C., se ancora oggi nelle produzioni cretesi attuali,¹² permane in uso analoga forma di contenitore.

Nel qual caso, i ceramisti di Leptis avrebbero inserito nella loro produzione, accanto alle forme più evidentemente islamiche, una tipologia di consumata tradizione.

Anfora di piccole dimensioni a collo cilindrico (Fig.23)

Altro tipo di anfora, sempre di dimensioni contenute, è attestato da un contenitore con collo cilindrico di cui non è possibile ricostruire la forma del corpo e del fondo.

Si distingue dall'anfora precedentemente descritta, appunto, per un collo di forma cilindrica con leggero ingrossamento del labbro, verso l'esterno, in genere superiormente piatto. Il collo s'imposta sulla larga spalla con una cordonatura in rilievo. Le anse sono impostate a metà del collo. Il diametro della bocca oscilla tra cm 7 e 11 .

L'argilla è arancione rossastra a chiazze, giallo o crema nei frammenti meno cotti.

Concludendo, si può affermare che i massivi rinvenimenti leptitani hanno permesso l'individuazione di una seriazione tale da consentire la definizione di una produzione ceramica altrimenti sconosciuta o nota solo dalla persistenza, nel mondo islamico o islamizzato, di alcune forme, come il vaso biansato con setto a filtro (Forma 4).

Si tratta, come detto, di una produzione di "ceramica comune" e di uso comune il cui interesse non è solo intrinseco, ma, come ovvio, segnatamente storico nella misura in cui contribuisce a delineare una fase, pur se breve, della realtà di Leptis finora sconosciuta a testimonianza di un periodo di fertile produttività e pacifica convivenza di un nuovo popolo nel territorio già romanizzato.

Bibliography

- Ampolo, C., with A. Carandini, G. Pucci, and P. Pensabene
 1971 La Villa del Casale a Piazza Armerina. Problemi, saggi stratigrafici ed altre ricerche. *Mélanges de l'École Française de Rome* 83,1.
- Bailey, D. M.
 1985 The Lamps, Excavations at Sidi Khrebish Bengazi (Berenice). In *Supplements to Libya Antiqua* V, III, 2.
- Ballianou, C., and M. Padouba
 1986 Τα Κρητικά αγγεία του 19ου και 20ου αιώνα, 3, Βωποι 58, 71.
- Dolciotti, A. M., P. Ferioli
 1984 Attività archeologica italo-libica a Leptis Magna in funzione della formazione professionale per il restauro e la conservazione. In *La Presenza Culturale Italiana nei Paesi Arabi: Storia e Prospettive, Atti del II Convegno, Sorrento 18-20 novembre 1982*.
- Fiandra, E., and L. Caloi
 1974-75 I ruderi del tempio Flavio di Leptis Magna 1) Vicende dal IV al IX sec. d. Cr. 2) Studio dei resti ossei. *Libya Antiqua* XI-XII.
- Joli, E.
 1974 *Lucerne di Sabratha*. Monografie di Archeologia Libica XI,14.

10. Murialdo 1994: 213-246 in particolare 229-230, Fig. 6; Fig. 32.

11. Williams et al. 1997: 17, 5, Pl.5

12. Ballianou, C., and M. Padouba 1986: 58-71.

- Kawatoko M.
1987 *Water-Jug Filters of Islamic Egypt.*
- Laronde, A.,
1996 Mission archéologique française en Libye. Rapport sur la Campagne de Fouilles d'Aout 1995 à Leptis Magna. *Libya Antiqua* II.
- Lassus, J.
Fouilles à Mila. Campagne préliminaire. Deux sondages in Libya.
- Murialdo, G.
1994 Anfore tardo antiche nel Finale. *Rivista di Studi Liguri* LIX–LX. Bordighera.
- Pecorella, P. E.
1984 Gli scavi Italiani a Tell Barri. In *La Presenza Culturale Italiana Nei Paesi Arabi: Storia e Prospettive, Atti del II Convegno, Sorrento 18–20 novembre 1982.*
- Ragona, A.
1993 La ceramica siculo-normanna. In *Gli Arabi in Italia.* Gabrieli, F. and U. Scerrato, eds.
- Riley, J. A.
1981 *Coarse Pottery Excavations at Sidi Khrebish Bengazi (Berenice), II.* Supplements to *Libya Antiqua* V, II.
1982 Islamic Wares from Ajdabiyah. *Libyan Studies* 13.
- Scerrato, U.
1993 Arte Islamica in Italia. La ceramica. In *Gli Arabi in Italia.* 1979. Gabrieli, F. and U. Scerrato, eds.
- Whitehouse, D. B.
1966 Ceramiche e vetri medioevali provenienti dal castello di Lucera. *Bollettino d'Arte* 3–4.
- Williams II, C. K., with E. Barnes, and L. Snyder
1997 Frankish Corinth: 1996. *Hesperia* 66.

Karawanenwege und Karawanenbauten im Nahen Osten

WOLFRAM KLEISS

DAI, Berlin

Das Netz der Karawanenwege, wie es auch heute noch in den Verkehrswegen der modernen Staaten des Vorderen und Mittleren Ostens ablesbar ist, gehört zum westlichen Abschnitt der Seidenstrasse, die seit der Antike als Handelsweg China mit Europa verbindet (Abb. 1).

Das Geflecht der Karawanenwege, etwa auf iranischem oder türkischem Staatsgebiet, setzt sich aus Hauptstrecken und Nebenstrecken sowie Querverbindungen zusammen (Abb. 2 und 3). Die Streckenführungen, etwa in Mesopotamien oder Afghanistan, sind abhängig von geographischen Geländegegebenheiten und Wasserstellen, sollen aber unter Umgehung schwer passierbarer Wüsten- und Steppengebiete und unzugänglicher Gebirge die möglichst kürzeste Entfernung zwischen Handelszentren bilden (Abb. 4 und 5).

So waren diese Wege in erster Linie Handelsstrassen, aber auch Heerstrassen, Pilgerstrassen, dienten Völkerwanderungen—wie dem Mongolensturm—und als Routen ausländischer Gesandtschaften. Durch letztere wurden die Karawanenwege frühzeitig in Mitteleuropa bekannt, wie Routenbeschreibungen und Abbildungen der Karawanenbauten etwa durch Engelbert Kaempfer und Adam Olearius im 17. Jahrhundert und durch Stiche aus dem 19. Jahrhundert.¹

Karawanenwege waren—je nach Anforderungen des Geländes und des Verkehrsaufkommens—als blosse, unausgebaute Pisten oder als gepfasterte Strassen angelegt. In Pass-Situationen waren sie als Stufen-Strassen ausgebaut.² Durch sumpfiges Gelände oder durch Salzpflanzen führten Damm-Konstruktionen mit Pflasterung, über Flüsse zum Teil beachtliche Brückenbauten.³

Sowohl im unübersichtlichen Bergland als auch in flachen Wüstenebenen dienten in Iran Karawanenrichtpunkte in Turmform, sogenannte Mile,⁴ zur Richtungsangabe. Meist nicht besteigbare, massive Steintürme stehen auf Anhöhen. Durch Wendeltreppen begehbar und in Ziegelbauweise reich verzierte, wie Minarette wirkende Beispiele—wie der Mil-e Naderi—können auch einer solchen religiösen Funktion gedient haben.

In Abständen von 30–40 km auf relativ ebenem Gelände und in kürzeren Abständen von 5–10 km in schwer begehbarem Bergland wurden Karavanserais (Abb. 6–8) oder Karawan-

1. Hüls und Hoppe 1982: Abb. 8–11, 49, 50, 53–55, 73–76. Olearius 1971: 419, 693 und 697.
2. So am "Pass des jungen Mädchens" (Kotal-e Dukhtar), am Aufstieg von Kazerun nach Shiraz.
3. Als Damm-Pflasterweg führt die Route über den Rah Sang Farsh durch die Dasht-e Kavir, südöstlich von Teheran.
4. Das bekannteste Beispiel ist der Mil-e Naderi an der Strecke von Bam nach Zahedan und Pakistan/Indien.

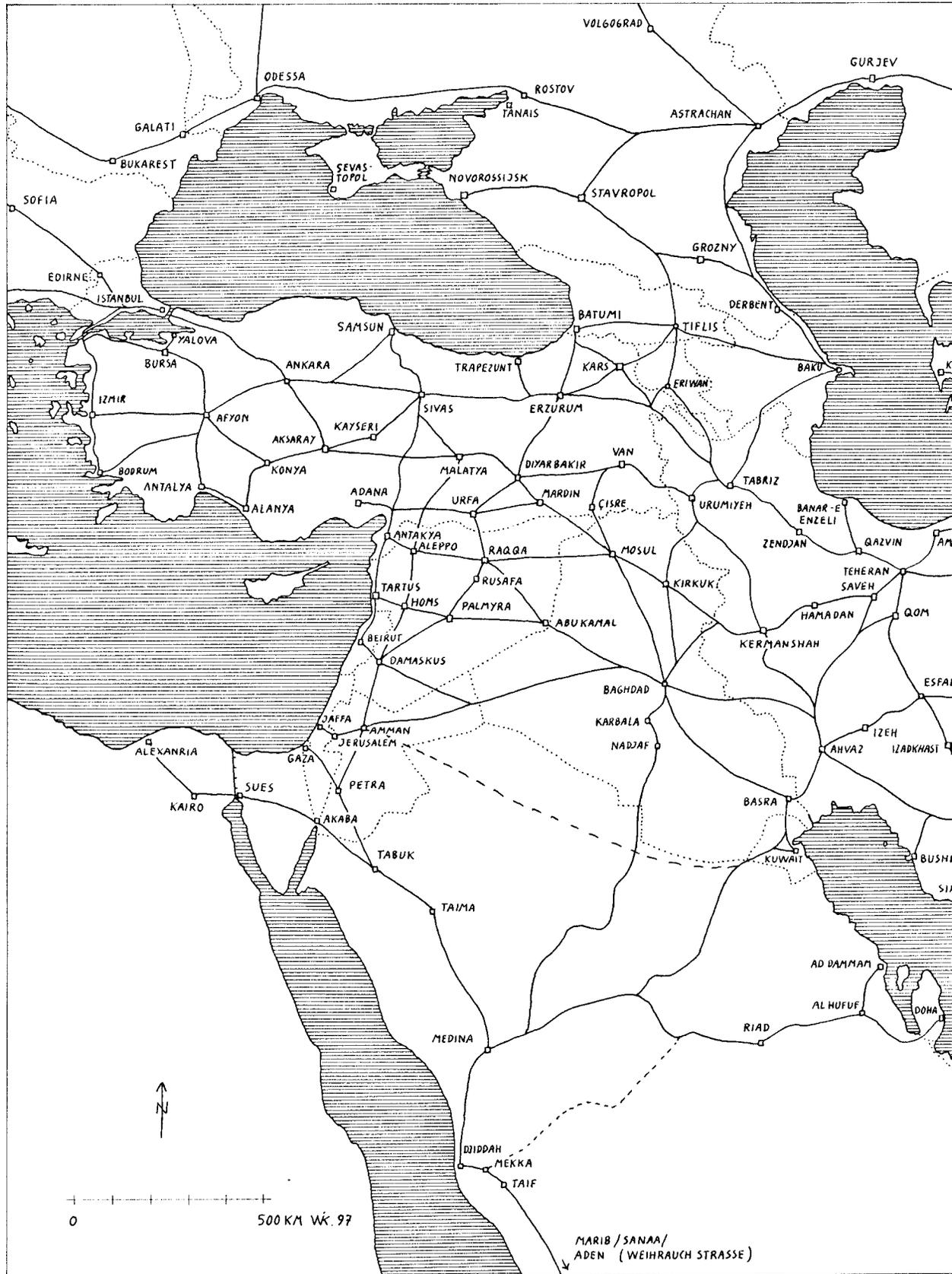
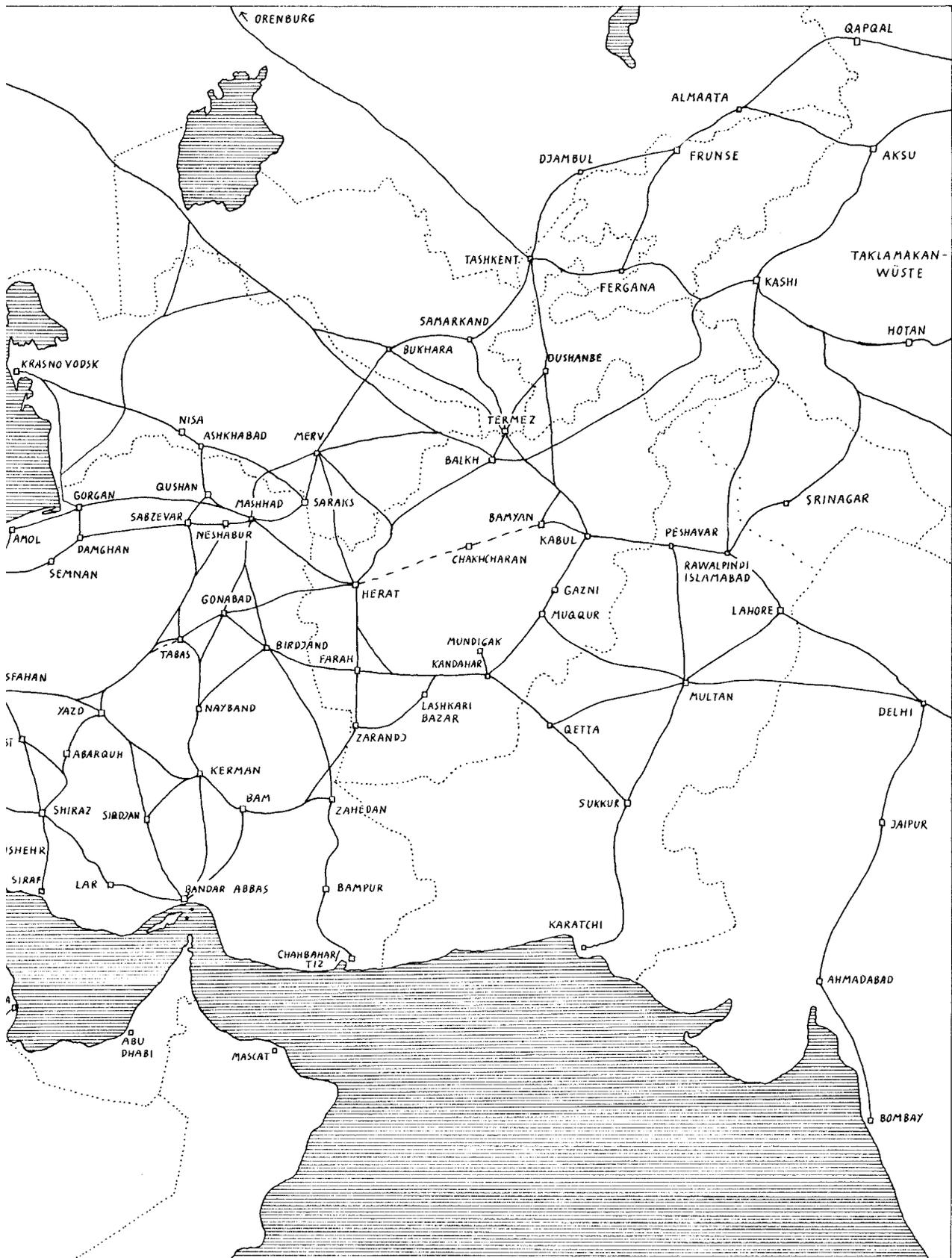


ABBILDUNG 1. Karte der Karawanenwege im Vorderen Orient.



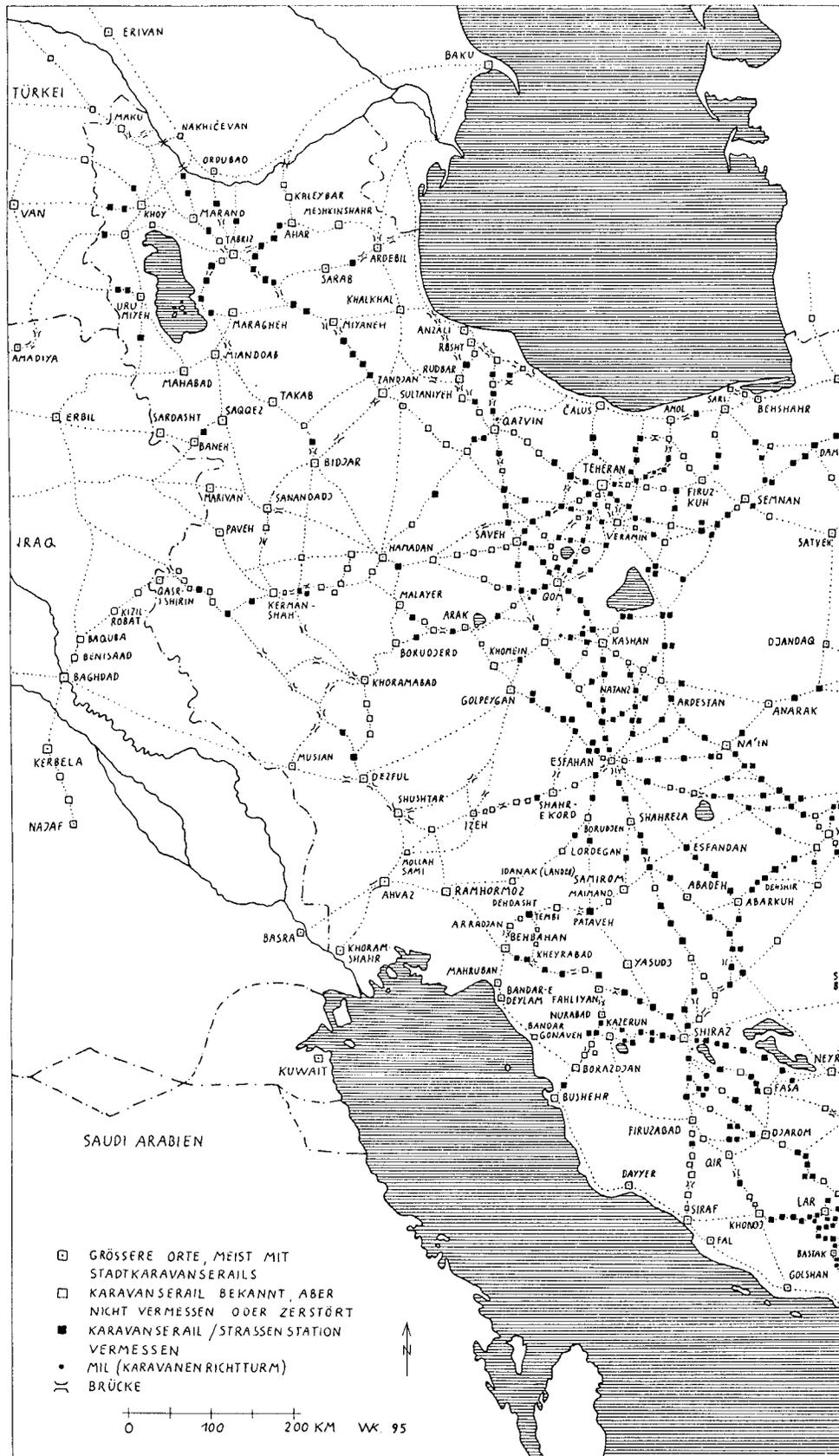
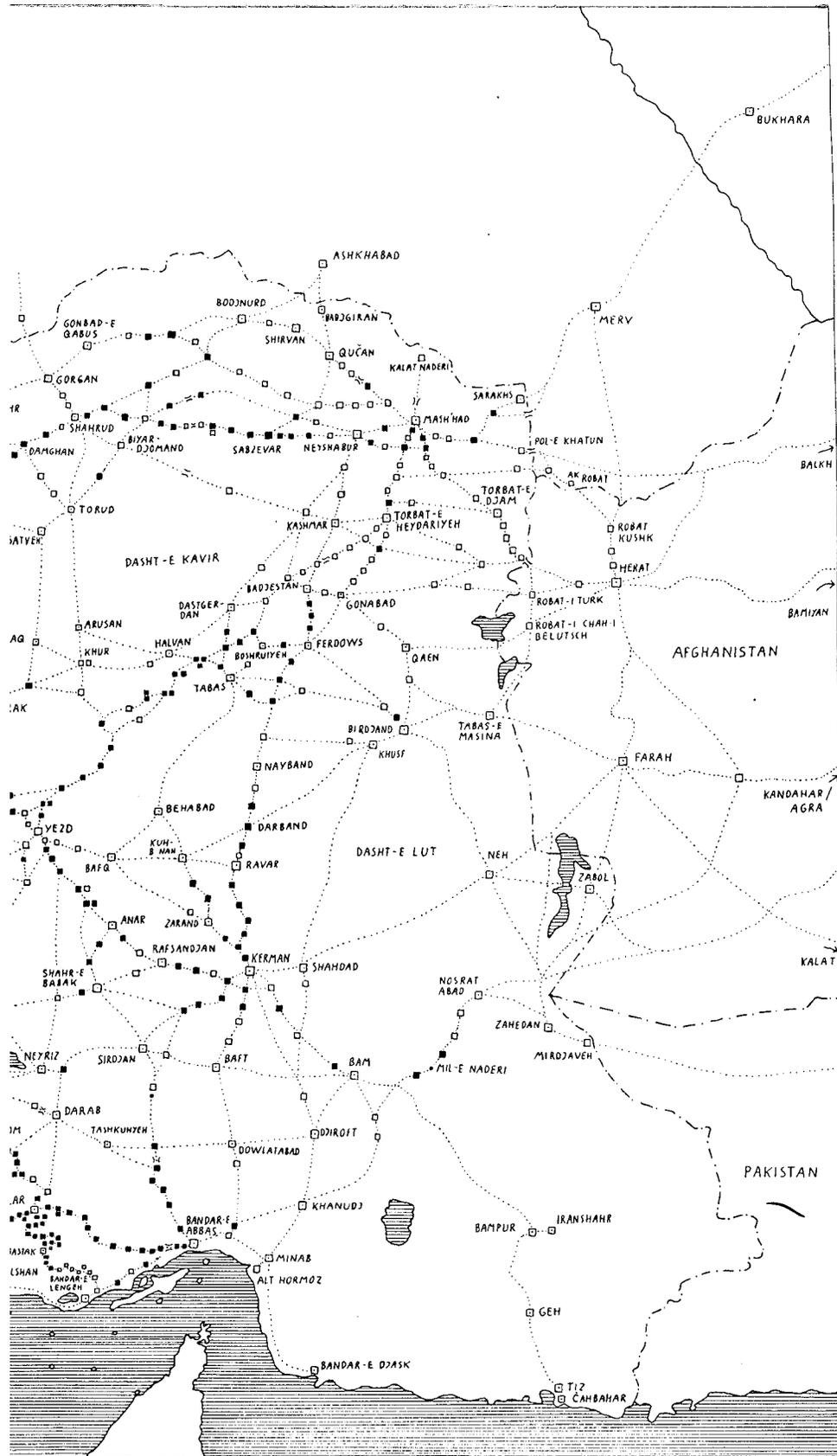


ABBILDUNG 2. Karte der Karawanenwege in Iran.



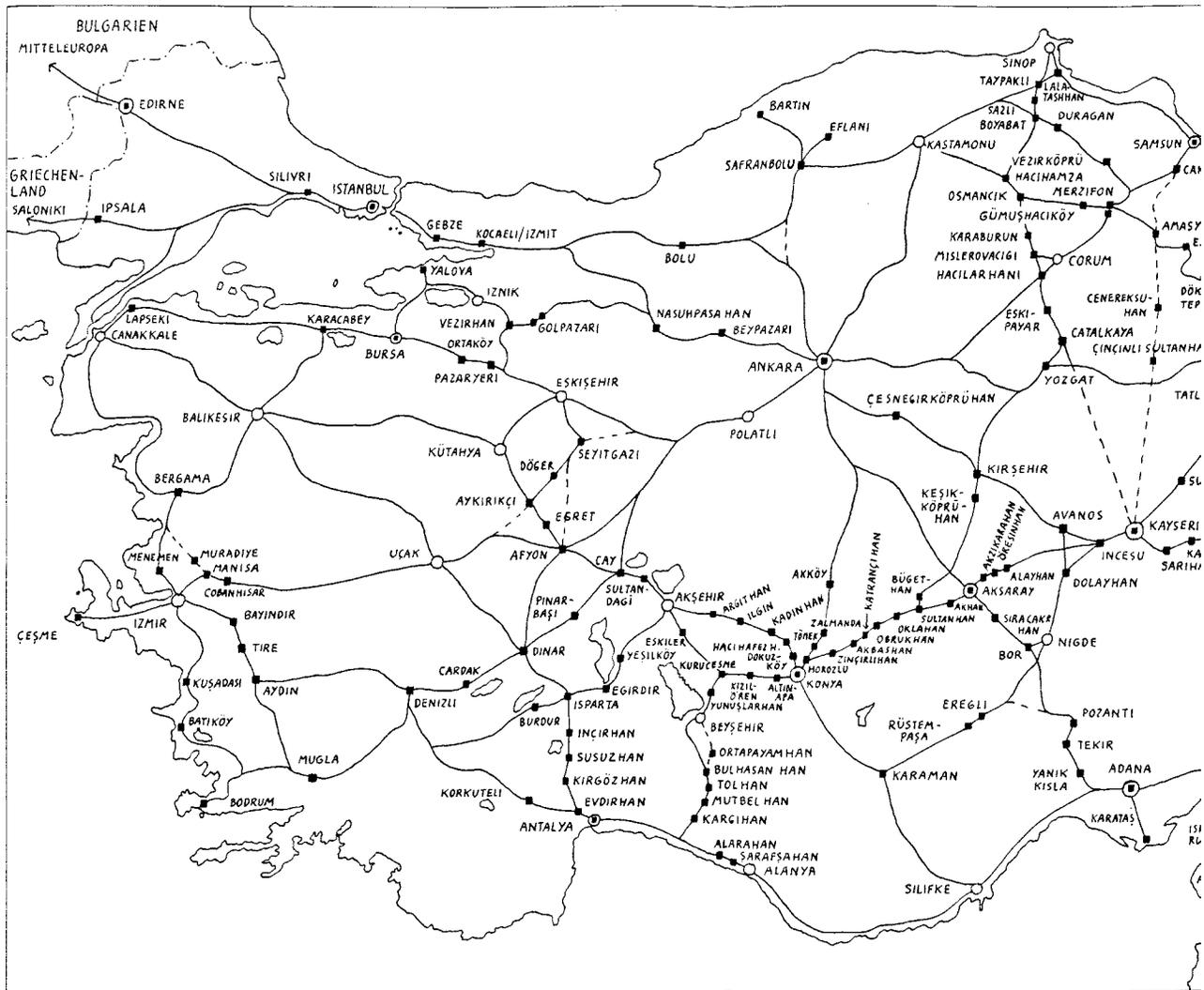


ABBILDUNG 3. Karte der Karawanenwege in der Türkei.

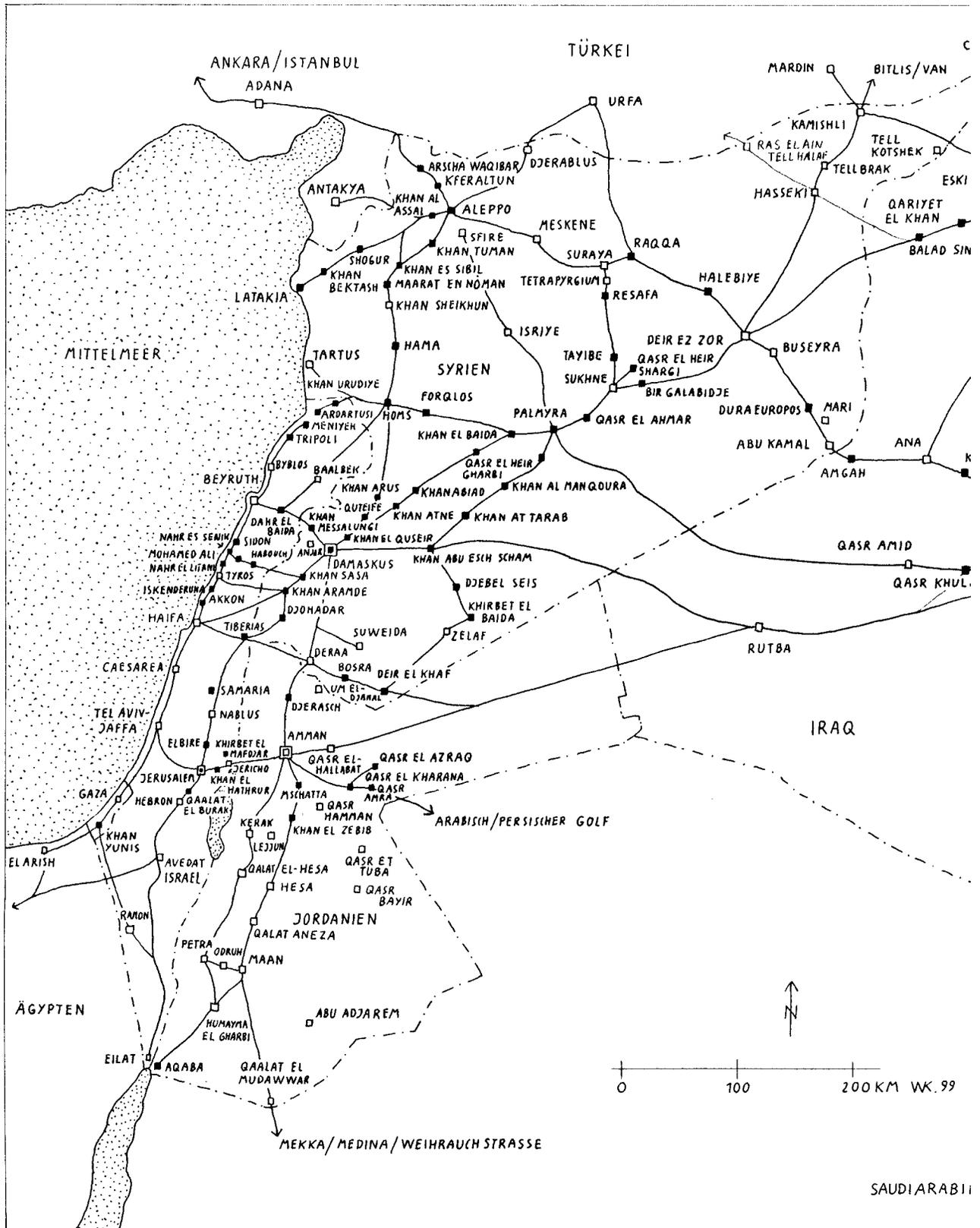


ABBILDUNG 4. Karte der Karawanenwege in Iraq (Mesopotamien).

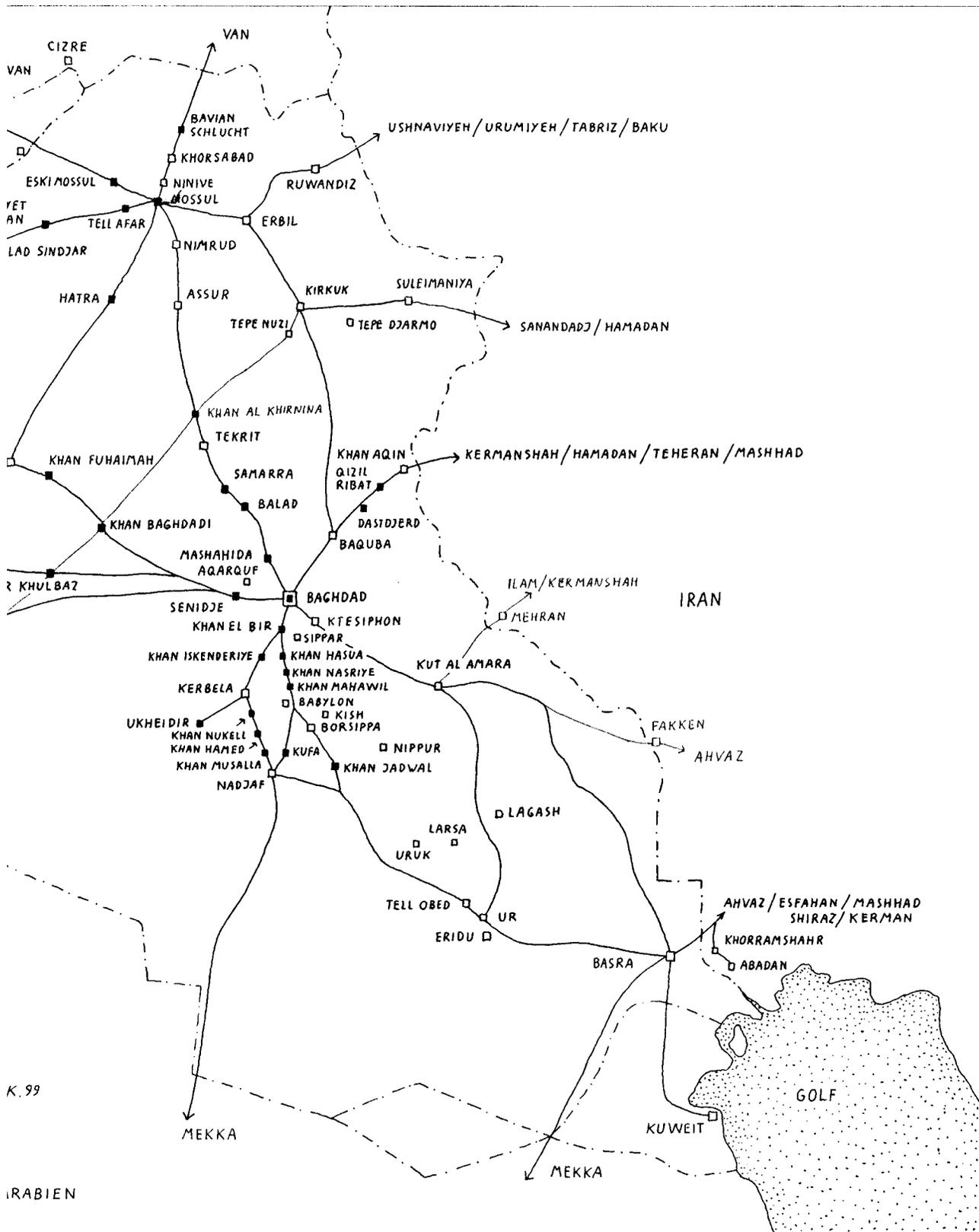




ABBILDUNG 6. Karavanserail Shahun, Strecke Yazd–Kerman.



ABBILDUNG 7. Karavanserail Rivad-e Bostan, Strecke Nain–Esfahan.



ABBILDUNG 8. Karavanserail Now Gonbad, Strecke Nain–Yazd.

enstationen—auf unterschiedliches Verkehrsaufkommen berechnet—angelegt. Diese Bauten wurden durch die Staatsmacht, durch Kaufmannsgilden (Bazari) oder an den Pilgerwegendurch religiöse Stiftungen angelegt und unterhalten. Letzteres meist jedoch so oberflächlich, dass ein rascher Verfall einsetzte und das Bauwerk schliesslich durch einen Neubau ersetzt wurde. So kam es dazu, dass vielerorts mehrere unterschiedlich gut erhaltene Karawanenbauten dicht nebeneinander stehen.⁵

Karawanenbauten aus vorislamischer, aber hauptsächlich aus islamischer Zeit sind in besonders grosser Zahl aus allen geschichtlichen Epochen vornehmlich in Iran, aber auch in der Türkei, im fruchtbaren Halbmond Arabien-Mesopotamien, in Afghanistan und in den islamischen Nachfolgestaaten der Sowjetunion—meist als Ruinen—überliefert.

In Iran, als einem strategisch bedeutsamen und verkehrstechnisch stark frequentierten Bindeglied zwischen West und Ost und Nord und Süd, spielte auch die Sicherheitsfrage der Karawanenstationen, abhängig von der allgemeinen Sicherheitslage im Lande, eine Rolle und äussert sich an der Verteidigungsfähigkeit der einzelnen Bauten der verschiedenen geschichtlichen Epochen (Abb. 9). Frühislamische Karawanenbauten haben Festungscharakter, safavidische Bauten des 17. Jahrhunderts verzichten auf Befestigungen teilweise ganz und qadjarische Bauten des 19. Jahrhunderts gleichen wieder Festungen.

Beeinflusst von der Sicherheitsfrage ist die Grundform des normalen Karavanserais im Nahen Osten und Mittleren Orient, nämlich ein Bau, der sich um einen mittleren Hof (Abb. 10) legt, mit Unterkunftsräumen, die vom Hof her zugänglich sind, und den dahinterliegenden Stallungen (Abb. 11). Jeweils die Mitte der vier Hofseiten wird von einem Iwan, einer zum Hof hin geöffneten, breiteren und höheren Halle, betont. Der Gesamtbau hat in

5. Kleiss 1981: 111 ff.

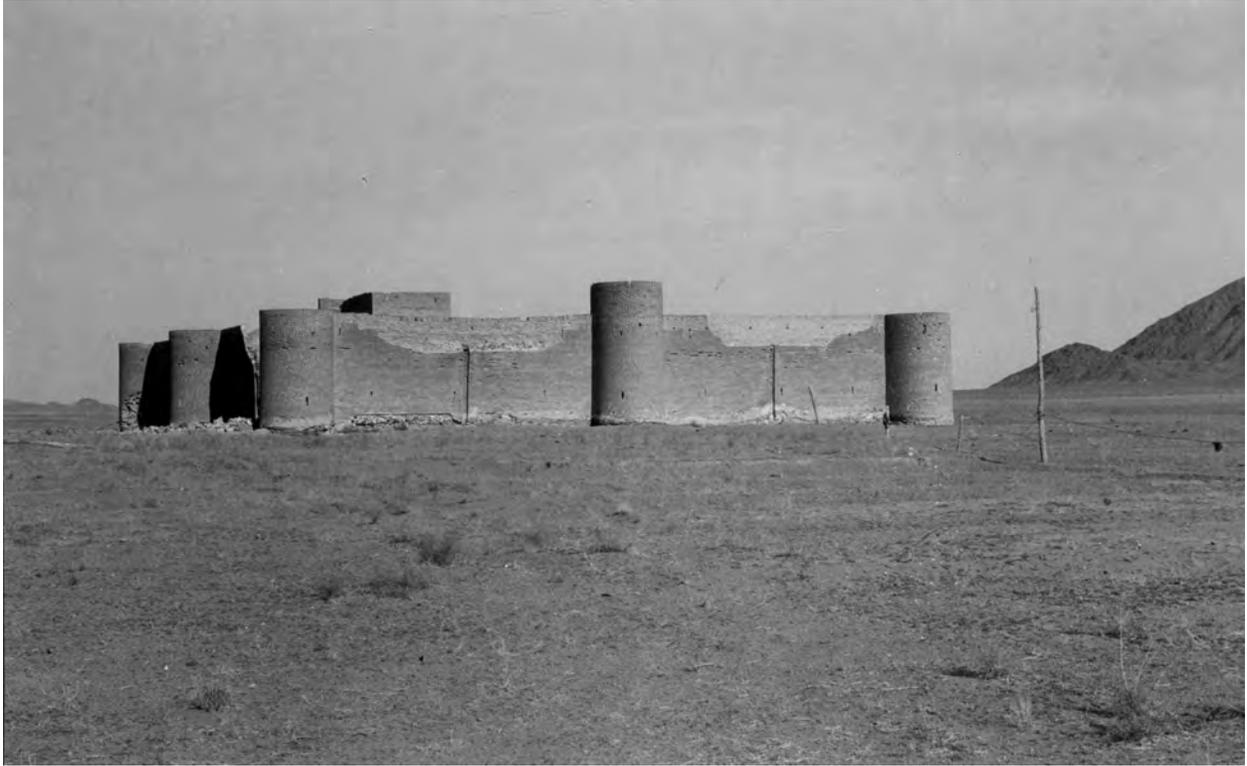


ABBILDUNG 9. Karavanserail Robot Shur, Strecke Tabas–Mashhad.



ABBILDUNG 10. Karavanserail Saqzi, Strecke Esfahan—Nain.



ABBILDUNG 11. Karavanserail Robat Kalmard, Strecke Yazd–Tabas.

der Regel nur einen Eingang, der ebenfalls architektonisch betont ist. Seit der safavidi-
 schen Zeit wird die Eingangsfront beiderseits des Tor-Iwans durch Wohnnischen gegliedert.
 Grössere Bauten haben zusätzlich Gebetsraum, isolierte Gäste-Höfe, Toiletten und teil-
 weise Badeanlagen.

Is
 Wohnnischen spelled
 correctly?

Neben dem mehrheitlich vertretenen Hoftyp des Karavanserais ist die Kombination von
 Hof und Hallenbau, vornehmlich beim seldschukischen Han in Anatolien, aber auch
 vereinzelt in Iran vertreten. Vorwiegend im Bergland, vereinzelt auch in Wüstendistrikten,
 findet man das geschlossene Hallenkaravanserail. Sonderformen bilden einige achteckige-
 Bauten, die um einen Hof angelegt sind und in der Aufteilung von Unterkunftsräumen und
 Stallungen den rechteckigen Hofkaravanserais entsprechen (Abb. 12). Sonderformen sind
 auch einige runde Karavanserais, die aussen rund und in der Hof-Architektur acht- oder
 zwölfkuppig sind. Diese Rundbauten sind im 17. Jahrhundert, also in safavidischer Zeit err-
 richtet worden und bilden in ihrem Äusseren mehr eine Prestige-Architektur als einen
 Verteidigungsbau.

Die Küstenregionen am Golf und an der Strasse von Hormoz entwickelten in safavidi-
 scher Zeit eine weitere Sonderform der Karawanenstation, nämlich den Pavillon-Typ als
 Unterkunftshaus neben dem für die Region bedeutenderen Kuppel-Abanbar, der Frisch-
 wasserzisterne. Es handelt sich beim Pavillon-Typ um kreuzförmige Zentralbauten, mit vier



ABBILDUNG 12. Karavanserail Zizeh, Strecke Kashan—Natanz.

Eckräumen in verschiedenster Grundrissgestaltung. Alle Räume sind nach aussen geöffnet, um dem kühlenden Seewind Zugang zu ermöglichen. Die Sicherheitsfrage spielt bei diesen Bauten keine Rolle.

Schliesslich sind in den rückwärtigen Küstenregionen und in den Vorbergen am Golf Kleinkaravanserails einfachster Raumgestaltung im Typ des Hofkaravanserails zu erwähnen.

Während die kleineren Karawanenbauten am Golf und die hallenförmigen Bergkaravanserails schmucklos in einfachen konstruktiven Formen errichtet sind (Abb. 13), haben die grossen Inland-Karavanserails im Hochland von Iran teilweise künstlerisch beachtenswerte Ausschmückung erfahren. Im Gegensatz zu den in Haustein gestalteten Fassaden seldschukischer Hane Anatoliens wurden zur seldschukischen Zeit Irans die Fassaden im zum Teil mehrfarbig glasierten Ziegeln geschmückt. Besonders ausgeschmückt wurden Fassadenteile durch Stuck-Stalaktiten oder Steinplatten-Verkleidung in qadjarischer Zeit. Die Eingangshallen erhielten Ziegelmuster in den Tonnengewölben und den einzelnen Gewölbeflächen (Abb. 14).

Als Baumaterialien wurden an Karawanenbauten Haustein, Bruchstein, gebrannte Ziegel, mehrfarbig glasierte Ziegel, Ziegelmosaiken, Lehmziegel und Stampflehm verwendet. In der Regel wurden die Konstruktionsformen, also die Statik des Gebäudes offen gezeigt, seltener durch Ziegelmosaiken oder Stucktalaktiten verkleidet.



ABBILDUNG 13. Karavanserail Sinsin, Strecke Qom—Kashan.



ABBILDUNG 14. Karavanserail Miyandasht, Strecke Semnan—Mashhad, Gewölbekonstruktion über dem Eingang.

Vorherrschend war beim Karavanserail-Bau der Hoftyp, der aber eine breite Vielfalt im Grundriss und in der Fassadengestaltung entwickelte und regional im Nahen Osten Unterschiede zeigen konnte.

Verkehrsbauten, worunter auch Karawanenbauten zu rechnen sind, stellen namentlich im Safavidenreich einen künstlerisch wesentlichen Bestandteil der islamischen Architektur dar, der bis in das 20. Jahrhundert einer in vor- und frühislamischer Zeit entwickelten Bau-tradition folgt.

Captions for illustrations

Bibliographie

Hüls, H. and H. Hoppe

1982 *Engelbert Kämpfer zum 330. Geburtstag*. Lippische Studien Bd. 9. Lemgo.

Kleiss, W.

1981 Typen Iranischer Karavanserails, *Architectura*. *Zeitschrift für Geschichte der Baukunst* 11, 2: 111 ff.

Olearius, A.

1971 *Vermehrte Neue Beschreibung der Muscowitischen und Persischen Reyse 1656*. Tübingen.

Islamic Iconography in a Nomadic Funeral Context

INGE DEMANT MORTENSEN

The Danish Institute, Damascus

Abstract

The presentation examines pictorial tombstones at nomadic cemeteries in Luristan, Western Iran. There are two main types of tombstones with inscriptions in two “languages”: One variety is the ordinary written Persian. A study of the written inscriptions reveals that certain cemeteries were used by particular tribes (*tayefeh*) over a period of more than 200 years. The other variety is a ‘pictographic’ or symbolic script. The pictorial stelae have figures on both obverse and reverse faces depicting, respectively, scenes from the life of the deceased person and from the funerary rituals. The symbolic language of the stelae reveals information regarding rituals and religious conceptions, the understanding of which must be found within the Shi’a muslim eschatology. The pictorial tombstones went out of use about the same time as the nomads were forcibly settled by the army of Reza Shah in the late 1920s.

This presentation is based on field-work among nomads of Luristan in the most western part of Iran. The history of these nomads is not very well known, and until a few years ago they were themselves largely illiterate.

The area they have lived in comprises some of the rather isolated mountain valleys and plains in the central Zagros mountains, and until recently their rhythm of life was to a great extent determined by the changing seasons, a fact that is reflected in the changing settlement patterns. The nomads used to cover quite a large distance during the course of a year, and as the seasons changed—so did their dwellings. But the mobile camps of black tents or airy huts leave only slight traces on the surface of the ground, and after a short period of time it is difficult to detect even a big campsite (see e.g., Mortensen and Mortensen 1989: 932–33).

My attention was caught by the nomadic cemeteries, scattered apparently at random across the landscape of Luristan. These cemeteries and the tombstones which I have studied cover a period from the late 18th century to the middle of the 1930s. The forcible attempts by Reza Shah and his army starting at the beginning of the 1920s to “civilize”—and that means in this context to disarm and settle the nomadic tribes of Luristan—had by the mid-1930s resulted in an economic, social and cultural break-down of the old tribal structures of Luristan and in a partial cessation of nomadic migrations.

The old cemeteries and tombstones of which I made a study in the 1970s are therefore an important source in mapping the tribal migrations of the 19th and early 20th centuries. Moreover, they contain a rich amount of evidence for the understanding of certain aspects of the religious beliefs and ritual actions of the Lurs. As one can see in this photograph of the



FIGURE 1. Overview of the cemetery of Pela Kabud, Luristan, Western Iran, 1977.

cemetery of Pela Kabud in northern Luristan, the cemetery is placed along an old migratory route, and this holds true for all the nomadic cemeteries (see Fig. 1).

There are several kinds of tombstones in Luristan. In connection with the grave a pictorial stele or an obelisk may sometimes be seen. Some of the obelisks may reach a height of 3–4 meters. Most common, however, is a flat-lying gravestone with an inscription kept in a lapidary style, always stating the name of the deceased, the name of his or her father, and the name of the tribe he belonged to. The month in which the death occurred is sometimes indicated, and always the year, according to the Islamic lunar calendar. Figure 2, for instance shows a gravestone from the early 20th century (the date is incomplete) over a woman of the Jalalvand tribe.

At the base of the gravestone is nearly always a panel with pictorial symbols, characteristic for men and women, respectively,—in this case a mirror, a pin for the application of *kohl*, a double-edged woman's comb, and a pair of scissors.

In order to arrive at an interpretation of all these images on gravestones, obelisks and stelae, the obvious procedure would be to ask the local people, the Lurs, among whom the tradition—at least once—was alive. It was rather surprising, however, that none of the local people interviewed could give any explanation of the background for or the meaning of the various signs and symbols on the tombstones. The answers were nearly always in the negative—and with regret. That this would most often be followed up by a lot of curious and fanciful speculation and suggestions does not disguise the fact that the signs have lost their original message-carrier value for the local people of today. Nevertheless, I shall try briefly to present two examples of *my* interpretation of the images on the Luristani tombstones. In both cases an attempt is made to understand the symbols through a reconstruction of the original religious and ritual context of the images shown on the tombstones.



FIGURE 2. Pela Kabud. Woman's gravestone. Early 20th century.



FIGURE 3. Pela Kabud. Man's gravestone. Dated 1860/61.

The first example is an image which appears on a number of tombstones. It is seen on this stone from 1860/61 over Nazar Gholi Kadkhoda of the Jalalvand tribe (Figure 3). Below the inscription is a frame with the gender-related symbols characteristic of men: a string of prayer-beads, the prayer stone, a ewer and to the right the half-circular comb used by men. But in the middle of the stone, interspaced between the fourth and the fifth line of the inscription is a panel with an enigmatic geometric figure in the centre: a cross on a square background with a kind of step-design on both sides, and opening up into tiny channels leading out from—or into—the centre. The simplest interpretation of this motif—and none was forthcoming from the local people—is that it is a purely decorative element, an ornament just meant to fill in the space between two lines.

There is, however, another possibility: the pattern looks very much like the central motifs in the great Persian carpets from the 17th and 18th centuries. These represent by means of geometrically constructed designs a garden with channels leading out of (or into)

the central motif, precisely like the medial panels on the tombstones. In the great carpets the garden motif with its water channels and pools was very naturalistically executed in the sense that an attempt was made to imitate or reproduce the plan of the classical Islamic garden. In the carpets the channels and pools symbolize the water in a real garden or—by extension—in the *bagh-i bihest*, the Garden of Paradise (Cf. e.g., Schimmel 1976, Thacker 1979, and Wilber 1962).

In Paradise imagery the setting is a garden or a series of gardens “. . . underneath which rivers flow . . .”, a phrase occurring in different contexts some thirty times in the Qur’an. Moreover, the pleasures of the *bagh-i bihesht* are so vividly described in the Qur’an that it has been an inexhaustible source of inspiration for miniature-painters, poets, saints and sufis alike, as well as for ordinary mortals. They all carry a mental image of Paradise! This notion of the all-pervading essence and presence of God can hardly be better expressed than in the following quotation from a poem by Yunus Emre, a medieval Islamic mystic:

The rivers all in Paradise
flow with the word Allah, Allah,
and ev’ry longing nightingale
he sings and sings Allah, Allah!

The branches of the Tuba tree
the tongue reciting the Qur’an,
the roses there in Paradise,
their fragrance is Allah, Allah!

The appeal of these delightful and evocative impressions made on the senses of sight and hearing and smell is evident and could easily be explained as a response to the ecological conditions. For nomads living in hot and arid lands, the attraction of walled gardens with trickling water, palmtrees and pomegranates giving both shade and fruits is obvious. And ever since the Arab conquest these gardens have been the living image of the Islamic Paradise for the Persians.

For a Muslim who has lived in accordance with the orthodox religious requirements there should be no reason to fear death, for he may rest assured—or at least in the hope—that on the Day of Judgment, after the Resurrection, he will be allotted a place in Paradise and will forever after be able to enjoy the pleasures of the Garden of Eden so eloquently described in the Qur’an. On this background and in this religious context it would seem plausible to suggest that the geometrical motifs of the medial panels on the tombstones—like the central figures of the garden carpets—fulfill not only a decorative purpose, but also contain connotations which would direct the thought towards *bagh-i bihesht*, the Garden of Paradise.

The second example of an image from the range of symbolic representations on Luristani tombstones, which I shall mention here, is a motif found on almost all the stelae erected at the head of a grave. The stelae have pictures on both sides depicting distinctly differing themes. One side, facing the grave, shows scenes from the life of the deceased: often—like here—a horseman with a small shield over his shoulder and with a lance or a gun in his hand. The man’s sword is attached to the very characteristic high wooden saddle. On this stele from 1882 the horseman is surrounded by four warriors or hunters, one of whom is pointing his gun at two mountain gazelles at the top of picture (Fig. 4).

The other side of the stelae shows a similar picture, but with very remarkable differences in the content (Fig. 5). Here the representation is associated with death and burial—and possibly afterlife. The horse is without a rider, and it is clearly tethered with a with a



FIGURE 4. Pela Kabud. Obverse face of man's stele. Dated 1882.



FIGURE 5. Pela Kabud. Reverse face of man's stele. Dated 1857.

stake or peg at the head and the hind leg. The weapons of the deceased—a gun, a sword and a shield—are tied to the high wooden saddle. Below this scene three women are seen, with their arms resting on each others' shoulders. One carries a standard seen to the left in the picture. They are probably rendered as participants in the mourning ritual. But what is the meaning of the horse without a rider?

As described in the literary sources there are examples of an old Arabian custom of tethering a horse or a camel at the graveside for the use of the deceased in the afterlife. Tavernier, the French traveller, has provided a late 17th century account of burial and funeral customs in Iran, from the area of Isfahan. He relates on the funerary procession that if the deceased was a person of consequence all his horses would be saddled and bridled, and some extra ones might even be borrowed for appearances sake. On these would be placed the deceased's turban, his sabre, his bow and arrows, his lance and in general anything that might serve to identify his standing and strength. Far from being a unique Persian custom to lead a horse after the hearse or bier at a funeral—this seems to have been if not a universal habit, at least a widespread custom testified among many peoples and referred to already by the Roman historian Tacitus in the 1st century A.D. In most cases this custom seems to reflect a belief in an afterlife in which the deceased would need the horse, weapons etc. that he used to have in his life.

There is, however, another possible explanation of the riderless horse as it appears on the Luristani tombstones in this Shi'a Islamic context: the prototype of the Shi'ite martyrdom is the slaughter of Imam Hussein and his followers on the plain of Kerbala in 680 A.D. Hussein, the grandson of the prophet Muhammad, with his family and retinue, was on his way through southern Iraq in order to claim his hereditary right to the Caliphate from

Yasid, the Umayyad Caliph. But at Kerbala Hussein was caught in an ambush, and on the 10th of Muharram, called Ashura, the siege of him and his followers reached its bloody culmination when Yasid's army cut down Hussein himself, after every man and boy in his retinue had been massacred. The tale of this foul deed spread rapidly, and the reaction was terror and abhorrence.

The events at Kerbala became the central theme for a Shi'ite passion play called Ta'ziyeh, and as early as in the 10th century great mourning processions took place in Baghdad. Muharram-processions in which the blood-stained horse of Hussein is followed by flagellants with chains and bloody mourners, who cut their heads with swords, have since been common among Shi'ite population groups.

Early on it was believed that participation in the Muharram ceremonies was an aid to salvation. Because Hussein's death was regarded as an act of redemption, it came to be believed that the commemoration of the anniversary would gain the participants the intercession of Hussein on the Day of Judgment. Elaborate Muharram processions are known to have taken place among the nomads of Luristan, where the mental images evoked by a Muharram procession were so strong and potent that this kind of "illiterate religion" as it might conveniently be termed, in my opinion adds another dimension to the metaphor phrased by Umberto Eco that ". . . images are the literature of the layman . . ." (Eco 1984).

It is likely, therefore, that by representing the riderless, equipped horse on the tombstone in the same way that Hussein's horse is represented in the Ashura-processions in Muharram, the by-passing spectator would be reminded of Hussein's martyrdom, and thus his attention would automatically be focussed on the Day of Judgment and on the afterlife.

In dealing with the interpretation of the images on the Luristani tombstones, it may never be possible—with certainty—to arrive at *the* right interpretation of a motif. Signs and symbols on these tombstones are comparable to a code whereby messages are converted from one representation to another, which means that they have to be encoded in a form that the communicants can easily interpret.

In a community sharing the same religion, cultural inheritance and social background, and living in a certain area in a given period of time—this should present no problem. But if one or more of these elements are altered, it will affect the whole structural pattern of the community, as clearly demonstrated for example by the results of the forcible settlements of nomads in Luristan. The more drastic the change, the quicker also, the transition of symbolic values into fossilized and sometimes incomprehensible fragments of a tradition.

References

- Eco, Umberto
 1984 *The Name of the Rose*. London: Picador.
- Mortensen, Inge D. and Peder Mortensen
 1989 On the Origin of Nomadism in Northern Luristan. In *Archaeologia Iranica et Orientalis. Miscellanea in Honorem Louis Vanden Berghe*. L. de Meyer and E. Haerinck, eds. II. Pp. 929–951. Gent.
- Schimmel, Annemarie
 1976 The Celestial Garden in Islam. In E.B. Macdougall and R. Ettinghausen, eds. Pp. 11–40. *The Islamic Garden*. Washington D.C.: Dumbarton Oaks.
- Thacker, C.
 1979 *The History of Gardens*. London: Croom Helm.
- Wilber, D. N.
 1962 *Persian Gardens and Garden Pavillions*. Tokyo: C. E. Tuttle.

SECTION VII

Islamic Archaeology, Symposium

The Umayyad Congregational Mosque and the *Souq* Square Complex on the Amman Citadel: Architectural Features and Urban Significance

IGNACIO ARCE

.....*Spanish Archaeological Mission*¹

Introduction: Brief Description of the Area

Within the context of excavation and restoration work carried out on the Amman Citadel since 1995, this paper presents and analyses the most relevant structures discovered as a result of the research conducted by the author, namely the congregational mosque and the *souq* square. These structures, along with the palace vestibule (or audience hall), define the centre of the Umayyad *madina* on the Amman Citadel (Figure 1a).

The core of the setting is the trapezoidal court to the south of the vestibule. Its western and eastern sides converge slightly towards the north, while the southern and northern sides converge sharply towards the west. The northern side, measuring 34 meters long, is composed of the southern façade of the vestibule and two passages: one in the northwest corner that leads to the gate in the western wall of the citadel, and another one in its northeast corner which gives access to the area of the bath. In the south, the square ends with a flight of steps (32 meters long and oriented sharply east–west) that leads to the congregational mosque.

The eastern and western sides of the square are lined by two rows of 11 small, identical rooms, each 3.0 by 3.75 meters and entered through a single door from the square. Both opposing rows of rooms had porticoes supported on low stone columns, with prismatic bases and capitals and short cylindrical shafts. Remains of bricks amongst the debris indicate that brick-made arches would have spanned from column to column. The general layout suggests that they were rows of shops, i.e., a *souq*.

The eastern row of shops measures 54 meters long and its portico had 13 or 14 arches (Figures 1b and 1c). Two of the columns were found in situ. Two passages are located at either end of the eastern row of shops. At the northern end, a narrow corridor connects the square with an open area where the great circular *birka* of the citadel is to be found. To the south the shops terminated in a bigger room, measuring 7.0 by 7.5 meters, which functioned as a bent entranceway. It connected the *souq* square with the main axis of the upper citadel:

1. The excavation and restoration work of the Umayyad *madina* and palace on the Amman Citadel is a joint project between the Spanish Agency for International Cooperation and the Jordanian Department of Antiquities, the Ministry of Tourism and the Spanish Embassy, under the direction of Ignacio Arce. The work progresses through the collaboration of Assistant Architects Manal Rimawi and Nadim Nasser, Assistant Archaeologist Mohamad Nasser, Draftsman Nagam Assaf, and representatives of the Department of Antiquities Ghassan Ramahei, Hanadi Taher and Bassim Muhameed.

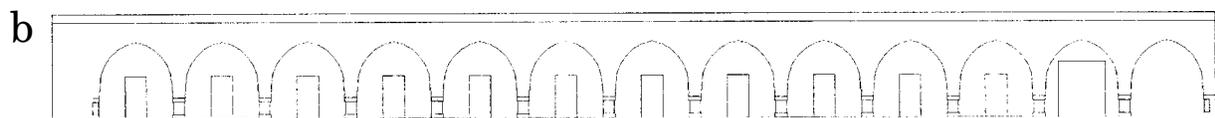
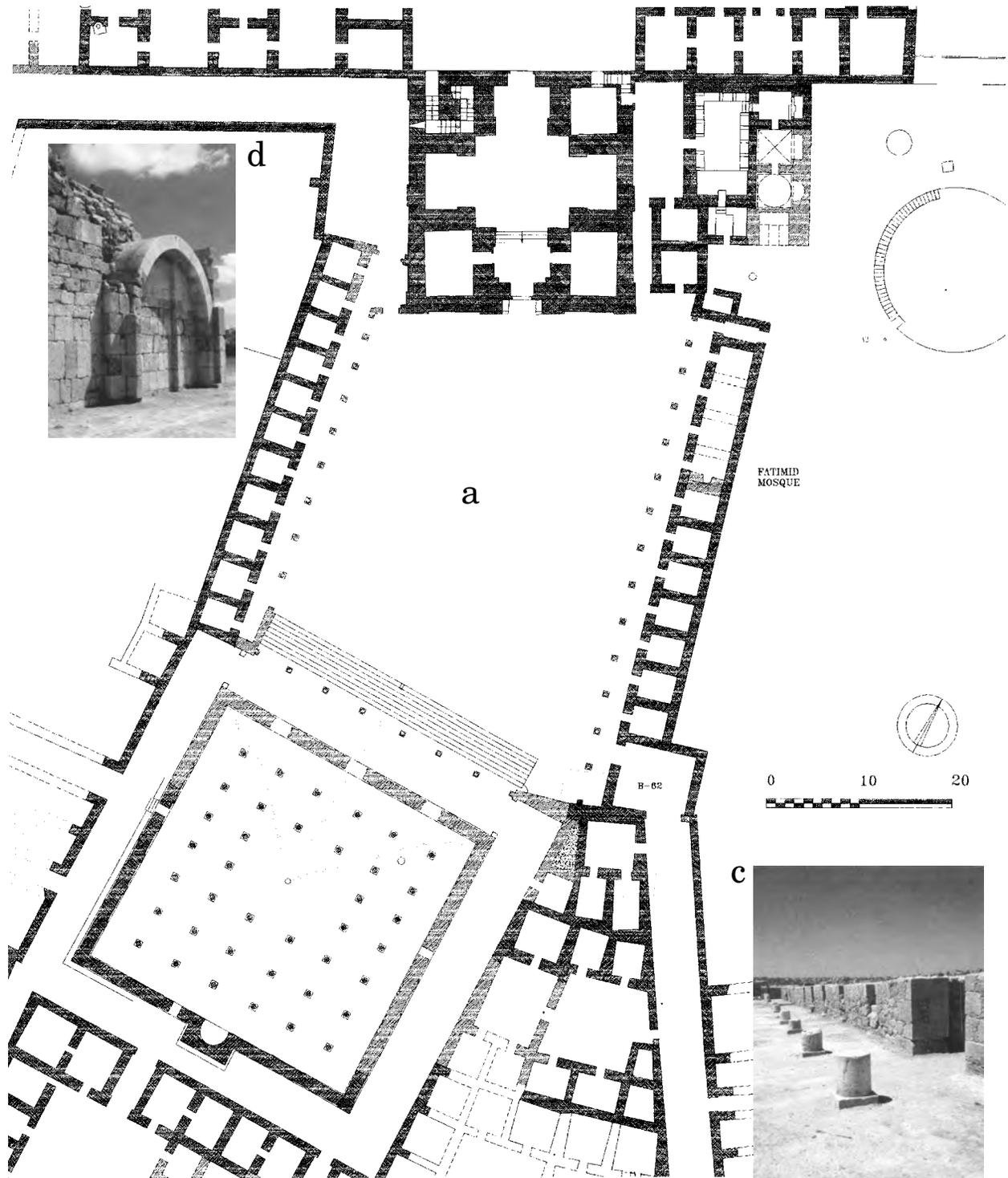


FIGURE 1. Congregational Mosque and Souq Square at Amman Citadel:

- 
- a. General plan.
 - b. Elevation of the *souq* east portico.
 - c. View to north of the *souq* east portico.
 - d. View of the blind arch on the western façade of the vestibule.

a pre-existing Roman-Byzantine street, refurbished and widened, which led southeastwards to the southern citadel walls and the lower city. The western row, measuring 45 meters long, had 11 shops with at least nine arches. Its northern end is partially destroyed and its layout is not clear, especially the way the portico ended. Apparently, the original plan foresaw a doorway at the end of the portico (built against the southwest corner of the vestibule), that would have given access to the street while entering from the gate of the citadel's western walls. For that purpose, a huge structural blind arch (Figure 1d), which would have supported the vaulted roof of the doorway, was added to the western façade of the vestibule. This blind arch was built obliquely against the vestibule façade in order to be parallel to the western row of shops. However, the plan was probably abandoned at a later stage when it was decided to extend the western row of shops towards the north, hence increasing their number.

The space between the square and the eastern wall of the citadel seems to have been an open area, probably a *musara*. This Arabic word (unknown in the Levant) is used to designate the place for military exercises and parades (Arce 1998b). In this area the only structure built during the Umayyad period was the great *birka*. By way of contrast, the space between the square and the west wall was a residential one, with dwellings placed on terraces between north–south oriented streets (Arce 1997).

Previous Excavations in the Area to the South of the Vestibule

Excavations carried out to the south of the vestibule by Emilio Olavarri in the seventies indicated that this was originally an open area of unknown limits, plan and use. The aim of the excavation campaigns started in 1996 was to clarify these issues, amongst others. The work carried out in this area had two immediate goals. The first goal was to complete the excavation of the areas next to the south façade of the vestibule. These confirmed Olavarri's conclusions by bringing to light completely the late structures added to the vestibule building. However, they did not answer questions as to the limits, plan and use of the open space (Arce 1987).² Secondly, a preliminary investigation was carried out by the author on the surface evidence in the area before undertaking further excavations. The assessment of this research—which led to the discovery of the square, the *souq* and the mosque—is summarized below (see also Arce 1997, Arce 1998a and Arce 1999).

Preliminary Research and Identification of the Structures: the Evidence, Research Processes and Related Conclusions

Elements taken into account in this preliminary research were:

1. The lack of any Umayyad structure in the central area in front of the vestibule;
2. These excavations were conducted by A. Jimenez in Autumn, 1996 (see Arce 1997).

2. The presence of a Fatimid mosque placed to the southeast of the vestibule close to the bath area;
3. Remains in trench B-62 (Area B, Building F) excavated in the 1970s by C.-M. Bennett;
4. Traces of a thick long wall, oriented east–west and located 60 meters to the south of the vestibule.

These elements, due to their situation, orientation and building technique, were the initial clues to solving the puzzle. These elements were interrelated in the following sequence.

1. *The void in the central area*

After the excavations were carried out in this area, it became clear that the zone in front of the vestibule was built over with structures dating to the Abbasid period. This “negative evidence” was the starting point of the investigation.

2. *The Fatimid mosque*

This structure was excavated in 1979 by Olívarri and Zapatero. In a published report, Olívarri (1985) stated that, based on the evidence found, this was a Fatimid mosque. He mentions how some vertical lines in the wall could be understood as blocked doors, indicating the reuse of a previous structure. After further cleaning in the area, it became clear that the Fatimid mosque had been built utilising an earlier structure made up of a row of at least four identical rooms awkwardly connected to the bath complex. The *terminus ante quem* to date this previous structure is the Fatimid period, when it was transformed into a mosque. This mosque was actually formed by demolishing the partition walls between three rooms of the earlier structure and blocking all but one of their doors. As a result of this beginning, the mosque has an unusual elongated shape along its north–south axis. The semicircular *mihrab* was built by dismantling part of the next partition wall. The door to the second room was refurbished as the entrance to the mosque.

The building joints between this structure and the bath complex show that it was built against the latter. The odd change of direction of this structure and its awkward connection to the Umayyad bath complex led Olívarri, and others (Almagro 1983: figure 26), to the conclusion that this building was a later addition to the Umayyad complex, built in the Abbasid era and reused as a mosque in the Fatimid period.

3. *Remains Found in Trench B-62 (British Mission excavation)*

In this trench, excavated by C.-M. Bennett in the 1970s, a number of houses of Byzantine date, and reused in the Umayyad, Abbasid-Fatimid and Ayyubid-Mamluk periods, were uncovered. A section of the Roman street that connected the door in the southern stretch of the Upper Citadel walls with the Roman Temenos in the north was also exposed. This street was kept in use in the later periods, although its floor level and width changed throughout the centuries.

In the northernmost area of the trench, Bennett identified a structure labelled “Building F”. It consisted of a wall running east–west, ending in a square block of masonry 1.8 meters wide, apparently without purpose according to Bennett, and a second wall running north–south bonded to the first, which divides Building F into two sections. Bennett stressed that both sections of the building were subdivided in a later period. In the western half she men-

tioned that the new partition wall includes two column sections, which she thought were reused and, brought in from a different area (Northedge 1992: 146, figures 145 and 156).

Actually, the half column which is placed against the east–west wall is not a reused piece, for it is still in situ, built as a whole against the square block of masonry and bonded to it by means of the typical Umayyad lime-with-ash mortar and chip jointing. The position and orientation of this semi-column, bonded against the square block of masonry, made sense of the latter: it would have functioned as a sort of buttress to counteract the thrust of a portico of which the semi-column would have been the last support.

The most relevant fact was that the north-south fragment of the wall of Building F seemed to be aligned with the Fatimid Mosque (or, more precisely, the row of rooms inside which it was built), and both were built with the same Umayyad construction technique. This led the author to suggest that both elements must belong to the same structure: a row of porticoed rooms running along the eastern side of a square. This was confirmed once excavations were carried out between both areas. Hence the complete structure of porticoed shops was brought to light. Further excavations uncovered a similar structure to the west of the square (see Figure 1).

4. The Thick East–West Oriented Wall in the South Area

Once both rows of porticoed shops were discovered, it became clear that the thick wall, 1.5 meters wide, was related to the enclosure of this open area (it turned out to be the southern foundation wall of the mosque). This wall was too far southwards to be directly linked to the east–west wall in trench B-62 (in the southwest corner of the square). Furthermore, this new thick wall seemed to turn southwards at its western end, while other traces were visible further to the south. These elements suggested the existence of a very important building in this area to which this wall would belong. Unfortunately, the eastern side of this structure had been bulldozed by the army in the 1970s (Northedge 1992).

Probe trenches dug in the area adjacent to trench B-62, as well as the excavation carried out in the rest of the square, brought to light a flight of steps 32 meters long and consisting of at least six rows of steps, 50 centimeters deep by 20 centimeters high. Of these, the first four were complete, the fifth had several pieces missing, and the last only a small piece survived in situ. It is exactly oriented east–west, i.e., parallel to the mentioned wall, demonstrating clearly the close relationship between them.

The outstanding position of this new structure, on top of a monumental flight of steps, facing the palace vestibule and flanked by the two rows of shops, indicated that it should have been a very important building. The exact east–west orientation of the wall led the author to the conclusion that it must be a mosque. Subsequent excavations confirmed this hypothesis (Arce 1997).³

The Citadel Mosque

Location and Background

The mosque was thus placed at the highest and central point on the citadel's upper terrace, in a clear representative and outstanding venue. It defined the southern side of the *souq*

3. Excavations were carried out under the direction of the author. In November 1997 a team from the Spanish Archaeological Mission, coordinated by P. Jimenez, collaborated in the excavation of the mosque.

square, opposite to the palace vestibule. Both rows of porticoed shops of the *souq* flanked the east and west sides of the square, creating a monumental frame for both buildings.

Unfortunately, this elevated position was also the reason for its almost total destruction. In modern times it was partially bulldozed and several structures were built on top of it.

In the oldest plans of the citadel, this area is identified as the place of a Roman temple (the plans of Major Gèlis, 1863 and Lt. Charles Warren, 1867) or, more objectively, as “a place where some columns appear” (plans of the Palestine Exploration Fund, 1881 and the Princeton Archaeological Expedition, 1907, based on a plan by Armstrong and Conder; see also Northedge 1992: figures 2–5).

In al-Muqaddasi’s description of Amman in A.D. 985 (375 H.), as contained in *Kitab Ah-san al-Taqasim fi Ma’rifat al-Aqalim*, he mentions “a fine congregational mosque in the area of the market, the court of which is ornamented with mosaics. We have already stated that it resembles Mecca. The Castle of Goliath (Qasr Jalut) lies on a hill which overlooks the town. There is also the tomb of Uriah, over which is a mosque, and the Circus of Solomon”.

The first mosque described by al-Muqaddasi, due to its proximity to the *souq*, could lead us at first to identify it with the newly discovered one. This was not the case. Excavations demonstrated that after its total destruction due to the A.D. 749 earthquake, the mosque was transformed into dwellings in the Abbasid period. This proves it impossible that the citadel mosque was the one seen by al-Muqaddasi. Furthermore, no traces of mosaics appeared in the court of the mosque (not even underneath the fallen fragments of stucco revetment still in situ). The fact that the lower town mosque survived until the early 20th century makes of it more likely to have been the one described by al-Muqaddasi. This also means that the *souq* was transferred after the A.D. 749 earthquake to the lower town.

Mosque Layout and Foundations

Due to the degree of destruction of the building, most of the information about its plan was inferred from the detailed study of the foundations, as few other remains were still in place.

The plot of land where the mosque stands is the highest spot on the citadel. It is quite uneven, as it corresponds to a small hillock located on top of the southern half of the citadel’s Upper Terrace. The summit of this hill is just under the *qibla* wall and the southernmost bays of the mosque. Starting from this point the terrain slopes down towards the north and west. Due to its dimensions, the mosque had to be built partly on this natural slope, partly on a flattened surface resulting from the demolition of pre-existing Byzantine structures (corresponding to the floor level of the *souq* square). To solve this problem, the mosque was built on an almost square platform 34 meters long, defined and limited by a solid perimeter foundation wall that is composed of two superimposed structures. These structures worked also as a retaining wall for the soil filling.

Primarily, there is the proper foundation wall measuring 1.5 meters thick and 60 centimeters deep. Its upper face was at the same level of that of the mosque floor. From the outside it can only be seen from the west and partly from the south sections of the perimeter street (or *ziyada*). In the north and east stretches it cannot be seen because it is at the same level as the street surface.

This foundation wall is supported by a rougher one that acts as a “pre-foundation”. It is 130 centimeters wider (65 centimeters on each side) than the upper one and its height varies, depending on how deep the bedrock is (it was clearly intended to provide a first leveling to the plot). This wall can only be seen on the west façade and at the southwest corner of the

building; in these areas it appears like a bench running alongside the base of the building. Due to the slope of the south and west sections of the perimeter street, it disappears gradually. Probe trenches in the north and east sides showed that this pre-foundation wall existed all around the building. Both structures were plastered with a lime-with-ash mortar rendering studded with small chunks of chalk, which served as a key for a finishing layer. This rendering still can be seen in situ, and it is very similar to the one that covered different stretches of the Umayyad citadel walls (see Wood 1992).

Elevations

On top of the perimeter foundation wall runs the freestanding wall of the mosque. It is between 1.2 and 1.25 meters wide, drawing back 12 to 15 centimeters on each side from the line of the foundation wall. The wall is articulated by means of meter-wide buttresses that project 12 to 15 centimeters, thereby reaching the same plane as the foundation wall that runs underneath it.

This upper buttressed part of the wall only survives on the southern side of the building (the *qibla* wall) and in the southern half of the west wall. While buttresses project inwards and outwards from the wall, they are not placed in correspondence one behind each other but alternate; only in the western stretch of the *qibla* wall are they placed one behind the other. Inside the mosque they are placed so that they would correspond to the points from where the arcades that support the ceiling would have sprung. Nevertheless, the three column bases found in situ show that this alignment was only approximate, as they are not exactly in line with the corresponding buttress. This information leads to the conclusion that the internal buttresses had more of a plastic value than a structural one, helping to articulate the long and otherwise dull façades of the building.

The Qibla wall and the Mihrab

At the centre of the *qibla* wall there is a large *mihrab*, semicircular in plan. It is 2.16 meters deep with an opening of 2.90 meters (2.70 meters if we allow for the inner pilasters/jamb). Traces of stucco columns still survive in the western jamb of the opening, as well as the impression of what could have been a screen wall that would have separated both spaces physically. A small step that makes the *mihrab* floor slightly higher than the rest of the mosque floor reinforces this spatial separation.

Due to the extraordinary dimensions of this *mihrab*, it could not be built in the thickness of the *qibla* wall, making it necessary to build a rectangular projection at the rear of the *qibla* wall that is not precisely orthogonal to the latter. This projection was laid on its corresponding extension of the foundation wall. It projects 24 centimeters in both lateral sides and 55 centimeters at its outer side (instead of the average 12 to 15 centimeters in the rest of the building).⁴

The Flight of Steps and Related Foundations

In front and alongside the north façade of the mosque, four meters away from it, another foundation wall was built. This foundation wall is approximately 1.7 meters wide and 1.8 meters deep. It apparently rests on the flattened surface of the *souq* square floor.⁵

4. The Umayyad congregational mosque in the lower city had a similar *mihrab* in dimensions and shape.
5. Whole areas occupied by Byzantine structures were flattened in the Umayyad period to build the new *madina*.

FIGURE 2. Mosque Foundations and Elevations:

- a. Longitudinal section.
- b–c. North façade and portico elevations.
- d. Column base.
- e. Channel broken by the A.D. 749 earthquake.
- f. Column bases and foundation socles.
- g. Portico foundation section.



This “sunken wall” is identical to the foundation walls of the court porticoes belonging to the residential buildings at the northern area of the Palace (or those found in the mosque itself). In these areas the solid rock is quite deep, and the soil on which the structures are built consists of fill supported by the Roman Temenos wall that functions as a retaining wall. The building technique used in both cases is quite rough without either any neat surfaces nor finishing. This would reinforce the hypothesis that this wall is also a foundation.⁶

Further evidence in support of this hypothesis is the discovery of good quality lime mortar in several places on top of this foundation wall. These mortar traces consist of square patches of lime placed where the columns of a portico supposedly would have stood, similar to the examples found in the Palace north area. Furthermore, these traces of mortar are placed in line with the columns of the porticoes inside the mosque, confirming that they all belonged to the same building scheme.

This evidence would indicate the existence of a portico in front of the main façade of the mosque. It would have completed the design of the perimeter street or *ziyada*, and that of the *souq* square. It would have also functioned as a screen between both spaces.

The flight of six steps is located in front of this sunken wall. As mentioned, the first four steps were almost intact; a few meters survived of the fifth, and only a single piece from the sixth was still in situ. The staircase probably had two more steps, as these would have allowed access to the floor level of the mosque and its perimeter street. At its eastern edge, the staircase ends in a neat north–south line. The face of this eastern side has the remains of plaster with chevron incisions. These incisions were keying to support the finishing plaster layer, which proves that this face was intended to be seen. On the western edge, however, the steps seem to have finished against a perpendicular wall. There, the heads of the steps are not aligned, with some projecting slightly over the others. In addition to this, we can notice that at the foot of this western edge there are traces of a foundation wall that would correspond to the end of the *souq* square western portico. Hence, we can assume that the flight of steps ended against this wall which, at the same time, was intended to be the end of the *souq* square western portico.

Column Foundations

The columns have an elaborate foundation system. Their prismatic bases rest on square rubble masonry socles 1.20 meters wide and 25 centimeters high. In the infilled area the socles were built on top of east–west oriented foundation walls averaging 1.4 meters wide and joined to the perimeter wall foundations.⁷ The socles were linked together by shallow brac-

6. The *souq* porticoes have the same kind of foundation.

7. This is a feature common to many mosques from Al Andalus, like the one at Medinat Az-Zahra, where these foundation walls run perpendicular to the *qibla*.

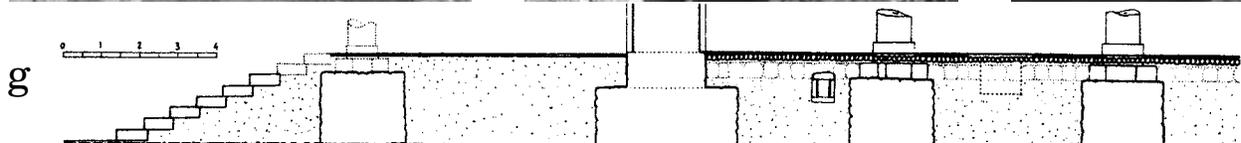
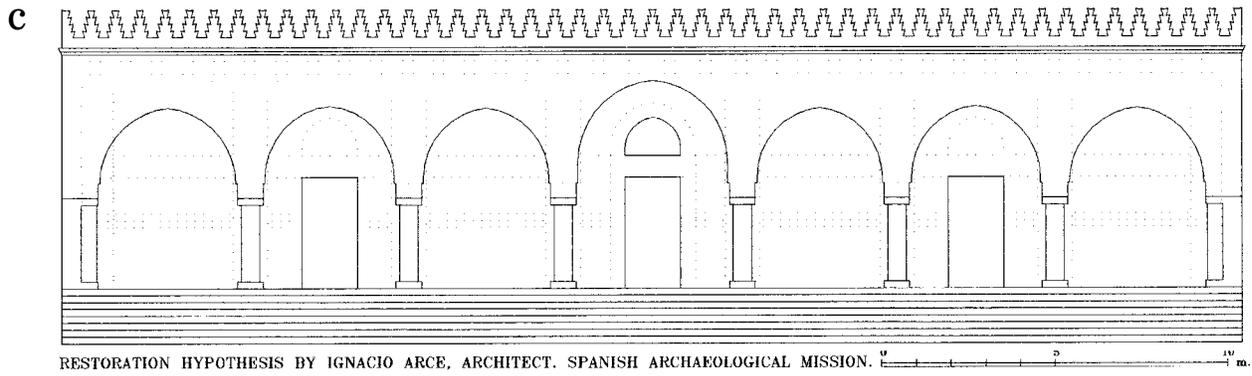
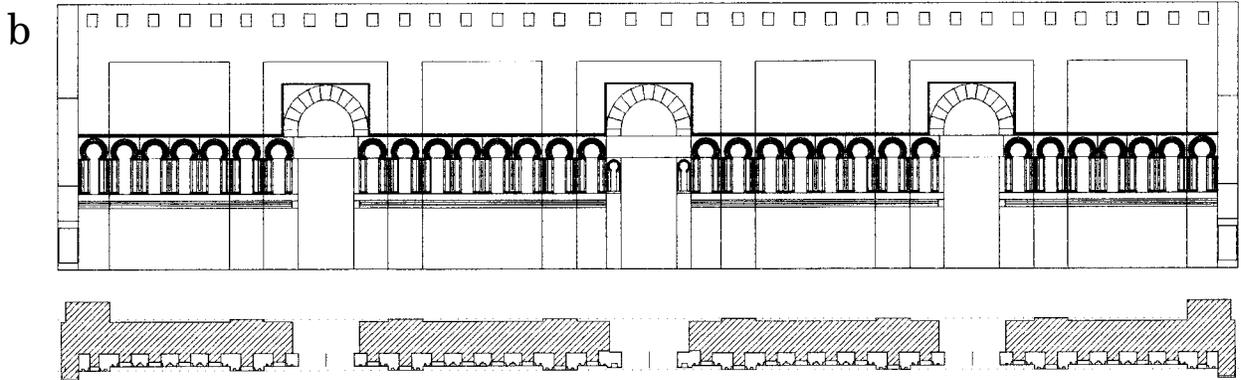
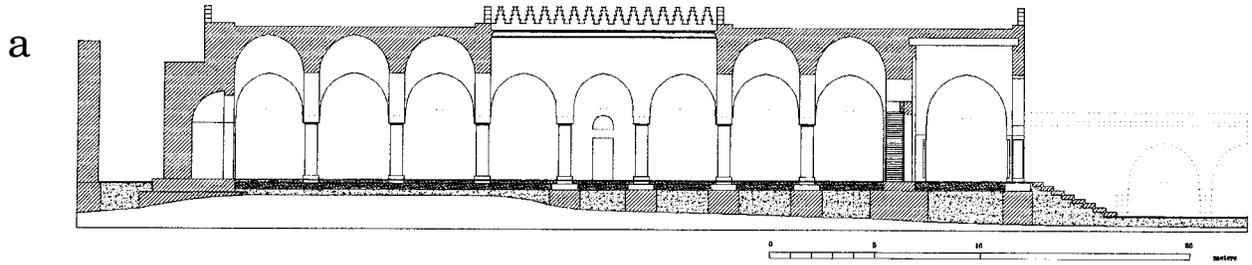


FIGURE 3. Architectural Elements in Stone:

- a–b. Anastylosis of the mosque façade pieces.
- c. Cornice fragments from the mosque façade.
- d–e. Cornice fragments from the mosque court (?).
- f–g. The mosque capital.
- h–k. Small niches from the lateral or inner (?) facades.



ing walls (only one course high) that run between the socles just underneath the pavement (Figures 2f and 2g).

All these techniques were not strong enough to withstand the A.D. 749 earthquake that provoked the collapse of the building. It can be seen in Figure 2e how the displacement of the column base and the foundation socle (as a result of the quake tremor) broke the water channel running beside it. The poor compacting of the fills, as well as the design itself of the building, were the reasons for this displacement of the column foundation and the consequent collapse of the building.

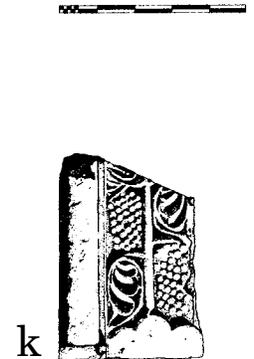
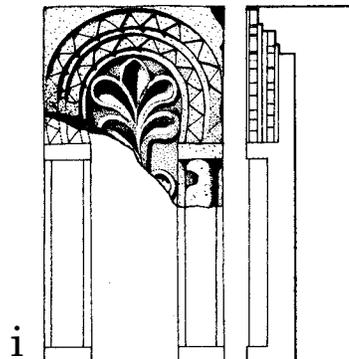
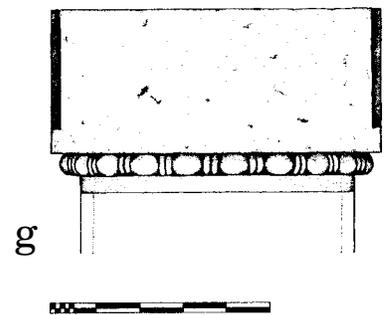
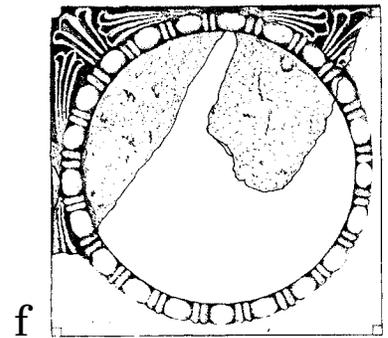
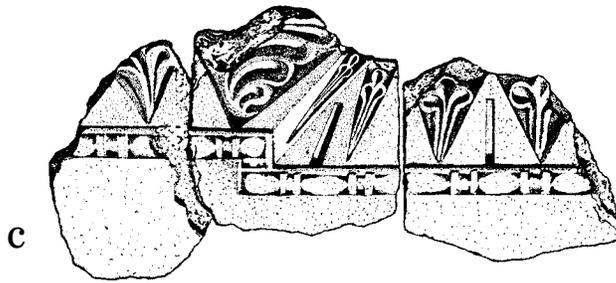
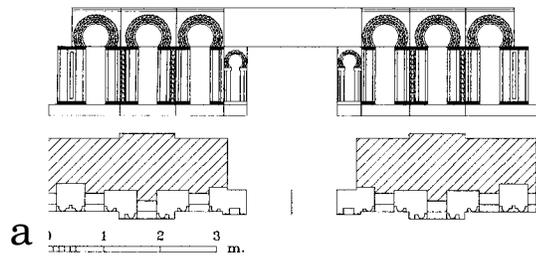
Columns

Creswell uses the accounts of Ibn Jubayr and Ibn ‘Abd Rabbihi to describe the columns of the al-Walid’s Mosque at Medina. Based on Ibn Jubayr, Creswell notes that the columns “were composed of stone drums, each with a hole in the centre to take an iron rod, or dowel, fixed with molten lead, exactly as in the Great Mosque at Kufa and Wasit. All the columns were covered with plaster, rubbed and polished so as to look like white marble”. Referencing Ibn ‘Abd Rabbihi, Creswell noted that the columns “rested on large square socles and had gilt capitals” (Creswell rev. Allan 1989: 43; see also Figure 2d). The same system is also mentioned by al-Tabari and Ibn Jubayr regarding the second great mosque at Kufa.

It is striking how well this description fits with the columns found at the Amman Citadel mosque. The columns have a straight cylindrical shaft 53 centimeters in diameter resting on a prismatic base or socle with sides measuring 75 centimeters and a height of 40 centimeters, of which half was buried underneath the pavement.⁸ The columns follow the same design, although with different dimensions, as those on the colonnaded street (shaft diameter: 49 centimeters; base sides: 64 centimeters; base height: 15 centimeters) and those of the *souq* square (shaft diameter: 51 centimeters; base sides: 57 centimeters; base height 20 centimeters). In all cases the base and the first section of the shaft are carved out of the same block. Linkage between successive drums was done by means of iron rods fixed with molten lead into holes carved in the drums.

It is noteworthy that the diameters of the column shafts belonging to the mosque are much smaller than the dimensions of the base, whereas with the *souq* and colonnaded street columns the shaft perimeter border on the sides of the base. This would also explain the slightly larger diameter of the capital neck with regard to the shaft diameter (see below).

8. Although these columns could resemble Roman milestones, they are actually related to Sasanian tradition and shapes. Originally built with gypsum mortar and rubble stone and lined with mortar rendering (as can be seen in the palace), here they are carved in stone (see Almagro and Arce 1996).



A Capital

Two fragments of a single broken architectural element were found during the cleaning of the mosque grounds.⁹ Due to its shape, this piece at first resembled a base rather than a capital: a square prismatic block bearing an echinus with a thorical profile. The sole decoration is found on the “lower” face of its prismatic body. It consists of a simple bead-and-reel moulding carved on the echinus. Four trefoils stem from the circular moulding towards the corners and dual symmetrical trefoils flank the previous ones, filling the gaps on the face itself of the prism. There is no decoration on the other five faces of the block. Only the vertical edges of the prismatic body have a corner groove, indicating that resting on each capital were four arches to support the roof (Figures 3f and 3g).

This uneven distribution of the carved decoration was the final piece of evidence that led to the conclusion that this piece was a capital and not a base. We know that the original *in situ* bases are plain. Besides this, evidence of the presence of carved stucco on the internal surfaces of the mosque explains this uneven distribution of the carved decoration on this stone piece. It makes sense if we consider that the only place where plaster cannot be applied securely is on horizontal surfaces looking downwards. For this reason, on those inverted surfaces decoration was carved on the stone itself and not applied by means of plaster. The lateral faces of the capital, as well as the rest of the supported arcades, were probably covered all over by carved stucco.¹⁰

The diameter of the capital neck is 60 centimeters (six centimeters more than the corresponding column shaft diameter). This difference would indicate that both pieces do not correspond to each other. The resultant gap would have been covered by a polished plaster or carved stucco lining, taking into account the mentioned combination of decoration carved on the stone itself and applied by means of plaster. This treatment would have resulted in the same ratio between the diameter of the column shaft and the side of the square base, as in the other similar bases from the *souq* and the colonnaded street (see above).

Pavement

Part of the original pavement still exists against the *qibla* wall. On top of the fills that form the mosque floor was laid a layer of cobbles covered by two layers of mortar. The first layer (the levelling one) is made of the rougher greyish coloured lime-with-ash mortar. The second one (finishing) is made of fine white lime with some portions of crushed bricks. The same kind of pavement can be seen at Qasr al-Hallabat mosque.

The Hydraulic System

A cistern, located where three channels converge, is to be found at the centre of the courtyard of the mosque. Two channels running diagonally from the northwest and northeast corners of the mosque drained rainwater from the roof into the cistern. The straight channel running north–south has two slopes. It can drain water into the cistern and, once filled, can act as an overflow channel; i.e., it changes the direction of water flow by diverting

9. Another corner fragment of a second piece, as well the prismatic body of a third (the decorated face been carved away completely), have so far been recovered.
10. A similar situation can be observed in the overhanging elements. Whenever we have an interior decorated with applied decoration (no matter if it is carved stucco, wall paintings on lime renderings or parietal mosaics) the overhanging cornices and corbelled elements have their decoration carved on the stone itself. The interior of the *calidarium* at Qusayr ‘Amra or the Dome of the Rock are two good examples.

the surplus to the *souq* square. The channel ends in a gap at the base of the flight of steps. Surplus water is ultimately collected in the cistern placed at the centre of the square. There is another cistern with two mouths in the west *riwaq*. A number of cisterns are also found in the perimeter street. An ablution basin is located in the southeast section of the mosque. It is cylindrical in shape, with a diameter of 77 centimeters and 60 centimeters deep, with its kerb 15 centimeters lower than the floor level. It probably had a stone kerb on top of it. Its walls were plastered with a fine mortar render (for a more detailed and comprehensive study on the Umayyad citadel hydraulic system, see Arce 1999b).

The Plan

The mosque was almost square in plan, although the west and east walls converged slightly towards the north (hence the *qibla* wall is 34 meters long, while the north façade is only 33.6 meters). It was very accurately oriented towards the south (i.e., towards Mecca). This orientation forced the layout of the whole neighbouring urban fabric, specially the odd trapezoidal shape of the *souq* square.¹¹

The mosque was freestanding, in that it was surrounded by a perimeter street—a *ziyada* (“extension”)—which served as a buffer/respect zone separating the sanctuary proper from the secular buildings. The monumental flight of steps that runs parallel to the north façade gives access to the mosque from the *souq* square. As already noted, on top of the steps and alongside the main façade there once stood a portico.

The inner plan of the mosque could only be inferred from the foundations of the building columns and from three columns found in situ. From these fragments it can be deduced that internally the mosque was conceived as a hypostyle hall with a regular grid of columns (seven rows oriented east–west, and six north–south). Four columns were removed from the plan to create a courtyard measuring 13 by 10.4 meters. Therefore, it could be described as a mosque with three bays parallel to the *qibla* wall and seven aisles perpendicular to it, with a wider central nave. It had a courtyard with a double portico (*riwaq*) surrounding it. The approximate span of the aisles set perpendicular to the *qibla* wall is of 3.7 meters, except for the central nave, in axis with the *mihrab*, which measures 4.1 meters, and the outer aisles, which measure 3.8 meters. The outer aisles vary perceptibly due to the convergence of the east and west mosque walls. The span of the bays parallel to the *qibla* are approximately, from south to north, 3.25, 3.30 and 3.22 meters (these constitute the Prayer Hall); then 3.22, 2.86 and 2.86 meters (which correspond to the courtyard or *sahn*); and finally 3.48 and 3.20 meters (which correspond to the northern *riwaq*).¹²

Its sharp square plan and its lack of clear spatial distinction between the *sahn* and the *haram*, reinforced by the small dimensions of the court and the almost continuous level of pavement in both areas, presents a completely different type of mosque from the “Syrian model”, in which there is a clear differentiation pray hall and court. Hence the use of the terms *sahn*, *haram*, and *riwaqs* may not be entirely appropriate.

The hypostyle layout, within an angular square plan, of this new mosque resembles Mesopotamian models from Iraq and Iran. It especially resembles the Susa and Uskaf Banni Junayd mosques, but also those at Kufa, Wasit and Siraf, as well as the Tarik Khana

11. Regarding this issue we must remember that the position of the vestibule was also fixed, as it was built on top of the remains of a Byzantine building, probably a *pretorium* (see Olávarri 1985). For urban planning antecedents, see Arce 1998b and Arce 1997.

12. Due to the aforementioned absence of precise evidence these measures are only approximate.

mosque at Damaghan and those built by Walid I at Medina and Sana'a (for which see Creswell rev. Allan 1989).

The Roofing System

Regarding the roofing of this structure, two possibilities could be suggested based on the plan. Firstly, the rows of columns may have supported a lintel structure; secondly, that they supported arcades similar to the ones that we presume existed in the *souq* square and in the courts of the residential buildings of the Umayyad Palace.¹³ From the stucco fragments found on the court floor, we can affirm that the columns supported rows of arches, as some of these fragments have decorative patterns that follow a curved line. If we assume that the columns were supporting arcades, it would still be uncertain if these arcades were supporting a flat roof or a series of barrel vaults (Figure 2a). Another unclear question is in which direction the arcades ran because of the "isotropic indefiniteness" of the hypostyle hall. Most probably the arcades spanned in two directions, which would explain the aforementioned corner grooves of the capital. These would define a different arch springer on each of its four faces. The vaults, if any, should have been arranged parallel to the *qibla* wall in keeping with the foundation walls of the columns.

The Mosque Façades

Earlier it was mentioned that the mosque façades were articulated by means of buttresses or pilasters. Besides this piece of evidence, most of the information was inferred from the decorative pieces found in the area and subsequent research conducted on them.

Doors. To the east of the *mihrab* there is a meter-wide door placed in line with the axial entrance to a building located across the street behind the *qibla*. Probably the *qibla* wall doorway gave direct access from this building to a *maqsurah* inside the mosque. The building could have had a similar function to the one that existed behind the *qibla* of the Abu Dulaf mosque at Samarra. According to Creswell, this would have been an official building for the caliph (Creswell rev. Allan 1989: 371, figure 240). Its existence at Samarra is due to the distant location of the palace from the mosque—something that also occurs on the Amman Citadel—and the need for a restricted area near the *maqsurah* for security reasons. In the Sana'a, Mafjar and Anjar mosques, there is likewise a door in the *qibla* wall in the same place. At Mafjar it gives access to a covered corridor leading to the palace. The case of Anjar resembles much that of Amman: The door in the *qibla* wall opens to a street, but facing it across the street is another door that gives access to the palace.¹⁴

In the west façade a single door, one meter wide, can be traced. It is in line internally with the courtyard (*sahn*) and externally with a small street that branches from the west pe-

13. At the Medina mosque, the two same possibilities had been suggested: Some authors suggest wooden architraves, while others suggest arches spanning from column to column. It seems that at least around the court there were arched porticoes. Also it is important to notice that at the Medina mosque there appears a transept, a domed vault in front of the *mihrab*, and a *mihrab* in the shape of a niche for the very first time. This reaffirms the idea that the whole citadel complex, and specifically the citadel mosque, was built after al-Walid I's reign.

14. In the description of al-Maqrizi about the Dar al-Imara next to the Ibn Tulun mosque in Caïr, he says: "he used to stop in this *dar* when he went to the Friday prayers.. He would repose there, repeat his ablutions and change his garments. It was called Dar al-Imara" (Quoted in Creswell, rev. Allan 1989: 392). Another possibility is that this building would be the Dar al-Imam and the door used by him to have access to the mosque.

rimeter street just in front of this door. Some steps resolve the change of level (1.3 meters approximately) between the mosque floor and the street level. A symmetrical door probably existed in the east façade. All of them were placed in the theoretical position of one of the external buttresses.

The Main Façade (North). During the excavation of the souq square, some pieces of engaged colonnettes, similar to the ones from the frieze of niches from the vestibule, appeared reused in Abbasid structures. They are, however, slightly different from the ones of the vestibule: a little higher (105 centimeters instead of 100 centimeters), and have a carved decoration of pierced beads and engaged arrowheads. They also present an offset of 12 to 15 centimeters. They were in symmetrical pairs (two couples were found) indicating that they belonged to a single series (Figures 3a & 3b).

The unusual offset, and its dimensions, provides the clue to understanding the provenience of the colonnettes. When the south and west stretches of the mosque wall appeared, the dimensions of the buttresses (specifically 12 to 15 centimeters by 100 centimeters) caught the author's attention. The author realized that when displaying a couple of these symmetrical pieces, with a decorated back panel in between them, the dimensions were exactly the same of those of the mosque buttresses.

Furthermore, there was another architectural piece that, due to its height and carved decoration, seemed to belong to the same series. Although quite weathered, it could be seen that it represented an engaged colonnette measuring also 105 centimeters in height. This piece had a smaller but complete niche carved in the face next to the engaged colonnette. It had a lozenge decorative pattern carved on its lateral face as well, showing that this face would correspond to an opening. At the back it presented what seemed to be a doorstop. It was clear that on top of the colonnette there must have sprung the arch of a niche. But whereas the first colonnette belonged to a blind niche with a decorated rear panel, the second type must have been the impost of a door or window lintel.

With these elements and knowing from the *qibla* wall the theoretical position of the façade buttresses (which would have corresponded to the aisle arcades), a hypothetical reconstruction of the façade can be attempted (Figures 2b, 3a and 3b). The main façade of the mosque featured a central door 1.6 meters wide by 3.2 meters high, which is a standard door dimension in other areas of the palatine complex

Two questions remain. The first concerns the total number of doors in this façade. The Mesopotamian mosques, the group to which this one apparently belongs, tend to have several doors in contrast with the Syrian mosques, which usually have just three. Accordingly, there could have been from one to seven doors. In the proposed restoration three are shown, placed to correspond with the central nave and alternating aisles. The second question is the possible existence of a portico (porch) in front of this façade. The evidence of the foundation wall found in front of the façade indicates that the existence of a porch is highly likely (above). Other mosques from the region whose walls are better preserved (like the one from downtown Amman and at Qasr Al-Hallabat) exhibit in their façades rows of beam holes, also evidence of the existence of porches.

Decorated Architectural Elements Carved in Stone

Here are presented the pieces that were found in the mosque premises mixed with the A.D. 749–earthquake debris, or reused in later structures, that would have belonged to the mosque.

Cornices. Two different series of cornice pieces appeared.

Pieces of the first group are 38 centimeters high and project just 15 centimeters at the top, and thus have quite a vertical face. The carved motif they bear is a symmetrical, upward-pointing, split palmette flanking a lotus bud (or pine cone) over a bead-and-reel moulding which itself stands over a dentil moulding. The cornice top has a frieze of triangles (“dog teeth”) pointing upwards (Figure 3d).¹⁵ Four new pieces from this series appeared, all reused in Abbasid structures within the mosque premises or among the debris from the 749 earthquake. The place where they appeared, as well as the fact that the already known piece of this series belongs to an inside corner, would indicate that they could have belonged to the mosque courtyard (Figure 3e).

Another group of three pieces belonging to a different cornice series was found among the debris. They are lower in height (just 18 centimeters), but their upper end projects almost 20 centimeters making them quite horizontal. Their decoration consists of a frieze of big triangles, each with a vertical groove in its axis, with trefoils in the spaces between.¹⁶ At the base of the triangles, and running all along the base of the cornice, there is a bead-and-reel moulding. In the corners, the triangles are stretched and distorted to adjust the pattern, as are the trefoils, to fit into the gaps. In one case the trefoil is replaced by a half palmette. The most noteworthy feature about these cornice pieces is their position on the plan. Considering they follow the contour of a recess measuring 12 to 15 centimeters, which corresponds to the offset of the mosque façades buttresses, and the fact the fragments were found among the collapsed debris of the mosque, in all likelihood these cornices belonged to the mosque façade (Figure 3c).

Small Niches Series and Lateral-Inner Façade Decoration. In this series of small niches, similar in design to the larger ones present on the palace vestibule and the mosque main façade, the two colonnettes flanking the decorated panel are carved from the same stone block. It measures 46 centimeters in width and 59 centimeters in height. Besides already known examples, three new ones were found.

1. This piece combines arch, panel and colonnettes, with the same height but slightly wider (59 centimeters) than the average (48 centimeters). The panel does not have any carved decoration; perhaps a painted or mosaic decoration was applied on it (Figure 3h).
 2. This piece includes also an archivolted arch. The panel bears a huge trefoil motif that occupies the whole area of the arch. The height of the arch is 37 centimeters (Figure 3i).
 3. The panel decoration of this already known piece has a composite tree with a zig-zag stem and alternating half-palmettes, medlar leaves, and a pomegranate on a
15. A corner piece of this series was published by Northedge (Northedge 1992, Plate 29A C1) and by Almagro who presents it as belonging to the vestibule, although no explanation was given to support this hypothesis nor to which part of the palace it belonged (Almagro 1983a figure 18b). After thorough study carried out on the vestibule by the author, it can be affirmed that it cannot belong to the palace vestibule, as it does not correspond to any of its architectural spaces.
 16. The dog teeth with trefoils motif seems to be a further step in the evolution of the egg-and-leaf pattern that would be an evolution in its turn from the Classical egg-and-dart or dart-and-tulip. In this further stage, the egg is replaced by triangle with a groove in the middle, revealing a clear influence of Sasanian decorative patterns.

ground of three semicircles (Northedge 1992: figure 54.4 and plate 28f; Bartoccini 1933: 14, no.i) (Figure 3j).

4. The panel from this new piece has a composite tree with a central stem and alternating half-palmettes pointing downwards and bunches of grapes. The ground has the typical three semicircles (Figure 3k). A single colonnette of the same series and another small fragment were found in the undisturbed debris from the mosque collapse in the west street/*ziyada*.

There is an important characteristic of this set of niches that contrasts with the standard type (consisting of double engaged colonnettes, archivolted arches, and decorated panels). In the standard freezes, the decoration is displayed on a separate panel that is placed between two double-engaged colonnette pieces. Each of these pieces—with colonnettes—support two different neighboring archivolted arches. Therefore, we have an alternating vertical joint building system that provides more strength to the whole. In this other case, the elements are not three but two (and in some cases just one): the archivolted arches and the blocks that bring together the decorated panel are flanked by single colonnettes. Thus each niche stands on its own pair of colonnettes and decorated panel, without any link to the neighbouring ones. The standard set was designed to tie together its pieces as structural weight-carrying elements that formed part of the ashlar masonry fabric. In the small set case, the mechanical characteristics seem not to be so demanding.

Another important feature is the scale of the pieces and consequently the place they were designed for. After knowledge achieved from the restoration of the vestibule, it can be asserted that the higher or more distant a decorated niche is away from the observer, the bigger it is in size.¹⁷ In our case, their smaller dimension would indicate that they were intended to be seen close up, as would be the case in a narrow street. This evidence would indicate that these small-scale pieces could have belonged to the lateral façades of the mosque, or even to its interior, being placed in between the buttresses.

Inner Decoration: Carved Stucco

Several pieces of carved stucco were found on the mosque courtyard floor and inside its cisterns. Therefore, it could be inferred that while the outside façades were decorated with carved stone the interior of the mosque was mainly decorated with carved stucco.¹⁸

The decorative patterns and the technique used are exactly the same as those present in other Umayyad structures such as Khirbet al-Mafjar, Qasr al-Hallabat and Mafraq. Most of the patterns can be also seen carved in stone in the vestibule. The stucco plaster is mainly composed of a mixture of gypsum and lime at an approximate proportion of one to three or two to three. The technique is also a standard Umayyad one: the decoration is carved and modelled directly in the hardening plaster with a blade or putty knife (no moulds nor cast stamps were used at all), before drying and hardening totally. The *chiaroscuro* effect is reinforced with some eyes or holes drilled in specific points (piercing beads or where the main lines change direction as in leaves, stems and branches). This craftsmanship has consequently a more expressive quality than the stiff plaster ornament stamped with moulds.

17. In the vestibule the upper register niches are bigger than the ones from the lower one; the niches on the main (south) façade are even bigger, because they can be seen from a long distance in the *souq* square.

18. For a more detailed study of these fragments and stucco issues see Arce 2001 and also Arce et al. 1996.

FIGURE 4. Carved Stucco and Inscriptions from the Mosque: 

- a–d. Hanks, trefoils, zigzag, beads and heart-shaped petals bands/borders.
- e–f. Kish I, stucco from an arch (Batrausatis 1939: figures 195–197).
- g. Stucco band from Hallabat (Bisheh 1980: plate 51.1).
- h. Mafraq mosque panel.
- i–j. Marble slab with inscriptions.
- k–q. Scales and braid patterns, palmettes, rosettes and wine scrolls.

Fragments found inside the cistern were badly worn due to moisture, which made them almost unintelligible. The ones lying on the court floor presented sharper profiles, although broken into tiny pieces, after painstaking restoration work carried out by the author.

The main features and decorative patterns identified are as follows.

1. Heart-shaped petals in a border (Figure 4a), commonly found at Mafjar and Hallabat (see Hamilton 1959 and Bisheh 1980: plate LI.2).
2. Fluted or hanks pattern. Parallel listels with their ends connected by semicircular sections and drilled eyes (at their ends, in the inflection points) in the shape of parallel hanks (or a fluted-like surface). It is used as a wide band or on rounded edges (Figure 4a).
3. Trefoils stemming from volutes at their bottom and flanking tongues (Figures 4b and 4e, 4f). This originally Sasanian motif is certainly an evolution of classical patterns. We could mention as antecedents the anthemion and palmette pattern. The samples of this pattern seem to follow the line of an arch. A Sasanian sample from Kish I, with a similar pattern arranged also along the profile of an arch is an antecedent that reinforces the hypothesis of having been used to decorate the face of an arch (see Batrausatis 1939: figures 195–197).
4. Zigzag pattern. A series of parallel lines define alternating triangles with pierced beads at their bases (Figures 4c and 4e, 4f). This pattern can be seen in the *mihrab* panel at the Mafraq mosque. A similar pattern exists at Hallabat, with palmettes placed within the triangles (Bisheh 1980).
5. Bead border, running between two parallel lines or fillets that frame them (Figure 4d). It is one of the most common Umayyad patterns. In some cases the beads have pierced eyes. Used alone or in combination with the heart shaped petals border, sometimes in geometrical interlaced strips in the shape of octagonal stars (two interlaced squares).
6. Scale pattern.¹⁹ This pattern presents superimposed circular scales with a decoration of concentric lines. It certainly derives from a classical motif and it is also related to the palm-trunk pattern. We can find it as an overall pattern or used on rounded edges or colonnettes (Figure 4k, 4l). In the mosque fragments it was mainly used in this latter context, as at Khirbet al-Mafjar where this pattern decorates the edges of the entrance arch to the bath porch (see Hamilton 1959).
7. Braid pattern. A three-ply strand form this border pattern used on rounded edges (Figure 4n).

19. This pattern is called “Braid border pattern” by Northedge. As a border representing an actual braid exists, we prefer to use these terms in the way we do here (see also Figure 4g).

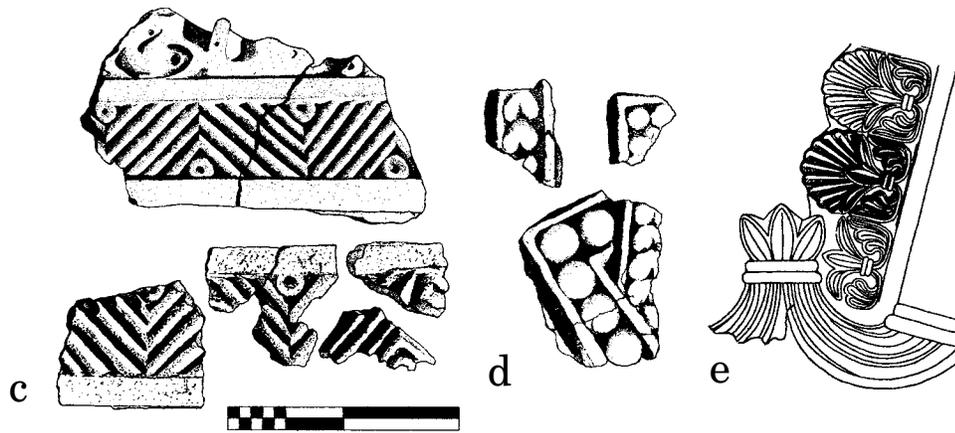
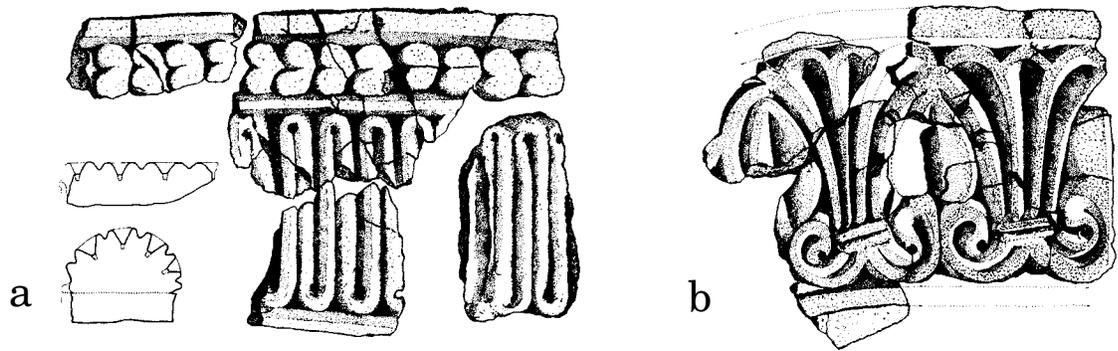
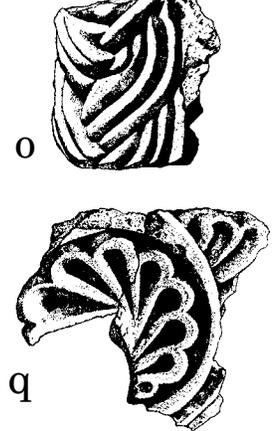
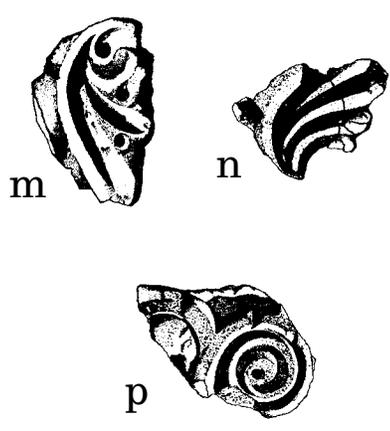
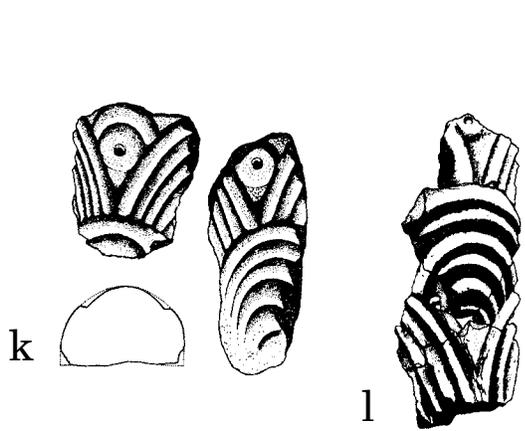


FIG. 195 a-c. a. Motif I, developing into b, c, Motif II.
FIG. 196 a, b. a. Motif II repeated and split, b., into Motif III.



8. Palmettes. Different samples point upwards or downwards (Figures 4m, 4o).
9. Wine stem/scrolls with bunches of grapes (Figure 4p).
10. Rosettes. Drawn with teardrop placed radially (Figure 4q).

Carved Inscriptions

Among the collapsed debris from the 749 earthquake at the base of the west wall of the mosque a piece of great interest was found. It is a fragment of a marble slab with a carved Kufic inscription. Each line of the text was alternatively painted with red and pale blue pigments. Being Kufic, the inscription does not have diacritical marks. It has a carved edge that fitted into a supporting groove. On the rear another, much rougher, inscription can be seen, also in Arabic, indicating the block was reused. In both inscriptions the only complete word that can be read is “Allah” (Figures 4i, 4j). Other noticeable inscriptions are those scratched on the third step in front of the mosque; only “Allah ‘umma” and also “Illa[. .]” can be read.

The Urban Setting and its Significance: Two Congregational Mosques (jami‘) for a Double City (Mada‘in)

These newly discovered structures, as well as the surrounding urban fabric, indicates that with the refurbishment of the Amman Citadel in the Umayyad period a completely new plan was designed for the whole city. The reuse of the pre-existing structures is limited to the essential so that we can speak of a city *ex-novo* but not *ex-nihilo*. The result is a major change in our understanding of the urban plan of Umayyad Amman, as the settlement on the citadel would not have been a suburb to the lower city but a new palatine city built *ex-novo* over the ruins of the Byzantine upper city and beside the existing lower one.

It is certain that the citadel mosque was the urban *jami‘* or congregational mosque for this palatine complex (the *madina* and the walled palace). The presence of two congregational mosques, this new one and the one in the lower town (Northedge 1992: 63), would reinforce the hypothesis of Amman as a *mada‘in* or double city. It comprized a lower city with a Christian majority that probably saw few changes (except the construction of a *jami‘* beside the cathedral), and a new palatine city on top of the citadel for the newly installed ruling elite (which probably incorporated sections of the highest ranks of the Christian religious establishment). The physical setting of the complex recalls Hellenistic and Central Asian urban patterns rather than Roman ones.

The design and scale of the *souq* square plan suggests that this urban space served not only as a monumental frame for the mosque and the palace vestibule, but also as an urban link between the palace and the *madina*. This link is not only architectural but also social and economic, as it was the site of a major market (*souq*). It was probably also used as a *musalla* whenever all the faithful could not be accommodated within the mosque.

The Amman Citadel offers one of the oldest examples of perimeter *ziyadas* designed *ex-profeso* (Creswell suggested that the Classical Temenos was the antecedent of the *ziyada*). The proximity of the *souq* to the mosque would reinforce the idea of an early existence of a *waqf*, so that the financial benefits of renting the *souq* shops could have served to maintain the *jami‘*. In similar cases where *jami‘* and *souq* are very close (as with the Ibn Tulun mosque), the *ziyadas* are intended “to shelter the mosque proper from the immediate contact with secular buildings of the town. The outer doors of the mosque marked (as in Kufa) the ends of bazaars converging perpendicularly to its outer walls, and the *ziyadas* served to isolate the mosque from contact with them” (Creswell rev. Allan 1989: 395–396). The dimen-

sions of the market, beside the existence of a mint at Amman, reaffirm not only the political importance of Amman as the capital of the Balqa Governorate, but also its economic significance as the main market of the region.²⁰

The foundation of new cities as part of early Islamic urban and territorial policy had a strong symbolic value, serving to legitimize the claim to new territories. The establishment of a new city beside an existing one belonged to a long tradition with a clear political manifesto: to express the new rulers' power and prestige. Other instances include: Resafa-Hisham beside Resafa-Sergiopolis; Raqqa (and later Rafiqa, *Raqqatan*—"the two Raqqas") beside Callinicos; Medinat az-Zahara and later Medinat az-Zahira beside Cordoba. The importance of this symbolism seems to define a general trend in early Islamic urbanism towards the creation of new cities beside the old ones, instead of the refurbishment of an existing urban fabric. Amman is a clear and significant case that will deserve a more detailed analysis, with special focus on the urban planning patterns applied in its design. The mixed urban and palatial characteristics of this new city is similar to that of Jerusalem, although its commercial features, in addition to the completeness of its urban fabric, makes it a more complex and interesting case.

References

- Almagro, A.
1983 *El Palacio Omeya de Amman I, La Arquitectura*. Madrid: Instituto Hispano-Arabe de Cultura. Dirección General de Relaciones Culturales.
- Almagro, A. and Arce, I.
1996 El acázar omeya de Amman, crisol de técnicas constructivas. In *Proceedings of I Congreso Nacional de Historia de la Construcción*. Huerta, S. ed. Pp. 25–30. Madrid: Centro de Estudios Historicos de Obras Publicas y Urbanismo (CEHOPU), Centro de estudios y Experimentacion (CEDEX) & Instituto Juan de Herrera (Escuela Tecnica Superior de Arquitectura de Madrid).
- Arce, I.
1996 El estudio de los acabados y revestimientos de la arquitectura. In *Arqueología de la Arquitectura*. Zoreda, L. and C. Escribano, eds. Pp. 87–102. European Social Fund. Burgos: Junta de Castilla y Leon, Consejeria de Educacion y Cultura.
1997 *Preliminary Report on the Research and Related Excavations carried out between August 1996 and October 1997 in the Area South of the Vestibule of the Umayyad Palace*. Unpublished report lodged in the Department of Antiquities Library Archive and Register (Register No. 18/965), Amman.
1998a Conocimiento y finalidad: Del fragmento a la unidad (Planificar la excavación, proyectar la restauración intervenir en la obra). In *Progettare il restauro (Proceedings of the XIV International Conference "Scienza e Beni Culturali")*. Biscontin, G. and G. Driussi, eds. Pp. 583–604. Padova: Edizioni Arcadia Ricerche
1998b Umayyad Urbanism at Amman Citadel. In *Trabajos arqueológicos españoles en Jordania*. Pp. 16–39. Amman: Cervantes Institute.
1999a El análisis estratigráfico y la intervención sobre edificios históricos: El caso del Palacio Omeya de Amman. In *Tratado de restauración y rehabilitación I: Metodología de la restauración*. Edited by Departamento de Construcción y Tecnología arquitectónicas (Escuela Tecnica Superior de Arquitectura de Madrid). Pp. 237–250. Madrid: Editorial Munilla-Leria.

20. Here are briefly presented a few notes on an issue that would require more space for a complete analysis (due to publishing limitations, my second contribution at the Copenhagen conference, which deals with this issue, will be published elsewhere).

- 1999b The Umayyad Hydraulic System at Amman Citadel. In *Proceedings of the International Symposium "The Archaeology of Water in the Middle East"* (in press). Berlin: German Archaeological Institute, Oriental Section.
- 2000 Un tipo inédito de trompas en la arquitectura omeya. In *Proceedings of III Congreso Nacional de Historia de la Construcción*. Madrid, 2000. Huerta, S. ed. Pp. 37–47. Madrid: Centro de Estudios Historicos de Obras Publicas y Urbanismo (CEHOPU), Centro de Estudios y Experimentación (CEDEX) & Instituto Juan de Herrera (Escuela Tecnica Superior de Arquitectura de Madrid).
- 2001a The Early Islamic Stucco Techniques and the Parto-Sassanian Tradition. Continuity and Change. In *Lo Stucco, cultura, tecnologia e conoscenza (Proceedings of the XVII International Conference "Scienza e Beni Culturali")*. Biscontin, G. and G. Driussi, eds. Pp. 107–123. Padova: Edizioni Arcadia Ricerche.
- 2001b The Umayyad Carved Stucco from Amman Citadel Mosque. In *Lo Stucco, cultura tecnologia e conoscenza (Proceedings of the XVII International Conference "Scienza e Beni Culturali")*. Biscontin, G. and G. Driussi, eds. Pp. 125–140. Padova: Edizioni Arcadia Ricerche.
- Arce, I., F. Doglioni and R. Parenti
- 1996 Gli strati di rivestimento: Strategie e tecniche di indagine tra conoscenza dello spessore storico e finalità di conservazione/restauro. In *Dal sito archeologico alla archeologia del costruito (Proceedings of the XII International Conference "Scienza e Beni Culturali")*. Biscontin, G. and G. Driussi, eds. Pp. 39–48. Padova: Edizioni Arcadia Ricerche.
- Bartoccini, R.
- 1933 *Scavi ad Amman della Missione Archeologica Italiana in Bolletino dell'Associazione Internazionale per gli Studi Mediterranei*. A.IV, 1933–34 no. 4–5: 10–15.
- Batrusaitis, J.
- 1939 Sassanian Stucco. In *A Survey of Persian Art*, vol II. Pope, A. U. and P. Ackerman, eds. Pp. 601–630. London: Oxford University Press.
- Bisheh, G.
- 1980 Excavation at Qasr Al-Hallabat. *ADAJ* 24: 69–78.
- Creswell, K. A. C. (Revised J. A. Allan)
- 1989 *A Short Account of Early Muslim Architecture*, Revised Edition. London: Scolar Press.
- Hamilton, R.
- 1959 *Khirbat Al Mafjar: An Arabian Mansion in the Jordan Valley*. Oxford: Oxford University Press.
- Northedge, A.
- 1992 *Studies on Roman and Islamic Amman, vol. 1. The Excavations of Mrs C-M Bennett and Other Investigations*. British Academy Monographs in Archaeology 3. Oxford: British Institute at Amman for Archaeology and History and Oxford University Press.
- Olávarri, E.
- 1985 *El Palacio Omeya de Amman II, La Arqueología*. Valencia: Institución San Jerónimo.
- Wood, J.
- 1992 The Fortifications. In *Studies on Roman and Islamic Amman, vol. 1. The Excavations of Mrs C-M Bennett and Other Investigations*. A. Northedge, ed. Pp. 105–27. British Academy Monographs in Archaeology 3. Oxford: British Institute at Amman for Archaeology and History and Oxford University Press.

Water Systems and Settlements in the Badiyat al-Sham

ALISON V.G. BETTS

University of Sydney

Archaeological fieldwork in far eastern Jordan has revealed a number of water harvesting systems comprising earthen embankments located on small localized water catchment systems. Associated with two of these are small stations dating in the Byzantine period. Two other stations have been documented in the region, Qasr Burqu³ and Ar-Risha, the former dating in the Byzantine/Early Islamic period and the latter in the Early Islamic period. The area is semi-desert, used only by nomadic groups. The paper describes the various stations, the water systems and their associated structures, and presents a discussion of their possible functions as water sources on trans-desert routes, as well as centres of diplomacy and exchange of information.

Introduction

This paper presents some results of archaeological fieldwork carried out in the far east of Jordan by the Burqu³/Ruweishid Project.¹ Work centered around Qasr Burqu³, and also involved extensive field survey in the region to the east and south (Betts 1993; Betts et al. 1990; Betts et al. 1991). Qasr Burqu³ stands within the heart of the Badiyat al-Sham, between the stark volcanic rock-strewn *harra* and the open plains of the limestone *hamad* (Figure 1). The Qasr is at the crossroads of several ancient routes, and guards one of the main water sources in this remote and arid region (Helms 1991). The Badiyat al-Sham comprises the northern part of the Arabian steppe, bounded to the north and east by the river Euphrates, to the west by the well-watered highlands of Syria and Palestine, and to the south by the Nafudh desert. Most of the region consists of open steppe with rainfall ranging from 250 millimeters per annum in the north to less than 50 millimeters in the south. Running across Jordan from Jebel Druze in southern Syria to Jauf in Saudi Arabia is a broad band of rough volcanic rocks, the Black Desert or *harra*. East of the *harra*, a series of wadi systems, al-Wudiyan, drain down into the Euphrates, and to the southwest lies the Sirhan depression. Roughly in the centre of the Badiyat al-Sham, on the eastern edge of the *harra*, is al-Ruweishdat, a series of wadis running northwest from Jebel Aneiza towards the Ruhbah depression and the northeastern flanks of Jebel Druze. Qasr Burqu³ stands on one of these wadis, beside a large seasonal rain-pool or *ghadir*.

The *harra* is rough and difficult terrain, covered by a layer of basalt cobbles, and cut by wadis draining off the central highlands of Tulul al-Ashaqif. In places, the wadis open out

1. The Burqu³-Ruweishid Project was sponsored jointly by the British Institute at Amman for Archaeology and History and the University of Edinburgh. I am grateful to the Department of Antiquities of Jordan for permission to undertake this work.

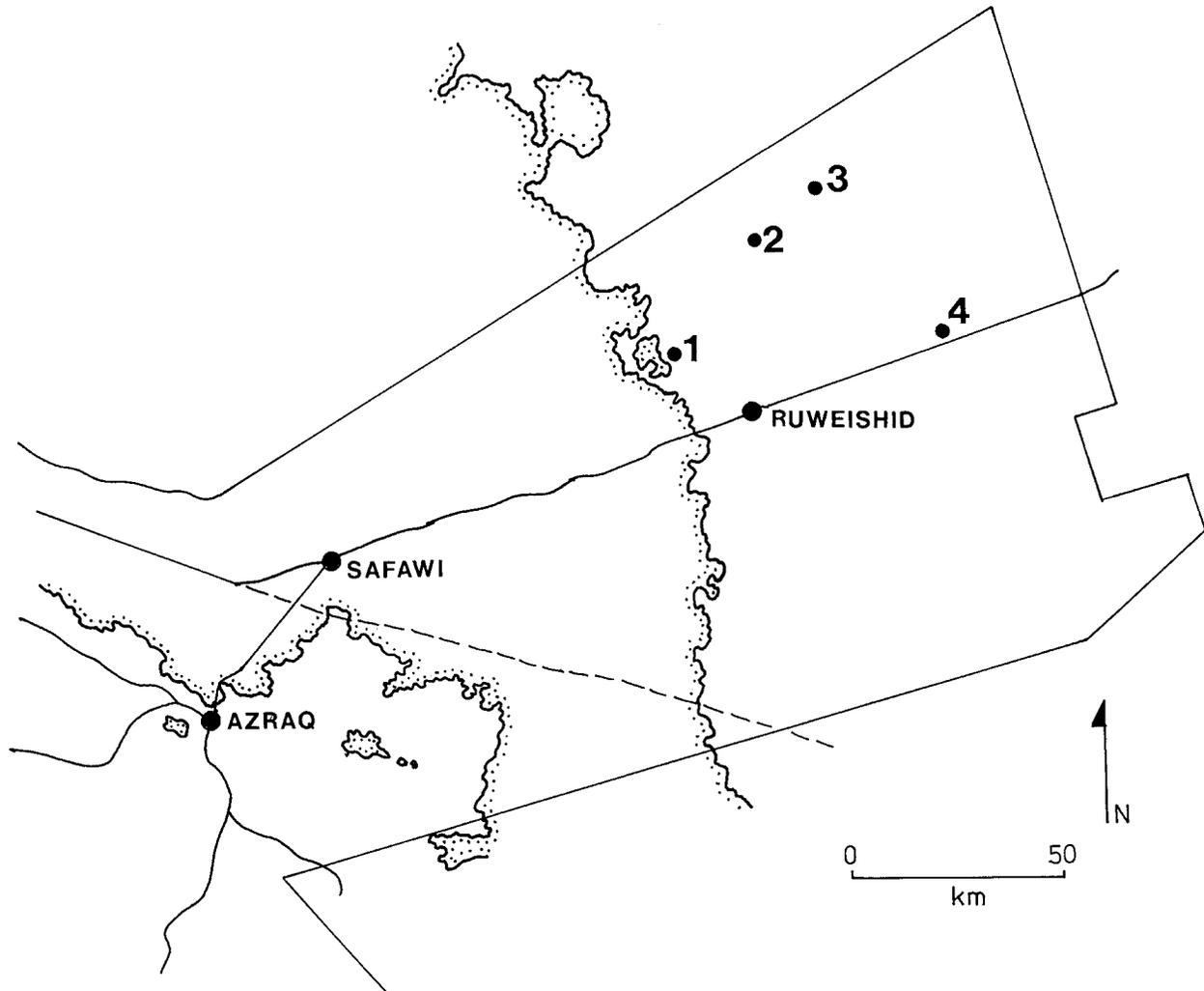


FIGURE 1. Map of East Jordan showing the *harra* and sites mentioned in text. 1. Qasr Burqu²; 2. Ar-Risha; 3. Mahafir ar-Rishat Anwar; 4. Mahafir ash-Shahami.

and have silted up to form stretches of mudflat, while in others the wadi beds have been cut down to form small depressions which hold rainwater into the dry season. The *hamad* consists mostly of low rolling limestone hills and flat open country. In the far southeast the land rises up to Jebel Aneiza and from here the wadis of the Ruweishid and Dumeitha systems drain off northwestwards. The Ruweishid wadis are broad and quite deep, with extensive floodplains and incised streambeds. Rain pools form in the wadi beds and the flood plains are relatively densely covered in perennial shrub growth. In September and early October, heavy dew encourages the growth of fresh vegetation. By late October the rains begin, and last until March. The rainfall pattern is often one of heavy localized storms with resultant dramatic runoff and flooding of the wadi beds. Annual growth of fresh grass and flowers appears in spring on the flood plains and on the hills, particularly in gullies and small hollows.

Water sources in the region are very scarce. There are some wells on the eastern edges of the *harra*, at Bir al-Ghusain, which is well within the basalt region, and at Qa' al-Wisad which is accessible from the *hamad* across a plain covered with wind-blown sand and only a

sparse scattering of basalt cobbles. Other water sources comprise only *ghudran*, rain pools, which fill after flood and retain water sometimes for a few months into the dry season. As a result of the low rainfall and lack of water, the area has been used almost exclusively by nomadic groups, with only very limited evidence for settlement. Any permanent settlement must be supplied with a regular water supply and since there are no springs, this has been achieved in a variety of other ways. Qasr Burqu' stands beside a major wadi, the wadi Mgat, which collects runoff from the *harra*, flowing north along the edge of the basalt massif into a series of mudflats. The Qasr stands beside what must originally have been a natural rain pool, but at the time of the construction of the Qasr, a dam was built across the lower end of the pool to augment the natural water supply by deepening the pool and limiting the amount lost downstream. More recently, a modern earth and concrete dam has been built further downstream, creating a huge artificial lake, over a kilometre in length. The original dam is only visible when the lake levels fall in summer (Betts et al. 1990; Helms 1991).

The *harra* was known as a haunt of brigands. Western travellers passing by Qasr Burqu' in the early 20th century reported on the hazards of the journey. Bell was attacked by half-naked tribesmen (1939, 2: 309), while Musil found it too dangerous even to approach, and was unable to visit the Qasr on either of the two times he passed by (1927: 92). However, Musil did visit some of the few other sites in the *hamad* around Qasr Burqu'. In December 1908, before reaching Burqu', he stopped briefly at Khabrat al-Shahami, a complex of ancient water systems (*mahafir*) which were apparently not in use at the time. Musil described the earth banks as low hills, and noted the presence of a grave in the centre of one of the disused pools (1927: 78). Musil also recorded the presence of numerous artificial reservoirs in the *hamad*, in places where there are no natural pools, and he mentioned a visit to "the artificial rainpool of al-Mhafur", which lies in the Dumeithat drainage system to the south of Qasr Burqu' (1927: 411). He noted the absence of springs and wells in the *hamad* but suggested that the pools were unlikely to have been built by beduin. Several of the ones he observed were silted up or washed out, and he did not find any evidence for their use by beduin at the time of his travels.

There is not a single spring in the plains of the Hamad and almost no wells of spring water. The Arabs draw their water from natural basins or depressions in which rain water gathers and forms larger or smaller pools. Where there are no such pools, many artificial reservoirs are to be seen, frequently measuring thousands of square meters in area and as many as three metres deep. The excavated clay forms wide banks in which are left large openings through which rain water flows into the pools. The chiefs who directed these gigantic feats of engineering displayed great ingenuity in thus securing for their herds the water which was so indispensable to them in these regions, where otherwise they could not camp at the end of spring . . . Many thousands of diligent hands were necessary to excavate these basins. I am inclined to believe that this work was not done by the Bedouins, or camel raisers, but by the swaja, who raise goats and sheep (Musil 1927: 411).

He also recorded that the beduin themselves stated that they did not build them.

we rode . . . past many abandoned artificial reservoirs. These were about fifty meters long and twenty wide and were enclosed on three sides by high earthworks erected from the soil that had been dug out. In the past rain water used to gather in them, but now they are almost filled up with earth. The Bedouins of the present do not maintain the useful pools that were laboriously made by their predecessors. Both Taresh and Miz'el asserted that all such artificial reservoirs were excavated by the Beni Ta'amer (Musil 1927: 254).

Exactly who the Beni Ta'amer were is uncertain. They are not a well known ancient or legendary group,² but in the same way that modern beduin will ascribe any ancient ruin for which they do not know the history to the 'Rumi', it is possible that the Beni Ta'amer were a similar real or imagined group to whom anomalous activities were attributed.

Surveys carried out by the Burqu'/Ruweishid project in the late 20th century documented an equally surprising number of such artificial water systems in the hamad. Despite the fact that the few regular water sources are located around the eastern edge of the harra, it seems that there was a preference for creating artificial pools in the hamad, either simply to avoid the hazards which might be encountered along the edges of the basalt massif or to provide additional water supplies in areas where no natural sources occurred. Musil records such reservoirs in the hamad at least as far south as Sakaka (1927: 264).

The hamad immediately east of Burqu' is on the watershed and there are few large drainage systems, those of the Ruweishidat being the exception. Thus the simple expedient of augmenting an existing rain pool by a small dam as at Burqu' is not feasible in most places, and a variety of other strategies have been employed. One, which can be seen at Mahafir ash-Shahami, involves use of a very small catchment system, no more than a few square kilometres in extent (Figure 2). One or more pools are dug along the line of the stream, which in such small systems has no flat bottom or incised bed. The pool is ringed with a low wall of stone revetting around the outer edge in a horseshoe shape, leaving the upstream end open. The earth removed to create the pool is thrown up in a large horseshoe shaped ring around the edge, behind the revetting wall. The open-ended pool thus created will capture runoff as soon as the first rains fall and will hold it for a substantial period afterwards. In a system of such pools, as at Shahami, runoff is led from pool to pool as each one fills, while some pools tap side drainage in the same catchment to maximize yields. A second system can be seen at Mahafir ar-Rishat Anwar (Figure 3), and on a considerable number of mudflats both in the hamad and into the harra. The same kind of horseshoe shaped open-ended pool is built close to the edge of a mudflat, with the open end pointing towards the shoreline. When the mudflat floods, water washes into the pool, but as the lake shrinks again, the walls retain the water for some time after the lake has dried up. These two systems, and possibly variations, must have been the types of reservoirs reported by Musil in many other parts of the hamad.

Extensive survey in the east Jordanian hamad has turned up very limited evidence for permanent settlement. Most structures that could be designated as permanent may not, of course, necessarily have seen permanent occupancy, and most are isolated buildings. These include Qasr Burqu', one building on the slope above Mahafir ar-Rishat Anwar and two associated with Mahafir as-Shahami. The only place which could possibly be termed a settlement is the "Islamic village" at Ar-Risha (Helms 1990). The earliest appears to be Qasr Burqu' which may have been founded in about the fourth century A.D. and continued in use up until sometime around the eighth century A.D. (Helms 1991). Ar-Risha was founded probably no earlier than A.D. 650 and appears to have continued in regular use up into the 10th/11th centuries, with possible sporadic use into the 12th/13th centuries (Helms 1990; Lenzen 1990: 156–158). The pottery from Mahafir as-Shamahi and Mahafir ar-Rishat Anwar has received only preliminary analysis but appears in both cases to date predominantly to the Byzantine period (Lenzen pers. comm.).

2. I am grateful to Michael MacDonald for his advice on this problem.

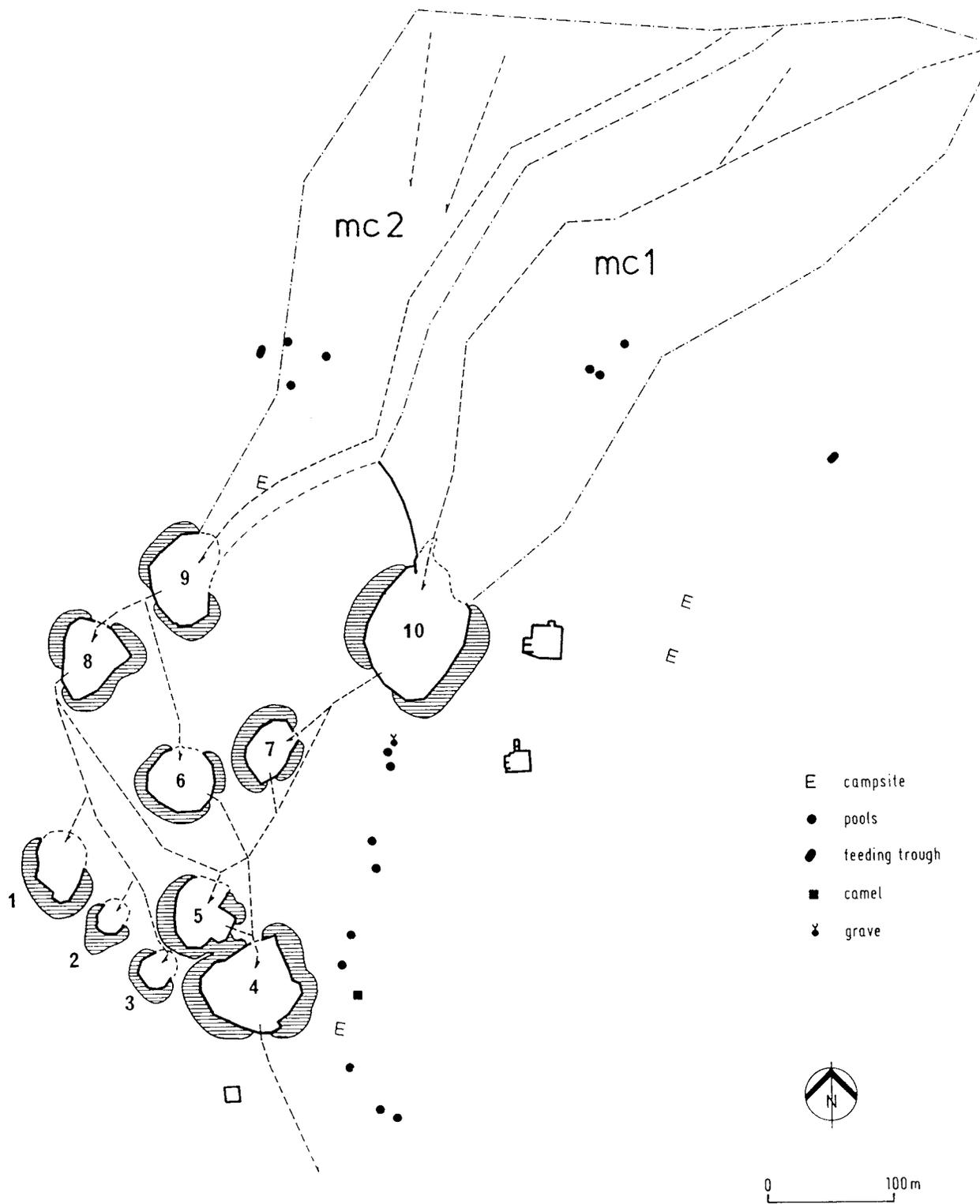


FIGURE 2. Mahafir ash-Shahami: schematic plan.

Qasr Burqu'

The Qasr is constructed of basalt, probably quarried from outcrops on the edge of the wadi in the immediate vicinity of the buildings. Visible structural remains at the site consist of the stone dam in the wadi, a stone tower, a series of outbuildings and an enclosure wall. There are also signs of ancient quarrying and numerous stone tumuli scattered around the lake, most of which were originally prehistoric campsites, but some may have been reused for burials of the later historical periods. There are approximately ten rooms along the south and east sides of a courtyard. All but three are roughly rectangular and are constructed against the outer enclosure wall. One room on the south side is rounded or oval in shape, and may have had some industrial function, perhaps as a mill. On the east side are two rooms, separated by an archway. The eastern-most of the two rooms is apsidal in plan and has niches set into the side and end walls. To the north of the apse an additional room has been put up against the outer side of the enclosure wall, with an opening into a second room, which in turn opens onto the courtyard. There are a variety of inscriptions from in and around the Qasr, which give some limited clues as to the date and function of the buildings. Safaitic carvings are found on rocks around the lake, but none have been found on the Qasr itself with the exception of one, which was apparently carved on a rock later used for the construction of the Qasr. Two Greek inscriptions are known from Burqu', both probably tombstones or funerary texts. A cross is carved on the lintel of the rounded building on the south side of the enclosure. The best known inscription from Burqu' is the 'Walid' inscription, cut into the lintel of a room in the east façade of the enclosure in Kufic Arabic. This claims that some parts of the Qasr [buyut] were built in the year A.H. 81 (A.D. 700) by Walid, son of 'Abd al-Malik, some five years before he himself became Caliph. While dating on either epigraphic or archaeological grounds is somewhat uncertain, it is likely that the site was originally founded at some time around the fourth century A.D. and continued in use until sometime around the eighth century (Helms 1991).

Ar-Risha

Ancient ar-Risha was built on gently sloping ground on the east bank of one of the branches of the Ruweishdat wadi system. The complex consists of sixteen individual buildings, most with several rooms and a courtyard, together with a simple mosque with four enclosing walls but no evidence of roofing. Most of the buildings are oriented roughly southwards, set against the prevailing wind. Others face east, which also protects against the common westerly winds. The buildings are constructed of limestone blocks and mudbrick. Much of the superstructure would have been mudbrick.

There is no evidence of a formal water harvesting or collection system, although the local beduin insist that one must have existed. Either the settlement was sustained by wells cut into the wadi bed, or it was only occupied during the winter when there was water in the *ghadir* in the wadi bed. The modern settlement of ar-Risha on the opposite side of the wadi obtains water from drilled wells at Mgat on the highway and from the lake at Burqu', in both cases transported in by tanker. On the basis of ceramic evidence, the site appears to have been established in the seventh century and continued in use up until some time around the 10th/11th centuries A.D. (Helms 1990; Lenzen 1990: 156–158).

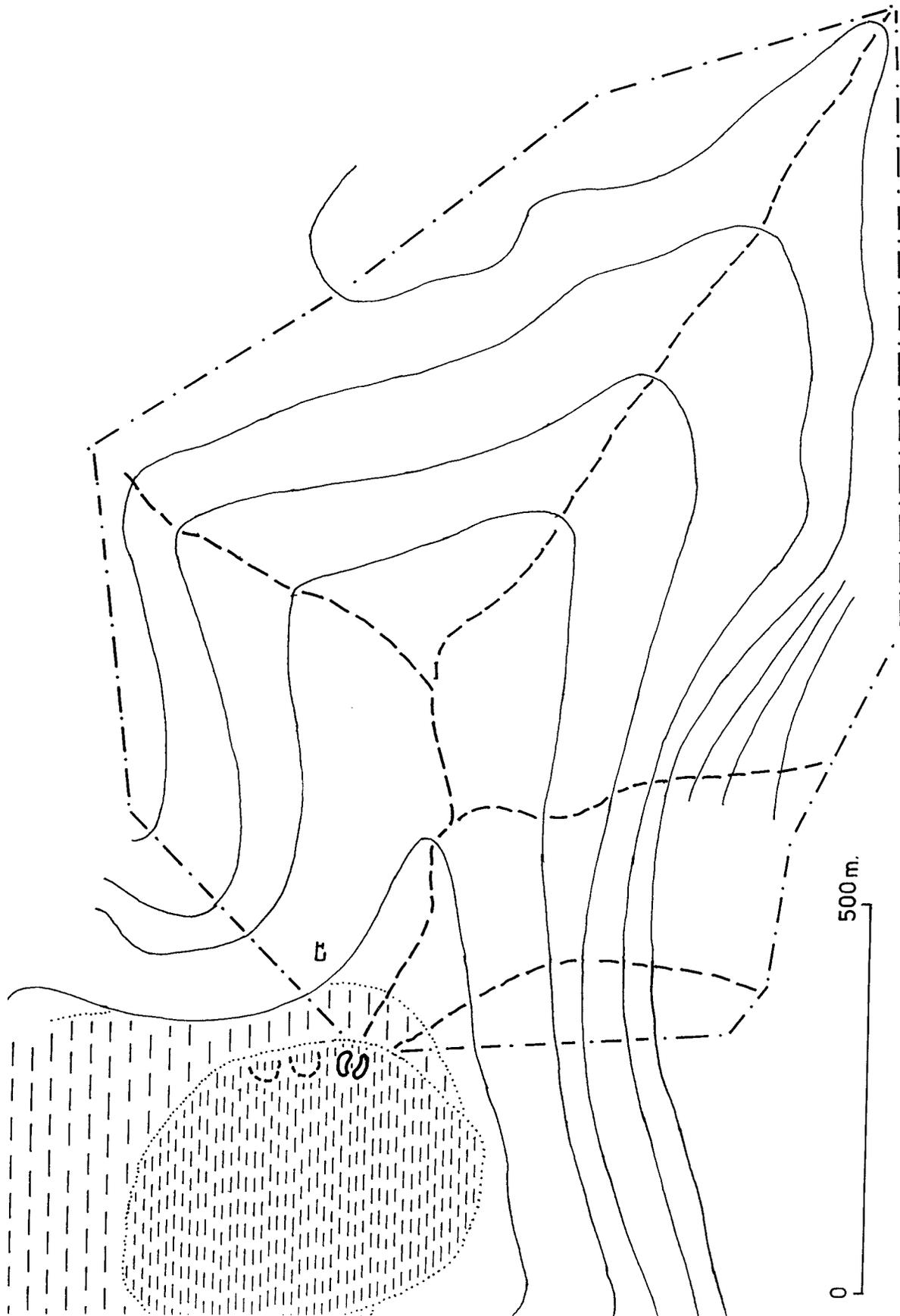


FIGURE 3. Mahafir ar-Rishat Anwar: general plan.

Mahafir ar-Rishat Anwar (Figure 3)

Mahafir ar-Rishat Anwar is located in a small upland drainage system and comprises one rectangular multi-roomed structure overlooking a small wadi system and mudflat. There is a series of *mahafir* where the wadi runs into the mudflat. These were built mostly of earth, with only limited stone reinforcing, and are poorly preserved. The building was constructed of mudbrick and pisé on well laid stone foundations. There is no evidence for a courtyard. The building has gone through a number of phases of building, re-flooring and plastering (Betts 1993). Pottery was found around the structure and on nearby ancient campsites. The pottery dates generally to the Byzantine period (Lenzen pers. comm.).

Mahafir ash-Shahami (Figure 2)

This site is a complex of man-made water-catchment systems on a small internal drainage system. It comprises ten or more artificially excavated pools, reinforced by roughly laid stone walls. Their downstream sides, although now largely washed out, appear originally to have been low enough to permit surplus water to flow over the top and into the next reservoir. There are two buildings on the southeast side of the complex. They are both multi-roomed rectangular structures built of mud-brick and pisé on stone foundations. The buildings face eastwards and front onto open courtyards (Betts 1993). Pottery from the structures and from ancient camp sites nearby dates generally to the Byzantine period (Lenzen pers. comm.).

The Water Systems

The four sites described above have key similarities and differences. Qasr Burqu³, Mahafir ar-Rishat Anwar and Mahafir ash-Shahami are all structures associated with water systems. The function of the Qasr at Burqu³, however, changed through time, and the site was clearly defensive in nature, at least in the early stages of its use. The other three sites are open settlements which appear to have served a similar function throughout their occupancy and show no signs of requiring any form of defence or protection. The site of ar-Risha is a small settlement, which does not appear to be associated with a formal water system, although it is likely that a supply sufficient for the occupants was available from rain pools in the wadi bed for at least part of the year. In the case of Burqu³ and Shahami, the size of the water systems suggests that the supply was intended to store a surplus over and above the needs of those living beside them and thus, by inference, such people are likely to have served as guardians of a kind. The same may have been true of ar-Rishat Anwar, but the *mahafir* are smaller and it is harder to argue convincingly the case for a surplus.

Water is the key to life in this region; it is a scarce and precious commodity. The region has also been noted for its inter-tribal rivalries, which in many cases feature restriction of access to water through force of arms or through poisoning of wells. As late as the early 20th century, travellers' reports give frequent accounts of dangerous desert crossings made yet more hazardous by prevention of access to water sources due to the presence of hostile tribes in the vicinity. It is therefore particularly significant that relatively substantial water sources such as that at Shahami should have a small number of semi-permanent guards or caretakers who apparently did not feel threatened by the possibility of attack. There are a limited range of reasons as to how this might have occurred. It is possible that large areas of the *hamad* lay under the control of a large tribal confederation and that the *mahafir* were

owned by members of this confederation. The number and regional extent of the *mahafir* would mean that there was an abnormal degree of tribal unity over areas which, certainly in later centuries, were much divided among rival groups. Another, although unlikely, possibility is that they were constructed and maintained by pariah tribes or groups outside the dominant tribal lineage systems, groups such as gypsies or the Solubba, who in more recent times were regarded as neutral in tribal warfare and provided service functions for members of all tribes.

The other issue is who actually went to the fairly substantial effort of constructing the *mahafir*. Musil reiterates several times that such constructions are not the work of beduin, partly on the word of his companions, but also because he believes that the construction and maintenance of such systems would be outside the normal behaviour of beduin in the late 19th and early 20th centuries. Unless it was done by tribesmen on a collective basis, hired labour would need to be brought in, looked after and paid for. Captive or slave labour is also another possibility. Thus, while an enhanced supply of water in the *hamad* would be an advantage in any situation, it seems plausible to suggest that the construction of the *mahafir*, if they do date generally to the same period, was a response to unusual political circumstances. The need for extra water in the desert might imply that the tribes were forced to stay in the desert well into the dry season due to political difficulties with the peoples of the verdant fringes. However, this is likely to have created conditions of stress, and the open settlements at Shahami and Anwar appear to belie this possibility. The undefended buildings, with their imported pottery, and the massive scale of construction of water systems is more likely to indicate a period of tribal power and prosperity in the *hamad*, linked to positive external political and economic alliances.

History

Sources for the history of the Badiyat al-Sham in this period are sketchy, to say the least, and the parts of the *hamad* within the modern boundaries of Jordan lie at the periphery of the regions for which anything at all is known. The central Badiyat al-Sham is documented through the activities of the Palmyrenes under the rules of Udhainat and Zenobia, the former assisting the Romans and the latter strongly resisting them. Tribes who acted as client rulers for the Romans also receive mention, but apart from references to the settlements most associated with them, there are few clues to indicate their areas of influence within the *badia*. Only occasionally, epigraphic evidence can help to clarify this through inscriptions found within the steppic regions. In the third century, the Tanukh, who harassed the Palmyrenes at the time of Zenobia, were located around the Persian Gulf and up into the Syrian Desert (Sartre 1982: 134–135). It is possible that they were partially displaced by the Salih, who appeared on the south-eastern frontier of Syria, replacing the Palmyrene tribes, a position which they held until they in turn were deposed by the Kinda and the Ghassanids at the end of the fifth century. The evidence for this, however, is not clear, being based largely on the Arab sources which, according to Sartre, are “embrouillées et peu utilisables” (1982: 135–136). This suggestion is also partially contradicted by evidence provided by the Nemara inscription, a funerary dedication to Imru’l-Qais, “king of all the Arabs” (Dussaud and Macler 1903: 314–322; see also Sartre 1982: 136 and references there), who was apparently of Lakhmid descent (Sartre 1982: 137). The Lakhmids belonged to the confederation of the Tanukh. While the main base of the Lakhmid dynasty was at al-Hira on the lower Euphrates, the presence of this grave at Nemara on the eastern flank of Jebel Druze implies

a wider sphere of influence, including southern Syria. The inscription also declares that his tribes on one side provided service to the Romans, and on the other to the Persians. It is likely that the Tanukh took advantage of the disruption which must have followed the fall of Palmyra to assume power across most of eastern Syria from Jebel Druze to the Euphrates.

By the mid-fourth century, the Romans formalized their relations with the nomads on their borders, regularising their relationship as client tribes defending the frontiers in return for certain guarantees and advantages. The Arab sources maintain that the first of these was the Salih, but the main source for this is Hamza al-Isfahani in the 10th century, while there is no mention at all of them from the contemporary Greek and Syriac sources. The evidence from the inscriptions at Nemara and Umm al-Jimal are used convincingly by Sartre to argue against a strong presence by the Salih (1982: 148). Prior to the fourth century, there is little evidence for use of the desert tribes as allies. They are identified merely as Saracens in the context of "exotic barbarians" (Isaac 1990: 235). But Ammianus, in discussing the early stages of the eastern war in A.D. 356, says that the Persians applied a new technique: instead of the usual set battles, they now practiced raids and guerrilla warfare (xvi 9. 1; Isaac 1990: 235, Note 92). The carrying off of property and cattle was the specialty of their Saracen allies. Thus it seems that the systematic use of nomad allies by both the Persians and the Romans was an innovation of the fourth century.

Despite the more restricted role of the Salih suggested by Sartre, they still occur as one of three major powers in the *badia* in the mid-fifth century. Arab sources record attacks by the Kinda from the south into Salih territory between Palmyra and Aleppo (Olinder 1927). The Ghassanids, on the other hand, according to al-Yaqubi (ed. Houtsma 1969: 1, 235), made a treaty with the Salih which allowed them access to the Balqa and special favours with the local Byzantine rulers, the same as those apparently enjoyed by the Salih. This same passage also describes the role of the Salih as guardians of the frontier, charged with the task of preventing nomadic uprisings against the Byzantines and acting in the role of intermediary in any dialogue between the imperial administrators and the tribes. In return for their cooperation, they were permitted to move freely within the borders of the Empire (Sartre 1982: 157).

However, it was not long, apparently, before the Kinda and the Ghassanids between them threatened the Byzantine frontier to such a degree that the role of the Salih as guardians became redundant and the imperial administrators, fearing that the Ghassanids would take the side of Persia against them, concluded a peace around the early years of the sixth century. In 531 Justinian made Harith bin Jabala (Arethas) phylarch of Arabia, equivalent in status to his Lakhmid counterpart Mundhir. His role was two-sided. On the one hand, he was required to prevent Arab tribes from raiding the verdant fringes of the Empire, and on the other, he was required to defend the frontier against Lakhmid attack. For these activities, he was well rewarded. Harith ruled for forty years, from 529 to 569. Despite regular conflicts with the Lakhmids, he was known generally as a man of peace, and maintained good relations with Constantinople over four decades. John of Ephesus stated, for example, that in Harith's later years, as long as he lived peace reigned between Lakhmid and Ghassanid, but as soon as he died, the Lakhmids opened an offensive (Brooks 1965; Shahid 1995: 338). Immediately after his death his successor, Mundhir, campaigned against the Lakhmids. In 569 and 570, Mundhir was nominally victorious in two campaigns against the Lakhmids but he then made the mistake of asking Justin II for gold to cover his losses. Justin responded by plotting to have him removed, but due to an administrative error, Mundhir

discovered the plan and, justly furious at this imperial treachery, withdrew from Byzantine service for three years, allowing the Lakhmids to pillage the frontier.

The Ghassanids were based in the Damascene and the Jaulan, but used Rusafa as a diplomatic meeting place during the season of pilgrimage. This gave them the opportunity for creating alliances with the tribes along the Euphrates (Sauvaget 1939). They are also credited by Hamza with restoration of the cisterns there (Sartre 1982: 181, note 259). It is not clear how much of the land to the south they controlled but it is reasonable to suggest that they had some degree of power over the *hamad* down to the edge of the Nafudh. They certainly held the oasis of Tayma (Sartre 1982: 187). It has been suggested that Qasr Burqu' is the Birkeh mentioned in Hamza's list. Again, there is mention of the construction of cisterns, which could also refer to an enhanced *ghadir* (Wetzstein 1860: 132, 130, note 1). Gaube (1974) has also proposed that Khirbet al-Beidha on the edge of the Ruhbah was a Ghassanid residence. There are several historical references to Ghassanid territory, which appear to refer to tribal lands beyond the *limes*: John of Ephesus, "in terra tribus Harith" (Shahid 1995: 341, note 125), and Menander, "then Ambrus ordered his brother Kaboses, who lay opposite Alamundar (Mundhir), the leader of the Saracens subject to the Romans, to ravage Alamundar's territory. This territory was on the borders of Arabia" (Blockley 1985: 111). United Ghassanid control of the frontier lasted until 584, when a general revolt caused the Ghassanid rulers to be exiled and the phylarchy to collapse into a series of small tribal units.

Discussion

In summary, following the defeat of Palmyra, the Badiyat al-Sham reverted to the control of a variety of more southerly tribal power bases. From the third century, this seems to have been the Tanukh and the Salih, replaced in turn by the Kinda and the Ghassanids towards the end of the fifth century. During this time, in the mid-fourth century, the Romans formalized their relations with the tribes and, as a result of the rising power of the Ghassanids, Harith bin Jabala (Arethas) was made phylarch by Justinian in 531.

The question then is, which period is it most likely that the water systems relate to? We cannot, of course, prove that all the systems belong to this period on the basis of the evidence of only two examples. However, the fact that they are unusual suggests this as a possibility. Why, under what conditions, was it necessary to have extra water sources not used by the beduin in the 19th century or in their living memory? Why have houses situated beside the water sources? It is possible that, as Musil suggests, some of the *mahafir* were built by sheep/goat herders. However, it seems unlikely that they would have had the collective power to build such massive systems, and so many of them. They would be unable to defend their water supplies against camel herders, and even if they did build them, it seems a highly risky investment. Similarly, are they likely to have built permanent structures to guard or maintain the pools? Why also did this occur particularly in the few centuries of Byzantine rule? It is possible that the Roman/Byzantine presence on the frontier created an unusual demand for pastoral produce such as cheese and mutton. In this case, we might see these systems as an early example of the recent pattern where the introduction of the truck has permitted watering of the flocks further from the main water sources, thus allowing greater access to grazing and permitting a greater carrying capacity of the land. However, if this were the case, then we might expect such systems to have developed at an earlier period.

An alternative and probably more obvious answer is the desert conflict fought by the allies of the Byzantines and the Persians. The inhabitants of the desert were paid subsidies to protect the frontier, which were apparently issued to recognized rulers. They must also have had much opportunity to acquire booty from raiding. The normal desert pattern is to raid until the victims agree to pay protection money. Under the circumstances pertaining in the Badiyah al-Sham during the fourth to sixth centuries, the tribes were in the fortunate position of being able to practice unlimited raiding while being paid for the privilege. This would have resulted in extra funds available from a central 'administration' which would be in a better position than a group of independently minded sheep herders to co-ordinate the effort required to build such systems.

The Ghassanids needed to maintain and move war parties at speed throughout the desert. Furthermore, they needed to retain a presence in the desert throughout the year, even in the dry season when pastoralists normally retreat back towards the edges of the steppe. They probably had control over much of the region, obviating the necessity to protect water sources. They presumably had the funds to construct water sources. They needed points of diplomacy and listening posts to maintain contact with the tribes. Sartre remarks (1982: 187) that it seems strange that the Arab nomads charged with protection of the frontier did not install their permanent camps along the frontier itself, that is eastwards of Jebel Druze, or in the Ruhbe. Instead, he points out, their towns seem to be largely located in the Damascene and the Jawlan. However, he has misunderstood an important point about political organization in the desert. A camp or camps in remote locations on the frontier with limited water resources would not be useful points from which to control matters. Bases further into the good land make it possible to sustain a permanent presence, and support a large number of visitors or troops. The Damascene is not so far removed from the steppe that a rapid deployment cannot be made if necessary. What is needed, however, is reliable, up to date information on activity along the frontier. Such information would be much better provided by a series of small listening posts, provided with emergency water supplies and a permanent guard. These could probably be sustained almost all year round and would provide a highly efficient network of information gathering as well as facilitating rapid deployment of forces throughout the frontier zone. A good modern parallel for this can be found in the Sha'alan stations at Ar-Risha al-Fowq and al-Taht. The sheikhs used these as part time residences but maintained their home bases in Damascus where they could do a great deal of business, while messengers from the desert stations kept them informed of the situation in the *hamad* (Lancaster 1981; see also Helms 1990 for early Islamic parallels).

We can look at this possibility even more precisely. Harith's reign was characterized by order and peace through his strong reputation as a warrior hard to defeat if provoked, but prepared to manage peace if possible. Maintenance of water systems along the frontier would be concomitant with this type of command, where peace was sustained through a healthy respect for the ruler, while regular frontier maintenance would be necessary. Mundhir's reign was characterized by lightning raids into Lakhmid territory, implying an excellent knowledge of the desert. Shahid (1995: 313, 343) suggests that he was on 'frontier patrol', 'warden of the marches' for the years prior to his succession, and so knew the region well. The water systems, if in place at this time, would also be of great assistance in the practice of lightning strikes into Lakhmid territory. The eastern *hamad* lies almost in a straight line between al-Hira and Damascus. One such campaign is recorded as taking place on Ascension day, which would place it in the spring, the optimum time for conducting such warfare, when water and grazing were readily available (Shahid 1995: 345). Another consid-

eration is the presence of horses in the desert. While camels were used for transport and long distance travel, horses were frequently used in warfare. A common method was to ride camels, while leading or driving the horses. Only when the raid was imminent would the Arabs leave their camels and saddle up the horses. Horses require regular watering and the provision of reservoirs would be a significant factor in facilitating their movement.

Mundhir was betrayed and captured, and as a result, his son Nu'man led a major revolt. The Ghassanids retreated to the desert beyond the *limes* where once again they raided frequently and disastrously into Byzantine territory. Again, the water resources would have helped to sustain such attacks. One particular campaign was against Bosra, which implies that they were living in the desert to the east, perhaps around the Ruhbah.

With a more detailed study of the evidence, possibly further examples could be found. None constitute proof, of course, but a careful consideration of the history of the southern Badiyat al-Sham as far as it can be reconstructed for the Byzantine period suggests that a good case could be made for placing the construction of a significant number of the *mahafir* during the period of Harith bin-Jabala's control of the region, with continued usage during the Ghassanid leadership of his successors Mundhir and Nu'man.

References

- Ammianus Marcellinus
 1935 *Ammianus Marcellinus*. Translated by J. Rolfe. London: Heinemann.
- Bell, Gertrude
 1939 *The Letters of Gertrude Bell*. 2 volumes. Harmondsworth: Penguin.
- Betts, Alison, Svend Helms, William Lancaster, Evan Jones, Alan Lupton, Louise Martin and Frank Matsuert
 1990 The Burqu'/Ruweishid Project: Preliminary Report on the 1988 Field Season. *Levant* 22: 1–20.
- Betts, Alison, Svend Helms, William Lancaster and Fidelity Lancaster
 1991 The Burqu'/Ruweishid Project: Preliminary Report on the 1989 Field Season. *Levant* 23: 7–28.
- Betts, Alison
 1993 The Burqu'/Ruwaysid Project: Preliminary Report on the 1991 Field Season. *Levant* 25: 1–11.
- Blockley, R. C.
 1985 *The History of Menander the Guardsman*. Liverpool: Francis Cairns.
- Brooks, E. W.
 1965 *Accedunt Iohannis Ephesini Fragmenta. Corpus Scriptorum Christianorum Orientalium, Incerti Auctoris Chronicon Pseudo-Dionysianum Vulgo Dictum II (Versio)*. Louvain: Secrétariat du Corpus SCO.
- Dussaud, R. and F. Macler
 1903 *Mission dans les régions désertiques de la Syrie moyenne*. Paris: Imprimerie Nationale/Leroux.
- Gaube, Heinz
 1974 *Ein arabische Palast in Südsyrien, Hirbet el-Beida*. Beirut Texts and Studies, Bd. 16. Beirut/Wiesbaden: Orient-Inst. d. Dt. Morgenländ.
- Helms, Svend
 1990 *Early Islamic Architecture of the Desert*. Edinburgh: Edinburgh University Press.
 1991 A New Architectural Survey of Qasr Burqu'. *Antiquaries Journal* 71: 216–225.
- Houtsma, M.
 1969 *Ibn-Wadhīh qui dicitur al-Jaʿqubī, Historiae*. Lieden: Brill.
- Isaac, Benjamin
 1990 *The Limits of Empire*. Oxford: Clarendon.

- Lancaster, William
1981 *The Rwala Bedouin Today*. Cambridge: Cambridge University Press.
- Lenzen, Cherie
1990 Ancient Ar-Risha: the Pottery. In *Early Islamic Architecture of the Desert*. S.W. Helms, ed. Pp. 134–158. Edinburgh: Edinburgh University Press.
- Musil, Alois
1927 *Arabia Deserta*. Oriental Explorations and Studies 2. New York: American Geographical Society.
- Olinder, G.
1927 *The Kings of Kinda of the family of Akil al-Murar*. Lund: Gleerup.
- Sartre, Maurice
1982 *Trois études sur l'Arabie romaine et byzantine*. Collection Latomus 178. Bruxelles: Revue d'études latines.
- Sauvaget, J.
1939 Les Ghassanides et Sergiopolis. *Byzantion* 14: 115.
- Shahid, Irfan
1995 *Byzantium and the Arabs in the Sixth Century, vol. 1, part 1. Political and Military History*. Washington: Dumbarton Oaks.
- Wetzstein, Johann
1860 *Reisebericht über Hauran und die Trachonen*. Berlin: Reimer.

The Citadel of Aleppo: The Islamic Periods¹

JULIA GONNELLA

.....* HQQ

The citadel of Aleppo is one of the most important and most impressive examples of medieval military architecture. It was built on the summit of a 40-meter high natural outcrop to the east of the river Quwaiq in north Syria. Both this river and the easily defended rocky mound have provided Aleppo with the major prerequisites for a town to survive: a supply of water and protection from hostile incursions.² And indeed, Aleppo's history is known to be of great age. Ancient texts prove the existence of the city since the middle of the 3rd millennium B.C. (Klengel 1997).

As for the present fortress, it is mainly the work of Saladin's son, the Aiyubid prince al-Malik az-Zāhir Ġāzī (r. 1186–1216), who turned the citadel into one of the most powerful strongholds of northern Syria with a deep moat and a stone glacis. He demolished the older entrance and elevated its portal to the present location, reached only via the tall multiple-arched bridge-cum-viaduct, which until today serves as the only official entrance. The upper barbican with its massive stones, magnificent apotropaic decoration and strong iron doors, is considered to be one of the finest pieces of Aiyubid military architecture. A paved ramp, passing through several right angle turns, leads up into what was formerly the royal district containing luxurious palaces, gardens and hammams. The citadel was conquered in 1260 by the Mongols and in 1401 by the troops of Timur but restored by the Mamluks repeatedly. The most important Mamluk contribution is the so-called audience chamber above the Aiyubid entrance gate, begun by the Mamluk governor Ġakam min 'Iwād in 809/1406, and later altered under Sultan al-Asraf Qaitbāy (r. 1468–96) and Sultan Qānṣūh al-Ġūrī (r. 1501–16). Both under the Ottomans and the French, the citadel served as garrison.

In 1996, a Syrian-German mission started excavations on top of the citadel under the direction of Wahid Khayyata and Kay Kohlmeyer (Khayyata and Kohlmeyer 1998; Kohlmeyer 2000; Gonnella, Khayyata and Kohlmeyer 2000). Their main interest lies in the remains of the Bronze Age and Iron Age. Over five seasons they uncovered parts of what is probably the largest temple of Syria, the temple of the ancient weather-god Hadad and which is one of the major cult centres of the Ancient Middle East.

1. Research on the Islamic Citadel of Aleppo has been subsidized by the German Archaeological Institute (DAI, Berlin) from July 1997 to June 1999 and by the Gerda Henkel Stiftung (Düsseldorf) since July 1999. For their generous support the author is indebted to both institutions.
2. For the history of Aleppo still relevant are Sauvaget (1941); Herzfeld (1954–55) and Gaube (1984). More recent literature has appeared on Aiyubid Aleppo: Allen (1999); Eddé (1999) and Tabbāa (1997).

The Architectural Documentation of the Citadel

The excavations provided a good opportunity to examine the Islamic citadel at the same time. Being cognizant of the large-scale restoration work that has been going on, it seemed particularly urgent to carry out a full documentation of the entire citadel complex. Quite substantial parts of the original architecture have been altered or even rebuilt, such as the Mamluk audience chamber during the fifties, the Upper Mosque in the seventies, or more recently parts of the Aiyubid Palace, or the so-called “Ḥammām Nūr ad-Dīn”. As much as these architectural additions add to the general attraction of the site—which no doubt is very important for tourist development—considerable historical information is being lost at the same time. This, of course, is especially critical since only very little of the restoration work has been recorded systematically.

The documentation of the citadel entails several steps.³ First of all, a new plan of the site is being produced with the help of a tachymeter. Then, the site is systematically photographed and the architecture carefully examined. Until now, we have concentrated on the actual fortifications, which curiously enough have never been investigated in detail. This includes the circuit wall with the entrance, the citadel slope, the moat, as well as the two Mamluk barbicans to the north and the south.

During the examination a number of interesting discoveries were made. Above all, it became evident how little of the actual Aiyubid wall had survived. Therefore, it, seems that the Arab historians were right when they described the thorough Mongol destructions (Ibn Saddād 89f.; Ibn as-Siḥna 46). Traces of the Aiyubid stonework can be found only in some of the lower levels of the eastern ring wall. The Mamluks later covered these blocks with a type of sloping roof on which they founded their own towers, which were much smaller than the Aiyubid ones (Figure 1). Aiyubid masonry can be well studied in the main entrance gate of the citadel or in the other Aiyubid city gates of Aleppo such as Bāb an-Naṣr, Bāb Anṭākya or Bāb Qinnasrīn. It is considerably larger and more carefully dressed than Mamluk masonry, and thus easily recognizable.

Further remains of the former Aiyubid curtain wall and towers can be located just in front of the present southern wall (Figure 2). When the Mamluks later rebuilt it they erected the new wall further back, probably being aware of the precarious state of the slope which was always in danger of slipping away due to constant winter rain.

The wall's built-in steps located right next to the entrance gate on the eastern side can probably be identified as Aiyubid (Figure 3). The walls of the Aiyubid fortress of Qalʿat Naḡm on the Euphrates are built in a similar technique (Figure 4). Like the citadel of Aleppo, Qalʿat Naḡm had been extensively rebuilt during the reign al-Malik aḏ-Zāhir Ġāzī.⁴

This leaves us with no traces of Aiyubid military architecture, apart from the monumental entrance gate, the bridge, parts of the glacis and the remains mentioned above. Contrary to common belief, there are also no remains of the Aiyubid gateway, which is mentioned in the sources (Ibn as-Siḥna 42; Ibn al-ʿAḡamī 163), in front of the bridge. Indeed, the present late Mamluk gateway does not sit on a predecessor but on an Aiyubid bridge pier which later has been surrounded by a second layer of stones with separate machicolation boxes for defending the moat, probably by the early Mamluks. One can see the alignment of the pier and the later coating quite distinctly (Figure 5). As for the original location of the Aiyubid gate-

3. A first account of the documentation has been published by Gonnella (in press b).

4. Qalʿat Naḡm still awaits a detailed study. For further references see D. Sourdel, Qalʿat Naḡm in *The Encyclopaedia of Islam*, vol. 4. 2nd Edition. P. 482.



FIGURE 1. (left) Remains of Aiyubid masonry beneath a later Mamluk tower on the eastern side of the ring wall (Gonnella).

FIGURE 2. (below) Traces of the former Aiyubid ring wall in front of the Mamluk wall on the south (Gonnella).





FIGURE 3. Traces of the Aiyubid stepped wall to the east of the entrance gate (Gonnella).



FIGURE 4. Parts of the wall from the fortress of Qal'at Nağm on the Euphrates (Gonnella).

way, there is room to speculate. It can either be reconstructed on the location of the present late Mamluk gate but much smaller in scale or, more probably, it was situated on the land side right in front of the bridge.

These few Aiyubid remains make clear how comprehensive the Mongol destruction and consequent Mamluk restoration must have been. In fact, the monumental inscription which wraps around the Aiyubid entrance gate quite pompously declares the efforts of Sultan al-Asraf Ḥalil (r. 1290–93) in having completely rebuilt the citadel around 30 years after the Tartar invasion (Herzfeld 1954–55: 89–91, no. 40). Herzfeld had always considered the inscription to refer to the restoration of buildings inside the citadel. Believing hardly any structures from the early Mamluk period have survived, the art historian Yasser Tabbaa recently concluded that the inscription did not refer to any actual building activity at all, but was nothing more than a Mamluk ideological “prise de possession” (Tabbaa 1997: 75). However, the examination of the citadel wall and the towers shows that, on the contrary, the rebuilding program must have been quite extensive.

The examination has also revealed two main types of Mamluk masonry. The early one is constructed of plain stone blocks with a smooth surface and which are much smaller than the Aiyubid stones (Figure 5). Much use has been made of spolia, in particular column shafts. The later Mamluk masonry is very distinct: a very low bossed stone with smooth margins (Figure 6). This masonry has obviously been in use on the citadel since the time of Sul-



FIGURE 5. The lower part of the bridge tower showing the probably early Mamluk coating of the original Aiyubid bridge pier (Gonnella).



FIGURE 6. An example of late Mamluk masonry (Gonnella).

tan al-Asraf Qaitbāy (r. 1468–96) as can be seen on the large bastion tower in the north built under his reign (Herzfeld 1955: 100f., no. 49). The last Mamluk sultan Qānṣh al-Ġūrī (r. 1501–16) employed it abundantly for both his extensive work on the citadel and on the city walls (Herzfeld 1955: 61, no. 17; 69, no. 21; 73–75, nos. 27–29). Quite rightfully fearing the impending Ottoman threat, he had the entire town refortified. The same type of late Mamluk masonry can also be found on the Gaziantep citadel which had been rebuilt in large parts under Sultan Qaitbāy and which generally serves as a good comparison for late Mamluk military architecture in Northern Syria.⁵

The Excavations: the Islamic Periods

Apart from the architectural documentation it is, of course, the actual excavations that have yielded important information about the Islamic history of the citadel.

The main excavation site is situated in the centre of the citadel, being delimited on the west by the principal tourist path leading up to the Ottoman garrison and on the east by the modern theatre. This is basically the old trench of the French archaeologist G. Ploix de Rotrou, who worked on the citadel between 1929–31. It was cleared in 1996 and then enlarged to the east and north from 1997 (Kohlmeyer 2000: 21f.). An additional smaller trench

5. Also the citadel in Gaziantep still needs a detailed study. For now, see Meinecke 1992: 7 (no. 4/7), 281 (no. 25B/9), 423 (no. 42/33).

was opened in 1998 to the south of this site in order to follow the temple wall. It produced an important Mamluk hoard including quite well preserved bronze vessels, pottery and glass (see below and Kohlmeyer 2000). A third minor sounding was carried out in 1999 at a largely buried building discovered the previous year in the northeast quadrant of the citadel. The building is dated to *Dū l-Ḥiġġa* 643 (19 April–17 May 1246) by an inscription of the last Aiyubid sultan, an-Nāṣir Yūsuf II. (r. 1236–60) (Gonnella and Korn in press).

As for the main site, it is possible to discern five Islamic levels of which, however, only three have significant architectural remains.⁶

Level 1

The most recent level, Level 1, revealed a number of Ottoman courtyard houses which were obviously arranged in terraces, adapting to the natural terrain which gently slopes from north to south (See Khayyata and Kohlmeyer 1998: 87). In general, they follow the plan of the houses as one finds them in the old quarters of Aleppo with some of the rooms being furnished with the typical niches for cupboards or shelves (Figure 7). The excavators found a bathroom, a toilet and a good canalization system as well as a pretty courtyard fountain on the northern side of the trench (Figure 8). Traces of Ottoman dwellings appear practically everywhere on the citadel immediately under the surface.⁷ Probably many are the remains of houses in which the Ottoman soldiers lived on the citadel with their families, as described by various European travellers. The numerous *Kūtahya* coffee bowls and the Ottoman smokers' pipes found in the excavation layers give us a good idea on how the soldiers must have spent their time! Literary sources inform us that most houses on the citadel were abandoned after the dreadful earthquake of 1822 (*Ṭabbāḥ* III: 426). This information complies with the excavation results, as one of the walls had obviously slipped off during a tremor.

Level 2

Level 1 is a rebuilding or reconstruction of the burned Level 2, which can be traced back to the late Mamluk period.

Level 3

Both Level 2 and Level 1 have heavily disturbed Level 3. No single floor has survived but only remains of a foundation.⁸ Until now, this level cannot be dated securely and might be Aiyubid.

Level 4

For the moment, level 4 is the most interesting level. It revealed parts of a major building constructed of mixed stone and brick layers, a rather unusual technique for medieval Islamic architecture in Aleppo, possibly betraying a Byzantine influence (Figure 9). Like the Ottoman houses, this building is also arranged in terraces with parts of a tiled brick floor having survived. Of particular interest, however, is the large canal which was excavated with the building. It had been covered with square stones of which some are reused spolia from a church (Figure 10). This use of Christian church inventory could suggest a Mirdasid

6. Since our last campaign (2000), architectural remains can be attributed to every level.

7. The French had uncovered a number of houses in the west during the 1930s (Sauvaget 1941: 212 fn. 800).

8. The campaign of 2000 has now revealed several rooms in this level.



FIGURE 7. Ottoman houses on the north side of the trench (Gonnella),



FIGURE 8. The Ottoman fountain (Gonnella).



FIGURE 9. Remains of the Mirdasid (?) building (Gonnella).

date for this level. It is under the Mirdasids that the two churches on the citadel were converted into mosques (Ibn Saddād 121f.; Ibn as-Siḥna 73), and it seems likely that they have reused material from the churches in their architecture. Ibn Saddād mentions that the Mirdasids had prominent buildings (palaces?) constructed on the site (Ibn Saddād 81; Ibn as-Siḥna 41), yet up until now the only material evidence of this dynasty is an inscription presently in the citadel museum mentioning the ruler Abū Salāma Maḥmūd b. Nāṣr b. Sāliḥ, dated 465/1073 (Herzfeld 1955: 80f. no. 31 (figure 25); RCEA no. 2699).

The walls and floors of Level 4 are built upon a number of pits which contain numerous human bones and skulls, quite obviously the result of a massacre or an epidemic which we are not yet able to identify historically. The pits were then filled with bricks, mosaic pieces and pottery sherds—in particular Abbasid splashed ware. Since they were all subsequently levelled to produce a plane building ground it is impossible to identify the original surface of this stratum. The only evidence is a Byzantine coin from the late 10th or early 11th century (970–ca. 1035).⁹

Level 5.

Level 5 is again very meagre with only little architecture in two phases and pottery of the Byzantine and Umayyad period as well as an unspecified Umayyad fals.¹⁰

9. The coins of the excavation will be published by Stefan Heidemann in the first volume of the excavation series “Qal‘at Halab”, edited by W. Khayyata and K. Kohlmeyer.

10. Some architectural remains were found in the campaign 2000.



FIGURE 10. Church spolia reused as top of a canal (Gonnella).

The Finds

As one expects in this type of excavation, the finds are numerous including ceramics, glass, metalwork, stonework and objects of other materials. The pottery is abundant and covers every Islamic period. It is presently being classified by Robert Mason, who also carries out petrographic analysis and studies the Abbasid “splashed ware” group (for initial results see Mason and Gonnella 2000). Verena Daiber Talaab is working on the Sgraffiato pottery and will be finishing her Master’s Thesis on the subject shortly.

A particularly interesting group of pottery was discovered not in the excavation but in two medieval cellar rooms next to the excavation, which were emptied in 1997 to reach the ancient levels. These cellar rooms had evidently been used as a storage place for years, probably already under the French since a number of registered inscriptions with European numberings appeared (Gonnella in press a). Identified amongst the large quantity of pottery sherds was a very distinct and also rather substantial group of a Zangid or Aiyubid frit ware



FIGURE 11. Examples of the "Aleppo-Ware" (Gonnella).



FIGURE 12. Hoard of Mamluk bronze objects (Gonnella).

with polychrome underglaze decoration (Figure 11). This group is clearly related to the contemporary so-called “Raqqa-Ware” but uses decoration more sparingly, being confined to the rims and the centre of the bowl. In fact, only rim sherds and bases of bowls were found which unfortunately did not make up a complete piece, although three very small wasters were recovered. This, as well as the standardized form and decoration of this group, strongly suggest a local production which now has also been proven by petrographic analysis (Mason and Gonnella 2000).

One of the most spectacular discoveries was a hoard of Mamluk bronze objects (Figure 12), which appeared together with Mamluk pottery and glass in the trench south of the excavation site. It includes a heavy octagonal mortar with single handle, a bowl, a dish with a shallow vertical rim, parts of a lamp and a candlestick, as well as other minor objects. These objects are presently being restored in Berlin. X-ray photographs reveal that some of the objects are engraved and inlaid. Particularly attractive is the silver inlaid dish, measuring 27.5 centimeters in diameter, with epigraphic decoration in four interlaced cartouches around a central roundel with arabesque work (Figure 13). The inscriptions give standard titles of an unnamed Mamluk officer:

The honourable and lofty excellence
 the master, the amir
 the treasure trove of excellence, the learned
 the succourer of the state.

المقر الكريم العالي
 المولوي الاميري
 الذخري العالمي
 الغياثي (?) الدو[لة]



FIGURE 13. The decoration of the Mamluk dish revealed by x-ray photographs (Carmen Gütschow).

Around the outside of the rim runs a pseudo-inscription interrupted by four small roundels with floral decoration (Figure 14). Unfortunately, no date is given. The bold cursive script is typical of the 14th century. The tight spiral scrollwork below the inscriptions recalls the one on the basin of the Amir Tankiz in the Cairo Museum of Islamic Art, which is dated 740/1340 (Wiet 1984: 133f. no. 7852, plate XL). It is quite possible that this piece was made in Syria, and not in Egypt.

In the following seasons, the excavations will be expanded considerably. We expect to find clearer deposits and a more precise stratigraphy. This will no doubt turn Aleppo into one of the key-sites for the study of pottery and small finds in northern Syria.

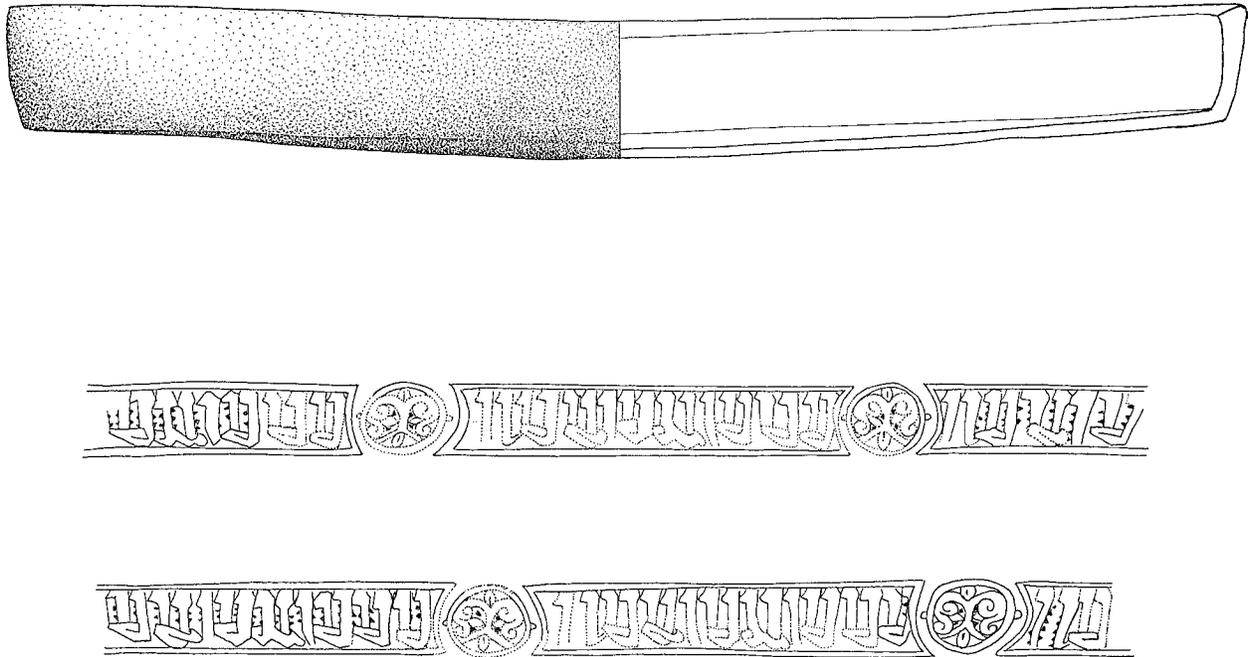


FIGURE 14. The rim of the Mamluk dish (Carmen Gütschow).

References

- Allen, Terry
1999 *Ayyubid Architecture*. 6th ed. (electronic publication). Occidental, California: Solipsist Press.
- Eddé, Anne-Marie
1999 *La principauté ayyoubide d'Alep (579/1183–658/1260)*. Freiburger Islamstudien 21. Stuttgart: F. Steiner
- Gaube, Heinz and Eugen Wirth
1984 *Aleppo. Historische und geographische Beiträge zur baulichen Gestaltung, zur sozialen Organisation und zur wirtschaftlichen Dynamik einer vorderasiatischen Fernhandelsmetropole*. Beiträge zum Tübinger Atlas des Vorderen Orients 58. Wiesbaden: L. Reichert.
- Gonnella, Julia
In press a Eine neue zangidisch-aiy bidische Keramikgruppe aus Aleppo. In *Gedenkschrift Michael Meinecke*. M. Barrucand and V. Meinecke-Berg, eds. Mainz: Philipp von Zabern.
In press b New Research on the Citadel of Aleppo. 11th International Congress of Turkish Art, Utrecht, 23–28 August 1999. *Electronic Journal of Oriental Studies*.
- Gonnella, Julia, Wahid Khayyata and Kay Kohlmeyer
2000 Die Zitadelle von Aleppo. In *Damaskus-Aleppo. 5000 Jahre Stadtentwicklung in Syrien*. M. Fansa, H Gaube, and J Windelberg, eds. Pp. 250–258. Mainz: Philipp von Zabern.
- Gonnella, Julia and Lorenz Korn
In press Eine neue Inschrift des an-Nāṣir Yūsuf II. auf der Zitadelle von Aleppo. In *Al-Andalus und Europa: zwischen Orient und Okzident*. Festschrift Christian Ewert. M. Müller-Wiener et al., eds. (forthcoming).

- Herzfeld, Ernst
1954–55 Matériaux pour un corpus inscriptionum arabicarum. Deuxième partie: Syrie du Nord. *Inscriptions et monuments d'Alep*. Mémoires de l'Institut français d'archéologie orientale du Caire, 36–38. Cairo: L'Institut français d'archéologie orientale.
- Ibn al-ʿAǧamī
1950 *Les trésors d'or*. Translated by J. Sauvaget. Matériaux pour servir à l'histoire de la ville d'Alep, II. Beirut: Institut Français de Damas.
- Ibn Saddād, ʿIzz al-Dīn
1991 Al-A'lāq al-Ḥaṭīra fī Dīkr Umarā' as-Sām wa'l-Ġazīra, vol. 1.1. Y. ʿAbbāra, ed. Damascus: Wizāra at-Taḳāfa, Dimasq.
- Ibn as-Siḥna
1933 *Les perles choisies*. Translated by J. Sauvaget. Matériaux pour servir à l'histoire de la ville d'Alep, I. Beirut: Institut Français de Damas.
- Khayyata, Wahid and Kay Kohlmeyer
1998 Die Zitadelle von Aleppo—Vorläufiger Bericht über die Untersuchungen 1996 und 1997. *Damaszener Mitteilungen* 10: 69–96.
- Klengel, Horst
1997 Die historische Rolle der Stadt Aleppo im vorantiken Syrien. In *Die orientalische Stadt. Kontinuität, Wandel, Bruch*. G. Wilhelm, ed. Pp. 359–374. Colloquien der Deutschen Orient-Gesellschaft, 1. Saarbrücken: Kommission bei SDV Saarbrücker Druckerei und Verlag.
- Kohlmeyer, Kay
2000 *Der Tempel des Wettergottes*. Münster: Rhema.
- Mason, Robert and Julia Gonnella
2000 The Petrology of Syrian Stonepaste Ceramics: the View from Aleppo. *Journal of Internet Archaeology* 9 (electronic publication). <<http://interarch.ac.uk/journal/issue9/index.html#20>>.
- Meinecke, Michael
1992 *Die mamlukische Architektur in Ägypten und Syrien 648/1250 bis 923/1517*. Glückstadt: Augustin.
- Sauvaget, Jean
1941 *Alep. Essai sur le développement d'une grande ville syrienne des origines au milieu du XIXe siècle*. 2 vols. Bibliothèque Archéologique et Historique 34. Paris: P. Geuthner.
- Tabbaa, Yasser
1997 *Constructions of Power and Piety in Medieval Aleppo*. Pennsylvania: Pennsylvania State University Press.
- at-Ṭabbāḥ, Muḥammad
1988–89[1408–9] Iḳlām an-nubalāʿ bi tāʿrīḥ Ḥalab as-Saḥbāʿ. 7 vols., 2nd. ed. [1341/1923]. Aleppo: Dār al-Qalam al-ʿArabī bi Ḥalab.
- Wiet, Gaston
1984 *Catalogue générale du Musée Arabe du Caire. Objets en cuivre*. Reprint. [1937]. Cairo: L'Organisation Égyptienne Générale du Livre.

Making the Invisible Visible: Nessana in the Early Islamic Period

JODI MAGNESS

Tufts University

“... when the nationalism of the succeeding Caliphs, coupled with the traditional Arab indifference to agriculture, began to be felt, it presaged the end of prosperity in the Negeb and the eventual return of that country to its original desert state. By the eighth century the decline had already set in and the curtain had begun to fall on Nessana and the other towns of the Negeb” (Colt 1962: 22–23).

The Excavations

The site of Nessana (Arabic: Auja el-Hafir), in the western part of the central Negev, was excavated between 1935–37 under the direction of H. D. Colt of the British School of Archaeology in Jerusalem.¹ According to the excavators, although Nessana flourished during the sixth and early seventh centuries, it declined rapidly after the Muslim conquest, and by the mid-eighth century was no longer an organized community. In this paper, I use Nessana as an example of a site where evidence for substantial early Islamic occupation was effectively rendered invisible in the final excavation reports.

The Colt expedition focused on the acropolis or citadel, where modern buildings constructed by Ottoman troops before and during World War I had severely damaged the ancient structures. The earliest remains discovered belonged to a building that the excavators identified as a Hellenistic (second century B.C.) fort, whose foundations were incorporated into the Byzantine church at the northern end of the summit.² The finds from the site reflect a period of prosperity in the first century B.C. and first century A.D., followed by a period of decline that lasted until the fifth century (Colt 1962: 16).³ According to Colt, the large fort (85 by 35 meters) that occupies most of the acropolis was constructed during the first quarter of the fifth century. It consisted of a large, open enclosure fortified with a wall and towers. The construction of rooms 33–43 on the western side suggests that they are contemporary

1. Two of the three volumes of the final excavation report are devoted to the more than one thousand papyri discovered at the site; see Colt 1962; Casson and Hettich 1950; Kraemer 1958.
2. A. Negev has proposed identifying this structure as a Nabataean temple of the Middle Nabataean period. According to him, D. Urman’s recent (unpublished) excavations have indicated that the monumental staircase leading from the lower city to the acropolis dates to the second half of the first century B.C., not to the Byzantine period as the Colt expedition assumed. Negev believes therefore that the stairs originally led to the Nabataean temple, not to the fort; see Negev 1993: 1146, 1148.
3. All dates are A.D. unless otherwise indicated.

with the fort, while the other rooms around the periphery appear to be later additions (Colt 1962: 16–17). The early fifth century date proposed by Colt for the fort's construction is based on a burial inscription of the priest Thomas, who died and was buried in the martyrion in 464. The martyrion is located in the southeastern corner of the complex containing the Church of SS. Sergius and Bacchus, the south wall of which was the batter wall of the old Hellenistic building and also served as the north wall of the fort. Since the architectural evidence indicates that the fort was erected prior to the church buildings, it must antedate 464, when the burial was made in the martyrion (Colt 1962: 16).⁴ According to Negev, the similarity in size between the citadels of Nessana and Avdat (Oboda) indicates that they were planned by the same imperial or provincial military office during the reign of either Diocletian or Constantine the Great. He believes that the fort at Nessana was abandoned before the mid-sixth century, when Justinian held back payments to the *limitanei* (Negev 1993: 1145–1149; cf. Colt 1962: 1–3, 13–16). However, Colt noted that the presence of Umayyad coins from some of the rooms in the fort indicates that it remained in use until the end of Nessana's occupation. Though it is not known how long the fort continued to serve a military function, the papyri indicate that there were no longer any troops in Nessana by about 600. Colt suggested that after its abandonment by the military, the fort was taken over by the Church, which used it as a monastery and perhaps added the rows of rooms along the eastern and western sides. The small finds from these rooms included many spindle whorls, fragments of mirrors and glass, and other household objects. However, the only weapons found in the entire excavations were a spear point from below the floor level of Room 11 and another from below the floor level of Room 15, both from contexts associated with the old Hellenistic building. Since there was no means of communication between the two, Colt assumed that the old Hellenistic building no longer served a military function when the fort was built. In fact, the old Hellenistic building seems to have been destroyed by the builders of the fort (Colt 1962: 17).

The next building operation on the hill after that of the fort was the construction of the Church of SS. Sergius and Bacchus (the North Church), and the range of rooms between it and the fort. The church occupied the same space as that of the Hellenistic building, and reused its foundations and parts of the lower courses of the external walls. The actual construction is of poor quality, with a significant amount of earlier material. The entrance to the complex was on the southern side of the atrium, or East Court, by way of the old monumental staircase. The space is equally divided between the church and the rooms to the south, the most important of which, Rooms 14 and 16, were originally one room. These were identified by the excavators as a martyrion. This identification is based on inscriptions engraved on the voussoirs of an arch which mention a “holy place” and “this Holy Martyrium”. The inscriptions are epitaphs of a priest named Thoamos and a deacon named Palladius. Among the burials found in these rooms is one dated 464, and another dated 475. These provide a *terminus ante quem* of 464 for the rooms' construction (Colt 1962: 18).⁵ The graffiti on the walls of Rooms 9 and 10 suggest that the chapel or martyrion was dedicated to St.

4. Papyrus Colt 15 mentions two brothers serving in the “Numerus of Very Loyal Theodosians” who came from Nessana and lived in Rhinocorura in Egypt. In Colt's view, the fact that this mounted military unit was activated in the early fifth century indicates that it was formed to garrison the fort at Nessana. However, according to B. Isaac and A. Negev, this papyrus could be understood as meaning that the brothers served in this unit while it was based at Rhinocorura. See Isaac 1998: 458–459, n. 92.

Sergius. St. Sergius was a popular soldier-saint during this period, and the Church of SS. Sergius and Bacchus is the only one mentioned in the papyri. The entire complex appears to have been constructed at one time. The presence of Umayyad coins in some of the rooms indicates that the complex remained in use until the end of Nessana's occupation, though it underwent many structural changes and numerous repairs. The papyri were found in Room 8, on the south side of the complex, next to Rooms 14 and 16 (Colt 1962: 18–19).

The first of three additions to the original church complex consisted of the chapel, the baptistery, the western end of the south court, and Rooms 3, 11 and 13. The chapel was at first roofed in the usual manner of slabs over arches, as indicated by the presence of arch-pilasters below the present floor level. Later, the floor was raised and a timber roof constructed. It was divided into two parts by a triple arcade, with the bema slightly higher than the main body of the chapel. The baptistery and the other additions to the west were built partly on a terrace held by a retaining wall. That part of the south court containing the staircase represents an extension of the original court, and any upper rooms over the southern range were also later additions. An abacus bearing an inscription dated to 601 that was found in the baptistery may indicate when these extensions were made (Colt 1962: 19).

The next series of additions, which almost doubled the size of the complex, included all of the area to the east of the central block, Rooms 38 and 63, the north court, and the two staircases. The structural material of these enlargements is far superior to that of both the original and the first additions. A very strong retaining wall was built to support the rooms to the east of the church. The east gallery was part of this addition. The large number of tesserae in the collapsed debris seems to indicate that there was an open terrace rather than an enclosed upper storey above the gallery. The great flight of steps down the side of the hill to the lower city was either constructed or reconstructed at this time, as it connects with the upper staircase. The last enlargement included the well at the extreme north end of the hill and the construction of a very heavy retaining wall to buttress the baptistery. The construction of the well involved raising the level more than eight meters to match that of the rest of the floor levels (Colt 1962: 19–20).

The Church of St. Mary (the South Church) is located on a separate hill to the south of the acropolis. Most of its walls were plundered for building material in World War I. An entrance on the north side of the complex led into a fairly small atrium. A single colonnade on the eastern side of the atrium formed a narthex. A door at the end of the southern aisle led into a chapel with two rows of three columns each and an apse detached from the back wall. A dated inscription of 601–602 mentioning Mary, the Mother of God, on a capital of one of the columns from the nave indicates that the church was probably built before then (Colt 1962: 20–21; Negev 1993: 1148). Papyri were discovered in Room 3, which is to the west of the chapel and south of the narthex (Kraemer 1958: 3).

Colt's Chronology

According to the final excavation report, there was a burst of building activity at the end of the sixth and beginning of the seventh centuries, reflecting considerable prosperity. The epigraphical evidence indicates that much of this activity took place during the years 601–

5. Negev has identified these two rooms as a mortuary chapel, suggesting that the Martyrium is the basilica itself, in which the remains of the saints were deposited; see Negev 1993: 1148.

605, when the existing ecclesiastical structures were added to and remodeled (Colt 1962: 21; Kraemer 1958: 26–29). According to the excavators, the initially tolerant attitude of the Umayyad caliphs did not continue for long after the Muslim conquest. By the mid-eighth century Nessana had ceased to be an organized community (Kraemer 1958: 35).⁶ This conclusion is based primarily on the evidence of the papyri, which fall into two groups dated ca. 602–608 and 674–690 (Kraemer 1958: 29). The post-Conquest archive contains about forty pieces dealing with taxation and compulsory public services, military affairs, private business, farming and personal matters (Kraemer 1958: 30). The evidence of Papyrus Colt 76 shows that the total population of the village in about 689 could not have exceeded 1500, and that the number was most likely smaller (Colt 1962: 22). This corresponds with the calculations made by Mayerson, who on the basis of the requisitions for oil and wheat estimated a minimum population of 900–1,000 (Mayerson 1962: 229). The organization now centered on the capital at Damascus, with the provincial capital at Gaza. All men except Muslims were subject to the following five taxes: ordinary; poll; land; upkeep of officials; extraordinary. The first four were paid in cash, and the fifth in grain. P. Colt 92 and 93 refer to a military unit in operation in or around the year 685, executing orders sent from headquarters in Damascus, Egypt, and elsewhere. The men were registered by tribe in the Arab manner, and they were part of the regular army. Other papyri indicate that farming continued as usual, with remarkable grain yields, and that the church continued to function to the end (Kraemer 1958: 32–35). The latest dated inscription is of 630 (Colt 1962: 22; Kraemer 1958: 29). Because the latest papyri are dated to ca. 690, the excavators concluded that Nessana was abandoned by the mid-eighth century (Kraemer 1958: 35).

The Pottery from the Colt Excavations

In addition to the papyri and inscriptions, proof for early Islamic occupation at Nessana is provided by numismatic, glass, and ceramic evidence. Ten coins described in the report as “Arabic” were found, all dated to the end of the Umayyad period (696–750) (Colt 1962: 23; Bellingier 1962: 75; unfortunately, the provenience of the coins is not provided). The glass vessels include numerous types of eighth to eleventh century date (Harden 1962: 76).⁷ According to Colt, most of the early Islamic pottery is Umayyad, with only two pieces that can be dated to the Abbasid period (Colt 1962: 23; for the pottery see Baly 1962: 270–303; the lamps were published by Colt 1962: 62–64). However, a review of the ceramic and other finds from Nessana suggests that the town continued to flourish long after the mid-eighth century.

The following analysis of the pottery from the Colt excavations is hampered by several factors. First, the published line drawings are sketchy, small in scale, and of very poor quality. This makes it virtually impossible to identify the types of glazed bowls represented, as well as to distinguish between some of the painted early Islamic Fine Byzantine Ware bowls and Coptic painted bowls. Second, although the provenience of the published pieces is provided, no levels are indicated, and there is no indication as to whether they come from above

6. Over the course of time, the excavators moved this date up; in the first volume, Colt stated that “by the eighth century the decline had already set in,” and “by the middle of the ninth century Nessana was no longer an organised community” (Colt 1962: 23).
7. To support their conclusion that Nessana was no longer an organized community by the mid-ninth century, the excavators argued that the early Islamic glass “could all very well fall in the earliest part of this period” (Colt 1962: 23).

or below floor levels. The fact that a few pieces are described as coming from the “Lower Level” of some rooms suggests that they are from below floor level, while the majority appear to come from above the floors. Third, the provenience cannot be determined in cases where no explanation is provided for the room abbreviation.⁸ Fourth, the fact that the pottery was published by type, with a separate grouping into wares, makes it very difficult to match the line drawings with the ware descriptions. Fifth, the fact that no provenience is provided for the coins means that a very valuable source of information is lost. Despite these problems, it is possible to reconstruct the ceramic assemblages by room.

The latest datable published ceramic types include: glazed bowls (see below); painted and plain early Islamic Fine Byzantine Ware bowls (see Magness 1993: 193–201, FBW Bowls Forms 1C-1F and 2); mouldmade, buff (“Mefjer”) ware jars and jugs (see Avissar 1996: 158–159, Type 6; Sauer and Magness 1997: 477–478); channel-nozzle oil lamps (see Magness 1993: 258, Oil Lamps Form 5); and steatite or black ceramic bowls (see Magness 1994).⁹ All of these have a range from the eighth to tenth centuries; the mouldmade, buff ware jars and jugs do not antedate the second half of the eighth century, while glazed pottery is very rare before the ninth century.¹⁰ The presence of substantial quantities of these types in the Nessana publication corresponds with D. B. Harden’s dating of large quantities of glass to the eighth to eleventh centuries and contradicts the excavators’ conclusion that the site was abandoned by the mid-eighth century.¹¹ Instead, Nessana appears to have flourished through the Abbasid period, and perhaps into the Fatimid period. The fact that the latest papyri found at Nessana do not postdate 700 does not mean that occupation did not continue long past that date. This is because although all of the papyri date between 602–608, and 674–690, we know that Nessana had been occupied for centuries before then. No one would argue on the basis of the papyri alone that Nessana was occupied only between 602–608 and 674–690! It is as unreasonable to conclude that the town was abandoned shortly after the date of the latest papyrus that happens to have been preserved and found as it would be to assume that it was not occupied before the seventh century.

As we shall see, the published pottery indicates that the area of the North Church and the fort were occupied into the ninth and tenth centuries. Colt suggested that after its abandonment by the military (by ca. 600), the fort was taken over by the Church, who used it as a monastery and perhaps added the rows of rooms along the eastern and western sides. He believed that this explained why the small finds from these rooms included many spindle whorls, fragments of mirrors and glass, and other household objects, but no weapons (Colt 1962: 17). However, these finds suggest that by the ninth and tenth centuries the fort was being used for domestic purposes, with no connection to either the church or the military authorities. In the final report, the Roman numeral one followed by Arabic numerals indicates that the room or space was located in the North Church or fort. The following ceramic types of eighth to tenth century date are published from rooms in this area: glazed bowls;¹² painted early Islamic Fine Byzantine Ware bowls;¹³ unpainted (usually spiral burnished),

8. For example, “III,” “X,” and “SB”; see Baly 1962: 282.

9. The steatite and black ceramic bowls from Nessana were published by Colt 1962: 60–61, who noted that the majority of small stone objects found consisted of bowls of this type.

10. On the date of the first appearance of Islamic glazed wares in Palestine, see Magness 1993: 204–205, n. 3; Sauer and Magness 1997: 478; Avissar 1996: 75–82; Magness 1997: 481–486.

11. Another piece of evidence is a personal communication from M. Sharon, cited by Oked, that the paleography of the Arabic inscriptions from Nessana indicates that occupation continued at least until the beginning of the ninth century; see Oked 1993: 11

early Islamic Fine Byzantine Ware bowls;¹⁴ locally-produced, deep, hemispherical cups of a relatively thin, hard-fired, gritty light brown or yellow ware;¹⁵ mouldmade, buff ware (“Mefjer ware”) jars and jugs;¹⁶ channel-nozzle oil lamps;¹⁷ and steatite or black ceramic bowls.¹⁸

The largest quantities of these types come from rooms 4, 7, 8, 12, 14, 21 and 31. These are the rooms around the southern and eastern periphery of the North Church complex, including the room with the papyri (8), and the East Gallery (21) (Room 12 is the first in the row of rooms along the western side of the fort’s courtyard). An intact channel-nozzle oil lamp was found “below [the] floor in I.10”, which was located just to the north of the two rooms identified by Colt as the martyrium (Rooms 16 and 14) in the North Church complex, and provided access to them (Colt 1962: plate 28.16).¹⁹ The lamp must be associated with the last phase of rebuilding noted in this room by the excavators:

The irregular line of the north wall of the Martyrium is remarkable, even in the architecture of this district and period where irregularity was the rule, but there is no trace of the wall having been moved from its original position, though there is evidence of a large amount of repair and rebuilding. The two arches flanking the doorway to [Room] 14 had arch-pilaster caps reused as their base stones and one of them has, set in its southern pilaster, a carved decorative stone so low as to be at least partly below floor level. It is obvious that Byzantine material would not be found reused in the earliest section of the building except as repair work, and from the re-building of several roofing arches it seems likely that a considerable collapse had

12. Baly 1962: plates 57.1, 61.4, 4a, from I.4; plates 57.5, 61.1, from I.7; plate 61.3, from I.12; plates 57. base, 61.2, from the East Court Cistern; plate 57.3, from outside the East Gallery; plate 57.2, from the North Gallery.
13. Baly 1962: Ware X; some of these are Coptic painted bowls; see plate 60.C1, from I.4; plates 60.B11, 61.D4, from I.7; plates 51.C1, 53.21, 60.C8, 60.B9, 61.D22–25, from I.8; plates 59.9 (apparently Coptic), 61.D21, from I.9; plates 50.2, 60.B2, B3, B17, 60.C15, 61.D6, D13, from I.12; plates 51.A1; 53.16, 19, 60.B7, B16, 61.D26, from I.14; plate 60.B4, 60.C5, from I.15; plates 50.2, 4, B14, 51.A4, A8, C4, C5, 60.B5, B10, C9–11, 61.D8–9, D15, from I.21; plate 60.C3, from I.22; plate 60.B12, from I.27; plates 51.C3, 60.B13, from I.29; plates 50.5, B1, 51.B, 53.15, 60.B8, B14, C2, C7, from I.31; plate 60.B15, from I.32; plate 60.C4, from outside the East Gallery; plates 50.S, 60.B6, 61.D27, from the North Wall; plate 61.D28, from the West Wall; plate 60.C6, from the North Church. See Magness 1993: 170, 193.
14. Baly 1962: Ware X; see plate 58.31, from I.4; plate 50.6, Bases 1, from I.7; plate 51.C6, from I.12; plate 50.B2, B15, from I.15; plate 53.17, from I.21; plate 50.A1, from I.29. See Magness 1993: 193–201.
15. Baly 1962: plate 51.A4, from I.9; plate 51.A3a, B3, from I.21. These are early Abbasid “Mahesh ware”, imitations of the deep, hemispherical, early Islamic Fine Byzantine Ware cups and bowls; see Whitcomb 1989: 281, Fig. 4.a-o (some of which have painted designs); Magness 1993: 193–201. For other examples, see Nevo 1991: plates 3.13–19; 6.16–20.
16. Baly 1962: plate 61.7, from I.4; plate 61.6, from I.14; plate 61.1–2, 5, 8, from I.21; plate 61.3, from I.31; plate 61.4, from the South Church; plate 61.9, from the North Wall. For this type, see Avissar 1996: 158–59, Type 6; Sauer and Magness 1997: 477–78.
17. Baly 1962: plate 28.18 from I.1; plate 28.21, from I.21; plate 28.20, from I.32; plate 28.19, from the Fort Cistern. For this type, see Magness 1993: 258, Oil Lamps Form 5.
18. Colt 1962: plate 26.6, from I.4; plate 26.7, from I.21; plate 26.4, from I.31. For this type, see Magness 1994.
19. The very high tongue handle and rounded rather than oval shape of the body point to a relatively late (ninth to tenth century) date for this lamp; see Magness 1993: 258, Oil Lamps Form 5.

occurred . . . The floor of the Martyrium was 40 cm. below that of the entrance room, Room 10, and no stone paving was found, nor the cement bed of any (Kendall 1962: 40).

The presence of this oil lamp below the floor of Room 10 suggests that substantial reconstruction and repair work was still being carried out in the ninth to tenth centuries. In addition, a nearly complete Islamic saucer oil lamp was found in Room 15, which is located next to and to the west of Room 7, on the south side of the North Church complex. It represents the earlier variant of this type, which is characterized by a large oil container and rounded or flattened base, and dates from the eighth to tenth centuries (Colt 1962: plate 28.24; see Avissar 1996: 196–197).

The pottery published from the South Church (referred to by the Roman numeral two), attests to eighth to tenth century occupation there as well. This pottery includes: painted early Islamic Fine Byzantine Ware (or Coptic) bowls;²⁰ unpainted (usually spiral burnished), early Islamic Fine Byzantine Ware bowls (Baly 1962: plate 50.B8, from II.1); and mould-made, buff (“Mefjer”) ware jars and jugs (Baly 1962: plate 61.4, which appears to bear an Arabic inscription). Finally, a considerable amount of early Islamic pottery is illustrated from Area “X,” the identity of which is not provided in the publication. It includes painted early Islamic Fine Byzantine Ware (or Coptic) bowls;²¹ mouldmade, buff ware (“Mefjer ware”) jars and jugs (Baly 1962: plate 61.1); and channel-nozzle oil lamps (Colt 1962: plate 28.17).

Conclusion

Nessana was not destroyed at the time of the Muslim conquest, and did not suffer a decline or abandonment in the wake of the conquest. In addition, the case of Nessana illustrates the potentially misleading nature of the numismatic record and/or written documents, including epigraphic evidence. Because the latest papyri recovered date to 690, the latest dated inscription is of 630, and the latest coins are Umayyad (696–750), the excavators concluded that the town was no longer an organized community by the mid-eighth century. This conclusion was influenced by the notion that the town declined after the Muslim conquest. However, the published ceramic and glass finds from Nessana provide clear evidence for continued occupation at least until the ninth to tenth centuries.

References

- Avissar, Miriam
 1996 The Medieval Pottery. In *Yoqne'am I. The Late Periods*. Amnon Ben-Tor, Miriam Avissar and Yuval Portugali. Pp. 75–172. Qedem Reports 3. Jerusalem: Hebrew University.
- Baly, T. J. Colin
 1962 Pottery. In *Excavations at Nessana*, vol. 1. H. Dunscombe Colt, ed. Pp. 270–303. London: British School of Archaeology in Jerusalem.
- Bellinger, Alfred R.
 1962 Coins. In *Excavations in Nessana*, vol. 1. H. Dunscombe Colt, ed. Pp. 70–75. London: British School of Archaeology in Jerusalem.

20. Baly 1962: plates 50.3, B12, 60.C13, 61.D2, D16, from II.1; plates 50.1, 61.D1.

21. Baly 1962: plates 50.3, A10, B13, 51.A2, C2, C3a, 53.18, 60.C12, C14, 61.D3, D7, D11, D14, D17, D18.

- Casson, Lionel, and Ernest L. Hettich, eds.
 1950 *Excavations at Nessana*, vol. 2. Literary Papyri. Princeton: Princeton University.
- Colt, H. Dunscombe, ed.
 1962 *Excavations at Nessana*, vol. 1. London: British School of Archaeology in Jerusalem.
- Harden, Donald B.
 1962 Glass. In *Excavations at Nessana*, vol. 1. H. Dunscombe Colt, ed. Pp. 76–91. London: British School of Archaeology in Jerusalem.
- Isaac, Benjamin
 1998 The Army in the Late Roman East: The Persian Wars and the Defence of the Byzantine Provinces. In *The Near East Under Roman Rule. Selected Papers*. Benjamin Isaac, ed. Pp. 437–469. Leiden: Brill.
- Kendall, Welbury
 1962 Architectural Report. In *Excavations at Nessana*, vol. 1. H. Dunscombe Colt, ed. Pp. 25–47. London: British School of Archaeology in Jerusalem.
- Kraemer, Jr., Casper J.
 1958 *Excavations at Nessana*, vol. 3. Non-Literary Papyri. Princeton: Princeton University.
- Magness, Jodi
 1993 *Jerusalem Ceramic Chronology circa 200–800 C.E.* Sheffield: Sheffield Academic Press.
 1994 The Dating of the Black Ceramic Bowl with a Depiction of the Torah Shrine from Nabratein. *Levant* 26: 199–206.
 1997 The Chronology of Capernaum in the Early Islamic Period. *Journal of the American Oriental Society* 117: 481–486.
- Mayerson, Philip
 1962 The Ancient Agricultural Regime of Nessana and the Central Negeb. In *Excavations at Nessana*, vol. 1. H. Dunscombe Colt, ed. Pp. 211–269. London: British School of Archaeology in Jerusalem.
- Negev, Avraham
 1993 Nessana. In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, vol. 3. Ephraim Stern, ed. Pp. 1145–1149. New York: Simon and Schuster.
- Nevo, Yehuda. D.
 1991 *Pagans and Herders, A Reexamination of the Negev Runoff Cultivation Systems in the Byzantine and Early Arab Periods*. Jerusalem: Israel Publication Services.
- Oked, Sarit. H.
 1993 *The Pottery of the Late Byzantine and Early Arab Periods at Tel Nessana*. M.A. dissertation, Bar-Ilan University (in Hebrew).
- Sauer, James A. and Jodi Magness
 1997 Ceramics: Ceramics of the Islamic Period. In *The Oxford Encyclopedia of Archaeology in the Near East*, vol. 1. Eric M. Meyers, ed. Pp. 475–479. New York: Oxford University.
- Whitcomb, Donald
 1989 Mahesh Ware: Evidence of Early Abbasid Occupation from Southern Jordan. *Annual of the Department of Antiquities of Jordan* 33: 269–285.

Islamic Archaeology in Lebanon

SAMI EL-MASRI

American University of Beirut

Islamic archaeology in Lebanon is unknown terrain to most archaeologists in the field. In fact, our knowledge of the rich Islamic heritage of the country is restricted to the unrevealing architectural drawings of important sites like Anjar, Sidon and Tyre. The main concern of the archaeologists working in Lebanon was, and still is, the investigation of the distinctive Phoenician past of the country. In 1994, large-scale urban excavations opened the way for new studies on the Islamic archaeology of Beirut. The city was an important link between East and West, and this projected directly onto the formation processes of the medieval settlement and the character of its material culture. Such a link will help us understand the nature of the historical environment of the area during the centuries of Islamic rule. It will attempt to draw together the data from other medieval cities for the purpose of understanding the courses of cultural and economic interchange.

Islamic Lebanon, Past and Present

Islamic Archaeology in Lebanon, from the perspective of the academic researcher, is often associated with the history and archaeology of the medieval city of Tripoli (Salamé-Sarkis 1980). Since then, we have witnessed no serious and comprehensive work dealing with the medieval archaeology of the country, beside some short reports describing material finds from Islamic strata. The latter overlie “more interesting” Bronze Age and Iron Age remains, which receive continuous attention from both the national and the international scientific community, as well as from the antiquities’ authorities.

The present condition of the Islamic archaeological record is not to be praised. Published manuscripts relating to the excavations of important medieval settlements, like Anjar and Baalbek in the Beqaa valley and Sidon and Tyre on the coast, consist of preliminary reports introducing a summarized history of the sites and a general topography of the main architectural features uncovered through excavation. A thorough interpretation of the archaeological stratigraphy and associated finds is still to be undertaken.

Lately, in the historic city Beirut, the international organization UNESCO provided the logistic support for archaeological inquiry in the post-war city center. Medieval remains have nevertheless been sledge-hammered in order to disengage the underlying Classical period features, mainly to construct a one-phase site and a simplified urban history, which better fits the landscaping tastes of the developing company responsible for the re-construction of the city-center.

Do these factors make Lebanon a country unattractive for the archaeology of the Islamic period? Does the country, and its cultural resources, lack the potential for serious archaeological work? In this paper, I shall try to point out the significance of the Lebanese

archaeological record and its contribution to the understanding of the history of the area during the centuries of Islamic rule. I shall focus mainly on my research at the site of medieval Beirut, which was based largely on the study of the archaeological material from a number of excavations.¹

Islamic Beirut

“Beirut is a city on the Bahr al-Rum. It has palms, sugar cane, ample provisions and a vivid maritime trade; it is a prosperous and fortified city with a strong wall, cheap prices and good inhabitants who defend themselves well from their enemies.” This is how Ibn Hawqal, writing in the tenth century, depicted Beirut (*Kitab Surat al-Ard*, 116). Throughout most of its medieval history, Beirut held an image close to this one. Despite its small size and modest political importance with respect to the more prestigious coastal cities of Tyre, Sidon and Tripoli, Beirut played an important role in the politics and trade of the time. It eventually succumbed to the Crusaders, who besieged it on two occasions (1110 and 1197) and incorporated it into their Eastern Latin Kingdom.

When Sinjar al-Jiyya⁵ entered Beirut in 1291 carrying the banner of al-Malik al-Ashraf Khalil, it was a fortified city with a strong *qala‘a* that he conquered from the Franks. He thereafter demolished the walls and the citadel to prevent the Crusaders from regaining a strong foothold in the city in the future. From that point on, Beirut was to remain in Muslim hands, but was often the object of Frankish raids from the sea, which were more acts of piracy than large scale Crusades (Ibn Yahya, *Tarikh Bayrut*, 19).

Thereafter Beirut’s role became increasingly commercial. This is confirmed by the testimony of Salih ibn Yahya (d. 1436), the local historian of the city, who described Beirut as being *dar sina‘at dimashq* (Ibn Yahya, *Tarikh Bayrut*, 12). A number of Damascene merchants were additionally conducting their trade in the city, and the large reserves of spices brought over from the East to Damascus were transferred to Europe via Beirut. The Venetians had large stocks of merchandise stored in the city, while other trading communities like the Catalans and the Cypriots had merchants and consuls residing there. Literature concerning the economic exchange of goods to and from Beirut abounds, but how is this reflected into the archaeological record? Perhaps our most complete evidence on such activities lies in the medieval stratigraphy and the finds rather than in the historical documentation, which is often silent on aspects of daily life in the city.

The Medieval Topography of Beirut

The Beirut that appears on the British Army maps of the 19th century is faithful in topography and size to the medieval city (Davie 1987). It is only during an expansion phase in the late 19th century that the walls were partly demolished along with many old quarters in the city. We have, consequently, a clear idea of the physiognomy of Beirut and its general layout during the medieval period through the maps available to us. From the historical sources at hand, and from new information which lately came to light through excavation, it is possible to determine the character of the various areas within the city and outside of it (Figure 1). We can distinguish fortifications, at least two major industrial areas, an area of

1. Bey 006, 010 and 086. Special thanks are due to the directors of the excavations, namely Dr. Helga Seeden (American University of Beirut), Dr. Hussein Sayegh (Lebanese University) and Dr. Hans Curvers (University of Amsterdam), for making the material available for study.

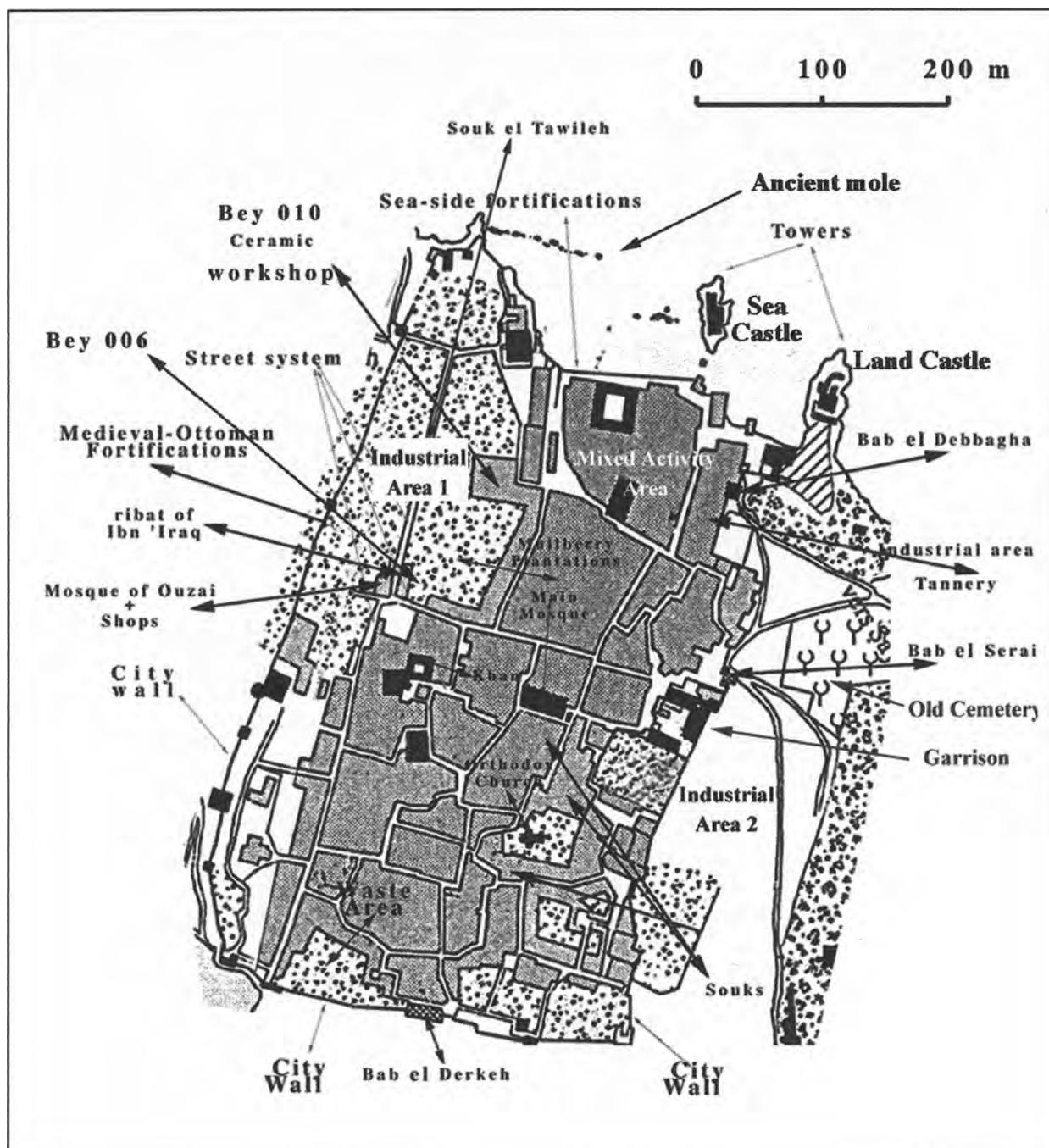


FIGURE 1. Medieval topography of Beirut. Map annotated and based on the British Army map of 1841 and on data from the various excavations in Downtown Beirut (Davie 1987: figure 3; el-Masri 1999: 1–79).

mixed activity incorporating residential, commercial, and religious functions, an area largely occupied by the soldiers or a garrison protecting the city, various souks and religious buildings scattered all across town, at least one old cemetery, open areas of waste fallow land, and an intricate network of streets and alleys.

Two main industrial areas were uncovered during excavation. The first one was active in the late 10th to early 11th century and again from the late 12th to the 14th century. This

area was located on the fringes of a large waste area of fallow land located in the northwestern part of the city. Pottery as well as glass production workshops were established there.

The second industrial area was situated outside the city walls, on the eastern side of town. Extensive deposits of glass and pottery as well as a large pottery workshop were found there. Ceramic production stretched from the Crusader to the Mamluk period. It is also possible that part of this industry was located intramurus, alongside the southeastern fortifications of the city (el-Masri 1999: 1–61).

Pottery from the Beirut Excavations

The study of the ceramic material from a number of excavations in Beirut has provided a better understanding of the nature of local production and types of foreign imports. The question of local productions intended for daily use was thoroughly addressed. Since common ceramic styles tend to have a longer life span compared with the more finely produced items, many common pottery types seem to have survived for centuries with little noticeable change. This slow development or change can, however, be identified if detailed analysis of excavation material is undertaken. In this paper, I shall discuss the data related to the kitchenware variety: the cooking pots and the pans.

Kitchenware pottery has a wide distribution across the eastern Levant. It is attested at sites such as Acre, Athlit, the Monastery of St. Carmel, Caesarea Maritima, Ajlun, Amman, Tell Arqa, Tripoli, Hama and al-Mina, and is often represented with assemblages occurring between the 10th and 14th centuries. The characteristic hard reddish fabric with sandy inclusions identifies the ware. Early varieties were, however, recovered in contexts contemporary with the second half of the seventh century (Frierman 1975: 49, no. 81), as well as in eighth century deposits (Loffreda 1983: 360–363, figures 7 and 9). This suggests a steady development beginning with, at least, Roman period kitchenware tradition and making its way well into the 14th century.

Kitchenware pottery recovered from late 10th to early 11th century deposits at Beirut is very common for the period, and forms part of a large and representative, yet poorly known, assemblage. The thin bodied cooking pots and pans with their distinctive beaded to slightly everted rims changed significantly during the subsequent Crusader and Mamluk periods (Figure 2). It is now possible to identify characteristic types for specific periods, and which varieties traveled over large areas of the eastern Levant through trade and commercial exchange. Petrographic analysis of kitchenware samples has shown that types as common as cooking pots and pans were traded over long distances, sometimes in spite of the presence of active and comparable local productions at other urban centers (Stern 1997: 37; Bartl et al. 1995: 172, 176; Northedge 1981: 461). I would like to refer here to the movement of cooking wares from Lebanon southwards to Palestine, and from coastal north Syria into northern Mesopotamia and further afield. Because of strong regional variations, particular types of cooking wares from northeast Levant can be differentiated from their southern counterparts. Characteristic types from Iraq and north Syria like, for example, the so-called “kerbschnitt Muster” decorated cooking pots from Samarra (Sarre 1925: 21; figure 65) or pots with ribbed cylindrical bodies and flat ledge handles,² are missing from the assemblages of Lebanon, Palestine and Jordan. There are innumerable variations in the shapes of the cooking pots, and this should relate to chronological as well as regional differences. The ledge-handle cooking pot seems to have a life span extending from the beginning of the eighth century until the tenth century, as the data from the excavations suggests. The geographical

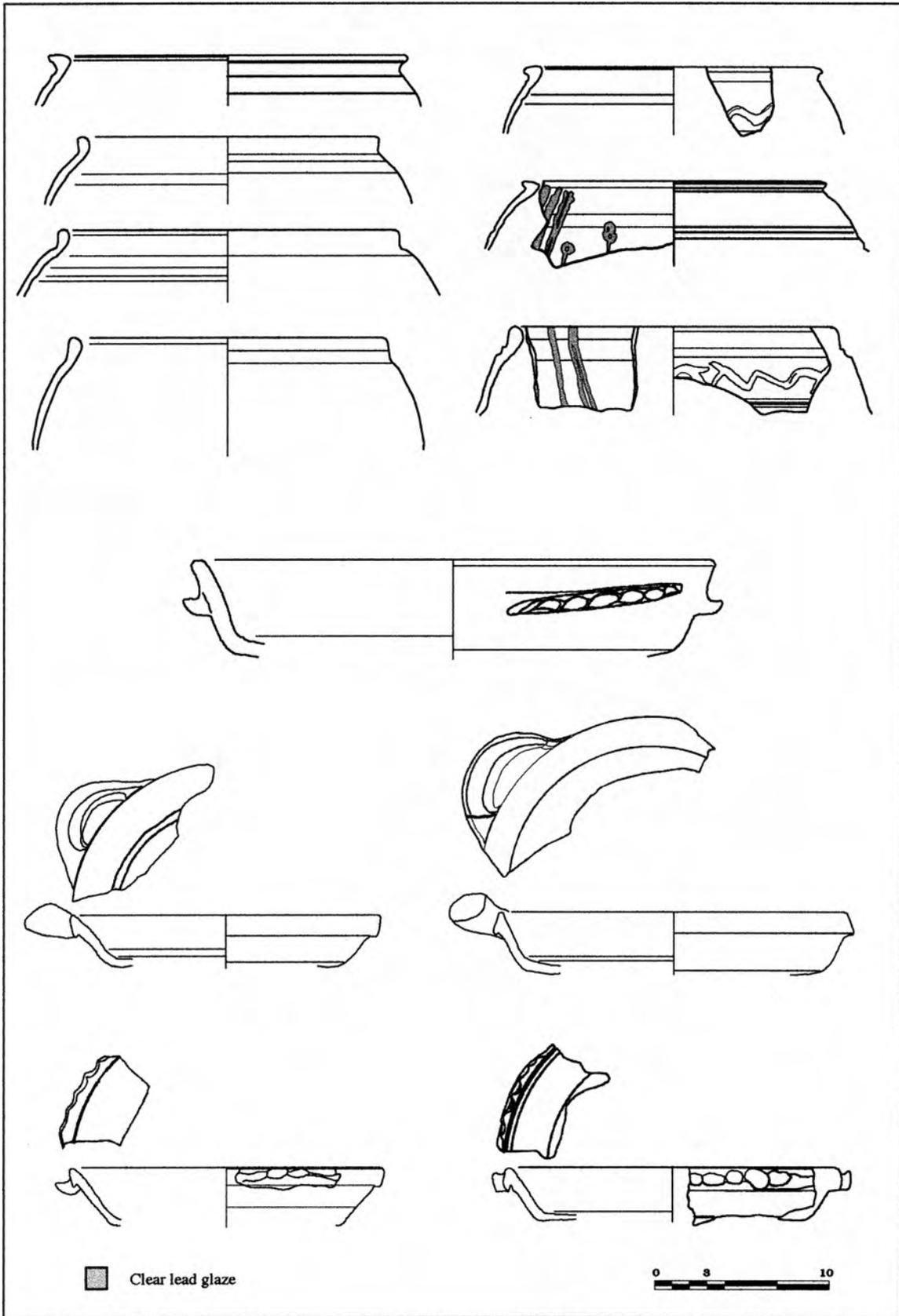


FIGURE 2. Late 10th to early 11th century cooking pots and pans.

distribution is restricted to north Syria and Iraq. The discovery of a vessel of the same variety at Deir ʿAlla, however, raises the prospect of limited penetration of these types into Jordan (Franken and Kalsbeek 1975: 82, figure 16 no. 4).

In Iraq, the representation of the ledge-handle cooking pot is limited, thus suggesting a north Syrian provenance. Both Adams and Northedge share this view (Adams 1970: 96; Northedge 1981: 461). They base their interpretations on the fact that this particular type and other red wares “occur in small numbers at Abu Sarifa and other sites in the Nippur region”. In fact, petrographical and chemical analysis of a large number of “brittle ware” samples from 50 sites in North Syria (between the Euphrates and the Iraqi and Turkish borders) identified a number of production centers situated between the Euphrates and the Khabur, while one center was located near the Mediterranean coast (Bartl et al. 1995: 172–176). The samples analyzed are chronologically heterogeneous. The results suggest a long period of activity for some of the centers of production.

The scenario is significantly different once we move towards the south. Deposits from the fourth to the tenth centuries in Lebanon, Jordan and Palestine reveal another type of cooking pot in common use there. This is an open form with thin walls, a hemispherical body and horizontal loop handles attached to the rim or slightly underneath it. The characteristic fabric is the reddish kitchenware, but orange-buff fabrics common to Byzantine Amphorae as well as a gray ware of the Umayyad period (e.g., Jerash, the North Theater) were used to produce the same type of pots. The chronological span of this variety extends from the early Roman period (Phase A at Samaria-Sebaste; Hennessy 1970: 6–9; figure 7 no. 31) down to the tenth century.³

It appears that this type of cooking pot was quite popular in Jordan, Palestine (where its chronological range extends into the tenth century at Abu Gosh; de Vaux 1946: 22–23; figures 15–18) and Lebanon (Beirut, sixth century deposits; Tell Arqa, seventh century pottery; Thalmann 1978: 45, 47–48; figure 39 no. 9). Its production must have died out by the end of the 10th century, because it is missing from late 10th to early 11th century deposits at Beirut and from 11th century deposits on the Amman citadel. In fact, globular cooking pots with basket handles and finger impressed ledge handles stand out as the common cooking pots in use during this period (Amman, 11th century deposits; Northedge 1992: 143–144; figures

2. Found at Al-Mina (Lane 1937: 41–42, figure 5.C and F), Qasr al-Heir al-Sharqi (Grabar et al. 1978: 112–113, figure B, nos 5 and 11), Dibsi Faraj (Harper 1980: 334–335; figure D, nos. 65 and 66, early Abbasid), Raqqa (al-Ush 1961: 41, figure 4, no. 19, end of eighth to beginning of ninth century), sites of the Tell Rifaʿat survey in North Syria (Northedge 1981: 468; figure 245, nos 8–11), Tulul al-Ukhaidir (Finster and Schmidt 1976: 111; Abbildung 45 no. 1; Tafel 50a, eighth to beginning of the ninth century), Tell Abu Sarifa (Adams 1970: 96; figure 5 no. I, A.D. 800–950), Samarra (Sarre 1925: 21; Abbildung. 65, ninth century), ʿAna in Iraq (Northedge et al. 1988: 83, 90; figure 39, Samarran-Abbasid period, i.e., the ninth century), as well as at a number of sites located in north Syria, the Euphrates valley, the Balikh, the Khabur, and the Wadi Agig area, for which see Bartl’s survey of some material from these areas (Bartl 1995: 165–168; figure 3, no. 10).
3. Examples abound, and have been excavated at sites like Sbaita (Crowfoot et al. 1957: 23–24; plate IV no. 7, fourth century A.D.), Jerash (the Sanctuary of Artemis, Pierobon 1986: 185, 187, figure 10 no. 5, Umayyad “red wares” of the first half of the eighth century; kilns of the North Theater, Schaefer and Falkner 1986: 431; figure 13, nos 1–5), Jerusalem (Hamilton 1942: 9–10, figure 6, no. 8, Byzantine), Khirbet al-Mafjar (Baramki 1942: 71; figure 13, Ware 18 a, b, c, eighth century; or ninth century according to Whitcomb 1988: 53–59, figure 1, phase 2), as well as at Amman (different varieties from the eighth to the end of ninth or the beginning of the tenth century).

137, nos 5, 6; 141 no. 2; 146–148; 151 nos. 2 and 3). The cooking bowl under discussion is not attested at sites in north Syria and Mesopotamia. This might suggest a production and diffusion area restricted to the southern Levant.

To summarize the previous discussion, several types of cooking pots in use at sites in northern Syria and Mesopotamia appear to have no diffusion on coastal sites further south or at sites situated in Jordan. We refer here to the cooking pots with flat ledge handles. These types seem to be substituted by the open bowl forms with loop handles. However, they seem to be slowly replaced by the cooking pots with globular shapes and plain rounded rims. Several types found in Palestine, Jordan and Lebanon during the 10th to 11th centuries were also found in north Syria and Iraq (the cooking pot with triangular lip and strap handles). Does that suggest the presence of a standardized production of kitchen ware vessels all over the area with local workshops scattered around important urban centers, or does it indicate the presence of regional production centers situated in various parts of the eastern Levant with their own distribution areas? The second suggestion seems more plausible, particularly in the case of the 10th and 11th centuries. One can identify at least two major production and distribution areas; the first is restricted to north Syria and Iraq, while the second is reserved for the south and concentrated in Lebanon, Palestine and Jordan. This well-partitioned distribution pattern did not prevent the penetration of some products of a specific area into the other. In the case of the decorated wares, however, the pattern of production and exchange is largely different.

The pottery of the late 12th to early 13th century is commonly described in excavation reports dealing with the archaeology of the Crusader period. Consequently, there is an abundance of comparative material, particularly from Jordan, Palestine and Lebanon. But the chronology of the assemblages belonging to the late 12th, 13th and 14th centuries is often misleading. In fact, there is a tendency among scholars to squeeze the assemblages of the late 12th century, and those of the 14th century, into the 13th century. Moreover, based on the fact that many classes of pottery remained in production throughout these centuries, archaeologists have not put enough effort into identifying criteria of differentiation, but rather have quoted each other in the chronological attribution of wares to historical periods.

In this phase, the kitchenware cooking pots and pans are the products of workshops with a continuous tradition (Figure 3). They are attested at several sites in Lebanon, Jordan and Palestine.⁴ The common characteristics are the thin bodies, the vertical to incurving rims with plain lips, and the slim, slightly everted rims. The fact that this particular variety of cooking pots did not form part of the 13th to 14th century assemblages from Hama (Riis and Vagn Poulsen 1957: 240, figure 840) or from Athlit (Johns 1934: 144, plate LVII, figure 3) suggests that they are earlier. This argument is further endorsed by the shapes of the pans where thin rims with rounded or angular lips are also missing from the Hama assemblages. In fact, the shape of the pan at Hama is more in concordance with mid to late 13th century examples (Riis and Vagn Poulsen 1957: 240, figure 841). New material from the courthouse

4. Among the most important are the sites of La Fève (Kedar and Pringle 1985: 178–179, figure 4, no. 4, 12th to 13th century), Caesarea (Levine 1986: 71, 78, figure 4, nos 2, 3, 8 and 11; Pringle 1985: 176–177; figure 2, no. 7, 12th to 13th century), Tell Yokne'am (Ben-Tor et al. 1978: 70, figure 6 no. 13; 1979: 76–77, figure 5, no. 12, mid 12th to mid 13th), Tell Arqa (Hakimian and Salamé-Sarkis 1988: 25, figure 11 no. 6; 23–25, figure 11, nos 1–4, early 13th), Samaria-Sebaste (Crowfoot et al. 1957: 364, figure 84A, no. 11, early 13th century), Paphos (Megaw 1971: 125, figure 3; 125, figure 2, 7, and Megaw 1972: 334, figure D, pottery from 1222 destruction contexts).

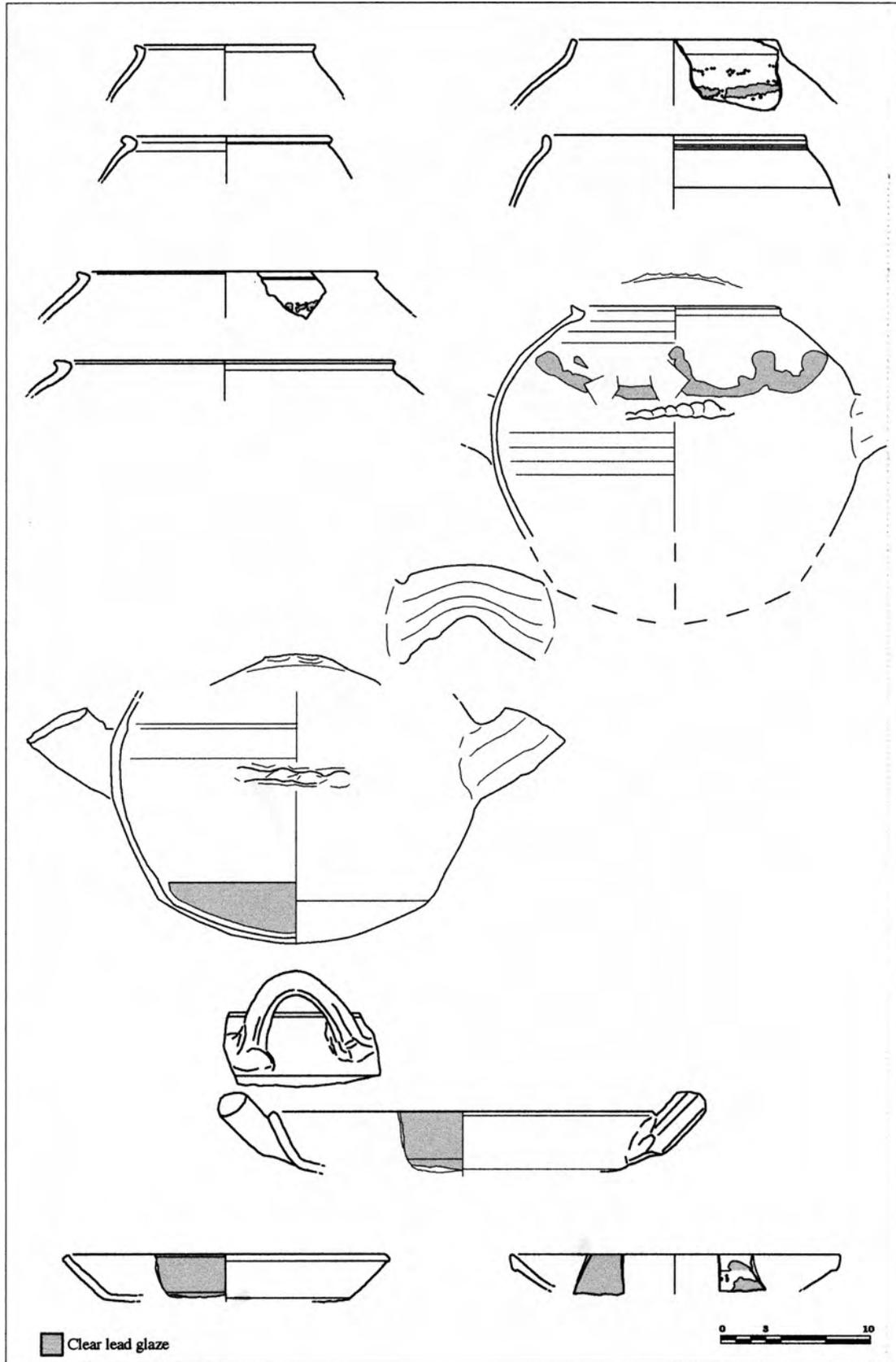


FIGURE 3. Late 12th to early 13th century cooking pots and pans.

site at Acre is particularly indicative of the 13th century. If we compare that material with the late 13th century pottery assemblages from Beirut, a date in the second half of the 13th century seems more satisfactory.

The late 12th to early 13th century cooking pots were slowly replaced by new varieties with a characteristic Y-shaped thickened rim particularly adapted to the application of a lid. These types are often associated with deposits belonging to the mid- to late-13th century and remaining in use during the 14th century, but with significant changes. The radical shift from a simple rounded rim or slightly everted rim to a significantly thickened rim in the shape of a 'Y' raises the question as to whether these new forms were the products of a another provider of cooking pots, and whether their appearance resulted from the decay of the traditional provider. The limited presence of one type of cooking pot with a rounded rim echoing the earlier tradition argues in favor of this proposition but is not at all conclusive (Figure 4).

The late 13th century cooking pots from Beirut have parallels at sites like Tell Yokne'am (Ben-Tor et al. 1979: 74–76, figure 5 no. 6), St. Mary of Carmel (Pringle 1984: 99, figure 5 no. 30) and Horvat 'Usa (Ben-Tor 1963: 23, figure 12 no. 3). Close examples were found at Acre as well (Stern 1997: 40–43, figure 5 nos 31–33). They were probably supplied by a different production center with its own variants or were otherwise the products of the 14th century.

The dissimilarities between the cooking pots from the courthouse site at Acre and the varieties from Site D suggest that both assemblages are chronologically different. In fact, some of the late 13th century cooking pots from Beirut are identical to the types shown by Pringle (1997: 139, figure 6 nos 12, 13). This proves that the deposits from Site D are closer to the Beirut examples than those from the courthouse site (Stern 1997: 40–43, figure 5). The absence of fritware (Syrian underglaze decorated pottery) from Site D suggests that the deposits are relatively earlier and that they predate the late 13th century.

The pans of this period show a deviation from the earlier examples of the late 12th to early 13th century. They are attested at various sites,⁵ and seem to have remained in use for a long time without significant changes. These pans are reliable chronological indicators of the later part of the 13th century and the early 14th century. They are similar to the pans from Acre, site D (Pringle 1997: 139, figure 7 no. 17).

The 14th century deposits suggest a continuity of forms and productions from the late 13th century as well as the introduction of new types that are characteristic of the 14th century. The cooking pots with the thickened rims in the shape of a 'Y' remain in production and use but show some slight changes in the shape of the rim (Figure 4).

The new types have either everted rims, or thickened rims but without the deep depression on the top of the lip. They have many parallels,⁶ and are often referred to as 13th century productions. The evidence from Beirut and from Tripoli proposes a later date for this variety of cooking pots, namely the 14th century.

5. Acre (Stern 1997: 43, figure 5, no. 38), Tripoli (Salamé-Sarkis 1980: 213, figure 38, no. 4, late 13th-early 14th), Athlit (Boas 1991: 164, figure 23 no. 6, 13th century), Hama (Riis and Vagn Poulsen 1957: 240, figure 841, 13th century), St. Mary of Carmel (Pringle 1984: 99, figure 5, nos 27, 28).

6. Tripoli (Salamé-Sarkis 1980: 213, figure 37, no. 8, Crusader-Mamluk), Hama (Riis and Vagn Poulsen 1957: 240, figure 840), Acre (Stern 1997: 40–42, figure 4, nos. 24 and 29), Athlit (Johns 1934: 144, plate LVII, no. 3, 13th century), and Caesarea Maritima (Pringle 1985: 176–177, figure 2, no. 4).

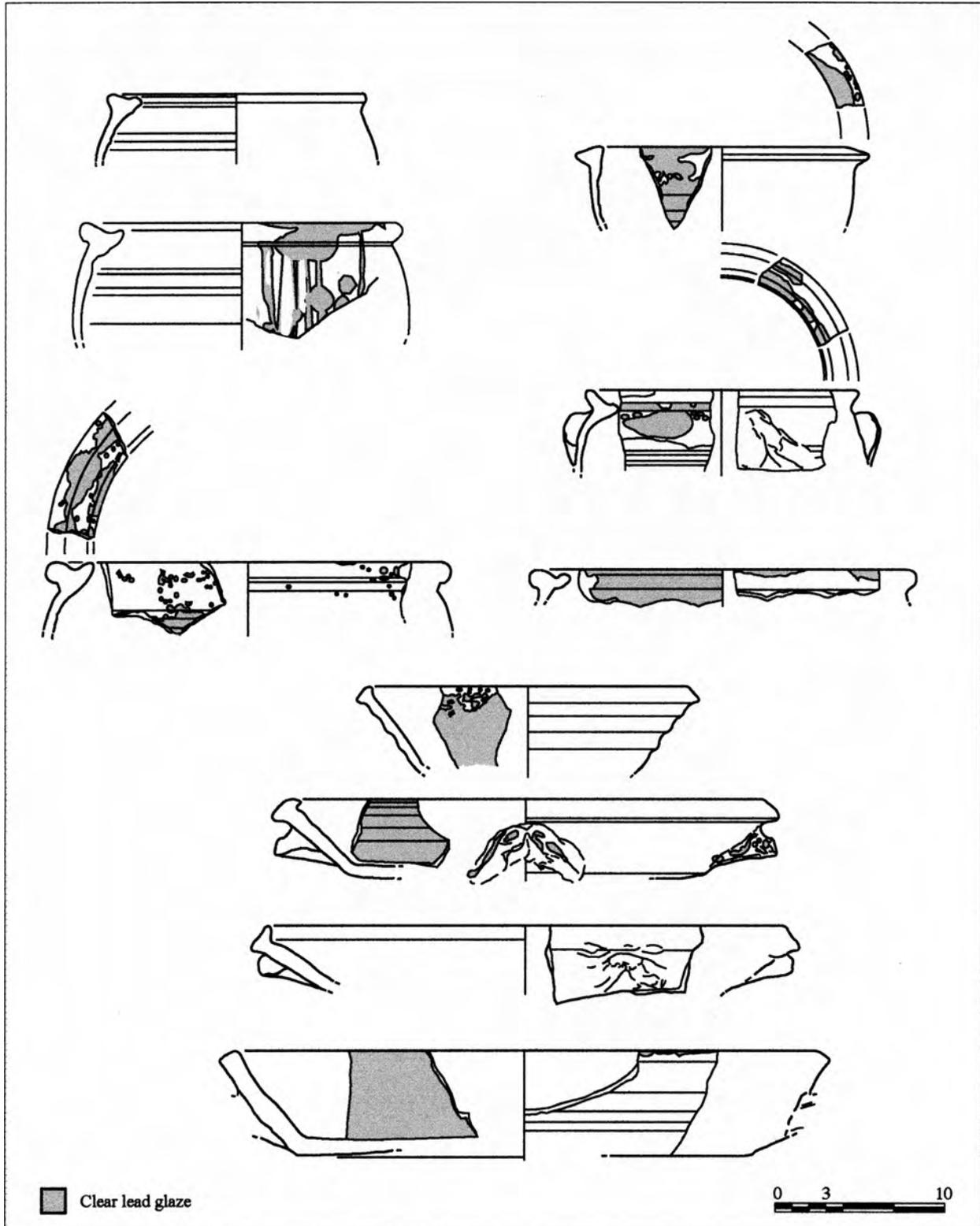


FIGURE 4. Mid to late 13th century cooking pots and pans.

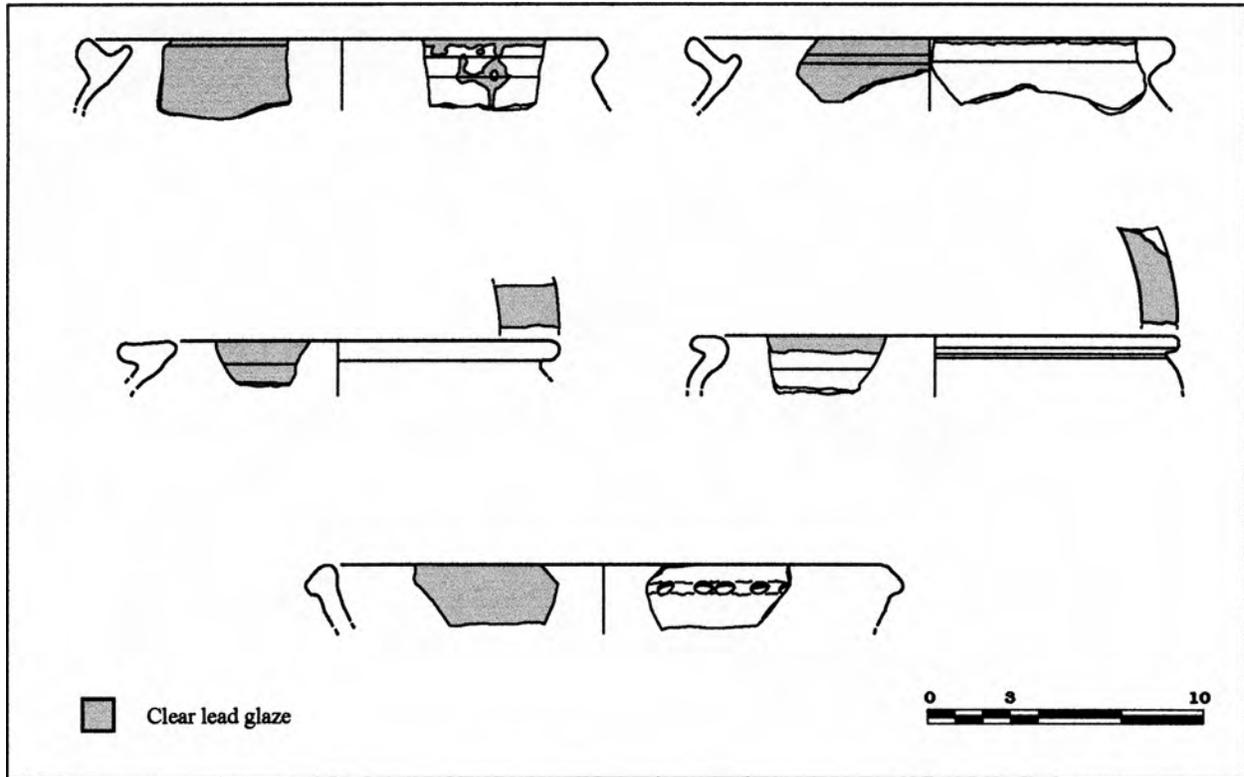


FIGURE 5. Cooking pots and pans of the 14th century.

The pans have either flaring plain rims, like some examples from the late 12th to early 13th century, or thickened triangular rims with a thumb impressed ribbon below the rim on the exterior.

Conclusions

The kitchenware pottery (referred to as “brittle ware” with reference to pre-Islamic assemblages) had a large diffusion across the Levant and was used as the cooking ware type par excellence. Its long production history stretching from the early Roman period to the 15th century (for the varieties that interest us) suggests a steady pace of development. There seems to be a standardized production of pottery types which answered the culinary requirements of domestic households all over the Near East. This standard repertoire of forms, which is more functional than aesthetic, was probably used and distributed along the eastern coast of the Levant, but penetrated into inland locations reaching areas as far as Nishapur in Iran (Wilkinson 1974). There are sometimes regional variations influenced by the availability and nature of local material or by a long tradition of potting along with its acquired trends and styles. However, we are most likely to encounter the same domestic (common ware) pottery in southern Jordan, Beirut or Tripoli, or in northern Syria, in Samarra and in Nishapur. This pottery seems to share the same periodization across the various areas. This has just been established for the late 10th to early 11th century repertoire of domestic pottery. Similar patterns of ware distribution and use characterize the later centuries.

But what factors encouraged the standardized production and use of pottery types along this broad geographical realm? It is difficult to believe that all the areas in question (the eastern Levant, inland Syria, northern Mesopotamia and Iran, at least) followed the same

path of technological development based on, or incited by, identical needs and requirements. The answer is probably connected to an intensive and vital mobility in trade which carried with it new developments and ceramic production trends and spread them over its area of distribution. Moreover, the adoption of new types and their imitation at other centers must have helped the diffusion and embracing of new styles and wares and their transfer into neighboring or remote areas of similar commercial involvement.

The detailed study of common pottery types from Beirut has provided us with a new insight into the functioning of the pottery industry in the eastern Levant. Exported pottery ranged from the simple cooking pots and pans to the most elaborately decorated vessels. It seems that the export of these products was centralized in particular zones: northern and inland Syria and Iraq for the first zone, and southern coastal Syria, Lebanon, Palestine and Jordan for the second zone. This proposes some sort of cultural unity in terms of the material culture proper to each zone. We often notice an interpenetration of characteristic pottery types from one zone to the other, but this phenomenon is restricted in amplitude and significance. The presence of a local production of common wares and decorated wares at Beirut as well as at other sites in the eastern Levant has also led to the belief that standard productions of identical classes of pottery was a widespread phenomenon established at several urban sites in the area.

References

- Adams, R. M.
1970 Tell Abu Sarifa, a Sassanian-Islamic Ceramic Sequence from South Central Iraq. *Ars Orientalis* 8: 87–119.
- Al-Ush, A.
1961 Unglazed Pottery II. *Annales Archéologiques Arabes Syriennes* 11–12: 35–36.
- Baramki, Dimitri C.
1942 The Pottery from Khirbat al-Mafjar. *Quarterly of the Department of Antiquities of Palestine* 10: 65–103.
- Bartl, Karin, Gerwulf Schneider and Sabine Böhme
1995 Notes on Brittle Wares in North-Eastern Syria. *Levant* 27: 165–177.
- Ben-Tor, Amnon
1963 Excavations at Horvat 'Usa. *'Atiqot* 3: 1–24.
- Ben-Tor, Amnon and Renate Rosenthal
1978 The First Season of Excavations at Tel Yokne'am, 1977. Preliminary Report. *Israel Exploration Journal* 28.1–2: 57–82.
- Ben-Tor, Amnon, Yuval Portugali and Miriam Avissar
1979 The Second Season of Excavations at Tel Yokne'am, 1978. Preliminary Report. *Israel Exploration Journal* 29.2: 65–83.
- Boas, G.
1991 *A Provenience Study of Some Fine Table Wares Imported into the Latin Kingdom of Jerusalem*. M.A. Dissertation. Hebrew University.
- Crowfoot, J. W., G. M. Crowfoot and K. M. Kenyon
1957 *Samaria Sebaste III: the Objects from Samaria*. London: Palestine Exploration Fund.
- Davie, Michael
1987 Maps and Historical Topography of Beirut. *Berytus* 35: 141–164.
- De Vaux, R.
1946 Céramiques Musulames des X-XI siècles à Abu Gosh (Palestine). *Bulletin d'Études Orientales* 11: 13–30.
- El-Masri, Sami
1999 *Beirut, the City and its Crafts in the Medieval Period*. Ph.D. dissertation, Freie Universität Berlin.

- Finster, Barbara and Jürgen Schmidt
1976 Sasanidische und früislamische Ruinen im Iraq. *Baghdader Mitteilungen*, 8. Berlin: Mann.
- Franken, H. J. and J. Kalsbeek
1975 *Potters of a Medieval Village in the Jordan Valley*. Amsterdam: North Holland.
- Frierman, J. D.
1969 *Medieval Ceramics, VI to XIII centuries*. Los Angeles: Frederick S. Wight Art Gallery.
- Grabar, Oleg, Renata Holod, James Knustad and William Trousdale
1978 *City in the Desert: Qasr al-Hayr East*. Harvard Middle East Monograph Series, 23–24. Cambridge: Harvard University Press.
- Hakimian, Suzy and Hassan Salamé-Sarkis
1988 Céramiques Médiévales Trouvées dans une Citerne à Tell ‘Arqa. *Syria* 65: 1–52.
- Hamilton, R. W.
1942 Excavations Against the North Wall of Jerusalem, 1937–8. *Quarterly of the Department of Antiquities of Palestine* 10: 1–64.
- Harper, R. P.
1980 Athis-Neocaesarea-Qasrin-Dibsi Faraj. In *Le Moyen Euphrate. Zone de contacts et d'échanges (Actes du Colloque de Strasbourg 1977)*. J. Cl. Margueron, ed. Pp. 327–348. Leiden: Université des Sciences Humaines de Strasbourg.
- Hennessy, J. B.
1970 Excavations at Samaria-Sebaste, 1968. *Levant* 2: 1–21.
- Ibn Hawqal
1873 *Kitab Surat al-Ard*. J.H. Kramer, ed. Bibliotheca Geographorum Arabicorum, 2. Leiden.
- Ibn Yahya, Salih
1990 *Tarikh Bayrut wa Umara’ Bani al-Gharb*. Beirut: Dar al-Fikr al-Hadith.
- Johns, C. N.
1934 Medieval Slip-Ware from Pilgrims’ Castle, ‘Athlit (1930–1). *Quarterly of the Department of Antiquities of Palestine* 3: 136–144.
- Kedar, Benjamin Z. and Denis Pringle
1985 La Fève. A Crusader Castle in the Jezereel Valley. *Israel Exploration Journal* 35: 164–179.
- Lane, Arthur
1937 Medieval Finds from al-Mina in North Syria. *Archaeologia* 87: 19–78.
- Levine, L. I.
1986 Archaeological Exploration of Caesarea, Past and Present. *Qedem* 21: 3–15.
- Loffreda, S.
1983 Nuovi Contributi di Cafarnao per la Ceramologia Palestinese. *Liber Annuus* 33: 347–372.
- Megaw, A. H. S.
1971 *Excavations at ‘Saranda Kolones’, Paphos. Preliminary Report on the 1966–67 and 1970–71 Seasons*. Report of the Department of Antiquities of Cyprus: 117–146.
1972 Supplementary Excavations on a Castle Site at Paphos, Cyprus, 1970–1971. *Dumbarton Oaks Papers* 26: 322–343.
- Northedge, Alastair
1981 Selected Late Roman and Islamic Coarse Wares. In *The River Qoueiq, Northern Syria and its Catchment*, Part II. John Matthers, ed. Pp. 459–467. BAR International Series, 98(ii). Oxford: British Archaeological Reports.
1992 The Excavations in Areas B, C, and D. In *Studies on Roman and Islamic Amman*, vol. 1. Alastair Northedge, ed. Pp. 139–150. British Academy Monographs in Archaeology 3. Oxford: Oxford University Press.
- Northedge, Alastair, Andrina Bamber and Michael Roaf
1988 *Excavations at ‘Ana, Qala’a Island*. Iraq Archaeological Reports, 1. Warminster: Aris and Phillips.

Pierobon, R.

- 1984 Sanctuary of Artemis: Soundings in the Temple-Terrace, 1978–1980. In *Gerasa I: Report of the Italian Archaeological Expedition at Jerash*. Pp. 85–111. Theme issue. *Mesopotamia* 18–19: 1–134.
- 1986 The Area of the Kilns. In *Jerash Archaeological Project 1981–1983*, vol. 1. Fawzi Zayadine, ed. Pp. 167–192. Amman: Department of Antiquities.

Pringle, Denis

- 1984 Thirteenth-Century Pottery from the Monastery of St. Mary of Carmel. *Levant* 16: 91–111.
- 1985 Medieval Pottery from Caesarea: the Crusader Period. *Levant* 17: 171–202.
- 1997 Excavations in Acre, 1974: the Pottery of the Crusader Period from Site D. *Atiqot* 31: 137–156.

Riis, P. J. and Vagn Poulsen

- 1957 *Hama. Fouilles et Recherches de la Fondation Carlsberg 1931–1938, vol. IV 2: Les Verrières et Potteries Médiévales*. Nationalmuseets Skrifter, Større Beretninger 3. Copenhagen: Nationalmuseet.

Sarre, Friedrich

- 1925 *Die Ausgrabungen von Samarra II: Die Keramik von Samarra*. Forschungen zur Islamischen Kunst, 2. Berlin: Reimer.

Salamé-Sarkis, Hassan

- 1980 *Contribution à l'Histoire de Tripoli et de sa Région à l'Époque des Croisades*. Bibliothèque Archéologique et Historique, 106. Paris: Paul Geuthner.

Schaefer, Jerome and Robin K. Faulkner

- 1986 An Umayyad Potters' Complex in the North Theatre, Jerash. In *Jerash Archaeological Project 1981–1983*, vol. 1. Fawzi Zayadine, ed. Pp. 411–459. Amman: Department of Antiquities.

Stern, Edna

- 1997 Excavation of the Courthouse Site at 'Akko: the Pottery of the Crusader and Ottoman Periods. *Atiqot* 31: 35–70.

Thalmann, Jean-Paul

- 1978 Tell 'Arqa (Liban Nord). Campagnes I–III (1972–74). Chantier I, Rapport Préliminaire. *Syria* 55: 1–151.

Wilkinson, C. K.

- 1974 *Nishapur: Pottery of the Early Islamic Period*. New York: Metropolitan Museum of Art.

Whitcomb, Donald

- 1988 Khirbet al-Mafjar Reconsidered: the Ceramic Evidence. *Bulletin of the American School of Oriental Research* 271: 51–67.

The Change of Caliphate Ideology in the Light of Early Islamic City Planning

MIRKO NOVÁK
Free University Berlin

Preface¹

Early Islamic material culture was strongly influenced by the art and architecture of the Ancient civilizations. Many elements were adopted, as is visible in iconography, style and typology. Modern scholars often focus on the role of Byzantine and Sāsānian traditions.² It is also well known that these Late Antique civilizations resulted from a long process of adoption and transformation of the preceding cultures of Ancient Mesopotamia and Iran on the one hand as well as those of Greece and the Roman empire on the other.³ Considering these influences, it is surprising that so few studies try to analyse the Ancient Mesopotamian and Iranian influences in Early Islamic art and architecture.⁴

Since even the material basis of Islamic culture in Ancient Mesopotamian civilization is often neglected, it is no surprise that also its intellectual, ideological and political roots in pre-Hellenistic societies have been nearly completely ignored. Almost no connection is sought between political concepts of the ancient Near Eastern and Islamic states, and no attempt has been undertaken to compare the similar ways in which ideological messages were presented in art and architecture.

To cite two examples: the themes of the “royal hunt” and the “garden scene” in art and literature are well attested as far back as the Early Sumerian Period (second half of the fourth millennium B.C.). They expressed two of the main duties of the king by stressing the pastoral and the agricultural roots of this civilization. The creation of huge gardens with botanical sections, landscape parks and hunting areas—the “artificial paradise”—by Mesopotamian rulers stood in a close relation to these ideological concepts. The hunting and garden scenes as themes in visual art as well as the architecture of the paradise gardens were both

1. I wish to thank Federico Buccellati for his kind support in correcting my English. The thoughts presented here are based on some results of my PhD research (Novák 1999).
2. See, for example, Ettinghausen (1972); Grabar (1977: 277ff); Schippmann (1993: 131ff.); and Sourdel-Thomine and Spuler (1990: 84ff.). On the Sāsānian influence on the palace architecture of the ‘Abbāsids, see Bier (1993).
3. On the ancient Near Eastern influences of Sāsānian ideological and material culture see, for example: Ahn (1992); Fauth (1979); Frye (1983); Knauth and Nadjmabadi (1975); and Rashad (1996).
4. The lack of comparative studies in the transmission of elements of material culture may be mainly a result of the strict distinction between (Ancient) Near Eastern and Islamic Archaeology in modern universities. Another reason is surely the Islamic claim that the Muslim community has created a completely new society and civilization without influence from older cultures—a claim which has been accepted by many modern scholars.

adopted by nearly all Near Eastern civilizations until modern times; nevertheless, their semiotic messages throughout the periods were never considered to be coherent features in a continuing tradition.

The second example is the physical layout of the Madīnat as-Salām in Baġdād. It has been often stressed that it was a copy of many Sāsānian cities like Veh-Ardaḥšīr or Ardaḥšīr-Ḥurre (Creswell 1989; Meinecke 1996b: 144f).⁵ Furthermore, the ideological concept of the “circular city” as a symbol of Islamic power and the *axis mundi* is generally accepted (Grabar 1977: 75). It should be reasonable to discuss if the Muslim government adopted not only the idea of a circular city, but also its ideological background. It is worth mentioning that programmatic city planning was well developed even in the times of the Assyrian Empire.

In this paper, I will focus on Early Islamic city planning, which helps to demonstrate how the political concepts changed in the first two Islamic centuries and how this change was expressed in the material culture. Since many of the ideas and elements were the result of a long development beginning with the Assyrian, Babylonian and Persian empires, I will present a brief overview of the Mesopotamian and the later Persian kingship ideologies and city planning principles. Following that, the change of the Caliphate ideology as reflected in some special architectonic features will be sketched (details in Novák 1999).

Kingship Ideologies in the Ancient Near East

The predominant principle of Babylonian kingship ideology from the end of the third millennium B.C. onwards was the “charismatic ruler”.⁶ This signifies that the king was qualified primarily by his particular capabilities, his personal *charisma*,⁷ more than by genealogy, to fulfil his God-given mandate to rule.⁸

His two pre-eminent, mythologically based duties were, first, to ensure a successful harvest—mostly by taking care of the important irrigation channels—and, second, to protect the herds of domesticated animals against wild beasts and enemies. Based on this, the archetype of the “royal gardener and hunter” was developed in literature and art (Fauth 1979).⁹ Furthermore, the king was responsible for building activities, especially of “public” buildings such as temples, palaces and defensive walls as well as the renovation of cities themselves (Lackenbacher 1982). He had to guarantee the social order as well as the security of the community against foreign enemies.

Most of the duties of the Assyrian king were comparable to those of his Babylonian counterpart. The traditional archetype of the “royal gardener and hunter”, for example, was adopted in literature and art (Figures 1 and 2). Based on his role as *iššiakkum* “governor” and *sangu* “high priest” of the god Aššur, the ruler of Assyria became a kind of “priest-king” of an extended empire. He supervised the property of the national god, who was considered

5. On the structural tradition from Ancient to Medieval Near Eastern cities in general see the various contributions in Wilhelm (1997), especially Wirth (1997: 1ff.).

6. On the sociological definition of ideology see Hillmann (1994: 352). On the Babylonian and Assyrian kingship ideologies see, for example, Cancik-Kirschbaum (1995); Edzard (1972–75); Franke (1995); Lambert (1974); Maul (1995 and in press); Pongratz-Leisten (1994); Röllig (1981); and Selz (1998).

7. On the definition of charisma in the sense of M. Weber see Hillmann (1994: 125).

8. Of course, ideology and reality were generally distinctive. Babylonian kingship was never based on a real “meritocracy”.

9. The symbolic act of cultivating their own gardens and the destruction of the gardens of the enemies by the king is discussed by Galter (1989).

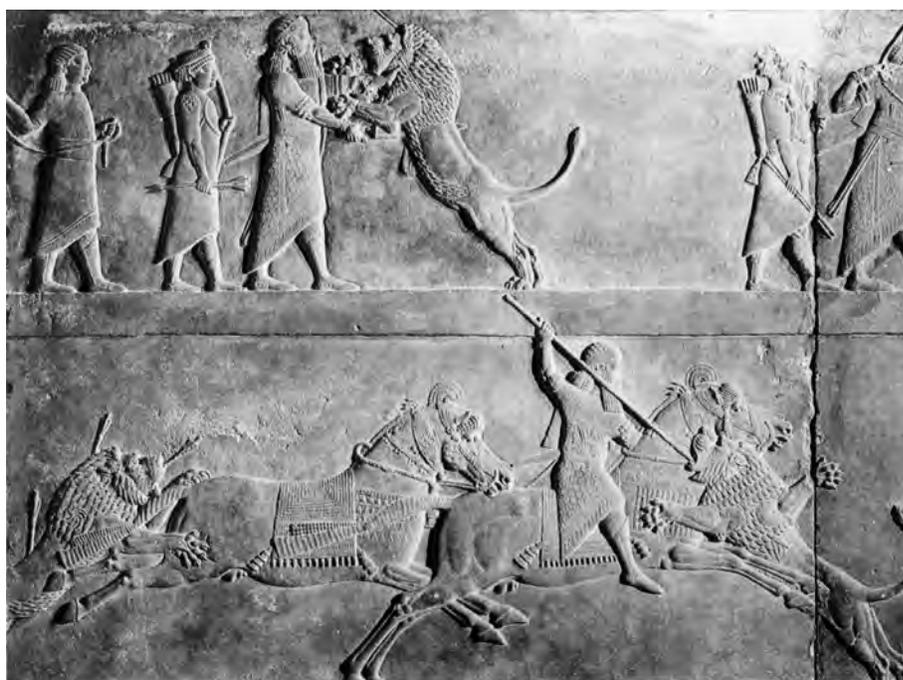


FIGURE 1. (above) The Assyrian king Assurbanipal (668–631 B.C.) and his wife lying in the *qiršu* “vineyard” of his garden; Assyrian relief from Nineveh (from Orthmann 1975: figure 247).

FIGURE 2. (left) The royal lion hunt of the Assyrian king Assurbanipal (668–631 B.C.); Assyrian relief from Nineveh (from Hrouda 1991: 353).

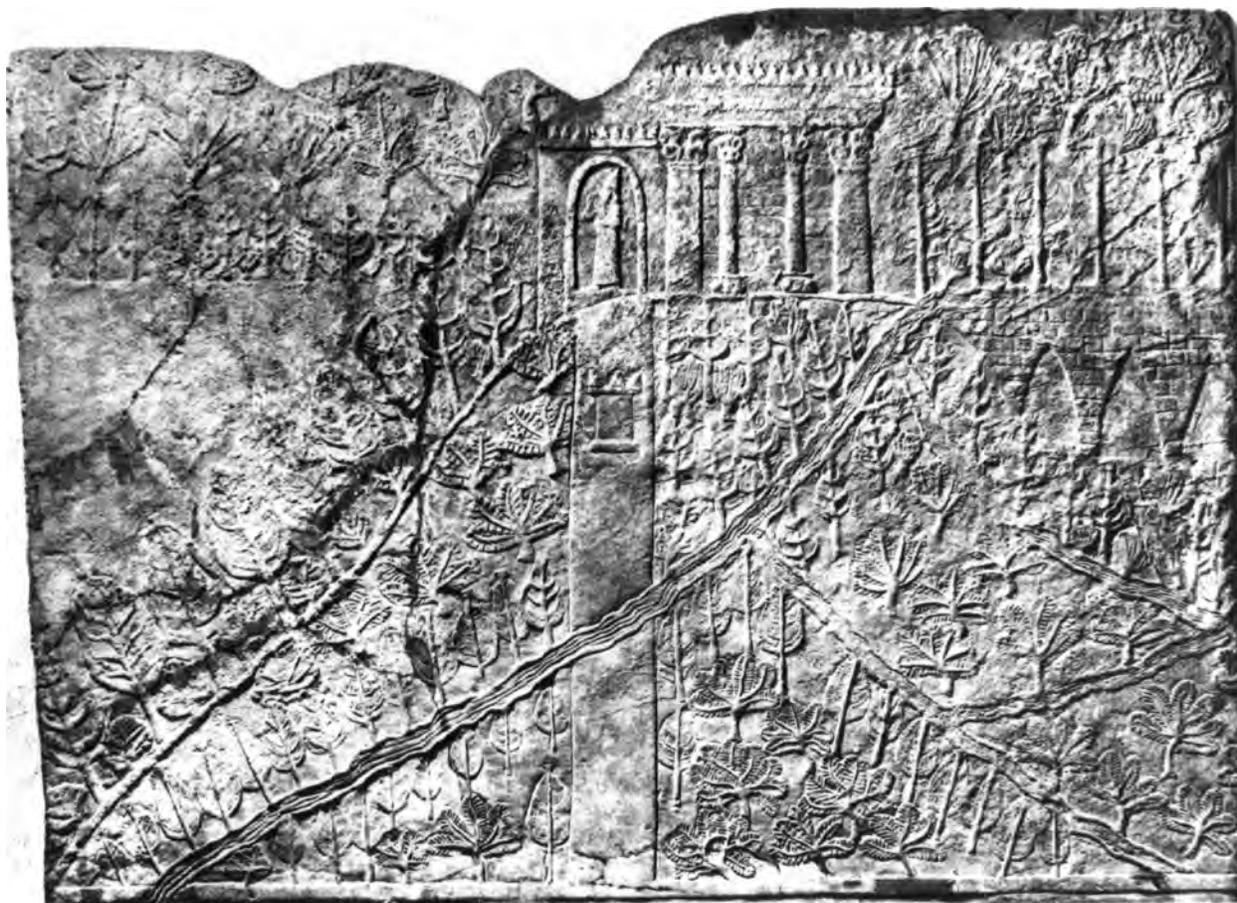


FIGURE 3. Assyrian “Paradise Garden” in Nineveh, created by Sennacherib (704–681 B.C.) and Assurbanipal (668–631 B.C.), on top of a hill a garden palace with column hall entrance, beside of it an aqueduct; Assyrian relief from Nineveh (from Orthmann 1975: figure 240).

the “true king” of the city and the nation. Furthermore, he was the interlocutor between humans and gods. In contrast to the Babylonian ruler, he unified the spiritual and secular power. In addition, the god Aššur obliged him to wage a kind of “sacred war” against all enemies of the god, city and state of Aššur, causing war to become an instrument of legitimization. As shown by the royal inscriptions, genealogy had more importance for the Assyrian monarchy than for the Babylonian one.

The Iranian kingship concept as held by the Achaemenids, Parthians and Sāsānians show some striking similarities to the Assyrian one.¹⁰ They were focused on the figure of the “charismatic king” as the earthly representative of the main god Ahuramazdā/Ohrmuzd, and the archetype of the “royal gardener and hunter” was adapted in visual art and literature. In contrast to Assyrian practices, the Iranians gave more attention to genealogy; only a member of the ruling family was permitted to be an aspirant to the crown.

In spite of the many differences in the various kingship ideologies of Mesopotamia, some striking similarities can be seen. A few aspects may have passed from dynasty to dynasty as

10. On the Iranian kingship ideologies and especially the idea of the “royal hunter and gardener” see Ahn (1992); Fauth (1979); Knauth and Nadjmabadi (1975); and Wiesehöfer (1993).

a symbolic act of tradition and continuity; others were taken over unconsciously, and prove thereby their vivid and fundamental reality in Mesopotamian or Near Eastern consciousness. The idea of the “royal gardener and hunter”, for example, is based on the agricultural and pastoral origins of Mesopotamian society. Even if its adoption by Iranian and—later—by Islamic leaders was a conscious procedure as part of their ideological programs, the mythological and historical background was surely no longer understood. The “charisma” of the ruler, emphasising his special relationship to the god, is one of the most persistent features of Near Eastern kingship ideologies up until modern times.

The Semiotic Program of Royal Cities in the Ancient Near East

One of the means of expressing the legitimacy of the king was the renovation and re-creation of the major cities of his kingdom or parts of them (Novák 1997 and 1999). In formative periods, the foundation of new capitals or residential cities was used as an act of demonstration of power.

Seen from semiotic methodology, “culture” is a kind of communication, and each phenomenon of it—including art and architecture—is a “system of signs”, which is intended to transmit a message.¹¹ This means that ideology, as a political message, could also have been expressed throughout the shape and the structure of a new founded city (Novák 1999: 19ff.). The sender of the message is the ruling political system, and the architect is the medium who creates the “language”. The receivers of the message are, on the one hand, the gods (or the one God in the case of Islam), to whom the king had to justify himself, and, on the other hand, the human dependants who would thereby recognize the legitimate reign of the king (Novák 1999: 21ff.). A psychological means of transmission is to be seen here: through the common perception of the urban milieu in daily life, the inhabitants or visitors of a city reflect the design of its structure. Special axes, presented by the alignment of the streets, and important buildings symbolize the cosmological order. Significant urban elements are either emphasized or hidden, due to the underlying concept and ideological program.

In the ancient Near East, several forms of cities were created based on special ideological concepts. In addition to those with irregular shapes, settlements with rectangular or circular forms were constructed. The literary sources suggest that appropriate city forms were chosen according to pre-existing images concerning the spatial structure of the universe. This was the case in all societies that defined their capitals as an *axis mundi*. In pre-Hellenistic Mesopotamia rectangular shapes were preferred; in Iran, circular ones. In the case of rectangular city-layouts, the image of the *kibrāt erbettim* “four corners of the world” was the model (Maul 1997: 124); in the circular case, the “Kašvar-circle” (Brentjes 1981) and the Mandala.

The Assyrian kings in the Middle and Neo-Assyrian periods were very active in shifting the political centre—the “horizontal axis”—of the empire into new founded capitals.¹² Meanwhile, the city of Aššur, the old core of the empire, with the main temple of the national god Aššur remained the cultic centre—the “vertical axis”.

The Assyrian residential city, the *āl šarrūti* “city of kingship”, had a rectangular shape and was surrounded by huge artificial “paradise-gardens” with the idea of representing all the zoological and botanical species in the universe (Figure 4). A citadel at its periphery, where the royal palaces as well as the main temples were situated, dominated the city. The

11. On the principles of semiotics see Eco (1994).

12. On the idea of a “horizontal” and a “vertical” axis of the world see Maul (1997).

distance between the dwelling quarters of the common people in the lower town and the public buildings above stressed the nearly supernatural position of the king. He, as the main priest and representative of the god Aššur and the *šar kibrāt erbettim* “king of the four quarters [of the world]”, lived in his *ekallu* “palace” high above the city itself, close to the *bitū* “houses” of the gods. The palace was the *šubat šarrūti* “seat of kingship”, built *ana tabrāt kiššat nišē*, “for the astonishment of all peoples” (Winter 1993: 27ff). The public buildings were visible from outside as well as inside the city, so that everybody could appreciate the political and ideological message: the palace dominated the city on one side, representing the king’s power over the citizens; on the other side it overlooked the “paradise” gardens, reflecting the king’s right to the entire universe.

The city was a symbol of the charismatic king, the creator of the city and of the artificial paradise gardens. While the old capital Aššur was seen as the vertical axis of the world, connecting heaven, earth and underworld, the residential city was the horizontal axis and the seat of terrestrial political power.

In Babylonia, the concept of founding a residential city was not a predominant preoccupation of the king—with the exception of Agade, built in the late third millennium, and Dūr-Kurigalzu, built in the middle of the second, the residences of the Akkadian and the Kassite kings. Instead, Babylon as the “vertical *and* horizontal axis” of the world (Maul 1997), the “bond of lands”, was inherited by the Late Babylonian kings as a way to represent the God-given world order (Novák 1999: 388ff).

Babylon in its Late Babylonian structure (sixth century B.C.) demonstrated a synthesis between traditional Babylonian and adopted Assyrian building principles (Figure 5). In accordance with the Babylonian concept of the “temple city”, the main temple of the city-god Marduk lay at the centre of the capital. The main axis of the street system connected the gates with the central temple, which was thus set at the main junction. The shape of the city was rectangular, and, as the *axis mundi*, symbolized the world with its “four corners”. The “navel of the world” on its vertical and horizontal axis—the temple of the city and national god Marduk—dominated the city and therefore the whole universe. Each inhabitant or visitor to Babylon could see this architectural agenda from either the outside or the inside. The temple Esangil and the *ziqqurat* Etemenanki were visible from all main streets of the city and served in daily life as the most important points of orientation within the city. The Assyrian influence led to the creation of a “paradise garden”—the so-called “Hanging Gardens”—and to an artificial citadel on the periphery, where the palaces were situated. For the first time in Babylonia, this citadel gave the city a bipolar structure with two prominent landmarks, symbolising the Babylonian ideology of twin powers: god and king.

During the Parthian period the principle of the “circular city”, with a central palace or temple, spread over many parts of the Near East. The Sāsānians adopted it, and surrounded the cities with huge, extramural paradise gardens in the Assyrian and Achaemenid tradition (Figure 6). The universal gardens and their royal palaces symbolized the fertility in the lands ruled by the Iranian “king of kings”. The city itself was seen as an image of the world, which in Iranian cosmology was circular. Four streets connecting four gates, with the public buildings in the centre, created four equal segments, the four quarters of the world. The palace at the centre emphasized the position of the charismatic king as the representative of Ahuramazdā/Ohrmuzd.

The Iranian dynasties, then, stood in the tradition of Mesopotamian empires with the “charismatic ruler” in the kingship ideology and also in the programmatic creation of new cities in order to express a political concept.

The Artificial Paradise

An urban and architectural element of visualization of kingship ideology was the royal garden, the “artificial paradise”.¹³

The Assyrian kings were the first to create huge “universal gardens” that consisted of botanical areas, landscape parks and “zoos” (Wisemann 1983: 135ff.). In the inscriptions they were called *kirimahhu* or *ambassu*. Due to the texts, the reconstruction of the layout and the structure of the tripartite gardens is possible. These tripartite gardens lay outside the cities close to the palaces so that visual contact was possible (Novák 1997: 186ff.).

Plants and animals from all known countries were kept inside to illustrate the world dominance of the Assyrian king and the fertility of the lands he ruled. This was a reflection of the cities themselves, which were populated by people of all conquered countries. Sennacherib (704–681 B.C.), king of Assyria, describes his paradise garden thus:

Above the city and below the city I laid out parks. The wealth of mountain and all lands, all the herbs of the land of Ḫatti (Syria), myrrh plants, among which fruitfulness was greater than their natural habitat, all kinds of mountain-vines, all fruits of all lands, herbs and fruit-bearing trees I set out for my subjects (Luckenbill 1924: 113ff.).

All kinds of wild animals were kept in the paradise gardens to be killed during the ceremonial royal hunt and, like other scenes playing in the gardens (Figure 1), these royal hunts were visualized in the narrative art of Assyria (Figure 2). The main goal was to kill the lion, which, as the strongest and most dangerous beast, represented the greatest threat of all animals. Additionally, small palaces, the so-called *bitānu*, were erected “for the leisure of the majesty” (Figure 3). Open column halls in the tradition of the Syrian *Ḫilāni* formed their entrances. As the inscriptions reveal, fine wall paintings or orthostat reliefs decorated them inside.

The gardens served to symbolize aspects of the “royal gardener and hunter”: the botanical section stressed the function as gardener, while the hunting areas as the protector of the herds and killer of the wild beasts. The universal character of the paradises emphasized the claim of the Assyrian king to rule the whole world—to be the *šar kibrāt erbettim* “king of the four quarters of the world”.

The kings of the Achaemenid dynasty followed the example of the Assyrians. Huge paradises, now named with that Persian-Avestic term *paeridaēza* “enclosure”, surrounded the palaces in Pasargadae, the first capital (Figure 6) (Stronach 1990: 171ff.; Kawami 1992: 81ff.; Tuplin 1996: 88ff.). As known from literary sources, both a botanical garden and a landscape park with wild animals were parts of it (Fauth 1979: 3; Tuplin 1996: 92ff.). The botanical section was formed as the symmetrical *čahar bagh* “four gardens”, divided into four equal quarters. The newly developed system of the covered *qanawāt* supplied the gardens with water.

Along with the “artificial paradise”, the ideological concept of the “royal gardener and hunter” was also adopted and adapted by the Achaemenid rulers (Fauth 1979: 1ff.). This concept fitted very well with the Iranian ideal king (Ahn 1992; Knauth and Nadjmabadi 1975).

The principle of the *čahar bagh*, which symbolized the four quarters of the world, was adopted by the Parthians and Sāsānians and—finally—by the ‘Abbāsids. Well known examples of Sāsānian paradise gardens are Tāq-i Bustān, Bisotūn (Kleiss 1996: 110ff.) and

13. On the programmatic paradise gardens see Novák (1999: 332ff.).

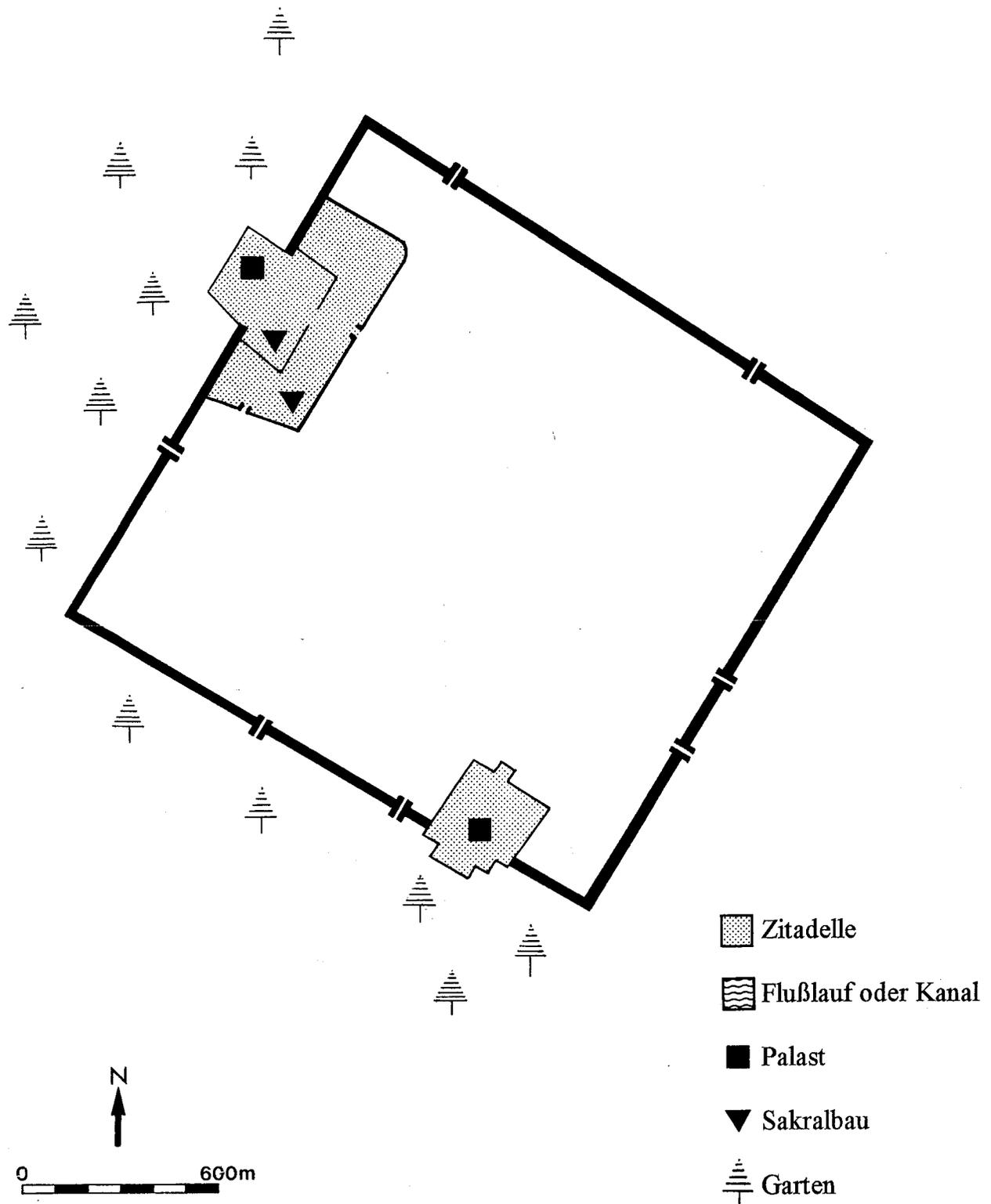


FIGURE 4. The Assyrian residential city of Dūr-Šarrukēn, built by king Šarrukēn II. (721–705 B.C.) northeast of Maušil (drawing by Gabi Elsen-Novák).

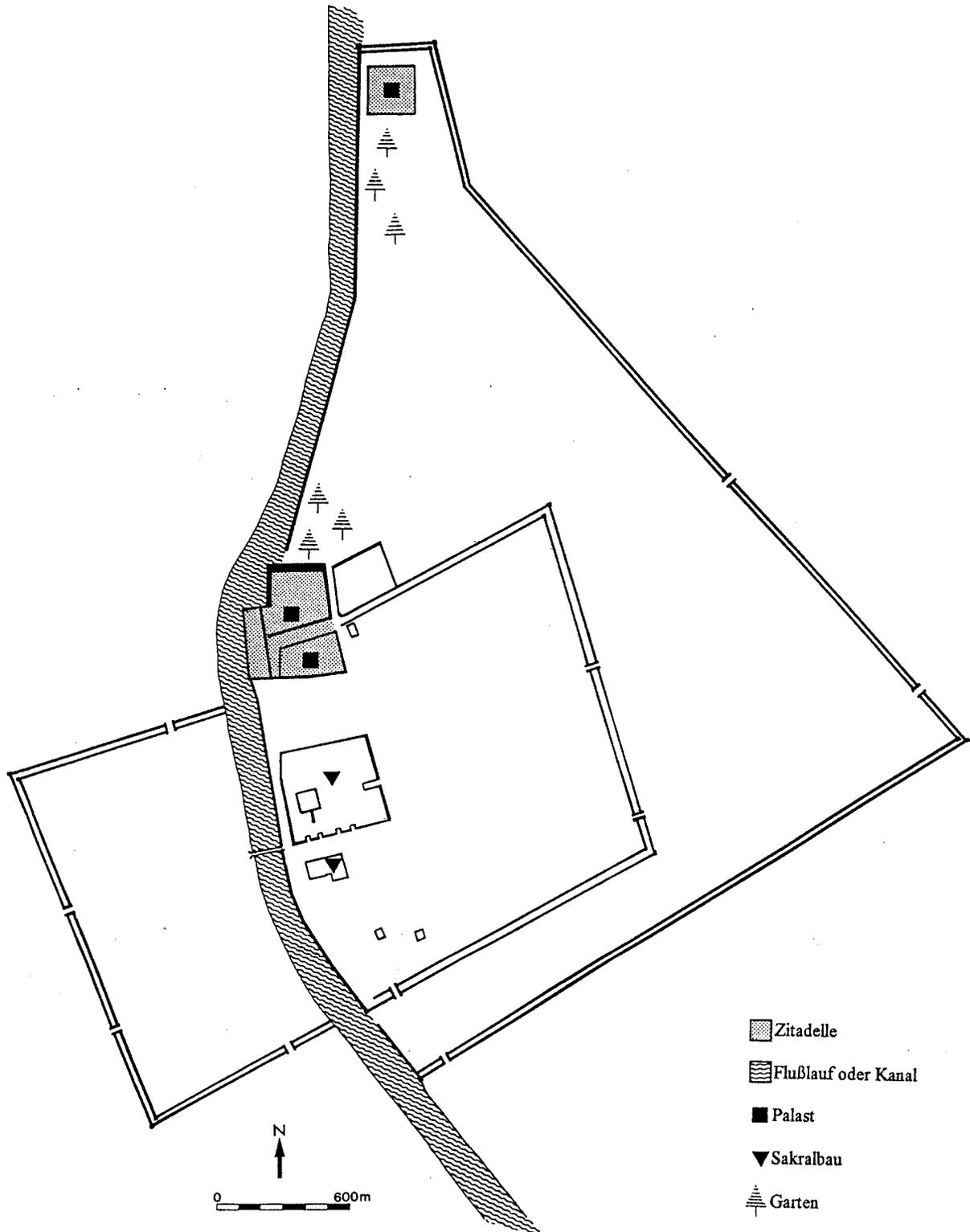


FIGURE 5. Babylon in the time of king Nebukadnezzar II. (604–562 B.C.), the capital of the Late Babylonian empire (drawing by Gabi Elsen-Novák).

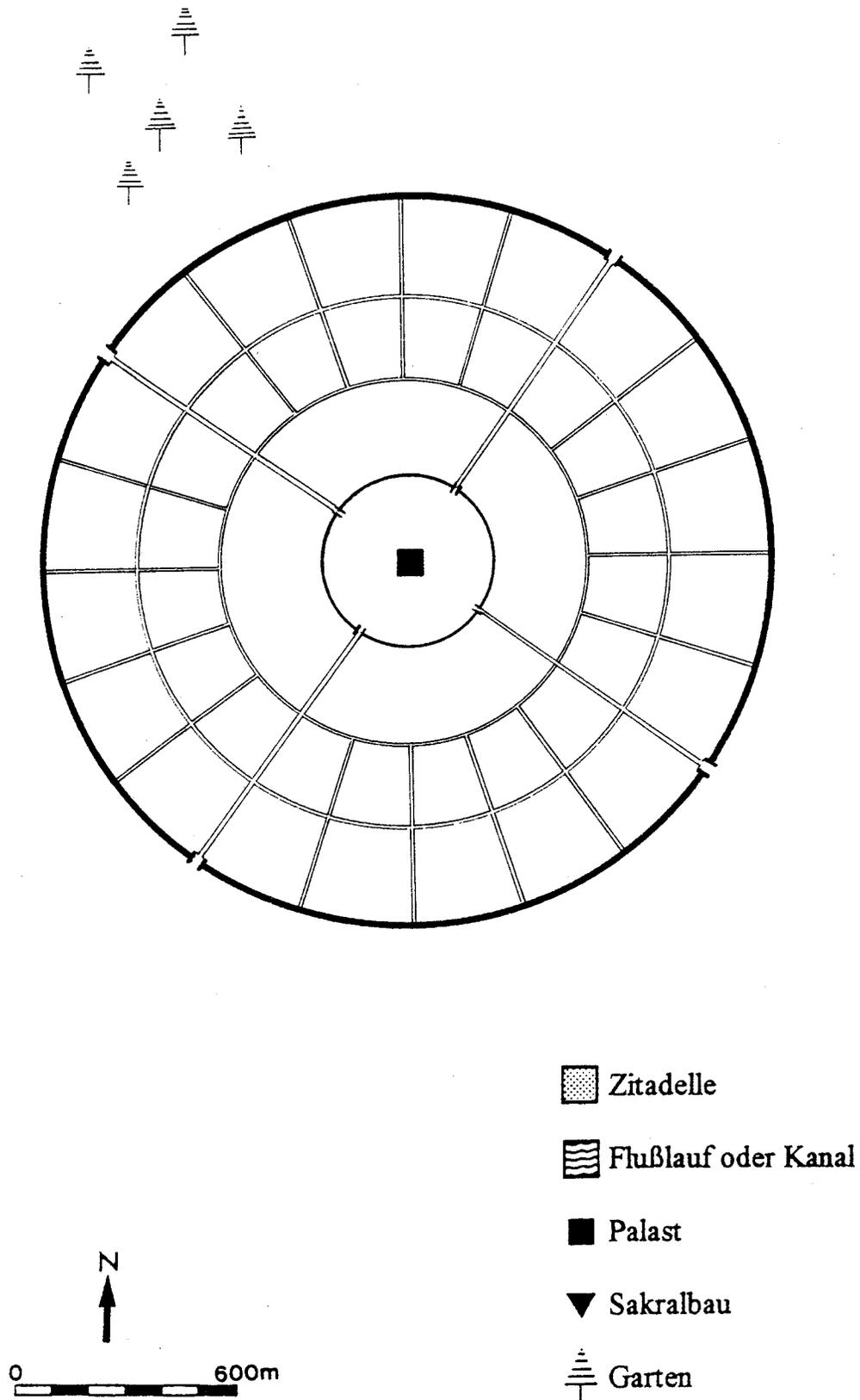


FIGURE 6. The paradise garden and the *apadana* palaces in Pasargadae, the residential city of the Achaemenid king Cyrus II. (559–530 B.C.); (from Kawami 1992: 89, figure 31).

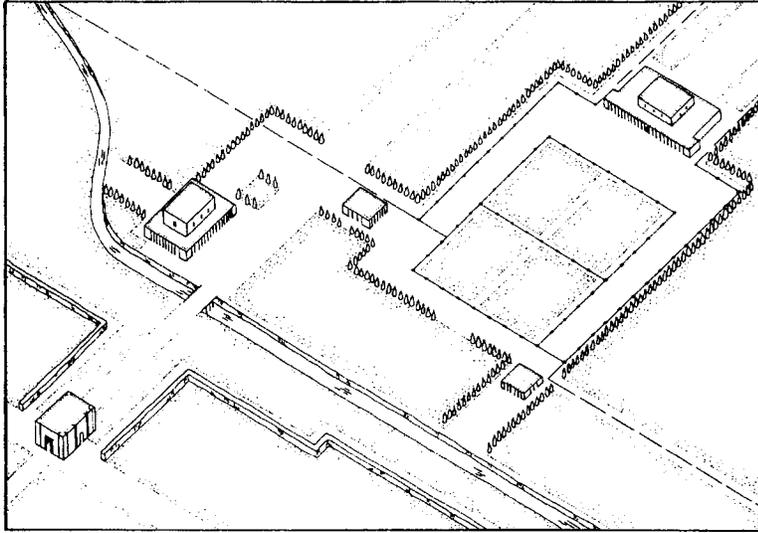


FIGURE 7. The Sāsānian garden palace Imaret-i Ḥosrau near Qaṣr-i Širīn, built by king Ḥosrau II (A.D. 590–628) in the centre of a “paradise garden” (from Kleiss 1989, figure 31b).

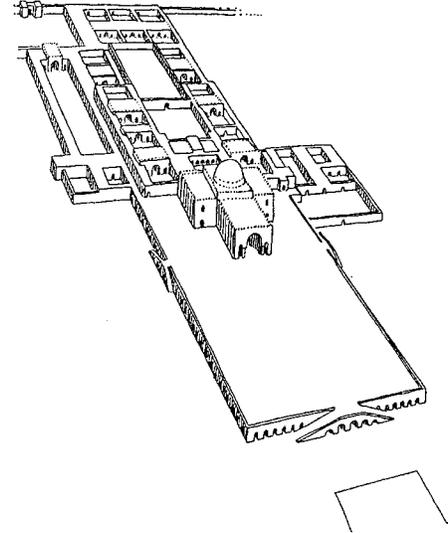


FIGURE 8. The Sāsānian residential city of Ardaḥšīr-Ḥurre, built by king Ardaḥšīr I (A.D. 211–240) in the Fars region (drawing by Gabi Elsen-Novák).

Qaṣr-i Širīn (Figure 8) (Stronach 1990: 177; Novák 1996: 359). Even the famous Tāq-i Kisrā in Ktesiphon (al-Madā’in) was settled inside a huge garden area (Novák 1999: 228). In visual art many scenes featuring royal gardens were produced, all of them showing the Assyrian tradition.

Throughout the periods from the Assyrian kingdom until the early ‘Abbāsīd Caliphate “artificial paradises” were part of programmatic city building activities in the Near East. The paradise gardens are one of the best examples of an architectonic element showing a tradition carried from ancient Near East to Islamic times not only as a physical, but also as an ideological feature.

The Development of Caliphate Ideology

In the time of the immediate followers (caliphs) of the Islamic prophet Muhammad, the idea of the “caliphate” was developed.¹⁴ It was based on the concept that the best Muslim of the *umma* “community” should be its *imām* “leader”. A true “kingship” on the dynastic principle should be avoided. The caliph should be a male and healthy member of the tribe of the *Quraiš*. The choice of a new caliph should follow the procedure by which the first three caliphs were declared: Abū Bakr was proclaimed spontaneously by the leading members of the community; ‘Umar was appointed by his dying predecessor; and ‘Utmān was elected by a council, the so-called *šūra*. But already the fourth caliph ‘Ali declared himself the *imām* in a form of usurpation.

The fifth caliph Mu’awiya, from the house of the Umayyads, founded the first Islamic dynasty, which started to take over several traditional aspects of ancient Near Eastern kingship. After some time, the dynastic principle became dominant in the ruling system of

14. The development of caliphate ideology is sketched by Hartmann (1987: 100ff.).

the families of the Umayyads and ‘Abbāsids as well as in the most important Islamic opposition, the family of the ‘Alīds that was supported by the Ši‘a (Halm 1988).

During the reign of the first caliphs the *imām*, the leader of the Islamic community, was a *muğtahid* and responsible for the correct interpretation of the religious orders. After the “gate of the *iğtihād*” was closed, he was subordinated to the *iğmā‘*, the consensus of the *fuqahā* (sg. *faqīh*, “scholar”) and the *‘ulamā* (sg. *‘ālim*, “scientist”). He had no real religious authority, and he could not change any of the Islamic rules (Hourani 1992: 91).

Beside this function, the caliph was the *amīr al-mu‘minīn*, the “commander of the believers”. He was the political and military defender of the *dār as-salām*, the Islamic “world of peace” and *ğihād* fighter against the pagan or Christian *dār al-ḥarb*, “world of war”. His official title was *ḥalīfatu rasūl’ Allāh* “representative of the prophet of God”.

During the Islamic “Golden Age” of the late Umayyad and early ‘Abbāsīd empire, the ideology of the Caliphate was fundamentally transformed. Moving towards the original concept of a human *imām* “principal” of the Islamic community, the caliph became more and more an absolute ruler. Starting with the late Umayyads, the caliphs adopted the court ceremonials of the Byzantine emperor and the Sāsānian Šāhānšāh. The description of an audience of Byzantine ambassadors at the court of the caliph al-Muqtadir gives a good impression of the elaborated court ceremonial (Grabar 1977: 242ff.). The aim was to hide the caliph not only from foreign visitors, but even from his own subjects.

Even the title of the caliph suggests this ideological transformation by its new form *ḥalīfatu’ Allāh* “representative of God” instead of *ḥalīfatu rasūl’ Allāh* “representative of the prophet of God”. Although just one word of the original title was left out, a fundamental change was expressed: Like the charismatic king of the ancient Near East the caliph now was the representative of God on earth and the intercessor between humans and God.

As an argumentative instrument for the ideological increase of the position of the caliph, the doctrine of the Mu‘tazila was officially supported (Hartmann 1987: 39ff.). The Sunnite Mu‘tazila was founded in Baṣra by the two *mutakallimūn* Abū’l-Hudail al-‘Allaf and al-Nazzām under the influence of the atavistic religions of Mani and Mazdak. With the help of logic and dialectic, the scholars tried to elaborate the dogmatic discussion (*kalām*). One of the principles was the *Qadariya*, the freedom of humans to decide between good and evil without divine predestination. Furthermore, the *imām* as a real religious authority should be above the *iğmā‘* of the scholars.

This last point was the reason why the Mu‘tazila became popular with some of the ‘Abbāsīd caliphs. With the help of this doctrine, their position as *imām* was increased as the highest religious authority, almost reaching the status of a prophet. The main supporter of the Mu‘tazila was al-Ma‘mūn. He founded the Dār al-Ḥikma in Bağdād and ordered the translation of philosophical treatises from Greek and Latin. His successor al-Mu‘taṣim, who shifted his political capital into the new residential city of Sāmarrā’ (Novák 1995: 123ff.), and after him al-Wātiq continued supporting the Mu‘tazila as official doctrine of the Islamic state. The famous *Qāḍī al-quḍāt* Ibn Abū Dā’ūd was one of the main representatives of the *miḥna*, a kind of inquisition of the Mu‘tazila.

At last, the pressure of orthodox Muslims led by Aḥmad ibn Ḥanbal forced the caliph al-Mutawakkil to return to traditional Sunnite doctrine and to abolish the Mu‘tazila.

Nevertheless, this attempt shows that the ‘Abbāsīd caliphs tried to improve their standing in the ideological structure of the Islamic state.

Even if the attempts of the ‘Abbāsīd caliphs to attain a greater religious power failed—for the main authorities remained the Qur’ān and the Sunna of the prophet

Muhammad—the caliph continued claiming to be the “Representative of God” and his prophet on earth. As such, his duty was to guarantee the order of Islam.

The Original Idea of the Imam: The Development of the Early Islamic City

The house of the prophet in Medīna was the first, if unofficial, centre of the newly founded community (Grabar 1977: 109). During the reign of the first three caliphs Madīna remained the political centre of the Islamic state, and the house of the prophet the main congregation mosque (Sordel-Thomine and Spuler 1990: 139).

Meanwhile, the power of the Islamic state grew, and the fertile regions of the Near East came under its control. The first urban foundations of the Muslims were military camps, the so-called *amṣār* on the banks of the Euphrates and the Nile (AlSayyad 1991: 43ff.). They served as seats of the regional governments for the conquered areas. By building new centres, the nomadic or semi-nomadic tribes of the Arabs avoided the existing capitals like Ktesiphon (al-Madā'in), Damascus or Alexandria. The most prominent examples of military camps were al-Kūfa,¹⁵ near the ancient city of Babylon, Baṣra at the shore of the Persian Gulf and al-Fuṣṭāt, the core of later Cairo in Egypt.

The inner structure of al-Kūfa, as a representative model of these camps, was dominated by a strict segregation between the various Arab tribes that settled inside the camp (Figure 9) (AlSayyad 1991: 55ff.). Each tribe inhabited one of the *ḥiḡāḡ* “quarters”, separated by 15 *manāhiḡ* “alleys” and a number of *zuqāq* “lanes”. A large square in the centre of the town, named *as-Sahah* or *ar-Raḡba*, was used as congregation area and market. It enclosed the great mosque and the adjacent governor’s palace, the *Dār al-ʿImāra* “House of Rule” (Creswell 1989: 9ff.; al-Jannabi 1983: 220ff.). The founder and first governor of al-Kūfa, Saʿd ibn Abī Waqqāṣ, built the *Bait al-Māl*, in which the treasury of the community was located, inside the mosque so that it could easily be guarded by all *Muslimīn* of the town.

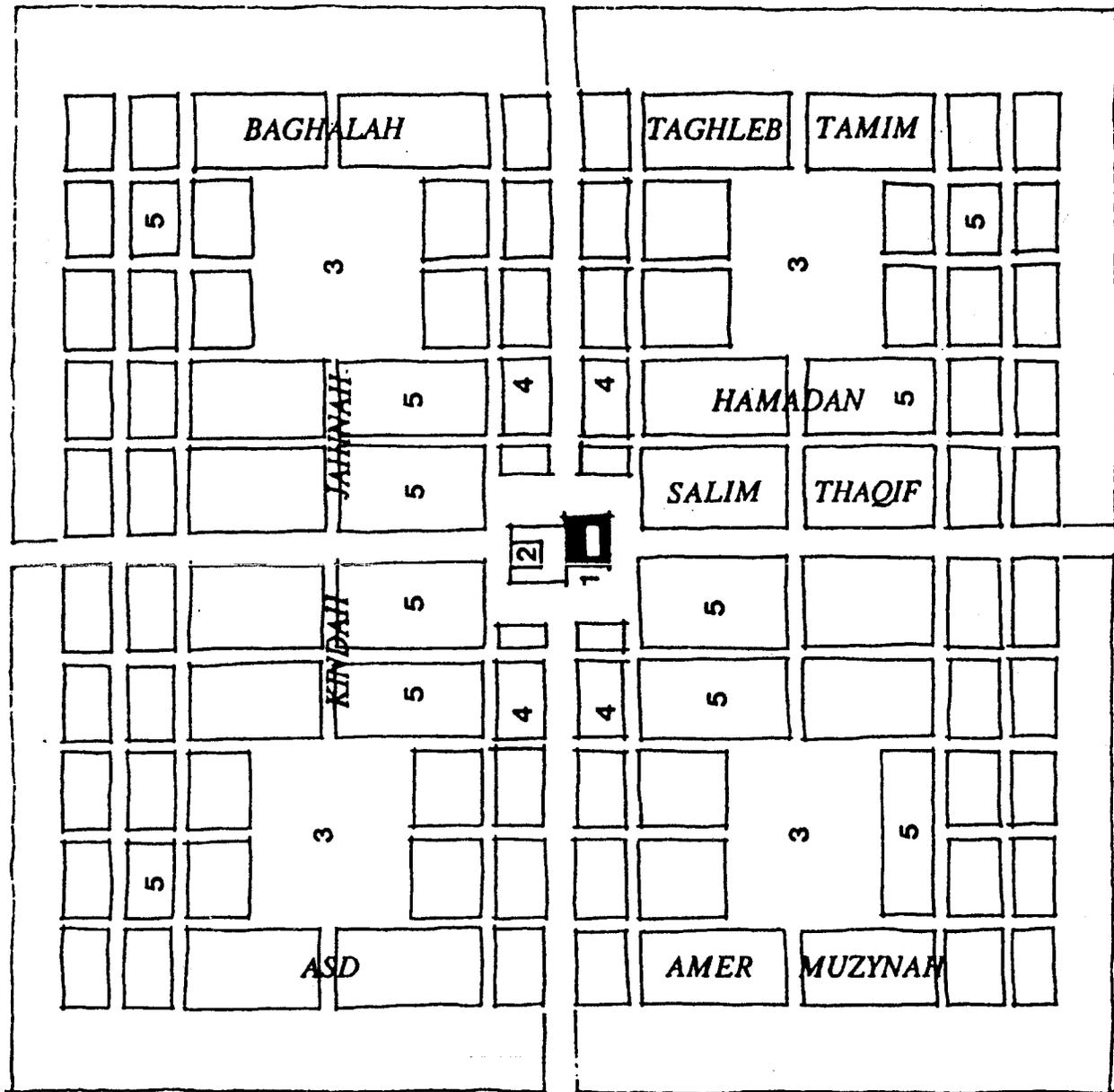
Irrespective of the religion, all sacral buildings, such as temples, churches or mosques, were gathering points of the communities. Ceremonies and processions supported this unity. Sacral buildings normally lay in the centre of the cities and were visible and accessible to all the inhabitants. Also the mosque of Kūfa was the most extended and most prominent building of the town while the palace was the second in size and importance; the two buildings shared a common wall. After a short period Kūfa was transformed into a real city, like the other military camps. It became the residence of the fourth caliph ʿAlī (Djait 1986: 346f.).

The newly established empire of the Umayyads shifted its political centre into the old and traditional city of Damascus. The structure of this city was formed during previous periods, and only slightly changed by the new power. Nevertheless, some of the predominant planning principles of the *ʿaskar* were repeated: close to the dominating main congregational mosque, which was built at the site of the former cathedral, the palace of the caliph was erected.¹⁶ The spatial organization between the two buildings was equal to that at al-Kūfa. The markets surrounded this ensemble. The *Bait al-Māl* was still placed in the courtyard of the mosque. As a new visual symbol of caliphate power, a *Qubbat al-Ḥadrāʾ* “Green Dome” or “Dome of Heaven” was built above the main hall of the palace.¹⁷ It became the main feature of the caliphs’ palaces for nearly two centuries. A similar dome

15. On the history of al-Kūfa see Djait (1986).

16. On the urban structure of Damascus see Sack (1989); also AlSayyad (1991: 86ff).

17. On the “Green Dome” or “Dome of Heaven” see Bloom (1993: 135ff).



1. Mosque 2. Dar al-Imarah 3. Square (Maiydan) 4. Quarters for Amir's Companions
5. Residential quarters

FIGURE 9. The Early Islamic military camp of al-Kūfa (from AlSayyad 1991: 61, figure 3.7).

crowned the palace of Ḥaġġāġ ibn Yūsuf at al-Wāṣit, the Umayyad administrative centre of Irāq (Creswell 1989: 40).

The most striking feature both of the early Islamic foundations and of the first real capital, Damascus, was the close spatial connection between the main congregation mosque and the palace, for the palace sat adjacent to the mosque. Together, they formed an ensemble in the centre of the town, easily accessible to all inhabitants. This visually demonstrated that the caliph, like the *amīr* “governor” in the military camps, was in the first degree the *imām* of the town who was responsible for the *ḥuṭba*, the Friday prayer. The distance be-

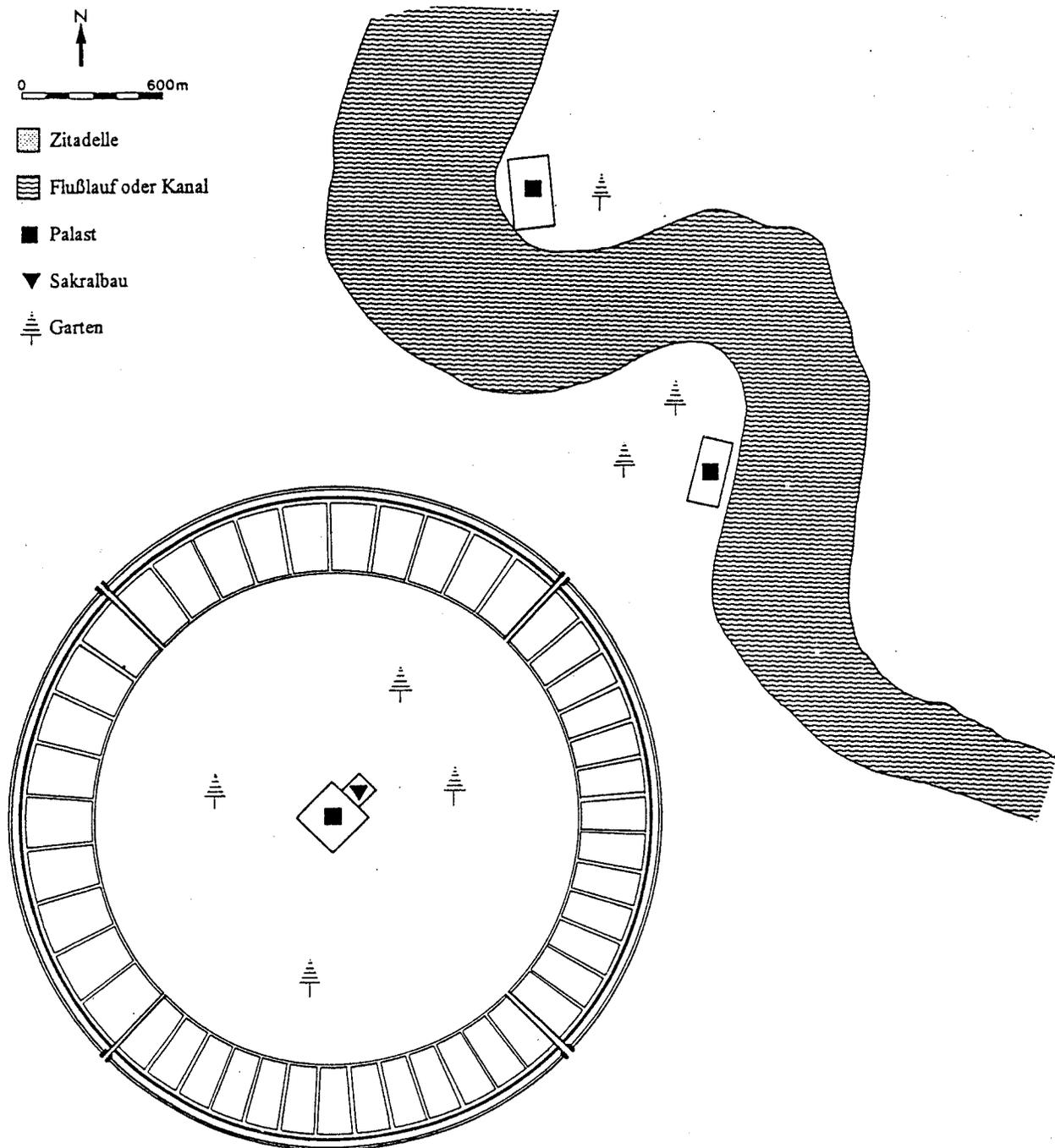


FIGURE 10. Madīnat as-Salām, the ‘Abbāsīd residential city of Baġdād, built by the caliph al-Manṣūr (A.D. 754–775); (drawing by Gabi Elsen-Novák).

tween ruler and subjects was relatively short, since the believers had free access to the nearby mosque. The fact that the *Bait al-Māl* with the treasury of the community was located in the mosque and not in the palace stressed that the *umma* was economically superior to the *imām*.

Nevertheless, with the creation of the “Green Dome” as an outer symbol of caliphal power, the importance of the caliph was augmented by the physical layout of the city during the Umayyad rule.

The Ambivalent Caliphate Ideology: Madīnat as-Salām

The first climatic achievement of the Islamic “residential city” was early ‘Abbāsīd Bag-dād, built on virgin soil shortly after the ‘Abbāsīd Revolution (Figure 10). Even the act of founding a new political centre was reminiscent of the building programs of the Assyrians, Achaemenids and Sāsānians. The inclusion of the toponym into the program of the capital became visible by the name *Madīnat as-Salām*, the “City of Peace”. It was modelled on the Qur’ān image of the *Dār as-Salām*, the “House of Peace” (Sura VI, 127); i.e., the part of the world ruled by Islam. Programmatic toponyms of new founded cities were already known to the Assyrians and the Sāsānians (Novák 1999: 383ff.).

The outer shape and inner structure of the vanished circular city can be reconstructed on the base of the literary descriptions and the comparison with other similar cities (Lassner 1970; Duri 1986: 894ff.; Creswell 1989: 229ff.; Lombard 1991: 136; Novák 1999: 242ff., Figure 43). Sāsānian principles were combined with Early Islamic ones: The circular layout of the new capital followed the example of Sāsānian cities like Ardašīr-Ḥurre in the Fars region and Vēh-Ardašīr near Ktesiphon (see Figure 6) (Novák 1997: 192f. and 1999: 224ff.). The city’s four gates, one facing each wind direction, and four streets represented the four quarters of the world. Like the Persian forerunners, it symbolized the *axis mundi*, the civilized and—in this case—Islamized universe (Grabar 1977: 75; Alsayyad 1991: 117ff.; Meinel 1996a: 168; 1996b: 144).

In the centre was the palace with the “Green Dome” or “Dome of Heaven” (Bloom 1993: 135ff.), the symbol of power, emphasising the position of the caliph. The *Dār al-Ḥilāfa*, the “House of the Caliphate”, carried on the function of the former *Dār al-’Imāra* in the first Islamic foundations. Close to it lay the main congregational mosque. While in al-Kūfa the mosque was the dominating building, the palace of Madīnat as-Salām exceeded the mosque in size by far. It seems as if the culmination point of the central arrangement has shifted. Still, the close connection of palace and main mosque emphasized the function of the caliph as *imam* of the *umma*, the community of Islam.

A vast empty area, the so-called *ar-Raḥba*, surrounded the mosque and the palace. In this, the patterns both of the Islamic foundation al-Kūfa and of the Sāsānian residential cities were vivid. Probably the *ar-Raḥba* was used as a garden area (Stierlin 1996: 118ff.).

The residential quarters were divided into equal sectors. The inhabitants of the city were drawn from all people living in the Dār as-Salām, the Islamic “House of Peace” representing the world. In this way, the city was a microcosm of the Islamic world like the quarters of the Arab tribes did in Kūfa in a more limited way. While the Islamic community was an Arabic feature during the first years of the expansion, it now had become a universal religion connecting many peoples all over the world.

An adopted principle was the extramural paradise close to the river. As descriptions show, botanical gardens lay besides hunting parks. Palaces were built inside the vast areas. As mentioned before, such gardens show a tradition, which goes back to the Assyrian empire. There and in the following Iranian kingdoms, they symbolized the royal claim to world rule.

The ‘Abbāsīd caliphs tried more and more to protect themselves against the frightening power of the nearly uncontrollable inhabitants of the growing city. The originally planned intramural markets were settled outside already during the building activities of the city. Later, the inner circle with the palace was fortified.¹⁸ After a short period the real residence of the caliph and his family was shifted into a garden palace. The most prominent one was

18. On the change of the inner structure by transformation of the central space into a “Caliph Private Domain” see Alsayyad (1991: 129, figure 5.8).

the Qaṣr al-Ḥuld, the “Palace of Eternity”. At that point, the Madīnat as-Salām with the extramural garden palaces became a pure copy of Sāsānian residential cities.

The Madīnat as-Salām consisted of elements drawn from two planning principles, generating a new architectural combination in the physical layout of a city: the Islamic one already known from the early military camps, and the ancient Near Eastern one adopted from the Sāsānians. The connection of congregation mosque and palace, the “Green Dome” and the ethno-religious segregation of the inhabitants stood in the tradition of the early Islamic foundations while the circular layout, the centralization of the palace and the vast extramural garden areas with huge garden palaces show ancient Near Eastern influences.

As a result, the city symbolized two concurring ideological principles. First, the Islamic idea of the human *imām* of the community who was responsible for the *ḥutba* and who was accessible to the believers, his subjects. Second, the ancient Near Eastern concept of the “charismatic king”, the “representative of God on earth”. Even the foundation of a new capital with a geometrical shape as the *axis mundi* stressed his claim of absolute world rule. In the program of the extramural paradise gardens the idea of the “royal hunter and gardener” was still vivid. The name of the capital with its religious connotation was part of the legitimation. Following that, the Madīnat as-Salām represented an ambivalent Caliphate ideology: on the one side the human *imām*, on the other the “charismatic king”.

The “Charismatic King”: Surra man raʿa

Many social and political reasons caused the caliphs to shift their residence several times, for instance to Raqqā or to Sāmarrāʾ.¹⁹ The well-known layout of the huge military camp, the *ʿaskar* Surra man raʿa (Northedge 1990), and the architecture of its palaces show the further development of the caliphate ideology (Figure 11). Since the city had no geometrical shape—indeed it had no town wall at all—it should not be considered to symbolize an *axis mundi*. Nevertheless, the dimensions of the buildings and the city itself emphasized the power of the political system with the caliph at its head.

The caliph’s palace was situated in the centre of the city at the edge of the natural plateau facing the alluvium of the river (Northedge 1993: 143ff.). The main street ran alongside this edge. South of the palace it sloped into the valley and crossed the botanical gardens stretching west of the palace. North of the building the street climbed up again and continued its original alignment along the edge of the plateau. A visitor to the palace had to walk first downward into the gardens and cross through them (Figure 12). There they had to turn at a right angle. Behind a large water-filled basin a broad staircase led to the gate of the palace. Here, in or behind the middle Līwān, the caliph used to give his public audiences, sitting high above the ordinary people and facing the gardens. This stressed the distinct distance of the caliph and his subjects, which was also supported by the complex court ceremonies.

The architecture of the entire palace clearly showed a strong Sāsānian influence with open liwāns giving access to the rectangular audience hall covered by a cupola (Bier 1993: 57ff.; Novák 1996: 362ff.). This principle was predominant in nearly all of the known Sāsānian palaces like Qaṣr-i Šīrīn (see Figure 8) (Kleiss 1989).

The gardens inside the building were designed as a double *čahar bagh*. Though this was a Persian type of garden, it was reminiscent of a Qurʾān description of the supernatural *paradise* as a double garden (Sura LV, 62).²⁰ Neighbouring the palace was a vast area with

19. On the reasons see Novák (1995). On the history of Sāmarrāʾ see Herzfeld (1948).

20. In the hadīth paradise is described as having consisted of seven or eight parts. See Khoury, Hagemann and Heine (1991: 610f.).

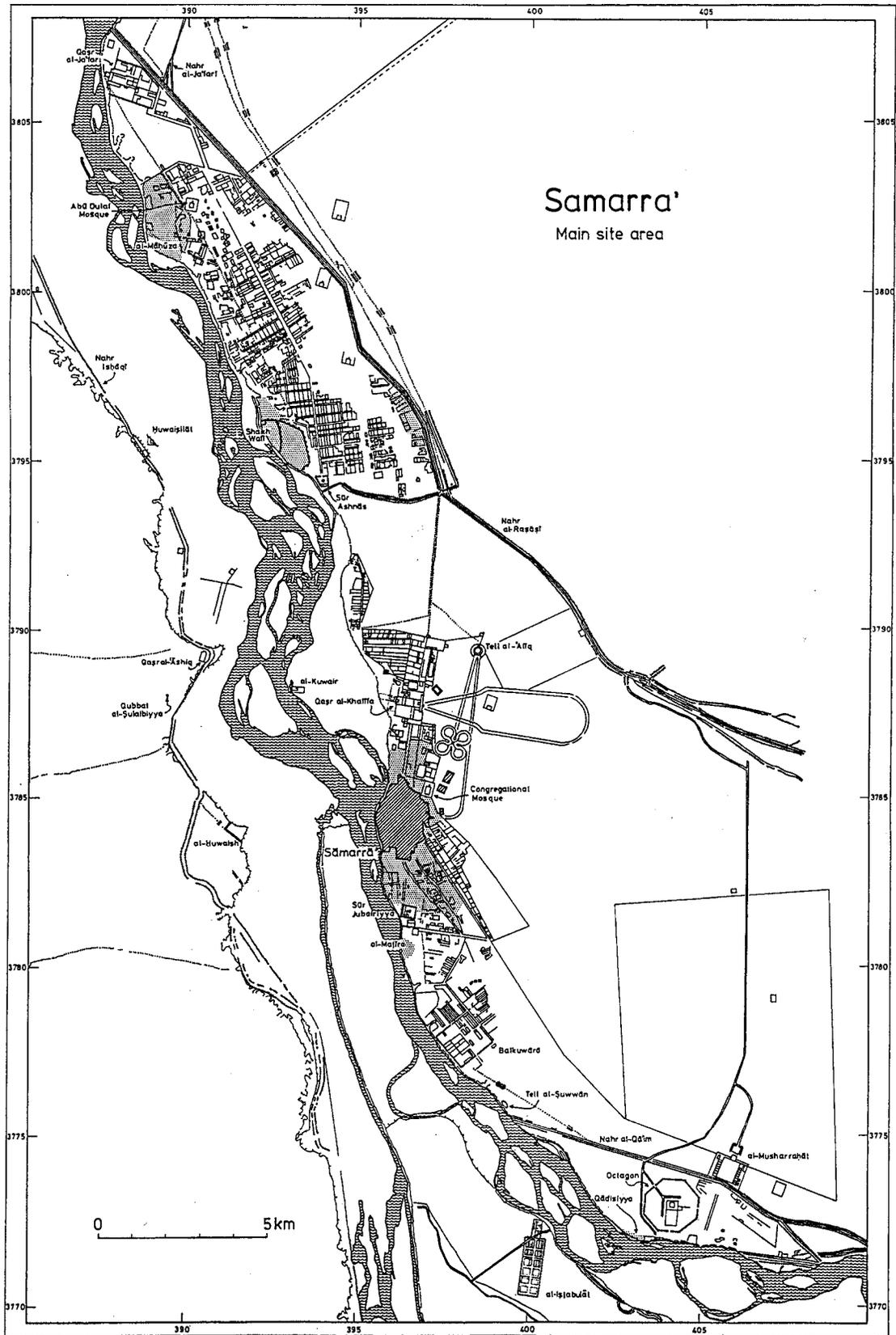


FIGURE 11. The 'Abbāsid residential city of Surra man ra'ā (from Northedge 1990: 4, figure 3).

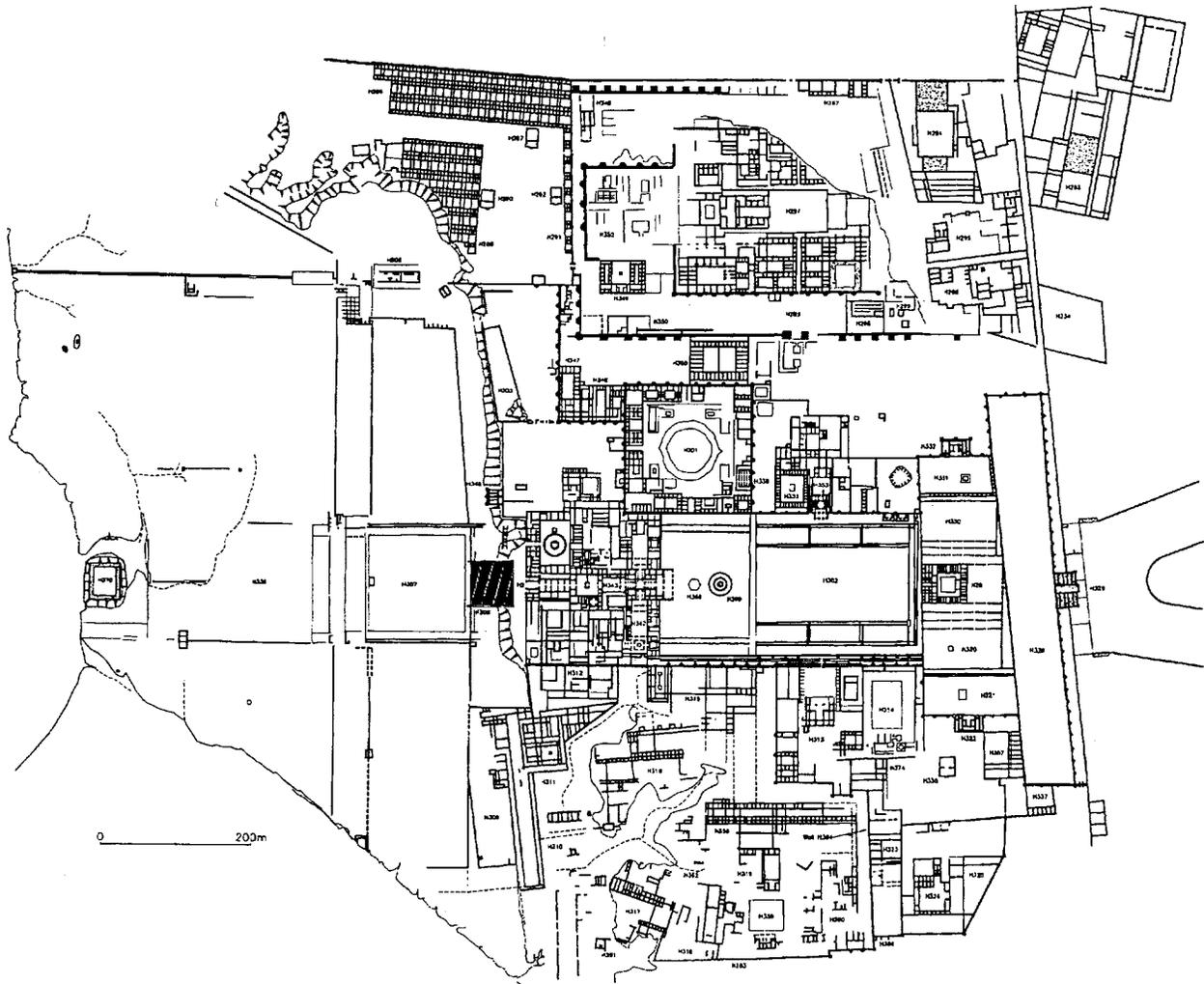


FIGURE 12. The Dār al-Ḥilāfa at Surra man raʿā, built by the caliph al-Muʿtaṣim (A.D. 833–842) (from Northedge 1993: 161, figure 2).

hunting parks and racecourses. Inside the parks lay palaces like the one called al-Mušarraḥāt (Northedge 1990: 22f.). The combination of botanical gardens with geometric shapes and landscape parks for the “royal hunt” with open garden palaces clearly showed the tradition of ancient Near Eastern programmatic *paradise* gardens.

The *Bait al-Māl* with the treasury was situated inside the palace in the part called *Dār al-ʿAmmā* (Northedge 1993: 152). This is clear evidence that all the economic power of the empire now lay in the hands of the caliph, as opposed to Umayyad Damascus where the treasury was deposited in the congregation mosque. It shows that the ʿAbbāsīd caliph of Surra man raʿā had now become an absolute monarch. Nevertheless, it was especially this economic power which eventually made him a slave of his own military forces.²¹

Two architectonic features are striking. First, the palaces in Sāmarrāʾ were the first ones without a “Green Dome” or “Dome of Heaven”, the former symbol of Islamic power. Second, the close physical connection of palace and mosque was abandoned. While the original mosque was situated close to the palace, the caliph al-Mutawakkil gave orders to shift it

21. On the historical background of the “Sāmarrāʾ Period” see Novák (1995).

away into the vast area of the gardens. For the first time, mosque and palace no longer formed an architectural union. This hints that the original concept of close relation between the house of the *imām* and the congregational mosque in which he held the *ḥuṭba* was no longer current.

Several features, like the complete adoption of Sāsānian principles of palace architecture, the erection of the paradise gardens and the control of the economic sources by the caliph, made him appear to be an absolute monarch, a “charismatic ruler” in the ancient Near Eastern tradition.

Conclusion

The physical relation of several architectonic elements of a city indicates the political and social order of the ruling system. Changes in the layout of cities may help us to understand the development in the ideological concept of a state or empire. Such is the case with the early Islamic Caliphate. The shift of the caliphate ideology from the human *imām* to the absolute monarch and “charismatic ruler” in the tradition of ancient Near Eastern kingdom concepts is visible in the early Islamic city planning.

The first Muslim foundations, the military camps like al-Kūfa, show a close spatial connection between the main congregation mosque and the palace. The dominating part of the ensemble was the mosque in which the *Bait al-Māl* with the treasury of the community was deposited. The ensemble in the centre of the town was easily accessible to all inhabitants. This showed that the ruler of the town was the *imām* who was responsible for the *ḥuṭba*, the Friday prayer.

In Damascus, the capital of the first Islamic dynasty, the same layout was chosen. Although the structure of the city was a result of its long history of occupation, the position of the congregation mosque and the palace was the same as in al-Kūfa. While the mosque remained the dominating building of the ensemble in which the *Bait al-Māl* was placed, the palace was now more strongly emphasized: the newly created “Green Dome” or “Dome of Heaven” formed an outer symbol of caliphal power, visible from a great distance. With that, the growing position of the caliph was emphasized in the physical layout of the city. The change of the *Ḥalīfatū Rasūl’ Allāh* “representative of the prophet of God” to the *Ḥalīfatū Allāh* “representative of God” had already started.

After the ‘Abbāsīd Revolution, a new capital was built: the Madīnat as-Salām. Even the act of founding a new residential city as an *axis mundi* and the choice of a programmatic toponym, which bore a political and ideological message, were reminiscent of the ancient Near Eastern ideologies. While some features of the layout of the city stood in the tradition of the early Islamic military camps, like the central ensemble with the close connection of mosque and palace, the city itself looked very much like a copy of Sāsānian capital cities. Furthermore, the palace with its “Green Dome” has now become the most extended and, with that, the most prominent building. The Madīnat as-Salām symbolized two ideological principles: the Islamic idea of the human *imām* of the community and the ancient Near Eastern concept of the “charismatic king”, the “representative of God on earth”.

With the shift of the political centre to Surra man ra’ā the visualization of a changing caliphate ideology in architecture was completed. Now the huge palaces were by far the dominating elements of the whole city, while the mosque looked subject to them in size. The connection of the palaces, which were no longer crowned by a “Green Dome”, with tripartite paradise gardens in an Ancient Mesopotamian tradition, emphasized some adopted princi-

ples of Near Eastern kingship ideologies like that one of the “royal hunter and gardener”. The *Bait al-Māl* with the treasury of the state was now placed in the palace so that the caliph had absolute control over it. The caliph of the Islamic empire, the *Ḥalīfatū Allāh* “representative of God”, was now an absolute monarch, a “charismatic ruler” in the ancient Near Eastern tradition.

In the decades following the foundation of Sāmarrā’ and the return of the government to Baḡdād, the ‘Abbāsīd caliph came more and more under the control first of his own military forces, and then of foreign rulers. Nevertheless, a lot of dogmatic treatises produced in the official *Madāris* of Baḡdād mark the role of the caliph as the religious leader of the community. With the loss of political power, the caliph tried to stress his dominant religious position in Islamic society. Probably the increasing distance between the caliph and his Muslim subjects was responsible for the fact that the concept of caliph became less popular in the medieval world.

Many steps in the transformation of caliphate ideology are well documented by the architecture of the caliph’s palaces, the gardens and—most of all—the cities. A similar observation can be made in the art, which adopted the type of the “royal gardener and hunter”.²²

Architecture and art as material keys of immaterial processes may help achieve a better understanding of the ideological and—by inference—social changes in the development of the early Muslim community. The still vivid intellectual life of the ancient Near East influenced the culture of the early Islamic world in an extensive and generally not appreciated way.

References

- Ahn, Gregor
 1992 *Religiöse Herrscherlegitimation im achämenidischen Iran*. Acta Iranica 31. Leiden: Brill.
- AlSayyad, Nezar
 1991 *Cities and Caliphs: on the Genesis of Arab Muslim Urbanism*. Contributions to the Study of World History 26. New York: Greenwood Press.
- Bier, Lionel
 1993 The Sasanian Palaces and their Influence in early Islam. *Ars Orientalis* 23: 57–66.
- Bloom, J. M.
 1993 The Qubbat al-Ḥaḍrā’ and the Iconography of Height in Early Islamic Architecture. *Ars Orientalis* 3: 135–141.
- Brentjes, Burchard
 1981 *Die Stadt des Yima*. Leipzig.
- Cancik-Kirschbaum, Eva
 1995 Konzeption und Legitimation von Herrschaft in neuassyrischer Zeit. *Welt des Orients* 26: 5–20.
- Creswell, K. A. C. (Revised J. A. Allan)
 1989 *A Short Account of Early Muslim Architecture*. Revised Edition. Aldershot: Scolar Press.
- Deller, Karl-Heinz
 1987 Assurbanipal in der Gartenlaube. *Baghdader Mitteilungen* 18: 229–238.
- Djait, H.
 1986 Al-Kūfa. *Encyclopaedia of Islam*, vol 5. 2nd Edition. Pp. 345–351. Leiden: Brill.

22. See for example the Umayyad hunting scene from Qaṣr al-Ḥair al-Ġarbī (eighth century A.D.), reminiscent of Assyrian and Sāsānian motives of the “Royal Hunter” (Sourdel-Thomine and Spuler 1990: figure XIII).

- Duri, A. A.
1986 Baghdād. *The Encyclopaedia of Islam*, vol. 1. 2nd Edition. Pp. 894–909. Leiden: Brill.
- Eco, Umberto
1994 *Einführung in die Semiotik*. 8th Edition. [1972]. Tübingen.
- Edzard, Dietz Otto
1972–75 Herrscher A. Philologisch. *Reallexikon der Assyriologie und Vorderasiatischen Archäologie* 4: 335–342. Berlin.
- Erdmann, Kurt
1969 *Die Kunst Irans zur Zeit der Sasaniden*. Reprint. [1943]. Mainz: Kupferberg.
- Ettinghausen, Richard
1972 *From Byzantium to Sassanian Iran and the Islamic World: Three Modes of Artistic Influence*. L. A. Mayer Memorial Studies in Islamic Art and Archaeology, 3. Leiden: Brill.
- Fauth, Wolfgang
1979 Der königliche Garten und Jäger im Paradeisos. *Persica* 8: 1–53.
- Franke, Sabina
1995 *Königsinschriften und Königsideologie*. Altorientalistik, 1. Münster: Lit.
- Frye, Richard N.
1983 Achaemenid Echoes in Sasanian Times. In *Kunst, Kultur und Geschichte der Achämenidenzeit und ihr Fortleben*, Archäologische Mitteilungen aus Iran Ergänzungsband 10. H. Koch and D. N. MacKenzie, eds. Pp. 247–252. Berlin: Reimer.
- Galter, Hannes D.
1989 Paradies und Palmentod—ökologische Aspekte im Weltbild der assyrischen Könige. In *Der orientalische Mensch und seine Beziehung zur Umwelt*. Grazer Morgenländische Studien, 2: 235–253. Graz: Verlag für die Technische Universität Graz.
- Gladigow, Burkhard, ed.
1981 *Staat und Religion*. Düsseldorf: Patmos Verlag.
- Gladigow, Burkhard
1981 Kraft, Macht, Herrschaft. In *Staat und Religion*. B. Gladigow, ed.. Pp. 7–22. Düsseldorf: Patmos Verlag.
- Grabar, Oleg
1977 *Die Entstehung der islamischen Kunst*. Köln.
- Grabar, Oleg
1993 Umayyad Palaces Reconsidered. *Ars Orientalis* 23: 93–108.
- Halm, Heinz
1988 *Die Schia*. Darmstadt: Wissenschaftliche Buchgesellschaft.
- Hartmann, Richard
1987 *Die Religion des Islam*. Reprint. [1944]. Darmstadt.
- Herzfeld, Ernst
1948 *Geschichte der Stadt Samarra*. Ausgrabungen von Samarra, VI. Berlin: Eckardt & Messtorff.
- Hillmann, Karl-Heinz
1994 *Wörterbuch der Soziologie*. Stuttgart: A. Kroner.
- Hourani, Albert
1992 *Die Geschichte der arabischen Völker*. Frankfurt.
- Hrouda, Barthel (ed.)
1991 *Der Alte Orient*. München: C. Bertelsmann.
- al-Jannabi, T.J.
1983 Dār al-‘Imāra fi’l-Kūfa, *Sumer* 39: 220–232 (Arabic).
- Kawami, Trudy S.
1992 Antike persische Gärten. In *Der Garten von der Antike bis zum Mittelalter*. M. Carroll-Spillecke, ed. Pp. 81–100. Mainz: P. von Zabern.
- Khoury, Adel Theodor, Ludwig Hagemann and Peter Heine
1991 *Islam-Lexikon*. Freiburg: Herder.

- Kleiss, Wolfram
 1989 *Die Entwicklung von Palästen und palastartigen Wohnbauten in Iran*. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
 1996 Die sasanidische Brücke und das Paradeisos. In *Bisutun*. W. Kleiss and P. Calmeyer, eds. Pp. 99–113. Teheraner Forschungen 7. Berlin: Gebr. Mann.
- Knauth, W. and S. Nadjmabadi
 1975 *Das altiranische Fürstenideal von Xenophon bis Ferdousi*. Wiesbaden: Steiner.
- Lackenbacher, Sylvie
 1982 *Le Roi Bâtitteur*. Études Assyriologique 11. Paris: Editions Recherche sur les civilisations.
- Lambert, W. G.
 1974 The Seed of Kingship. In *Le Palais et la Royauté: Actes des XIXe Rencontre Assyriologique Internationale*. P. Garelli, ed. Pp. 427–440. Paris: P. Geuthner.
- Lassner, Jacob
 1970 *The Topography of Baghdad in the Early Middle Ages*. Detroit: Wayne State University Press.
- Lombard, Maurice
 1991 *Die Blütezeit des Islam*. Frankfurt.
- Luckenbill, Daniel David
 1924 *The Annals of Sennacherib*. University of Chicago Oriental Institute publications, 2. Chicago: University of Chicago Press.
- Maul, Stefan M.
 1995 Das “dreifache Königtum”—Überlegungen zu einer Sonderform des neuassyrischen Königssiegels. In *Beiträge zur Kulturgeschichte Vorderasiens: Festschrift für Rainer Michael Boehmer*. U. Finkbeiner, R. Dittmann and H. Hauptmann, eds. Pp. 395–402. Mainz: Philipp von Zabern.
 1997 Die altorientalische Hauptstadt: Nabel und Abbild der Welt. In *Die orientalische Stadt: Kontinuität, Wandel, Bruch*. G. Wilhelm, ed. Pp. 109–124. Colloquien der Deutschen Orient-Gesellschaft 1. Saarbrücken: Saarbrucker Druckerei und Verlag.
 In press *Der assyrische König—Hüter der Weltordnung*.
- Meinecke, Michael
 1996a Ar-Raqqā am Euphrat: Imperiale und religiöse Strukturen der islamischen Stadt. *Mitteilungen der Deutschen Orient-Gesellschaft* 128: 157–172.
 1996b Die frühislamischen Kalifenresidenzen: Tradition oder Rezeption? In *Continuity and Change in Northern Mesopotamia from the Hellenistic to the Early Islamic Period*. K. Bartl and S. Hauser, eds. Pp. 139–164. Berlin: Reimer.
- Miquel, André
 1975 *Der Islam*. Essen.
- Northedge, Alastair
 1990 *Sāmarrāʾ*. Tübingen: Eberhard Karls Universität Tübingen.
 1993 An Interpretation of the Palace of the Caliph at Sāmarrāʾ. *Ars Orientalis* 23: 143–170.
- Novák, Mirko
 1995 Die “Sāmarrāʾ-Zeit” als Wendepunkt der islamischen Geschichte. *Das Altertum* 41: 123–140.
 1996 Der Landschaftsbezug in der orientalischen Palastarchitektur. *Altorientalische Forschungen* 23: 335–378.
 1997 Die orientalische Residenzstadt. In *Die orientalische Stadt: Kontinuität, Wandel, Bruch*. G. Wilhelm, ed. Pp. 169–198. Colloquien der Deutschen Orient-Gesellschaft 1. Saarbrücken: Saarbrucker Druckerei und Verlag.
 1999 *Herrschaftsform und Stadtbaukunst—Programmatik im mesopotamischen Residenzstadtbau von Agade bis Surra man raʾā*. Schriften zur Vorderasiatischen Archäologie 7. Saarbrücken: Saarbrucker Druckerei und Verlag.
- Orthmann, Winfried, ed.
 1975 *Der Alte Orient*. Propyläen Kunstgeschichte 14. Berlin: Propyläen.

- Pongratz-Leisten, Beate
1994 *Ina šulmi irub*. Mainz: P. von Zabern.
- Rashad, Mahmud
1996 Die Bedeutung der Jagd für die Herrschaftsdarstellungen bei den Achämeniden, Parthern und Sasaniden. In *Vom Halys zum Euphrat (Festschrift Beran)*. U. Magen and M. Rashad, eds. Pp. 241–255. *Altertumskunde des Vorderen Orients*, 7. Münster: Ugarit-Verlag.
- Röllig, Wolfgang
1981 Zum “Sakralen Königtum” im Alten Orient. In *Staat und Religion*. B. Gladigow, ed. Düsseldorf: Patmos Verlag.
- Sack, Dorothée
1989 *Damaskus. Entwicklung und Struktur einer orientalisches-islamischen Stadt*. Damaszener Forschungen, 1. Mainz: P. von Zabern.
- Schippmann, Klaus
1993 L’influence de la culture sassanide. In *Splendeur des Sassanides: L’empire perse entre Rome et la Chine*. 131–141. Brussels: Musées royaux d’Art et d’Histoire.
- Selz, Gebhard
1998 Über Mesopotamische Herrschaftskonzepte. In *Dubsar anta-me, Festschrift für Willem H. Ph. Römer*. M. Dietrich and O. Loretz, eds. Pp. 281–344. *Alter Orient und Altes Testament* Band, 253. Münster: Ugarit Verlag.
- Sourdél-Thomine, Janine and Bertold Spuler, eds.
1990 *Die Kunst des Islam. Propyläen Kunstgeschichte*. New Edition. Frankfurt.
- Stierlin, Henri
1996 *Frühe Bauwerke von Bagdad bis Córdoba*. Taschen’s Weltarchitektur: Islam 1. Köln.
- Stronach, David
1990 The Garden as a Political Statement. In *Studies in honour of Richard Nelson Frye: Aspects of Iranian Culture. Theme issue. Bulletin of the Asia Institute, New Series*, 4: 171–180.
- Tuplin, Christopher
1996 *Achaemenid Studies*. Stuttgart: F. Steiner.
- Wiesehöfer, Josef
1993 *Das antike Persien*. Zurich: Artemis & Winkler.
- Wilhelm, Gernot, ed.
1997 *Die orientalische Stadt: Kontinuität, Wandel, Bruch. 1. Internationales Colloquium der Deutschen Orient-Gesellschaft, 9–10 Mai 1996 in Halle/Saale. Colloquien der Deutschen Orient-Gesellschaft 1*. Saarbrücken: Saarbrucker Druckerei und Verlag.
- Winter, Irene J.
1993 The Palace as Construct in the Ancient Near East, *Ars Orientalis* 23: 27–55.
- Wirth, Eugen
1997 Kontinuität und Wandel der orientalischen Stadt. Zur Prägung von städtischen Institutionen durch jahrtausendealte kulturraumspezifische Handlungsgrammatiken. In *Die orientalische Stadt: Kontinuität, Wandel, Bruch*. G. Wilhelm, ed. Pp. 1–44. *Colloquien der Deutschen Orient-Gesellschaft 1*. Saarbrücken: Saarbrucker Druckerei und Verlag.
- Wiseman, D.J.
1983 Mesopotamian Gardens. *Anatolian Studies* 33: 135–144.

“Al-Ḥayr” in ‘Abbāsīd Iraq

ALASTAIR NORTHEGE

Abstract

The paper discusses hunting reserves in ‘Abbāsīd Iraq, particularly in relation to the well-known Arabic term “al-Ḥayr”. Archaeological evidence is presented of four such reserves at Samarra, dating from the Late Sasanian and ‘Abbāsīd periods. Textual evidence relating to these reserves is discussed, and a comparison is made with the similar reserve at Baghdad, which is known only from texts.

Introduction

The Arabic term “al-Ḥayr” is often found in the Early Islamic period referring to a large walled enclosure of some kind. The article in the *Encyclopaedia of Islam*, 2nd Edition, explains al-Ḥayr, under its cognate form of al-Ḥā’ir, as an enclosure often used for agriculture, or alternatively as a zoological garden (Sourdél-Thomine 1971). The encyclopaedia article is not very clear in distinguishing the functions of such enclosures, and this lack of clarity is probably due to the fact that there were different uses of such enclosures at different times and places. A good deal of attention is paid by the article to the two Umayyad sites of Qaṣr al-Ḥayr al-Gharbī and Qaṣr al-Ḥayr al-Sharqī in Syria (Schlumberger 1986; Grabar et al. 1978), whereas in fact those names are modern, and are no indicators of what those complexes were thought to be at the time of their construction. Dr. Fawwaz Tuḡan has also published an interesting work, concentrated on the relationship of the Umayyad Desert Castles to such reserves (Tuḡan 1979).

The obvious distinction to make is between Umayyad Syria and ‘Abbāsīd Iraq. The traditions of Roman Syria, with an overlay from the Ḥijāzī practices of the Umayyads, were evidently different from the Iraqī traditions of the ‘Abbāsīds, which drew on the practices of ancient Mesopotamia, supplemented by Sasanian Iranian traditions and those of eastern Arabia, as well as internal developments. This article, for reasons of space, will limit itself to discussing the evidence from ‘Abbāsīd Iraq, notably the archaeological evidence from Samarra, and then compare it to what is known of Baghdad.

Samarra

The ‘Abbāsīd caliph al-Mu‘taṣim chose the site of Samarra in 221/836 apparently for reasons of its hunting possibilities. The first requirement of al-Mu‘taṣim was for a site for his court and for a military base for the Turkish guard, which he had acquired in the reign of al-Ma’mūn (Gordon 2001; Northedge 1995).

According to al-Ya‘qūbī:

Then he rode out hunting, and passed on his way until he came to the site of Surra Man Ra’ā, which was a steppe of the land of al-Ṭirhān in which there was no building and no

people except for a monastery of the Christians. He stopped at the monastery and spoke to the monks in it, and said, “what is the name of this place?” (al-Ya‘qūbī, al-Buldān 257).

Al-Mu‘taṣim’s choice of site was perhaps forced by the fact that he had left Baghdad in a grand progress to the north in search of a new capital, and he could not return to Baghdad without a solution. Yet the site was one already known for its hunting.

When Khusraw Anūshīrwān dug the canal known as al-Qāṭūl al-Kisrawī in the sixth century A.D., two monuments were built: at the southern entry (modern Nahr al-Qā’im) a monumental tower known today as Burj al-Qā’im, and at the northern entrance (modern Nahr al-Raṣāṣī), a palace (Northedge et al. 1990). The tower of al-Qā’im is almost certainly contemporary with the digging of the canal and was intended to commemorate its construction. The palace could be of the same date or later—seventh or eighth century—and was at least inspired by the construction of the canal.¹

The Sasanian-‘Abbāsid Reserve S3 at al-Dūr

On the north side of the Nahr al-Raṣāṣī, opposite to the late Sasanian palace, the remains of an enclosure are preserved which extends 12.5 kilometers to the northeast, and then 21.9 kilometers to the northwest, from which point it links back to the Tigris (Figure 1). Formerly, the wall of this enclosure was thought to be a canal, for example by Susa, who calls it “Nahr al-Ḥudayd” (Susa 1948–49, 325–328). Nevertheless, an inspection on the ground shows that it is not a canal, but rather an enclosure with a double wall. The two walls of pisé are separated by a distance that varies between 17 meters and 21 meters. Four gates have been identified. One is a square building with a covered passage built in fired brick (S9). S17 is a small postern, and the remaining two (S18 and S20) have zigzag plans in the double wall. At two of these gates (S9 and S20), Sasanian sherds were found. At gate S9, ‘Abbāsid sherds were recovered.

Two kilometres southeast of al-Dūr, there is a circular conical artificial mound, Tell al-Banāt, 170 meters in diameter and standing 18.2 meters above the surrounding plain. The Nahr al-Ja‘farī, the canal built by al-Mutawakkil in 245/859 to supply his new city of al-Mutawakkiliyya, approaches directly from the north, circles the base of the mound, and continues towards the crossing of Nahr al-Raṣāṣī. The isolation of the mound by water, very similar to the moat surrounding Tell al-‘Alīq (Northedge 1990), must be intended as a security measure for the prince. No remains of a building have been identified on top of the mound, though a pavilion may have existed. The mound seems to have been intended for the prince to watch the hunt, or possibly other sporting events in the plain, of which no trace survives.² However, the unfinished relief of the Sasanian deer-hunt at Tāq-i Bustān includes a group of musicians on a raised wooden platform (Sarre and Herzfeld 1910: taf. XXXIX). It is not impossible that Tell al-Banāt was actually intended for a musical accom-

1. There was also pottery evidence of ninth century ‘Abbāsid occupation. At first it seemed that the substantial proportion of ‘Abbāsid pottery found in the palace building could be accounted for by suggesting that the building might have been used as a work-camp during the construction of the ‘Abbāsid buildings around it, but it is evident that this hypothesis cannot be correct, for the channel supplying water to the *birka* is a part of the water systems of the Qaṣr al-Ja‘farī. It must be concluded that the building was renovated when al-Ja‘farī was built in 245/859–247/861, and possibly the *birka* was added at this time (Northedge et al. 1990).
2. Susa thought that, like Tell al-‘Alīq, Tell al-Banāt was intended for watching horseracing. However, no remains of a racetrack are to be seen.



FIGURE 1. The Sasanian-‘Abbasid Reserve at al-Dūr (S3).

paniment to the hunt, although the large dimensions and distances concerned argue against this interpretation.

The alignment of the plan to the Nahr al-Raṣāṣī shows that the reserve is contemporary to or later than the canal, while the Sasanian sherds in the gates demonstrate a pre-ʿAbbāsīd date, that is Late Sasanian or Umayyad. At the same time, the discovery of ʿAbbāsīd sherds at gate S9, and the adaptation of the alignment of the Nahr al-Jaʿfarī to the enclosure at its northern exit shows that it was still in use in 245/859, perhaps with a restoration at this time. The disposition of the mound at Tell al-Banāt, and its resemblance to the ʿAbbāsīd mound at Tell al-ʿAlīq, would suggest that it was built at the same time as the canal of al-Mutawakkil, and formed part of the restoration of the reserve, as the hunting park of al-Mutawakkiliyya in 245/859–247/861.

Al-Ḥayr at Surra Man Raʿā

At Samarra the name of al-Ḥayr was applied to the area east of the city (Figure 2), and al-Yaʿqūbī (al-Buldān 258) uses phraseology such as “[al-Muʿtaṣim] allocated to Waṣīf and his companions the area adjacent to al-Ḥayr, and he built an extended enclosure wall which he called Ḥāʾir al-Ḥayr”. As indicated in this quotation, the name was applied both to the enclosure east of the city, and to the quarters of the city adjacent to it.³ In particular, two avenues were named after al-Ḥayr: Shāriʿ al-Ḥayr al-Awwal and Shāriʿ al-Ḥayr al-Jadīd. The function of al-Ḥayr is explained by al-Yaʿqūbī (al-Buldān 263) as:

Behind the wall were wild creatures, including gazelles, wild asses, deer, hares, and ostriches, and they were enclosed by a wall which went round in a pleasant, broad steppe.

The animals cited are native to Iraq, and this shows that al-Ḥayr was essentially a hunting reserve.

The area of the reserve of al-Ḥayr is defined by a single wall of pisé, which encloses an area of 114 square kilometers, with dimensions of 10.7 kilometers long and 5.9 kilometers wide. The side of the city facing towards al-Ḥayr was delimited by walls of the quarters and cantonments, which were rebuilt when the various enlargements of the city were laid out. The textual sources emphasize the enlargement of the city and the building of a second wall: “Whenever these avenues that belong to al-Ḥayr touched cantonments of a contingent, [al-Mutawakkil (232/847–247/861)] demolished the wall [of al-Ḥayr], and built another wall behind it” (al-Yaʿqūbī, al-Buldān 263). In Site G, north of the Dār al-Khilāfa, the wall is laid out along the west side of a fosse, which may have been filled with water. North of Site G, the wall continues along the edge of the descent into the flood plain as far as Sūr Ashnās and the Nahr Murayr. From Sūr Ashnās, the wall continues east along the north bank of the Nahr Murayr as far as the junction with the Nahr Raṣāṣī. From this point, the wall runs at the foot of the levee on the west side of the Raṣāṣī as far as the regulator to the east of Samarra. Here, it appears to have bent around a building on the south bank of the regulator, and then turned south along the canal that brought water from the Raṣāṣī to the Octagon at Qādisiyya. There is no good evidence at the moment for the wall along the canal, but

3. In a secondary meaning, the name al-Ḥayr was also applied to a palace, as cited by Yāqūt (Muʿjam, s.v. Al-Ḥayr). This building was erected by al-Mutawakkil and cost four million dirhams, but nothing else is known about it. Hayani thinks that this palace is to be identified with the Small Serdab in the Dār al-Khilāfa (Hayani 1985–86), but the reasons for the identification are not given. It is possible that the reference is in reality to a project for construction of a reserve, but it was later misunderstood as being a palace.

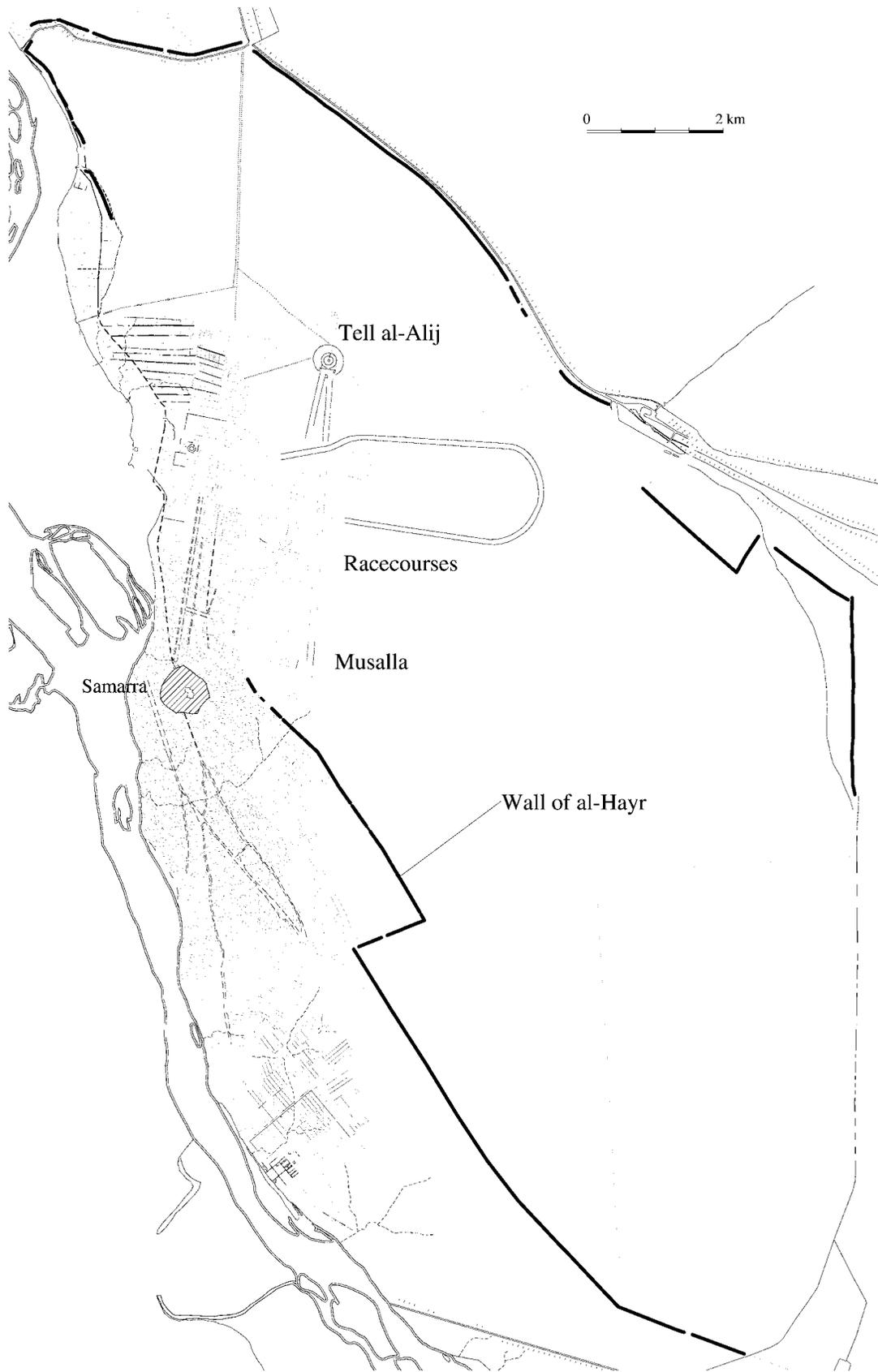


FIGURE 2. Al-Ḥayr at Surra Man Ra'ā.

the turn south towards the canal is clear. From a point north of the crossing of the Nahr al-Qā'im, the wall forming the southwest sector of the enclosure leads back to the junction at Maṭīra between the monumental avenue of that cantonment and the Shāri' Abī Aḥmad. This junction point connects the enclosure with the reign of al-Mu'taṣim, for both avenues belong to the early period, and later lost importance.

A number of gates of al-Ḥayr are mentioned in the textual sources: there was one in the Qaṭā'i' by the house of Yājūr, possibly to be identified east of Sūr Ashnās (al-Ṭabarī, Ta'riḫ vol. 3: 1788, 1789), one between al-Jawsaq and al-Karkh (al-Ṭabarī, Ta'riḫ vol. 3: 1802, 1804), one adjacent to al-Jawsaq (al-Ṭabarī, Ta'riḫ vol. 3: 1787), and one next to the *qibla* of the Congregational Mosque (al-Ṭabarī, Ta'riḫ vol. 3: 1810). This last gate is quite clear on the ground.

In spite of the reservation of al-Ḥayr for hunting, there are a number of buildings within the enclosure, which would appear at first sight to be incompatible with its function as a hunting reserve. There are two *muṣallās* within the enclosure; one, Y19, is located 450 meters east of the Congregational Mosque, and the other, Y6, is placed east of the Dār al-Khilāfa within the circuit of racecourse 2. Muṣallā Y19 evidently served for the festival prayers of the central city area, and Y6 for those of the area round the Dār al-Khilāfa.

Secondly, there are the three well-known racecourses: Course 1 running south from Tell al-ʿAlīq, Course 2 running east from the Dār al-Khilāfa, and the Cloverleaf (Course 3), with its four circles. There also appears to be an unfinished palace and rectangular enclosure located between Tell al-ʿAlīq and the Qāṭūl al-Kisrawī. This last may have been connected with the use of the Ḥayr, but the *muṣallās* and racecourses were typical structures to be built outside a city.

Al-Ḥayr was evidently laid out at the time of al-Mu'taṣim as the principal hunting reserve. The mentions in the texts of the wall of al-Ḥayr and al-Mu'taṣim's ruling forbidding the expansion of the city in that direction, show the importance of hunting for the caliph (al-Balādhurī, Futūh al-Buldān 297; Al-Hamadhānī, al-Buldān 90). Nevertheless the construction of two *muṣallās*, and the three racecourses, in al-Ḥayr seem incompatible with a reserve destined for wild animals. In addition, there are a number of mentions of military movements in al-Ḥayr, and other journeys across it, particularly in the period 255/869–256/870 (al-Ṭabarī, Ta'riḫ, vol. 3: 1708, 1787, 1807, 1812, 1817–8, 1824, 1828). The explanation seems to be that al-Ḥayr was abandoned as a hunting reserve, and that it was replaced by the two palaces of the south, al-Iṣṭablāt and al-Musharraḥāt, both of which possess smaller such reserves.

Al-Musharraḥāt (al-Shāh)

Al-Musharraḥāt is located on the north side of the Nahr al-Qā'im, 10.5 kilometers south-east of Samarra (Figure 3). The palace complex is placed centrally in the south side of a trapezoidal enclosure which measures 6.1 by a maximum of 9.2 kilometers.

The complex itself centres around a rectangular court 500 x 660 meters. On the north side there is a palace, 145 meters square, facing onto a basin fed by a canal from the north. Built of baked brick, the walls of this palace have been robbed out. On the east and west sides of the court there are blocks of housing apparently similar to those of Iṣṭablāt, but the traces are only faintly preserved. All these are probably built of pisé. In the northeast corner there are further courtyard buildings, which are not apparently housing.

Herzfeld (1948: 113, 131) describes Musharraḥāt as a hunting palace, and it is evident that he was right. Najī al-Asil (1947) had argued that the site was the palace of Hārūn al-

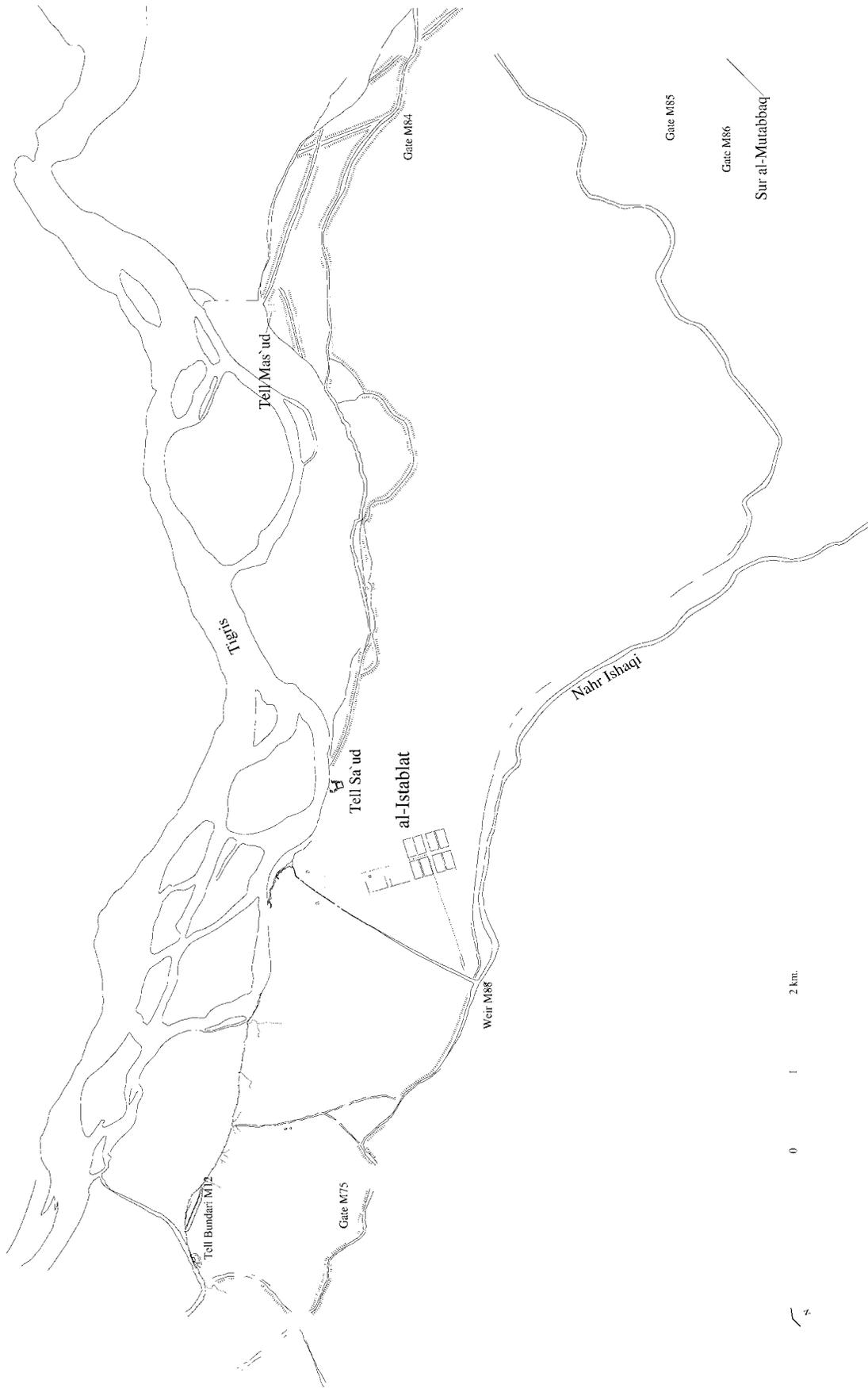


FIGURE 3. Al-Ḥāʾiṭ al-Abyaḍ at Iṣṭablāt.

Rashīd on the Qāṭūl, but the surface pottery, though sparse, is definitely of the Samarra period in the third/ninth century. Susa (1948: 285–305) located a game reserve here, but also al-Birka al-Jaʿfariyya, the basin celebrated in the poetry of al-Buḥturī. While there is no particular reason to locate the famous *birka* here, a dating to the reign of al-Mutawakkil is probable, based on the similarity of its architectural style to the palaces of al-Iṣṭablāt and Balkuwārā. The likely name in the texts that it corresponds to is the palace of al-Shāh, for the site is compatible with the information in the texts. Al-Shāh is twinned with al-ʿArūs by Yāqūt, described as in the vicinity of Surra Man Raʿā, not in the town itself, and cost 20 million dirhams, two-thirds of al-ʿArūs (Yāqūt, Muʿjam, sv al-Shāh wal-ʿArūs). As al-Yaʿqūbi indicates (Tārīkh, vol. 2: 491), al-Shāh was probably already in existence by 240/855–56.

Al-Iṣṭablāt and al-Ḥāʾit al-Abyaḍ

Al-Iṣṭablāt is located 13 kilometers south of modern Samarra on the west bank of the Tigris (Figure 4; see Northedge 1992 for bibliography). The site consists of a main walled structure in the form of a double rectangle, oriented roughly towards the *qibla* (188 degrees). The smaller rectangle, measuring 235 x 520 meters, overlooks the Tigris and contains the palace. The main residential settlement was built in a vast rectangle measuring 1721 by 575 meters.⁴

Al-Iṣṭablāt is surrounded by an outer enclosure wall, called by Herzfeld *al-ḥāʾit al-abyaḍ*, the “White Enclosure” (Herzfeld 1948: 81). The wall is of pisé, and according to Herzfeld has half-round buttresses on both sides alternately. Susa (1948–49: 94–95) calls the wall simply “the outer enclosure”.

The enclosure begins 4.7 kilometers northwest of al-Iṣṭablāt at the outlet of the Ishāqī canal into the Tigris, as described by Ṣuḥrāb (Ibn Serapion), and adjacent to Tell Bundarī. The wall runs southwest following the line of the canal to the junction where the Ishāqī divides, then it turns southeast following the southern branch of the Ishāqī. After one kilometer there is a courtyard building attached to the inside of the wall (M75). According to Susa (1948–49: map 2b), this building is a regulator on the canal. However, such a building is more usually a guard-post for a gate in the wall. The wall follows the course of this branch of the Ishāqī to the southeast, and then turns east and northeast. In this sector, Susa reports three gates (M84–6). It is not possible to confirm their existence, as a radio station now occupies this area. The wall touches the Sasanian linear wall, Sūr al-Muṭabbaq, and then turns northwest back to the Tigris (Reade 1964).

There is, in fact, no direct connection between this enclosure wall and al-Iṣṭablāt. Herzfeld (1948: 81) thought that it belonged to the ʿAbbāsīd period because of the alternation of buttresses on both sides of the wall. It certainly belongs to the period when the southern branch of the Ishāqī was flowing. The canal was flowing in the third/ninth and fourth/tenth centuries.

Al-Iṣṭablāt is probably to be identified with the palace of al-ʿArūs, built by al-Mutawakkil, and is the other half of the pair of al-Shāh wal-ʿArūs.⁵ The pair were built between 232/847 and 240/855–6, as indicated above.

The Development of Hunting Reserves at Samarra

There were four hunting reserves at Samarra. The first was the hunting reserve north of the Nahr al-Raṣāṣī, originally built in late Sasanian times, and rebuilt probably

4. For a more detailed description of the palace and settlement, see Northedge 1992.

5. For the dating arguments on al-Iṣṭablāt, see Northedge 1992.

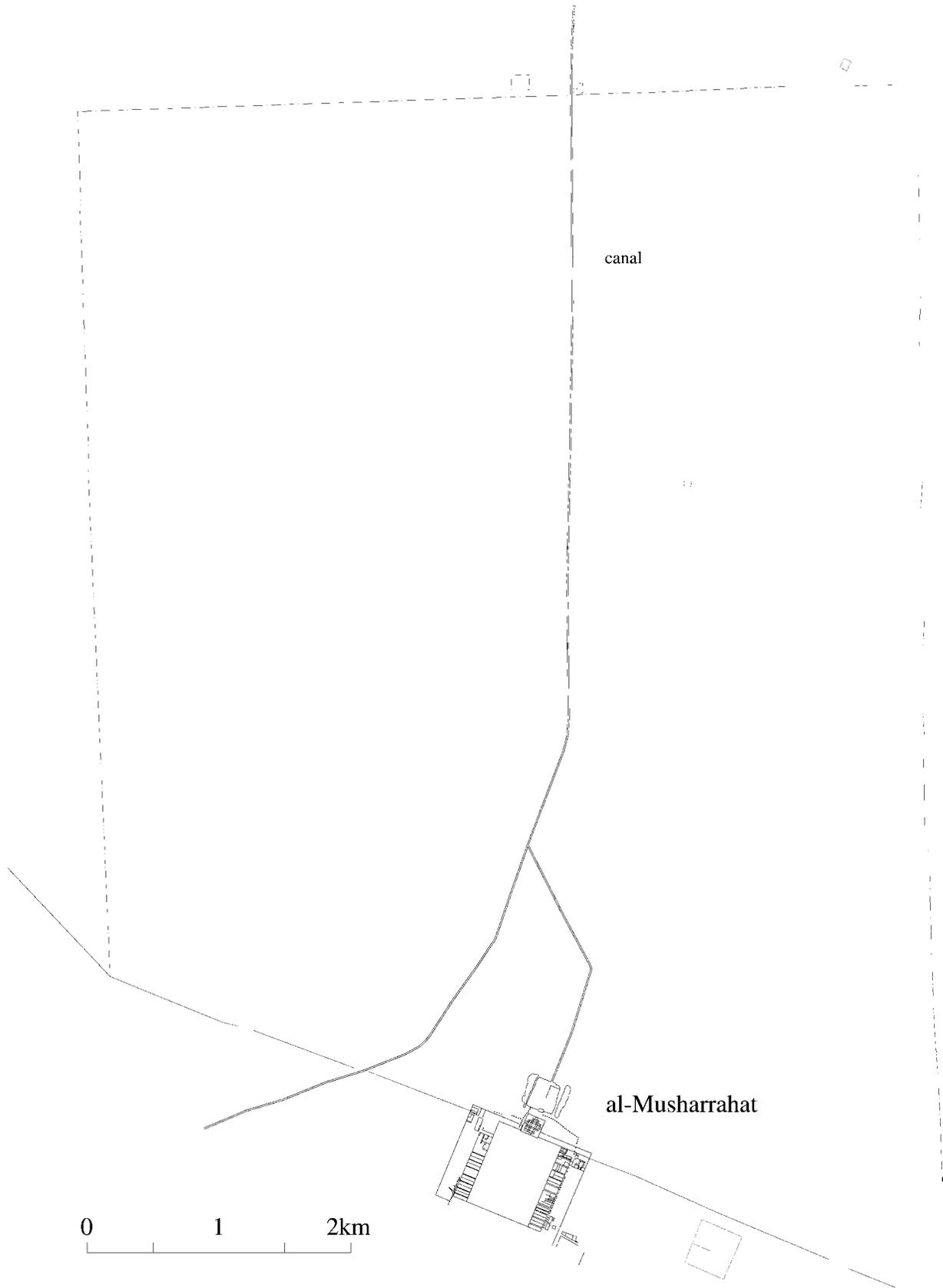


FIGURE 4. The reserve at al-Musharrahat.

for al-Mutawakkiliyya in 245/859. That is, when al-Mutawakkil built his new city of al-Mutawakkiliyya to the north of Samarra, it seems probable that reserve S3 was restored and used again. However, that reuse would not have continued beyond the murder of al-Mutawakkil in 247/861, and the abandonment of his new city. When al-Muṭaṣim settled at Samarra in 221/836, “al-Ḥayr” was built as the principal hunting reserve east of the city, on the model of the previous Sasanian reserve. As can be seen from the plan, the layout of the reserve restricted the expansion of the city. It is for this reason that the textual sources mention the building of a second wall further back. Finally, however, it proved to be impossible to maintain the reserve, for competing activities—horse-racing and the festival prayers—needed the same space. The two reserves in the south at al-Iṣṭablāt and al-Musharraḥāt, both built by al-Mutawakkil early in his reign, succeeded al-Ḥayr after its abandonment.

These reserves follow much the same plan: a large walled area with a series of gates. In the case of S3, the wall is double, and Tell al-Banāt may be a viewing platform for the caliph. In the case of al-Musharraḥāt, there is a basin, hunting palace, and extensive installations for the huntsmen around a large square. Some equivalent housing for the huntsmen, and other necessary buildings for their work, should also be looked for in the other hunting parks. At Iṣṭablāt, it seems likely that the cantonment attached to the palace was destined for this purpose. This cantonment is composed of three large houses, four medium-sized houses, and 315 small houses. In addition, there are nine buildings which seem to be intended for work purposes.

The type of hunting practised there descended from the hunting parks of ancient Mesopotamia, such as those discovered by the Greeks under Xenophon in 401 B.C.⁶ In the Sasanian period, such a hunt is represented in the two reliefs on the sidewalls of the Tāq-i Bustān at Kirmānshāh in Iran (Sarre and Herzfeld 1910: 206–212, taf. xxxviii–xxxix), generally attributed to Khusraw Parvīz (A.D. 591–628). In the left-hand relief a net enclosure is depicted sited in a marsh, and the King is hunting wild boar from a boat. A musical accompaniment is provided from other boats, and elephants both drive the boars from the left and remove the dead from the right. In the right-hand relief, representing a deer-hunt, a net enclosure is again depicted, with three sub-enclosures on the right, from which deer were driven into the great enclosure, to be shot by the king. On a wooden stage, musicians accompany the hunt.⁷ It is evident that in the ideal of Khusraw Parvīz, the hunt was an extremely elaborately staged ritual. It seems not unlikely that hunting events under the ʿAbbāsids were staged with such a degree of formality.

When Dastagird was sacked in 628 by Heraclius, according to Theophanes a “paradise” was found where there were gazelles, wild asses (onagers), peacocks, pheasants, lions and tigers (Sarre and Herzfeld 1911, vol. 2: 89. This list is similar to, though wider than, the list quoted above by al-Yaʿqūbī for Samarra.

Baghdad

The Ḥayr in Baghdad was attached to the Dār al-Khilāfa, on the east bank of the Tigris. There is no mention of a reserve in connection with al-Manṣūr’s original foundation of Bagh-

6. “Cyrus had a palace there and a large park full of wild animals which he used to hunt on horseback when he wanted exercise for himself and his horses.” Xenophon, *Anabasis*, transl. Rex Warner, *The Persian Expedition* 21. Penguin.

7. It may be that the depiction of the enclosure as a net is a stylised tradition; cf. the depiction of the enclosure as a net in the paintings of the hunt at Quṣayr ʿAmra.

dad on the west bank in 145/762–149/766 (Lassner 1970: 85–91). The Dār al-Khilāfa was built around the Ḥasanī palace, which was named after al-Ḥasan b. Sahl. The building was originally constructed by Ja‘far al-Barmakī in the reign of Hārūn al-Rashīd (Lassner 1970: 85, n. 2.). However, it was not extended until the time of al-Mu‘taḍid (279/892–289/902), when an enclosure wall was built for the Dār al-Khilāfa complex. The complex was then enlarged by the construction of new palaces in the reigns of al-Mukta‘if (289/902–295/908), and al-Muqtadir (295/908–320/932).

Al-Muqtadir billah then expanded the area of al-Tāj and completed what al-Mukta‘if had begun. The *maydān* [polo ground], and the *Thurayyā* [Palace], and the *ḥayr* were connected with the palace precinct (al-Khaṭīb al-Baghdādī, as translated by Lassner 1970: 86, with slight modification).

According to Yāqūt (Mu‘jam al-Buldān, sv al-Thurayyā), the Thurayyā was a complex of buildings built at a distance of two miles from al-Tāj by al-Mu‘taḍid, apparently on the far side of the Ḥayr. Although the evidence is not entirely conclusive, the texts seem to suggest that the Ḥayr in Baghdad was not built until the reign of al-Mu‘taḍid, or possibly that of al-Muqtadir. That is, a Ḥayr did not exist in Baghdad until the return from Samarra, and the reserves there must have provided the inspiration for the later example.

Animals were brought from the *ḥayr al-wuḥūsh* (reserve of wild animals) in 305/917–18 for presentation to the Byzantine ambassadors (Lassner 1970: 89). According to Ibn al-Jawzī, birds of all kinds were collected together there; nor were gazelles, wild cows, wild donkeys, ostriches and camels absent. He conducted all kinds of breeding experiments. When it was reported to him that a water bird had mated with a land bird and had laid eggs he gave 100 dinars to the informant (Ibn al-Jawzī, al-Muntaẓam, fol. 64b). In this text, it would appear that in Baghdad, the Ḥayr was not simply a hunting reserve, but took on something of the aspect of the modern zoological garden. This may not have happened until the reign of al-Muqtadir. In the state budget of ‘Alī b. ‘Īsā (306/918), there is an item “for the feeding of the animals, birds and wild animals”, but it is not separately calculated (Hilāl al-Ṣābī, Rusūm Dār al-Khilāfa, 23–24). In the earlier budget of al-Mu‘taḍid, dated approximately 280/893, the huntsmen are stated to cost 2500 dinars per month (Ahsan 1976; Busse 1967: 26).

According to Miskawayh, the game in the Ḥayr at Baghdad were slaughtered during disturbances in 315/925–26 (Miskawayh, Tajārib al-Umam, vol. 1: 159; also Sourdél-Thomine 1971). It is not known whether the Ḥayr was repopulated with new animals later, but the text of Hilāl suggests that much was further destroyed in the civil war that followed the deposition of al-Muqtadir in 320/932 (Hilāl al-Ṣābī, NM 13).

References

- Ahsan, M. M.
 1976 A Note on Hunting in the Early Abbasid Period: some evidence on expenditure and prices. *JESHO* 19: 101–105.
 1979 *Social Life under the Abbasids*. London: Longman.
- al-Asīl, Nājī
 1947 Madīnat al-Mu‘taṣīm ‘alā al-Qāṭūl. *Sumer* 3: 160–171 (Arabic).
- al-Balādhurī, Aḥmad b. Yaḥyā
 1866 *Kitāb Futūḥ al-Buldān*. M. J. de Goeje, ed. Leiden.
- Büsse, H.
 1967 Das Hofbudget des Chalifen al-Mu‘taḍid billāh (279/892–289/902). *Der Islam* 43: 11–36.

- Christensen, A.
1944 *L'Iran sous les Sassanides*. 2nd ed. Copenhagen: Munksgaard.
- Gordon, M. S.
2001 *The Breaking of a Thousand Swords: A History of the Turkish Military of Samarra (A.H. 200–275/815–889 C.E.)*. Albany: SUNY Press.
- Grabar, Oleg, Renata Holod, James Knustad and William Trousdale
1978 *City in the Desert: Qasr al-Hayr East*. 2 vols. Harvard Middle East Monograph Series, 23–24. Cambridge: Harvard University Press.
- al-Hamadhānī, Abū ‘Abdallāh Aḥmad b. Muḥammad b. Ishāq (Ibn al-Faqīh)
1987 *Kitāb al-Buldān*. In *Collection of Geographical Works by Ibn al-Faqīh, Ibn Fadlān, Abū Dulaf al-Khazrajī*. Fuat Sezgin, ed. Pp. 1–347. Frankfurt: Institute for the History of Arabic-Islamic Science.
- al-Ḥayānī, Ḥāfiẓ Ḥusayn
1985–86 *al-Ḥir*. *Sumer* 44: 139–157 (Arabic).
- Herzfeld, E.
1948 *Ausgrabungen von Samarra VI, Geschichte der Stadt Samarra*. Hamburg: Verlag von Eckhardt and Messtorff.
- Ibn Hudhayl al-Andalusi, ‘Alī ibn ‘Abd al-Rahman
1924 *Hilyat al-fursān fi shi‘ār al-shuj‘ān*. French transl. L. Mercier, *La parure des cavaliers et l’insigne des preux*. Paris: P. Geuthner.
- Ibn al-Jawzī, ‘Abd al-Raḥmān b. ‘Alī
1938–43 *Al-Muntaẓam*, 6 vols. Hyderabad.
- Lassner, J.
1970 *The Topography of Baghdad in the Early Middle Ages*. Detroit: Wayne State University Press.
- Mercier, L.
1927 *La Chasse et les Sports chez les Arabes*. Paris: P. Geuthner.
- Miskawayh, Aḥmad b. Muḥammad
1920–21 *Tajārib al-Umam wa-ta‘āqib al-himam*. M. J. de Goeje, ed. *Pars sexta operis Tadjaribo l-Omami, auctore Ibn Maskowaih*. Leiden, 1871. English transl. H. F. Amedroz and D.S. Margoliouth, *The Eclipse of the Abbasid Caliphate*. 7 vols. Oxford: Blackwells.
- Northedge, A.
forthcoming *Historical Topography of Samarra*. Oxford Studies in Islamic Art. Oxford: Oxford University Press.
1990 The Racecourses at Samarra’, *Bulletin of the School of Oriental and African Studies* 53: 31–56.
1992 The palace of al-Istabulat at Samarra’. *Archéologie Islamique* 3: 61–86.
1994 Archaeology and new urban settlement in Early Islamic Syria and Iraq. In *Studies in Late Antiquity and Early Islam II, Settlement Patterns in the Byzantine and Early Islamic Near East*. G. R. D. King and A. Cameron, eds. Princeton: Darwin.
1995 Sāmarrā’. *Encyclopaedia of Islam*, vol. 8. 2nd edition. Pp. 1039–1040.
- Northedge, A., Wilkinson, T. J., & Falkner, R.
1990 Survey and Excavations at Samarra, 1989. *Iraq* 52: 121–147.
- Pseudo-Djahiz
1954 *Kitab al-Taj fi Akhlaq al-Muluk*. French transl. Ch. Pellat, *Livre de la Couronne*. Paris: Société d’édition “Les Belles lettres”.
- Reade, J. E.
1964 El-Mutabbaq and Um-Rus. *Sumer* 20: 83–89.
- al-Ṣābī, Hilāl
1977 *Rusūm Dār al-Khilāfa*. English transl. Elie A. Salem, *The Rules and Regulations of the Abbasid Court*. Beirut: American University of Beirut.

- Sarre, F. and E. Herzfeld
 1910 *Iranische Felsreliefs: Aufnahmen u. Untersuchungen von Denkmälern aus alt- und mittelpersischer Zeit.* Berlin: E. Wasmuth.
- 1911–20 *Archäologische Reise im Euphrat- und Tigris-Gebiet.* 4 vols. Forschungen zur islamischen Kunst 1. Berlin: D. Reimer.
- Schlumberger, Daniel
 1986 *Qasr el-Heir el Gharbi.* Bibliothèque archéologique et historique 120. Paris: Geuthner.
- Sourdel-Thomine, J.
 1971 Al-Ḥā’ir. *Encyclopaedia of Islam*, vol. 3. 2nd edition. P. 71.
- Suḥrāb
 Kitāb ‘Ajā’ib al-Aqālīm al-Sab‘a. Ibn Serapion, Description of Mesopotamia and Baghdad, written about A.D. 900 by Ibn Serapion. G. Le Strange, ed. & transl. *Journal of the Royal Asiatic Society* 1895: 9–32.
- Sūsa, A.
 1948–49 *Rayy Sāmarrā’ fī ‘Ahd al-Khilāfa al-‘Abbāsiyya.* 2 vols. Baghdad: Matba‘at al-Ma‘arif.
- al-Ṭabarī, Muḥammad b. Jarīr
 1879–1901 *Ta’riḫ al-Rusul wa’l-Mulūk.* M. J. de Goeje, ed. Leiden: Brill.
- Tuqan, Fawwaz Ahmad
 1979 *al-Ḥā’ir, Baḥth fī al-Quṣūr al-Umawiyya fī al-Bādiya.* Amman: Wizarat al-Thaqafa wal-Shabab al-Urdunniyya
- al-Ya‘qūbī, Aḥmad b. Abī Ya‘qūb b. Wādih
 1892 *Kitāb al-Buldān.* M. J. de Goeje, ed. Bibliotheca Geographorum Arabicorum, 7. Leiden.
- 1883 *Ta’riḫ.* 2 vols. M. Houtsma, ed. Leiden.
- Yāqūt b. ‘Abdallah al-Ḥamawī al-Rūmī al-Baghdādī
 1866–73 *Kitāb Mu’jam al-Buldān.* 6 vols. F. Wüstenfeld, ed. Leipzig.

Approaches to the Islamic Built Heritage

ANDREW PETERSEN
Cardiff University of Wales

The aim of the paper is to show that archaeological investigation is only one of a number of approaches to historic buildings and sites, and that awareness of other approaches and interests can enhance our archaeological interpretation and methods. The paper is divided into two parts; in the first section I will discuss this question within the general context of Islamic monuments in the Middle East, and in the second section I will examine three examples from Lebanon that illustrate the application of different approaches.

Part I

To begin, it is necessary to define the term “Islamic Built Heritage”. For the purposes of this paper I am using the term “Islamic” in its widest sense to include not only religious buildings such as mosques, madrassas and mausolea, but also secular buildings such as forts, houses and even industrial complexes including sugar factories (cf. Hamarneh 1997–98 and Politis 1998: especially 628–630), mills (Greene 1995; Hill 1993: 92–113; McQuitty 1995) and metal working/processing sites (Rothenberg 1972). There are, of course, arguments against such an inclusive definition, especially if the inhabitants or builders of a particular structure were non-Muslim. In this paper, however, the term will be used to refer to buildings established under Muslim rule although this does raise the question of whether it is possible to have an Islamic church (for examples see Schick 1995). The phrase “built heritage” is perhaps easier to define and has become a standard way of referring to historic buildings with the added meaning of something that has been left to us. The preference for the use of this term over “historic buildings” is that it does not only refer to buildings that are attested in written records.

One necessary further question is whether the term “built heritage” refers only to standing buildings or whether it also includes excavated structures. Traditionally, there has been a distinction between the study of standing buildings carried out by art historians and architects and the study of excavated remains by archaeologists. However, the growth of urban archaeology has made it necessary for archaeologists to treat excavated and standing remains in a similar way, as a standing building may often rest directly on buried structures. For the purposes of this discussion, built heritage is used to refer to any building that is exposed above ground, regardless of whether it has previously been excavated.

There are four approaches to the Islamic Built Heritage I would like to discuss. These are:

1. political;
2. conservation;

3. tourism;
4. archaeological.

These four approaches are neither exhaustive nor exclusive, although they each represent different groups of people claiming some degree of protection or control over the built heritage.

1. *Political*

The political approach to historic buildings involves their use as symbols of national, ethnic or religious identity. Even in Europe the fate of national monuments such as Stonehenge can arouse considerable emotion and occasionally riots. In countries with greater social volatility and a more contentious national identity the conflict can be more serious as, for example, in India where Hindu nationalist sentiment led to the destruction of the Babar Masjid (mosque) at Ayodhya (McGirk 1992; Rao 1999).

Within the Middle East there are at least three levels of political nationalism. On one level, we have the nationalism of the nation state developed by the leaders and governments of the countries created during the 20th century. Often this refers back to a pre-Islamic past as a way of trying to establish a link with a glorious heritage and as a way of forgetting about a more recent colonial experience. Famous examples include Saddam Hussein's use of Neo-Babylonian and Assyrian imagery and the use of Pharaonic imagery in early 20th century Egypt (Hassan 1998: 204–206). The second level of nationalism may be called Pan Arabism or Arab nationalism, and is based primarily on a shared language and culture though it may also refer to a past, in this case that of the early Arab conquests. This achieved its greatest success with the creation of the United Arab Republic of Egypt and Syria between 1958 and 1961 (Mansfield 1980: 506). The third level may be called Muslim nationalism and is based on the idea that Islam is a political as well as a religious entity. The idea implicit in this view has been summarized as follows: "Under the traditions and unwritten rules of Islam there can be no such thing as an individual and sovereign Islamic nation set apart from the rest of Islam: all Islam is a single nation" (Kiernan 1975: 200). From this statement it can be seen that different concepts of nationalism can conflict, although occasionally, as in the case of Palestine, they share a common cause even though their objectives may not be the same.

Within our own area of interest, the single building that has attracted the strongest national sentiments is the Dome of the Rock, built on the site of the Jewish Temple destroyed by the Romans in A.D. 70. Since the Israeli occupation of Jerusalem in 1968, the Dome of the Rock has become a symbol of Palestinian, Arab and Muslim nationalism, though it clearly had political significance throughout its history (see C. Hillenbrand 1999: 606). Within the Arab Middle East images of the Dome of the Rock proliferate, from posters to wooden models and alarm clocks. However, each group using the image of the building imbues it with a slightly different meaning. Thus its use on Jordanian dinars, Iraqi stamps and Hizbullah posters each carries a different message. Outside the Arab Muslim world the significance of the design is reduced, so the use of this form for an archaeological museum in Dundee (Scotland) appears to be co-incidental.

2. *Conservation*

The second approach is that concerned with the conservation of a building or group of buildings. Whilst, by definition, the buildings that attract international attention or national awareness are few, a large number of historical buildings are potentially subject to conservation of some kind. The difference can be explained in terms of the distinction between

scheduled ancient monuments and listed buildings in the United Kingdom. Protection of sites may range from a simple prohibition to demolish a building to active intervention in the fabric of a structure. The technical aspects of this process need not concern us here, although the geography of the area does pose some particular problems, such as the conservation of mud-brick structures.

In some cases, the conservation is nationally directed as, for example, where buildings are registered antiquities, although the conservation of other buildings may be the responsibility of a local municipality or other interested groups. The value of community participation in conservation work in Britain has recently been emphasized by David Start (1999) and it is likely that the involvement of local communities would have an equally beneficial effect in the Middle East. In Palestine, for example, conservation work by local groups such as Riwaq (Slyomovics 1998: xvii–xviii) has been able to achieve considerable success in conservation and also in changing attitudes to old buildings (Abbott 2000).

3. Tourism

Although we, as archaeologists, may have mixed feelings about tourism, its significance as the world's largest industry cannot be ignored. With a few notable exceptions such as the Great Mosque in Damascus or the Desert castles in Jordan, Islamic monuments do not feature highly as tourist attractions within the area of Bilad al-Sham. There are a number of reasons for this which may be briefly summarized as follows:

- a. Western tourists are mostly interested in Classical, Biblical or Crusader remains, with which they feel some cultural connection;
- b. with only a few significant exceptions, the medieval Islamic architecture in this region is not as famous as that of Turkey (e.g., Istanbul and Konya), Egypt (Cairo) or Spain (Alhambra);
- c. there are problems of access to functioning mosques, which is a situation encountered in many other parts of the Islamic world.

It should, however, be noted that not all tourists are Westerners, and that there are increasing numbers of East Asians visiting the area as well as Muslims from all over the world.

4. Archaeological

The study of Islamic architecture is one of the first and most successful branches of Islamic archaeology, thanks to the pioneering work of scholars such as Max Van Berchem and K. A. C. Creswell. However Michael Rogers' statement that "Since 1921 the corpus of early Islamic architecture has been virtually completed" is clearly not true (Rogers 1994: 33). Within the area of Bilad al-Sham important recent studies of buildings include Michael Burgoyne's study of Mamluk Jerusalem (Burgoyne 1987), Sauvaget's work on Aleppo and Damascus (Sauvaget 1931; 1941), Hayat Salam-Liebich's work on Tripoli (Salam-Liebich 1983) and Moin Sadek's work on Gaza (Sadek 1991). These studies generally have a traditional approach to the study of buildings that has been characterized by Michael Rogers as "the biography of great buildings". For most modern archaeologists, this definition is a little worrying because of its emphasis on great buildings that only make up a tiny proportion of the built heritage.

There are, however, many studies of vernacular buildings such as Azar's study of the houses of Bosra (Azar et al. 1985) or the study of the Palestinian house by Amiri and Tamari

(1989). Nevertheless, there are a range of buildings that fall between the great monuments and vernacular buildings, which are rarely studied. For example, it is noticeable that in Michael Burgoyne's study of Mamluk Jerusalem there is an absence of studies of ordinary Mamluk houses or shops, even though such structures have certainly survived. The reason for this lacuna is that the study of Islamic buildings has primarily been carried out by people trained either as architects or art historians, rather than as archaeologists.

In order to get a better understanding of Islamic buildings in the future, not only new technology but also new ways of thinking about buildings are needed. More recent archaeological approaches include the integration of landscape into building surveys and the study of building spaces and function (Baker 1999: 3–4). An example of the latter approach is the analysis of social space in a study of a medieval house in Stockport, England, by Robina McNeil (1999). She based her work on a theoretical approach developed by Hillier and Hanson who state:

The study of a building or group of buildings is different from the study of an artefact. An artefact usually has a functional use, which may be overlain with decoration, style and class. A building is different as it assembles physical elements into a certain form and creates and orders empty volumes of space. It is the ordering of space that is the purpose of a building, not the physical objects themselves. Space creates special relationships between function and social meaning (Hillier and Hanson 1984, cited in McNeil 2000: 21).

Although this may sound overly theoretical, it has been used in practice to develop an understanding of the use of these buildings that in turn becomes part of a conservation plan. In other words the academic documentation of a building becomes an integral part of a conservation strategy (cf. Baker 1999: 7–8)

Part II

Before discussing specific examples, it is worth outlining the reasons for selecting my examples from Lebanon. In the first place, I wanted to use examples from a country where the cultural identification and interpretation of monuments is a live issue. Lebanon is particularly interesting in this respect, because although it is clearly an Arab country until recent times the majority of its population has been Christian (currently, however Muslims account for 60% of the population). Secondly, as a country emerging from a civil war, conservation and repair of monuments and historic buildings has been given a new incentive after years of neglect. Thirdly, I had recently visited Lebanon and seen how these various interests related to the built heritage of the Islamic period.¹

ʿAnjar

The Umayyad city of ʿAnjar is located in the southern half of the Beq'a valley, less than five kilometers from the Syrian border (for a full bibliography see R. Hillenbrand 1999). Although the site was known before the Second World War, it was not until the 1950s that the large-scale excavations under the direction of Emir Chehab revealed the full extent of the site.² Accompanying the excavations there was a conservation and restoration programme that resulted in the re-erection of a number of buildings, most notably the building identified as the main palace.

1. This visit was financed by a grant from the Palestine Exploration Fund as part of a study of Islamic urbanism.
2. Compare this with the statement of Michael Rogers (1994: 33) that the corpus of Islamic architecture was complete by 1921.

The site is not well known outside Lebanon and its national significance is fairly limited despite its size. According to guidebooks (e.g., Jousiffe 1998: 185–6) its importance lies in the fact that it is the only significant Umayyad site in the country. Within the complex web of Lebanese culture, Sunni Muslims identify most closely with the Umayyads whilst the Shia regard them as enemies, and the various Christian sects have an attitude varying between indifference and admiration.³

Whatever its status in national consciousness, the remains at ʿAnjar clearly constitute a site of major archaeological importance (Figure 1). This raises the question: to what extent is it permissible or desirable to rebuild excavated structures? For example, the façade of the main palace was re-built as it had collapsed more or less in one piece as a result of an earthquake. The re-built structure is clearly of more interest to tourists in its present form and does not conflict with archaeological interests. In other cases the situation is less clear, as with the reconstructions of the gateways. There is also the question of the removal of the Armenian village that partially covered the ruins. Although the village was less than fifty years old when it was removed, it nevertheless formed part of the history of the site. This is a dilemma faced at many archaeological sites in the Middle East and elsewhere. In some cases, detailed surveys are made of the more recent standing buildings, as at Umm Qeis in destroyed to enable excavation of older remains. As Islamic archaeologists, we should be particularly aware of the dangers of clearing sites of later material to get to earlier remains.

The large-scale excavations and extensive restoration carried out by Maurice Chehab have largely been fuelled by the needs of tourism, though they have also been driven by the need to establish a date for the site. Certainly the architecture and layout of the site appears to be Late Roman/Byzantine rather than Islamic, with its colonnaded streets, tetrapylon and techniques of construction. Despite the fact that the site is now firmly established as an Umayyad site within academic literature, in popular terms it is often presented as Byzantine; thus it is possible to buy postcards and souvenirs labelled “ʿAnjar Byzantine ruins”. The problem is that although technically the site belongs to the Umayyad period, there is little to distinguish it from Byzantine architecture and planning.

Although the exposed and re-erected remains at ʿAnjar constitute an impressive site, there are still important archaeological questions to be answered, such as the name of the founder, the purpose of the site and the period of occupation. However, it is unlikely that these questions will be answered in the near future. Firstly, there is the problem that the results of the excavations have not been completely published inhibiting any definitive discussions. Secondly, the landscape around ʿAnjar has not been investigated thus leaving the remains without an adequate context (cf. R. Hillenbrand 1999: 61 n.8). Whilst these problems may appear to be purely academic concerns, they also affect other areas, for example presentation of the site to tourists, conservation matters and the location of the site within national consciousness.

Baʿalbak

The ancient city of Baʿalbak is famed for its Roman temples, yet it also contains a significant number of Islamic remains from the early Islamic and medieval period, notably the Great Mosque, the ruined mosque at Ras al-ʿAyn, the fortress, Qubbat al ʿAmjad and Qub-

3. In this context the location of ʿAnjar mid-way between Damascus and Beirut may be significant and is mirrored in the fact that the nearby town of Chatura is today used as a meeting point for Syrian–Lebanese conferences (Jousiffe 1998: 182).



FIGURE 1. View of 'Anjar from the northwest with reconstructed palace façade in the middle.

bat al-Douris. In addition, there are a number of buildings from the Ottoman period, including the mosque near the Temple of Venus.⁴

Ba'albak's status as a World Heritage Site gives it a special position within the national consciousness, alongside the Phoenician coastal cities with which the Lebanese have traditionally identified. Although the visible ruins are mostly from the Roman period the Lebanese stress the importance of the pre-Roman Phoenician origin of the site, while the Islamic remains are barely noticed.

As a multi period site of world importance, the problem of conservation at Ba'albak is more than at the essentially one period sites of 'Anjar. At Ba'albak, structures of the Islamic period are built over and around those of the Roman period. It is lucky that the Islamic remains have been preserved at all, and it is instructive to note that the remains of the Christian basilica on the steps of the temple of Jupiter were removed in 1933 to aid the appreciation of the classical remains. The building remains of the Islamic period are considerable, and include the fortress, four mosques (Ras al-'Ayn, the fortress mosque, the Great Mosque (Figure 2) and an Ottoman mosque next to the Temple of Venus (Figure 3)), and two mausolea (Qubbat al-Amjad and Qubbat al-Douris). The fortress is an integral part of the main site, which has aided its own preservation and that of the Roman period remains. The

4. There is no general account of the Islamic period buildings of Ba'albak, although there is a good introduction in Jidejian (1975: 71–84) and also a good historical summary in Sourdel-Thomine (1954).



FIGURE 2. Ba'albak. Great Mosque after recent restoration work (April 2000).

other main structure of the Islamic period is the mosque opposite the citadel that was extensively re-built in the Mamluk period, though it may be of earlier date. Before the Second World War, this was a ruinous yet standing structure. More recently it has been restored for use as a working mosque (Figure 2). The implications of this for archaeology and conservation are considerable though, of course, from a religious point of view this is the best use of the site.

Being a site of world importance, the majority of tourists who come to Lebanon visit Ba'albak. During the civil war the site was closed to tourists, as the town and the region were under the control of Hizbullah. Today the area is still dominated by Hizbullah and its supporters, yet tourists are welcome and are seen as a vital source of income in this otherwise impoverished part of the country (Caroll 1999; Jousiffe 1998). The majority of visitors are primarily interested in the Roman ruins, and their awareness of the medieval remains is generally very limited. Unfortunately, the information available to visitors at the site does little to either identify the medieval period remains or inform them about the history of the town during the Islamic period. This is surprising, as buildings of the Islamic period are amongst the most notable features of the site, in particular the fortress that encloses the main temple area.

Although the importance of Ba'albak in the Islamic period has long been recognized, there has been no systematic study of the Islamic archaeology of the town. The result is that while a few buildings are known, the general evolution of the town under Muslim rule is



FIGURE 3. Ba'albak. Ottoman mosque with remains of Temple of Venus in foreground.

poorly understood. Without this understanding, the Islamic period buildings will remain isolated distractions from the Roman ruins, rather than parts of the town's continuous history.

Tripoli

The city of Tripoli may be more representative of most people's idea of Islamic built heritage. Unlike the other two examples, it is a living city that contains some historic buildings, rather than an archaeological site with a town or village attached. Although Tripoli was one of the main ports of the Lebanese coast during the Phoenician and Roman periods, the remains from these earlier periods are mostly buried beneath the modern city. The medieval city that tourists come to visit is approximately three kilometres inland and clusters around the base of the fortress built by Raymond Count of Tripoli in the 13th century. The city itself was rebuilt in the early 14th century according to contemporary Arab sources. Some forty-eight historic buildings have survived, including mosques, madrassas, hammams and khans.

Today, Tripoli is Lebanon's second city, and though it had its fair share of damage during the civil war this does not match the destruction wrought on Beirut. The national significance of the old city of Tripoli is enhanced by the fact that the majority of old Beirut was destroyed during the nineteenth and early twentieth centuries. The survival of old Tripoli may be largely a result of previous under-development, though as the nation begins to attach more importance to its historic built heritage, it is becoming more valued.

In the 1950s, UNESCO carried out the first documentation of the old city in modern times. Less than two years after the completion of the basic architectural recording some of the most important structures were damaged by a major flood. A study of the Mamluk buildings based on the UNESCO survey was later carried out by Hayat Salam-Liebich and published in 1983. More recently, Robert Saliba published a study of the mosques and madrassas in the city for the American University of Beirut (Saliba 1994). In the last few years there has been a large-scale conservation programme and a continuing process of architectural documentation.

Whilst much of the recording work and conservation has been guided by a genuine desire to protect the monuments as part of a local and national heritage, the process has been driven by the need to attract more tourist income to the city, which "is still overlooked by most tourist programmes" (Jousiffe 1998: 164; see also Carroll 1999: 12). For tourists, the main attraction of the city is the castle built by Count Raymond of Tripoli, though of course it contains considerable Mamluk and Ottoman additions (cf. Doughty 2000: 5 and Jousiffe 1998: 168–169). The old city itself does have a growing number of visitors attracted by the traditional suqs and colourful atmosphere, rather than the history. For example, the travel writer Rory Carroll (1999) gives a brief description of Tripoli, mentioning "the narrow cobbled streets heaving with buyers, sellers and hagglers", yet he does not consider the historical dimensions of the city (this is in contrast to his descriptions of Byblos, Ba'albak and Tyre). Unfortunately, a large number of the Islamic monuments are closed to visitors as they are in religious use, whilst other buildings are in private ownership. Nevertheless, the number of visitors is increasing, which will provide further incentives for conservation work of the type described above.

A considerable amount of archaeological survey work and academic research has been carried out in Tripoli that has been a direct result of conservation work carried out both before and after the flood of 1950 (see, for example, Salam-Liebich 1983 and Saliba 1994). Whilst there are still important questions to be answered (e.g., the extent of Mamluk settle-

ment, the nature and extent of pre-14th century occupation, whether the castle of Count Raymond was built on an earlier Muslim fortress), it is clear that the four approaches (archaeology, tourism, conservation, and politics) have been complementary, and may help it achieve the status of a World Heritage Site (Doughty 2000: 14).

Conclusions

A number of conclusions can be drawn from these brief examples. Firstly, I have shown that the Islamic built heritage is diverse, ranging over more than 1300 years and including both excavated structures and buildings that are still in use. Such a diverse range will obviously require different approaches, though an emphasis on continuity will help in their preservation, presentation and understanding.

Secondly, it is notable that Western tourists do not generally have an interest in Islamic period antiquities (neither 'Anjar nor Tripoli regularly feature on tourist itineraries). The reason for this is that they are often unaware of the cultural context and are not given the required information to help them appreciate the material remains. As archaeologists working in the area, we should try to ensure that the findings of our work are made accessible both to foreign tourists and locals. The majority of tourists value the more detailed interpretations that result from archaeological research.

Thirdly, conservation is intimately connected with visitors and local communities and cannot take place without the involvement of either group. The interest of both groups can be stimulated by the findings of archaeological research. The symbiotic nature of the whole process has been demonstrated by David Baker, who states:

It is essential to understand the identity, nature and significance of a historic feature as far as possible before deciding what to do with it. Failure to clarify properly the historical characteristics of a whole class of survivals can lead to inappropriate conservation strategies and misunderstandings about interpretation and presentation (Baker 1999: 7).

As archaeologists concerned with Islamic history, we should make particular efforts to ensure that Islamic history is not misrepresented, especially as contemporary Muslim society is so often misunderstood.

References

- Abbott, Kerry
2000 Stirring Up Beauty. *Saudi Aramco World* 51.6: 22–33.
- Amiri, Suad and Vera Tamari
1989 *The Palestinian Village Home*. London: British Museum Publications.
- Azar, Ghada with Giovanni Chiminetti, Haytham Haddad and Helga Seeden
1985 Busra: Housing in Transition. *Berytus Archaeological Studies* 33: 103–114.
- Baker, David
1999 Introduction. Contexts for Collaboration and Conflict. In *Managing Historic Sites and Buildings. Reconciling Presentation and Preservation*. G. Chitty and D. Baker, eds. Pp.1–22. London: Routledge.
- Burgoyne, Michael with Donald. S. Richards
1987 *Mamluk Jerusalem. An Architectural Study*. London: British School of Archaeology in Jerusalem and World of Islam Festival Trust.
- Carroll, Rory
1999 Lebanon: Play Baal. Travel Section, *The Guardian*, Saturday September 11 1999. Pp. 12–13.

- Chitty, Gill and David Baker, eds.
1999 *Managing Historic Sites and Buildings. Reconciling Presentation and Preservation*. London: Routledge.
- Doughty, Dick
2000 Tripoli. Lebanon's Mamluk Monument. *Aramco World* 51.3: 2–15.
- Greene, J. A.
1995 *The Water Mills of the 'Ajlun-Kufranja Valley: The Relationship of Technology, Society and Settlement. Studies in the History and Archaeology of Jordan* 5: 757–765.
- Hamarnah, S.
1977–98 Sugar Cultivation and Refining under the Muslims during the Middle Ages. *Annual of the Department of Antiquities of Jordan* 22: 12–19.
- Hassan, Fekri A.
1998 Memorabilia: Archaeological Materiality and National Identity in Egypt. In *Archaeology Under Fire. Nationalism, Politics and Heritage in the Eastern Mediterranean and Middle East*. L. Meskell, ed. Pp. 200–216. London: Routledge.
- Hillenbrand, Carole
1999 *The Crusades: Islamic Perspectives*. Edinburgh: Edinburgh University Press.
- Hillenbrand, Robert
1999 'Anjar and Early Islamic Urbanism. In *The Idea and Ideal of the Town Between Late Antiquity and the Early Middle Ages*. G. P. Broglio and B. Ward-Perkins, eds. Pp. 59–98. Leiden: Brill.
- Hillier, B and J. Hanson
1984 *The Social Logic of Space*. Cambridge: Cambridge University Press.
- Jidejian, Nina
1975 *Baalbek: Heliopolis 'City of the Sun'*. Beirut: Dar al-Marcheq.
- Jousiffe, Ann
1998 *Lebanon*. London: Lonely Planet.
- Kiernan, Thomas
1975 *The Arabs*. London: Sphere.
- McGirk, Tony
1992 India Faces Turmoil as Hindus Raze Mosque. *The Independent*. Monday 7 December 1992: 1.
- McNeil, Robina
1999 Building Spaces. *The Archaeologist* 37: 21–23
- McQuitty, Alison
1995 Water-Mills in Jordan: Technology, Typology, Dating and Development. *Studies in the History and Archaeology of Jordan* 5: 745–751.
- Mansfield, Peter
1980 *The Arabs*. London: Penguin.
- Naccache, Albert F. H.
1998 Beirut's Memorycide: Hear No Evil, See No Evil. In *Archaeology Under Fire. Nationalism, Politics and Heritage in the Eastern Mediterranean and Middle East*. L. Meskell, ed. Pp. 140–158. London: Routledge.
- Politis, Konstantinos
1998 Survey and Rescue Collections in the Ghawr as-Safi. *Annual of the Department of Antiquities of Jordan* 42: 627–634.
- Rao, Nandini
1999 Ayodhya and the Ethics of Archaeology. In *Case Studies in Archaeology and World Religion. The Proceedings of the Cambridge Conference*. T. Insoll, ed. Pp. 44–47. BAR International Series. Oxford: Archaeopress.
- Rogers, J. Michael
1994 *The Uses of Anachronism. On Cultural and Methodological Diversity in Islamic Art. An Inaugural Lecture Delivered on 17 October 1991*. London: School of Oriental and African Studies, University of London.

- Rothenberg, Beno
1972 *Timna Valley of the Biblical Copper Mines*. London: Thames and Hudson.
- Sadek, Mohamed-Moain
1991 *Die Mamlukische Architektur der Stadt Gaza*. Islamkundliche Untersuchungen, Band 144. Berlin: Klaus Schwarz.
- Salam-Liebich, Hayat
1983 *The Architecture of the Mamluk City of Tripoli. The Agha Khan Program for Islamic Architecture*. Cambridge: Harvard University and Massachusetts Institute of Technology.
- Saliba, Robert, ed.
1994 *Tripoli: the Mamluk City Monument Survey—Mosques and Madrasas*. Beirut: American University in Beirut.
- Sauvaget, Jean
1931 Inventaire des monuments musulmans de la ville d'Alep. *Revue des Études Islamiques* 8: 59–114.
1941 *Alep; essai sur le développement d'une grande ville syrienne*. 2 vols. Paris: Bibliothèque Archéologique et Historique.
- Schick, Robert
1995 *The Christian Communities of Palestine from Byzantine to Islamic Rule: A Historical and Archaeological Study*. Studies in Late Antiquity and Early Islam 2. Princeton, NJ: Darwin Press.
- Slyomovics, Susan
1998 *The Object of Memory: Arab and Jew Narrate the Palestinian Village*. Philadelphia: University of Pennsylvania Press.
- Sourdél-Thomine, J.
1954 Baʿlabakk. *Encyclopaedia of Islam*, vol. 1. 2nd Edition. Pp. 970–971. Leiden: Brill.
- Start, David
1999 Community Archaeology; Bringing it Back to Local Communities. In *Managing Historic Sites and Buildings. Reconciling Presentation and Preservation*. G. Chitty and D. Baker, eds. Pp 49–60. London: Routledge.

Umayyad Building II in Jerusalem

KAY PRAG

Manchester Museum

Introduction

In 1968–70, the whole area within the angle of the Ottoman city wall, south of the Aqsa Mosque in Jerusalem, was cleared under the direction of B. Mazar and M. Ben-Dov, and preliminary publications appeared rapidly (Ben-Dove 1976; 1985; Mazar 1969; Mazar and Ben-Dov 1971; n.d. [ca. 1973]). As well as broad area excavation, bedrock was reached in large deep trenches. One of the most remarkable features to emerge from this work was the completely unheralded discovery of a magnificent new quarter of the city built under the Umayyad dynasty at the beginning of the eighth century A.D., with the principal focus on the palatial courtyard structure usually identified as Building II. The area had been the focus of much more limited work a few years previously, and it is one aspect of this earlier work which is summarily described here, while the full report on the site will be published shortly (Prag n.d.) (Figure 1).

A possible excavation on the site had been under discussion since the summer of 1960, and during 1961 the Department of Antiquities of Jordan commenced excavations in advance of the construction of a school. At the same time, the first season of the Joint Expedition under the direction of K. M. Kenyon and Père R. de Vaux was in the field, and kept a watching brief on a few small trenches in this excavation, which Kenyon called Site G (1962: 88–89). In the following season (summer 1962), new work on the site was begun by the Joint Expedition under the direction of Père de Vaux of the École Biblique, with a subvention from the Commission des Fouilles and the support of the Centre National de la Recherche Scientifique. This area was designated Site J. The excavation was continued in summer 1963 as a joint effort between the École Biblique and the Department of Antiquities of Jordan, partly funded from the Point Four budget, with the intention that the area would in due course be laid out as a garden with as much of the archaeological remains exposed as possible, a plan which has since been implemented. In total an area of about 18 by 12 meters and 13 by 15 meters (411 square meters, some 2055 cubic meters) was excavated at Site J during these two seasons (Figure 2; École Biblique neg. no. 16583). However the excavation was temporarily halted on 26th August 1963 when the Awqaf (which held the land in trust for an Islamic endowment) withdrew permission for further excavation, expressing anxiety concerning the destabilization of the nearby Haram wall. The excavation was prematurely concluded during September, and the École Biblique then withdrew from the Joint Expedition. Père de Vaux published brief preliminary reports on the work (de Vaux 1962; 1963; 1964a; 1964b), in which the interpretation of the remains was affected by the cessation of work at a point when the excavation had exposed only a tiny intact area beneath the floor of the building, and had barely begun to investigate its foundation.

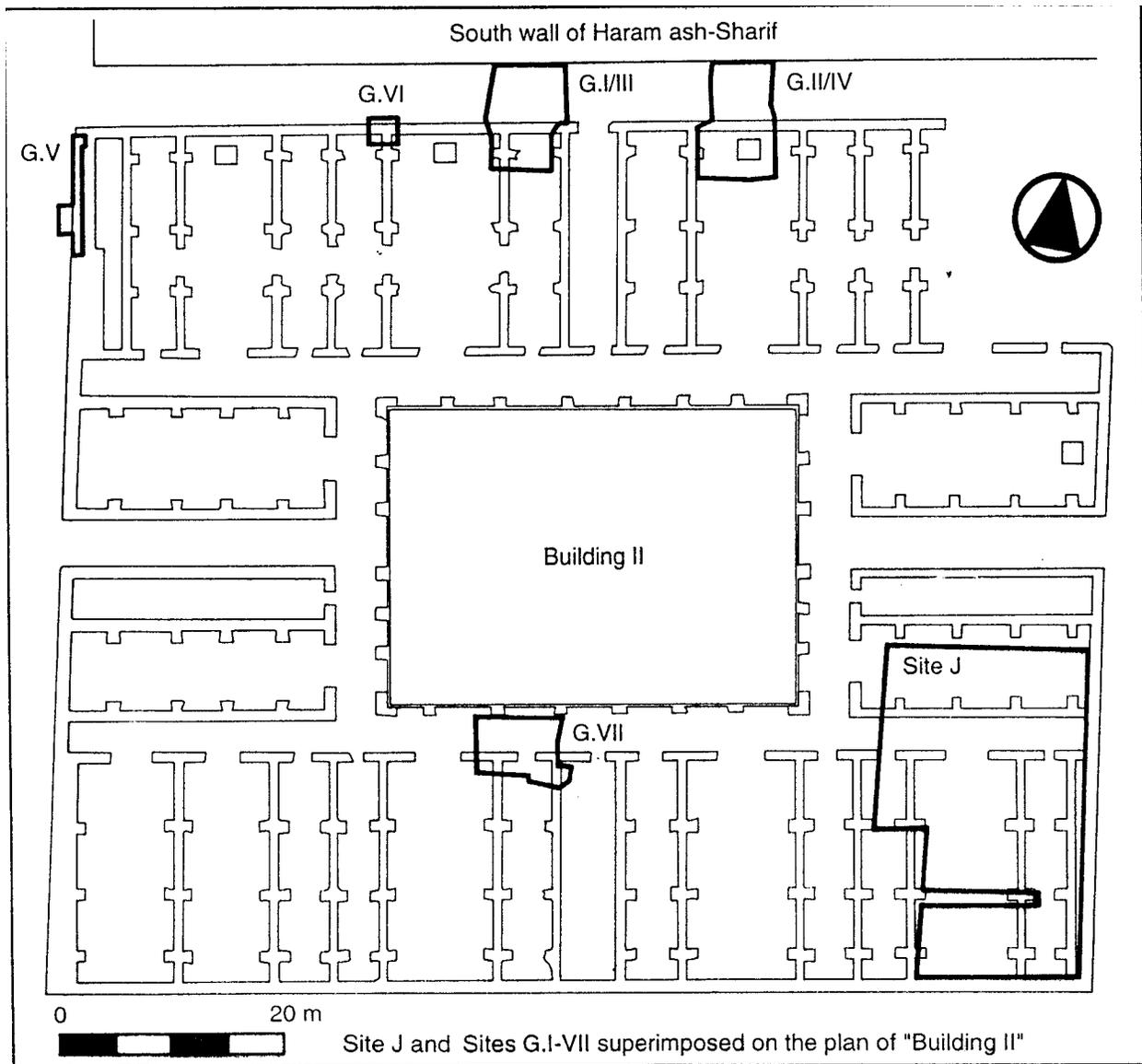


FIGURE 1. Plan of Building 2 in Jerusalem (after Mazar and Ben-Dov 1971), with the areas excavated in 1962–63 by the Department of Antiquities of Jordan and the Joint Expedition superimposed.

Thus while Mazar's work provides a far more comprehensible overview of the site, the earlier excavations provide some detailed comment on very limited but significant features that directly bear on the conclusions published by Mazar and Ben-Dov.

The Character and Date of Building II

The building is well known and has been described in considerable detail. It was a monumental, nearly square building (ca. 84 by 96 meters) with a large central court. The court was surrounded by a colonnaded portico approached by seven corridors, from which doorways led into more than thirty long pilastered halls of diverse size. The walls were built of large, finely-cut, flat-dressed masonry of characteristic Umayyad type and incorporated a lot of reused Herodian and Byzantine spolia. Three entrances were constructed, one each on the west, north and east sides. The entrance on the north side was served by a flight of stairs or



FIGURE 2. The excavation of Site J in Jerusalem on 29/8/1963, from the north. Photograph courtesy of the École Biblique, neg. no. 16583.

a ramp leading up from the interior of the building to the street, which ran at a higher level than the floor of the building. The building had at least two storeys, with elaborate water piping for fresh and waste water. These served the upper storey and probably also facilitated rainwater collection from the roof. According to Ben-Dov (1976: 101; 1985: 276), on the evidence from the contents of the drains, the palace was destroyed in the great earthquake of A.D. 749.

The Evidence from the 1961–1963 Excavations

In Site J, the excavations uncovered the greater part of just three of the pilastered halls, a small section of a fourth, and part of the southeast corridor. At the time of the excavation the great extent of the building was unknown. Most of the building in the trench had been destroyed to foundation level, in particular by intensive stone robbing which probably culmi-

nated in the Crusader period when the site lay outside the city, and probably provided material for the rebuilding of the nearby city walls. By then most of the stone paving from the Umayyad floor had also been removed. What survived above the robbed floor was a very complex stratigraphy of destruction debris, later workshops and extramural rubbish tips. This material was later cut by a large drain (probably of Mamluk date) and the foundation trench of the Ottoman city wall. The Site J stratigraphy has seven main phases, but in the material retained for study there are very few primary, stratigraphically uncontaminated deposits. The most useful deposits were found in some drains which were integral to the original building process. These drains served the upper (not the lower floor) of the building, and came down ceramic pipes plastered into vertical channels cut into the inner face of the walls, and thence by well-designed traps into pipes laid beneath the stone paved floors. The under-floor drains then ran south and east to a deeper drain in the southeast corner of the building. The drainpipes and many of the sherds recovered from them show encrustations deriving from the presence of waste matter.

The Ceramics

The ceramics in the study collection from Site J range from pre-Byzantine residual fragments, through Byzantine to modern porcelain, and reflect the long and continuous occupation of Jerusalem. Generally only diagnostic fragments were retained (a selection of rims, handles, bases; painted and glazed fragments; the emphasis on some specific fabrics and classes indicates a non-random retention process), but supplementary notes were also kept. Nearly 4000 sherds were retained, and of these 25 percent are glazed. In the later Phase 2 deposits the percentage of glazed wares retained rises to 35 percent. A high percentage of lamp fragments was kept, and a relatively lower percentage of coarse wares.

Metallic Ware

The Site J material retained for study has a high percentage of a ceramic variously called Fine Byzantine Ware (FBW) or Metallic Ware. This is described under the first name by Magness (1993: 166–171), who dates its appearance to the mid-sixth century, but notes that the thinnest varieties appear only in the Islamic period; Baramki (1944: 68, Ware 10) had earlier described this ware as “metallic”. This ware is found in all phases and virtually all loci, ranging from 2.8 percent in Phase 7 to 23.8 percent in Phase 6b (Figure 3), though these statistics are probably distorted by the selection processes. Phase 6b loci are those attributed to the last phase of the use of Building II, which includes materials found in the drains beneath the floors. A very distinctive class of finely made Metallic Ware cups, with other material of normal domestic type, was discovered in these contexts. The Phase 6b cups in the drains are notable for their very thin walls, and for the fact that relatively large fragments were retrieved (though none were complete). They seem to have either gone into the drains in a broken and incomplete form, or the missing fragments were washed further down the drains. Cups with simple rims, rounded or round bases, and a small proportion with incised or painted decoration, seem characteristic of the drain deposits (cf. Ben-Dov 1985: 321). It seems likely that they date from the final use of Building II, and thus their date is important. Magness (1993: 193) and Walmsley (1995: 661, Ware 10) note that the incised wavy line disappears by the ninth century, but the very thin, deeper, pared cups, and the painted decoration certainly appear in Abbasid contexts (e.g., at Pella: Walmsley 1988: 156, figure 9.16; 1995: 662, figure 5.10–11, late eighth-early ninth centuries, who also notes the reliable ninth-

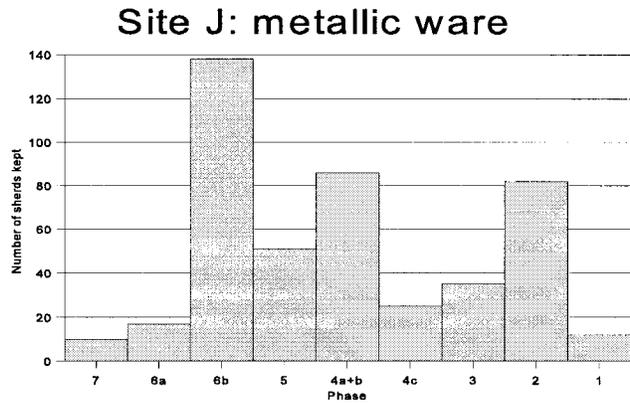


FIGURE 3. The distribution of Metallic Ware sherds in the study collection from Site J, Jerusalem.

tenth century context at Abu Ghosh). Whether these Phase 6 cups should be dated as early as the Umayyad period is uncertain.

One group of smashed cups was found inside a drain (Locus 11.5a) with an assemblage consistent with a date in the eighth-ninth centuries, including a Magness Lamp Form 4B-C fragment (see Magness 1993: 199, 256.1; seventh to early eighth century), FBW Bowls Form 2A (Magness 1993: 199.1; mid-seventh to ninth/tenth centuries), storage jar fragments with combed decoration, cooking casseroles and related material. Two fragments are of a more likely ninth century date: a piece of a cream ware jar handle, and an Early Islamic Polychrome bowl rim, while one small fragment of a turquoise glazed bowl is of later date. In this deposit 26 fragments of metallic ware were kept, representing a minimum of 12 cups. Such cups have been described as wine cups; but they may have been used for any liquid and may suggest a drinking water fountain located in the area above the drain. If they were indeed drinking cups they would not stand safely, and some are rather large to hold in one hand. If their function is accurately surmised, they must have been broken frequently. Twelve fragments have encrustations which suggest they spent some time in the drain in which they were found. All examples except three have a sharply defined carination above a slightly rounded base; the exceptions have a round base. There are no disk bases. The shapes are closest to Magness 1993, FBW Form 1E which she dates to the eighth to ninth centuries (1993: 194, 196). Those from Mafjar published by Baramki appear to have flat bases (Baramki 1944: 85, figure 7.2–5). Of the seven extant base fragments, six have three concentric rings incised while the vessel was still on the wheel and one has two rings (cf. Magness 1993: 194, 196, FBW Bowls Form 1D, late seventh to tenth centuries; cf. Walmsley 1986, figure 9.11, Abbasid; Whitcomb 1989: figure 4.g, Abbasid). Wall thickness varies, one goblet having a uniform 2.0–3.5 millimeters thickness for walls and base, and bases can be as thick as 5.0 millimeters, but occasionally walls and bases are as thin as 1.5 millimeters. In some, the weight of the base would help to keep the goblet upright. One specimen belonging to this group has painted decoration, and four others have single incised lines with a small wavy pattern. Another has three incised lines on the upper wall, a form of decoration which is not found in the Magness corpus.

A further group of cups came from a drain in Locus 19.20. The material from this locus included four Magness Form 4B lamps, two Magness FBW Bowls Form 1C (late seventh to mid-eighth centuries), ten fragments in pink fabrics mainly from jugs and jars, three casserole lids and one casserole, all of similar date. Ninety sherds of metallic ware cups were saved from this context; with rim and bases making more than half the total and suggesting a higher rate of discard of the body sherds. There were 34 rim sherds, all of the simple type.

Early Islamic Polychrome pottery

Without discussing here the complex issues surrounding the introduction of early Islamic glazed wares, it can be noted that a number of different terms have been used to describe some of the early glazed material, such as “semi-glazed”, “splash”, “lead glazed”, “alkaline lead glazed” and “Coptic glazed” and a number of these early glazed sherds were recovered from Phase 6 contexts in Site J. None of the Phase 6 contexts are uncontaminated, but some pieces are found in contexts attributed to Phase 6a (the construction phase) and some in Phase 6b (the final phase of use); a few pieces of the early wares occur in the drains, again in relatively large fragments. One “semi-glazed” fragment (Figure 4, from Locus 11.5a + 11.4) has radiating glazed triangles in deep green and mustard yellow glaze, outlined in matt white and black stripes. Other fragments have a decayed mustard yellow glaze, with patterns over-painted in black.

The standard Early Islamic Polychrome material from Jerusalem is painted in geometric patterns of bands or curves in blue/green and yellow glaze, with black dots or dashes. This complex of green, brown/black and white/yellow is characteristic and widely distributed, and is generally regarded as being of Abbasid date (see, for example, M. Avissar, in Ben-Tor et al. 1996: 75–81). Most have “line-and-dot”, splash or marbled patterns on a variety of shapes. Most of the fragments from Site J are in poor condition, with dull, blurred surfaces indicative of chemical decay, but the vivid colours can be refreshed by light mechanical cleaning. The closest parallels for Site J Early Islamic Polychrome come from Macalister and Duncan’s excavations on the south-east ridge in 1923–25 (1926: 199, plate XXIII.5); from Crowfoot and Fitzgerald’s excavations in the Tyropoeon Valley (1929: plate XIII.37–40, XV.24); from Bahat and Broshi’s excavations at the House of Caiaphas on Mt Zion, a vessel which Frierman suggested was made at Ramla in the ninth century (Frierman 1975: no. 60); and from Abu Ghosh (de Vaux and Stève 1950: plate A.1–5) probably ninth to tenth centuries. However they are found further afield also, in Amman (Northedge 1992: 149, figure 160.1, 2, Abbasid occupation), at Pella (Walmsley et al. 1993: figure 24.4), in Beirut (Turquety-Pariset 1982: 35, figure 3.17), and perhaps at Hama (Riis and Poulsen 1957: 128, no. 392).

Eighteen fragments came from possible Phase 6a contexts, and five from Phase 6b. The most notable fragments from Phase 6a were twelve fragments of one glazed bowl (which made up nearly a third of the bowl, and suggests near primary deposition); it has a deep shape, thin walls, slightly everted rim and a low ring base. The exterior has a yellow glaze with a row of green splashes at the rim and on the lower wall and another row of brown splashes at mid-wall; the glaze extends under the base. The interior has a decayed glaze, with smeared green and yellowy-brown splashes/bands. The shape is nearest to Mason 1994: figure 3.5.1956.170, Group 3, *ca.* 800–850, but this is not a particularly close parallel (cf. Aqaba, Whitcomb 1992: figure 2: 1, Coptic Splash ware, post-A.D. 749).

In Phase 6b, again from the drain context is a bowl fragment (Figure 5; Locus J.11.5a + J.9.3) with a thin, pale yellow glaze inside and out which suggests a first stage firing, onto which other glazes were laid and fired in a second stage. The exterior has a pale brown band at the rim (a firing mark?) and green glaze splashes on the wall and under the flat disk base. The interior has a pattern probably in quadrants separated by double lines of black dots painted onto the underglaze; these define four zones of black, green and mustard-yellow V-patterns; the pale yellow underglaze is also visible where gaps exist between the stripes. The style, though not the exact motif, is most closely paralleled at Abu Ghosh (de Vaux and Stève 1950: plate A.4).



FIGURE 4. Early Islamic Polychrome semi-glazed bowl, rim from J.11.5a in the École Biblique (neg. no. 98.75); base from J.11.4 in the Manchester Museum (neg. no. 98.80). CBRL archive, photographs Kay Prag..

The Problem of the 749 Destruction and the Contents of the Drains

It has to be assumed that large fragments of encrusted ceramics found in the drains coming from the upper floor of the building derive from the last phases of use of the building. According to Ben-Dov, the building was destroyed in the earthquake of 749. Most of the ceramics described above, particularly the glazed fabrics, and probably the large assemblage of fine Metallic Ware cups, are usually dated to the later eighth and ninth century. The Metallic Wares have a long history, and the high quality of the Site J fragments could be attributed to the palatial context at the high point of Umayyad rule in Jerusalem. Such a combination could also see the introduction of glazed wares, at a time of close craft contact with Egypt, when Egyptian craftsmen were almost certainly sent to work on the building of the new mosques and palace in Jerusalem in the early eighth century (Bell 1910). However,



FIGURE 5. Early Islamic Polychrome glazed bowl from J.11.5a + J.9.3. CBRL archive, neg. nos 98.78–79; photographs Kay Prag.

the evidence elsewhere suggests that the appearance of glazed wares was not earlier than the second half of the eighth century, and more likely the ninth century (e.g., Walmsley 1997: 3, figure 2). If this dating is accepted, then Building II must have continued in use into Abbasid times, after the severe earthquake of 749, which is recorded as devastating the region.

Acknowledgements

The British School of Archaeology in Jerusalem (now the Council for British Research in the Levant) was the principal sponsor of the excavations, and accepted responsibility for their publication following Kenyon's death in 1978. The documentary archive and a selection of the pottery (mainly from the earlier levels) is held in the Manchester Museum, England, where I am much indebted to the former and present Directors, Alan Warhurst and Tristram Besterman, and to the Keeper of Archaeology, A. J. N. W. Prag. The principal photographic archive and much of the pottery from Site J is located in the École Biblique et Archéologique Française in Jerusalem. Although fuller acknowledgments will be made in the forthcoming final report, the present writer is grateful to the Director of the École Biblique for access to the data kept in Jerusalem, in particular to Père A. Axe and Père J.-B. Humbert for their kind assistance in making the pottery available, and to Père de Tarragon for generous access to the photographic archive and all his help with the photography. The meticulously kept records of the Site J expedition staff made it possible to reconstruct the work done in 1962–3. Dr D. Whitcomb and Dr A. Walmsley have given generously of their time and expertise in assessing the pottery, and I am deeply indebted to them both. I am grateful to Michaela Augustine (The Manchester Museum) for the cleaning of the ceramic fragment illustrated in Figure 5. The drawings are the work of Helen Boyd and Mark Roughley.

References

- Baramki, D. C.
 1944 The Pottery from Kh. el Mefjer. *Quarterly of the Department of Antiquities in Palestine* 10: 65–103.

- Bell, H. I., ed.
 1910 Greek Papyri in the British Museum. Catalogue, with Texts. Vol. IV: *The Aphrodito Papyri*. London: British Museum.
- Ben-Dov, Meir
 1976 The Area South of the Temple Mount in the Early Islamic Period. In *Jerusalem Revealed: Archaeology in the Holy City, 1968–1974*. Y. Yadin, ed. Pp. 97–101. New Haven: Yale University Press.
 1985 *In the Shadow of the Temple*. Jerusalem: Keter.
- Ben-Tor, A., M. Avissar and Y. Portugali, with S. Agadi, M. Ben-Dov, B. Z. Kedar, E. Khamis, L. Kolska Horwitz and E. Dahan, A. Lester, Y. Meshorer, R. Rosenthal-Heginbottom, P. Smith and P. Sabari
 1996 *Yoqne'am I. The Late Periods*. Qedem Reports 3. Jerusalem: Institute of Archaeology, Hebrew University/Israel Exploration Society.
- Crowfoot, J. W. and G. M. Fitzgerald
 1929 *Excavations in the Tyropoeon Valley, Jerusalem. 1927*. Annual of the Palestine Exploration Fund 5. London: Palestine Exploration Fund.
- Frierman, J. D.
 1975 *Medieval Ceramics. VI to XIII Centuries*. Los Angeles: Frederick S. Wight Gallery, University of California.
- Kenyon, K. M.
 1962 Excavations in Jerusalem 1961. *Palestine Exploration Fund Quarterly* 94, 72–89.
- Macalister, R. A. S. and J. G. Duncan
 1926 *Excavations on the Hill of Ophel, Jerusalem. 1923–1925*. Annual of the Palestine Exploration Fund 4. London: Palestine Exploration Fund.
- Magness, J.
 1993 *Jerusalem Ceramic Chronology circa 200–800 C.E.* JSOT/ASOR Monograph Series No. 9. Sheffield: Sheffield Academic Press.
- Mason, R. B.
 1994 *Islamic Glazed Pottery: 700–1250*. D. Phil. thesis, University of Oxford.
- Mazar, B.
 1969 *The Excavations in the Old City of Jerusalem. Preliminary Report of the First Season, 1968*. Jerusalem: Israel Exploration Society.
- Mazar, B. and M. Ben-Dov
 1971 *The Excavations in the Old City of Jerusalem near the Temple Mount. Preliminary Report of the Second and Third Seasons 1969–1970. The Omayyad Structures near the Temple Mount*. Jerusalem: The Institute of Archaeology, Hebrew University/The Israel Exploration Society.
 n.d. *Findings from the Archaeological Excavations near the Temple Mount*. Jerusalem: Jerusalem City Museum, Israel Exploration Society and the Institute of Archaeology, Hebrew University. [ca. 1973].
- Northedge, Alastair, with Julian Bowsher, Ulrich Hübner, Henry Innes MacAdam and Jason Wood
 1992 *Studies on Roman and Islamic Amman. The Excavations of Mrs C-M Bennett and Other Investigations. Volume I. History, Site and Architecture*. British Academy Monographs in Archaeology No. 3. Oxford: British Institute at Amman for Archaeology and History/Oxford University Press.
- Prag, K. et al.
 n.d. *Excavations by K. M. Kenyon in Jerusalem 1961–1967*, vol. 5.
- Riis, P. J. and V. Poulsen
 1957 Hama. Fouilles et Recherches 1931–1938, vol. IV.2. *Les Verreries et Poteries Médiévales*. Copenhagen: Nationalmuseet.
- Turquety-Pariset, F.
 1982 Fouille de la Municipalité de Beyrouth (1977): Les Objets. *Syria* 59: 27–76.
- Vaux, R. de
 1962 Jérusalem, in *Chronique Archéologique. Revue Biblique* 69: 80–82.

- 1963 Jérusalem, in *Chronique Archéologique. Revue Biblique* 70: 416–419.
- 1964a Jérusalem, in *Chronique Archéologique. Revue Biblique* 77: 253–258.
- 1964b Les Hôpitaux de Justinien à Jérusalem, d'après les dernières fouilles. *Compte Rendus de l'Académie des Inscriptions et Belles-Lettres*: 202–207.
- Vaux, R. de and A.-M. Stève
 1950 *Fouilles à Qaryet el-'Enab. Abu Gosh. Palestine*. Gabalda: Paris.
- Walmsley, A.
 1986 Preliminary Report on the University of Sydney's Seventh Season of Excavations at Pella (Tabaqat Fahl) in 1985: The Abbasid Occupation in Area XXIX. *Annual of the Department of Antiquities of Jordan* 30: 182–195.
- 1988 Pella/Fihl after the Islamic Conquest (A.D. 635–ca. 900): A Convergence of Literary and Archaeological Evidence. *Mediterranean Archaeology* 1: 142–159.
- 1995 *Tradition, Innovation and Imitation in the Material Culture of Islamic Jordan: The First Four Centuries*. Studies in the History and Archaeology of Jordan, vol. 5. Pp. 657–668. Amman: Department of Antiquities.
- 1997 Ceramics and the Social History of Early Islamic Jordan: the Example of Pella (Tabaqat Fahl). *Al-'Usur al-Wusta* 9(1): 1–3, 12.
- Walmsley, A. G., P. G. Macumber, P. C. Edwards, S. Bourke and P. M. Watson
 1993 The Eleventh and Twelfth Seasons of Excavations at Pella (Tabaqat Fahl) 1989–1990. *Annual of the Department of Antiquities of Jordan* 37: 165–240.
- Whitcomb, D.
 1989 Mahesh Ware: Evidence of Early Abbasid Occupation from Southern Jordan. *Annual of the Department of Antiquities of Jordan* 33: 269–285.
- 1992 Glazed Ceramics of the Abbasid Period from the Aqaba Excavations. *Transactions of the Oriental Ceramic Society* 1990–1991: 43–65.

Early Islamic Arsuf: The Archaeological Aspect of an Urban and Maritime Centre of the Eastern Mediterranean Shore

ISRAEL ROLL
Tel Aviv University

The ancient site of Apollonia-Arsuf is located on a sandstone cliff overlooking a natural haven on the shore of the modern town of Herzliya, some 15 kilometers north of Tel Aviv (Figures 1–3). Since 1977, fourteen seasons of excavations have been carried out at the site to date by the author. The early seasons were undertaken as rescue digs on behalf of the Israel Antiquities Authority, and the later seasons as University excavations on behalf of the Institute of Archaeology of the Tel Aviv University, with the support of the Municipality of Herzliya and the Nature and Parks Authority. For the last two seasons, a joint project with Universities from Porto Alegre and Sao Paulo, Brazil, was initiated. The excavations, which took place in twelve different areas spread all over the site, have shown that the site was settled without interruption for almost 18 centuries, from the late sixth century B.C.E. through to the mid-13th century C.E. (Roll 1992; 1996a; 1999: 31–53; Roll and Ayalon 1989: 23–117; 1993; Roll et al. 2000).

The earliest permanent settlement was a Phoenician foundation of the Persian period, which was confined to the western edge of a cliff overlooking the Mediterranean Seas (Figure 3, center). Its name was probably *Arshof*, after the Phoenician god *Resheph*, as shown by the Arabic toponym *Arsûf* (Izre'el 1999; see Tal 1999). As the Greeks used to identify *Resheph* with *Apollo*, the town's name was changed in Hellenistic times to *Apollonia* (Schürer 1979: 114–115; see Fischer and Tal 1999). In Roman times, the city expanded to the south (Area E; see Figure 4), where a well planned and carefully built *villa maritima* of the late first century C.E. was recently uncovered (Figure 5). This impressive structure was soon destroyed by a devastating earthquake, and then covered with layers of fill and garbage from the surrounding (and as yet unexcavated) buildings of the second and third centuries. Those layers included rich quantities of imported ware from the production centers of the Eastern Mediterranean and Italy, and even pieces of African Red Slip Ware imported from North Africa. It is worth noting that the imported pottery also included a substantial number of typical Roman round lamps, from which the usual pagan and erotic figurative scenes were broken away intentionally. These finds, when added to the large group of so called Samaritan lamps, and a lamp decorated with a seven branched *menorah*, seem to reflect the presence of Monotheistic communities at Apollonia, of Samaritans as well as of Jews. They also indicate the peculiar adaptation of such imported finds to the exigencies of the local population, when necessary (Roll 1999: 48–50; Roll and Ayalon 1989: 38–51; Sussman 1983; Wexler and Gilboa 1996).



FIGURE 1. Site plan of Apollonia-Arsuf (survey and drawing by B. Arubas).



FIGURE 2. Site of Apollonia-Arsuf, looking north (air photo: Albatross).



FIGURE 3. The Crusader Castle (foreground) and site (center), looking south (air photo: Albatross).

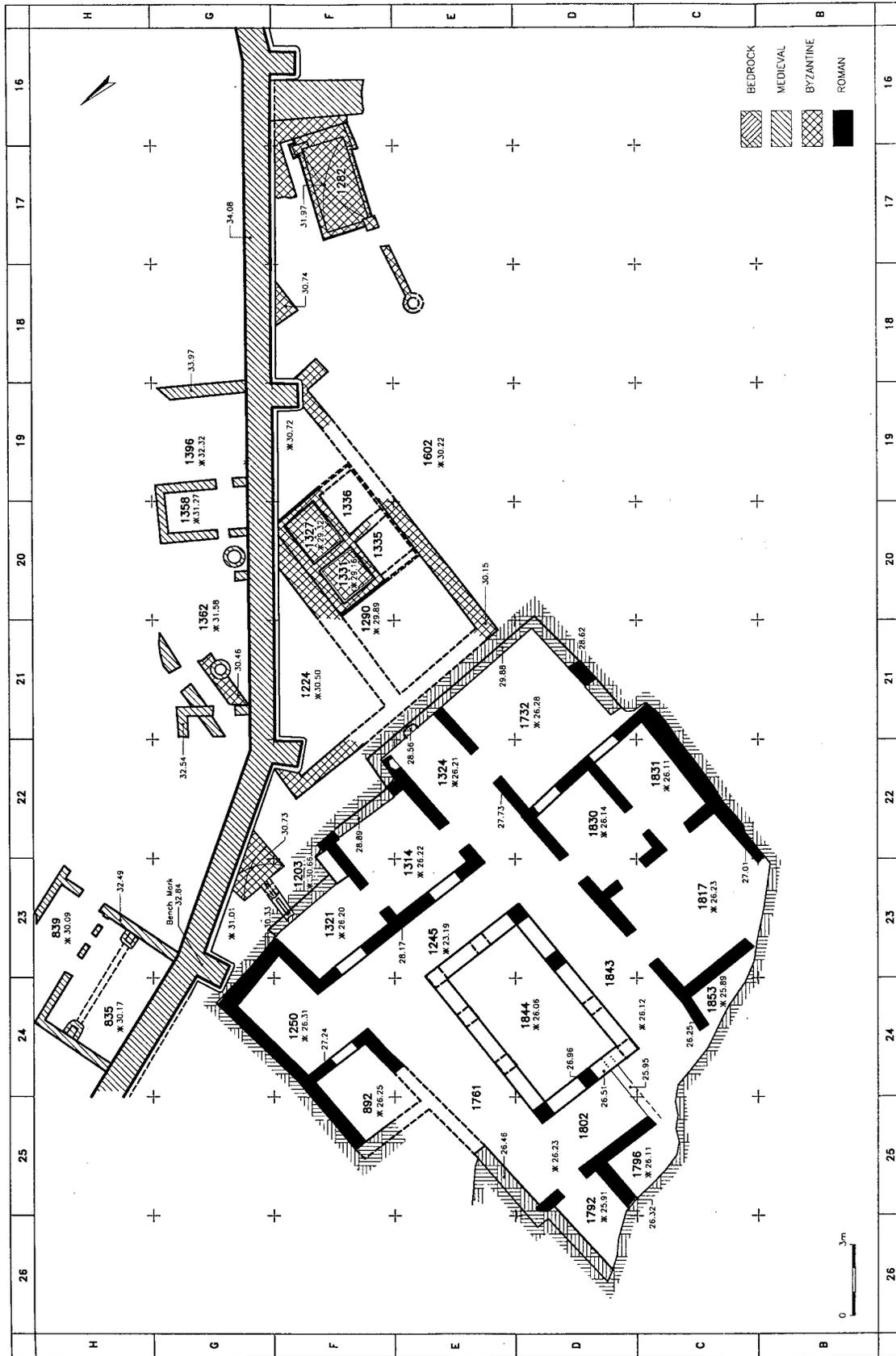


FIGURE 4. Plan of Area E (drawing Y. Dekel).



FIGURE 5. The Roman villa in Area E, looking west (Roll).

The maritime aspect of Apollonia is reflected in its inclusion in several lists of coastal cities belonging to *Provincia Judaea*—later named *Palaestina* (Tsafrir, Di Segni and Green 1994: 65 and the attached North map; Roll 1999: 6–8). On the other hand, its depiction on the *Tabula Peutingeriana*, on the coastal highway between Joppa and Caesarea, indicates that it also served as an official leg on the country's Imperial road network (Weber 1976, segment IX; see Roll 1996b: 558).

In Byzantine times, the city reached its greatest prosperity and largest expansion, up to about 70 acres. This widespread and rather diffused urban center was unfortified and its water supply was maintained by collecting rainwater in underground cisterns and reservoirs (Figure 6). Excavations carried out all over the site have identified a commercial area in the center (Areas B–D), an industrial quarter in the north (Areas A and C) where oil, wine and glass were produced, various manufacturing installations in the south (Area E, Figure 7) and in the west (Areas G–H), and an impressive church in the south-east (Area K, see Figure 6). On the seaward side, the results of the underwater survey carried out in the sheltered anchorage opposite the city have shown intensive harbor activity in Roman times, which reached its peak in the Byzantine period (Grossmann 1997; in press). These features elevated Apollonia into the chief commercial, industrial and maritime center of the entire southern Sharon Plain.

In the ecclesiastical lists from several Ecumenical Councils held in the fifth and sixth centuries C.E., Apollonia appears with the new name of Sozousa and is placed within the Byzantine province of Palaestina Prima. The city had the official status of a *civitas*, and its Christian population was organized in an official community headed by a bishop (Schwartz



FIGURE 6. Underground cistern of the Byzantine church in Area K, looking north (photo: P. Shrago).



FIGURE 7. Manufacturing installation in Area E (loci 1327 and 1331) used until the late seventh century C.E., looking south (Roll).



FIGURE 8. The city-gate in Area J, the Crusader phase, looking west (Roll).

II/1 1933: 80, 184, 193; II/3 1935: 183, 245, 255; III 1940: 80, 188; Straub 1971: 201, 203, 221; see Roll 1999: 8–10). The bishop's seat could have been the church uncovered in Area K, which also included a remarkable inscribed mosaic floor (Ovadia 1970: 155; Birnbaum and Ovadia 1990). On the other hand, various lamps of the Samaritan type, a juglet decorated with a stylized seven branched menorah, and several other finds seem to indicate the continued presence of Samaritan and Jewish communities in the city, and these may have contributed substantially to its economic growth (Roll and Ayalon 1989: 51–67; Roll 1999: 26–47).

The Byzantine city was taken by the Persians in 614 C.E. and a short while later, towards 640 C.E., by the Arabs. The newcomers reverted to its Semitic place-name, Arsuf (Izre'el 1999; see Schick 1995: 21–23, 250–251). For several decades thereafter, until late in the seventh century C.E., the manufacturing installations and, apparently, the Byzantine city as a whole, continued to function without interruption. Actually, no destruction layer was found in any of the areas, which include a sequence of strata from the Byzantine to the Early Islamic periods. On the other hand, because of constant threat from the Byzantine navy (Ahrweiler 1966: 19–35; Lewis 1951: 54–71), the Muslims fortified the city but, in doing so, reduced its surface size to some 22 acres, or one third of its previous area (Figure 1). The fortification included a city wall about one meter wide strengthened with outer buttresses, a surrounding moat, and a main gate in the east (Figure 8). According to the finds uncovered on the earliest floors of at least two rooms adjoining the city wall (Figure 9), its construction can be dated to the turn of the seventh to the eighth centuries C.E., that is to



FIGURE 9. Early Islamic room adjoining the city-wall in Area H, looking north (Roll).

the reign of Abd al-Malik (685–705). In several areas where our excavations reached the lower end of the city wall (most recently that happened in the western end of Area E—see Figure 10) we found that the wall was deliberately built, not on rock or solid ground, but on an accumulated bed of sand dune. As we noted the same phenomenon also under the walls of domestic buildings, it is rather clear that we are in the presence of a peculiar method of wall bedding that was used extensively in Early Islamic Arsuf. This method seems to have the dual purpose of attenuating and absorbing shocks from earthquakes, while also allowing for the efficient drainage of rainwater in order to preserve the base of the walls (Roll 1999: 37–40; Roll and Ayalon 1989: 75–78; see Van Beek 1996).

In Area B, inside and west of the city gate, a complex of buildings was found on either side of a street some two meters wide and oriented north to south (Figures 11–12). Eight phases of use, covering the duration of the entire Early Islamic period, were distinguished in the street's surface and in the structures related to it. The buildings of Stratum VIII, that is, the lowest Islamic stratum, display continuity from the Byzantine period onward. In Stratum VII, a fundamental change occurred. The entire area was reconstructed anew and long rooms that were uniform in plan and entered through pairs of piers were erected on either side of the street. These rooms, which contained ovens and fireplaces, served most probably as food stalls and shops facing the passage—clearly a market street typical of the Islamic Orient (Roll and Ayalon 1987; see al-Asad and Stepniowski 1989; Scharabi 1985; Wirth 1974; 1975). The continuation of the street and its structures was uncovered in Area



FIGURE 10. The city-wall of the Early Islamic phase, built on sand, looking northeast (Roll).

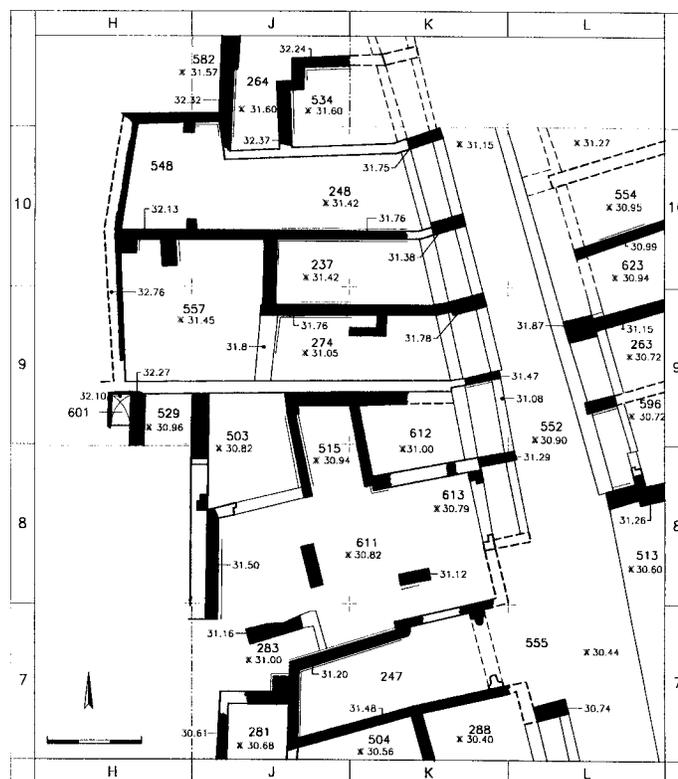


FIGURE 11. The Early Islamic market street in Area B, Stratum V (drawing by Y. Dekel).

C, further to the north. It indicates that this entire part of the city was subject to comprehensive urban planning, probably at the same time as the city wall was erected; that is, under the Umayyad caliph Abd al-Malik. As for the method of transport along the street, its narrowness clearly indicates that it was intended to serve beasts of burden only (Figure 13). That agrees with the disappearance of wheeled vehicles in the country around that time (Bulliet 1975: 216–236; Smith 1966: 448–450).

The shops remained in use in Stratum VI and then suffered violent destruction, perhaps during the attested riots of 809, which broke out in the region after the death of the Abbasid caliph Harun ar-Rashid (Ben Zvi 1976: 103–104; Gil 1992: 292–294; Schick 1995: 92–94). Stratum V (Figure 11), of the ninth century, was rebuilt with minor changes. But now, the rooms became smaller and inner courtyards were added. Finally, the same market street continued in use in Strata IV to I, in the tenth and eleventh centuries. However, the later structures show clearly that there had been a steady decline in construction standards and in the building materials.

A variety of rich finds were uncovered from the Early Islamic period, including glazed pottery of various colors, a large proportion of which belongs to the Underglazed Black on White Painted Ware (Figure 14), which originated from Syria and Egypt (Roshal, in progress). The finds also included bone and metal artifacts, rings, pendants and several inscribed objects in Arabic (El'ad 1989b, Sharon 1997: 112–116). The large number of tools and iron nails seem to indicate extensive use of wood for house and boat building (Roll 1999: 31–35; Roll and Ayalon 1989: 67–75).



FIGURE 12. The remains of the market street, looking north (Roll).

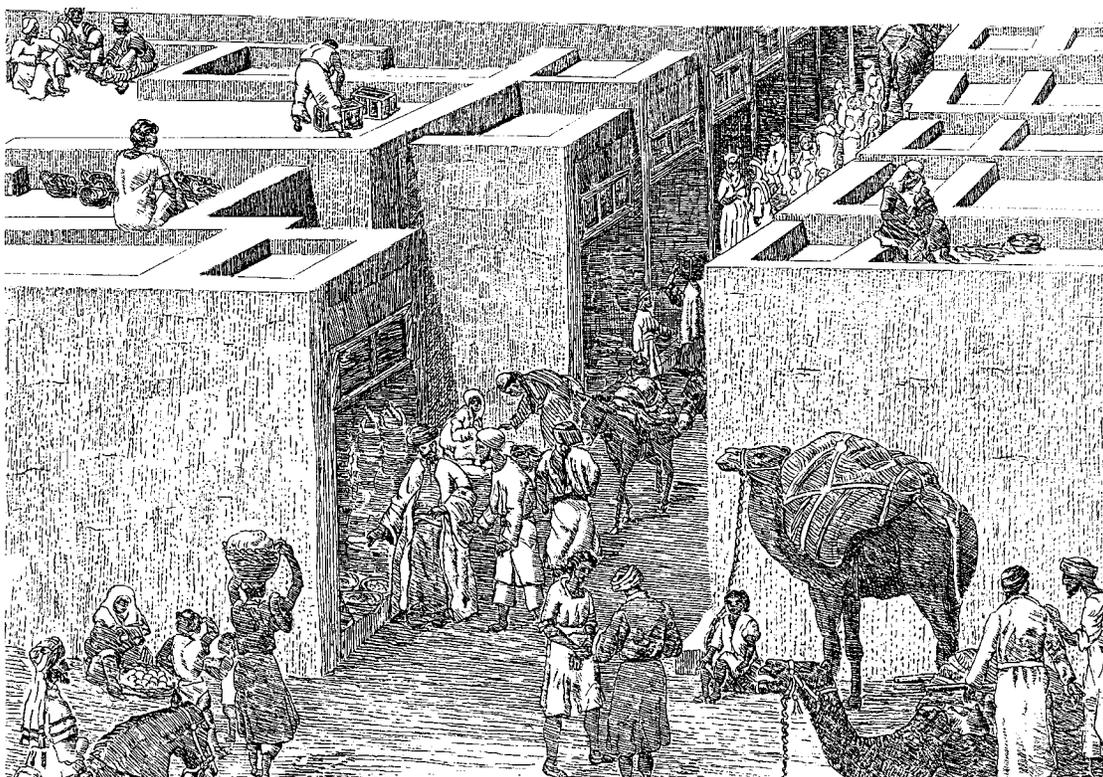


FIGURE 13. Reconstruction of the market street, looking north (drawing by Anna Yamim).



FIGURE 14. Underglazed Black on White painted plate, from Area B (Roll).

Several Muslim authors, from the ninth century C.E. onwards, mention a place with the name of Arsuf. Al-Muqaddasi, who was born in Jerusalem and had first-hand knowledge of the country, mentions Arsuf in his list of the eleven main cities of Early Islamic Palestine, in addition to its capital Ramlah. He also adds that, although in his time (985 C.E.), Arsuf was smaller than Jaffa and certainly less important than Ramlah (a pulpit made for the mosque of Ramlah, found to be too small, was given to Arsuf), it was strongly fortified and densely populated (Le Strange 1890: 39, 399; Marmardji 1951: 7, 105; see Gibb 1960; Gil 1992: 220). As we have seen, that testimony is well supported by the archaeological data. Arsuf appears in similar lists of chief cities compiled by Ibn Rusta (early tenth century C.E.), Yaqut (1225 C.E.) and al-Dimashqi (1300 C.E.), as well as on the famous map of al-Istakhri (compiled in 925 C.E.; see Le Strange 1890: 29, 41; Marmardji 1951: 151, 162; Nebenzahl 1986: 28–29).

According to al-Muqaddasi, Arsuf was considered a *ribat*; that is, a border city on the coastal frontier of Islam as well as a center for ransoming captives from the Byzantines. In this capacity it became part of an organized coastal warning system, which included high towers located in the *ribatat*, and between them and the capital Ramla. The towers of the coastal cities served as observation posts, as well as signal stations that used smoke during the day and fire by night to alert the garrisons of the inland (Le Strange 1890: 23–24; see Elʿad 1982: 155–160; Fahmy 1950: 55–56; Gil 1992: 107–108; Khalilieh 1999; Sharon 1986: 90–94). On land, Arsuf was part of the country’s coastal road network, at the distance of one march from Caesarea, and one march from Ramla. Ibn Khurdadhbih, who provides an accurate description of the main arteries of traffic of the Caliphate in the mid-ninth century C.E., mentions Arsuf between Caesarea and Jaffa, on the chief road that connected Mesopotamia with Egypt (Marmardji 1951: 7, 103, 104; see Avi Yonah 1970; Elʿad 1989a: 297). Arsuf also served as a Muslim religious center where a number of scholars who studied and transmit-



FIGURE 15. Round structure beneath the donjon's stairs (Area F), looking north (Roll).

ted *hadith* literature lived during the ninth and tenth centuries C.E. (Elʿad 1989a: 298–301; see Gil 1992: 421–429).

The Crusaders captured Islamic Arsuf in 1101 and, later on, enlarged its fortifications to the east and built a new city gate there. One of the *seigneurs* of Arsur, as it was now called, erected in the north a formidable castle, which included a triple system of walls and towers surrounded by a large moat, and a massive *donjon* that overlooked the entire complex. Most recently, the lower part of a round structure was found under the stairs leading to the donjon's upper floors, which seem to predate the Crusades (Figure 15). This structure could represent the Islamic *ribat*, mentioned previously. The Crusader city and castle were besieged and conquered in 1265 by the Mamluk sultan Baybars, razed by him to the ground, and left in ruins ever since (Roll 1999: 11–18, 44–45, 50–53; Roll et al. 2000).

The Muslim geographer Abu'l-Fida, who wrote in 1321 C.E., summarized with his keen sight the story of our site with the following words: “Arsuf, in Filastin, was a populous town, having a castle. It lies on the coast of the Greek Sea, 12 miles from Ramlah, 6 miles from Yafa, and 18 from Kaisariyyah. It had a market, and was surrounded by a wall; but at the present day the town is in ruins, and there are no inhabitants” (Le Strange 1890: 399).

References

- Ahrweiler, Helene
1966 *Byzance et la mer. La marine de guerre, la politique et les institutions maritimes de Byzance aux VII–XV siècles*. Bibliothèque Byzantine Études, 5. Paris: Presses universitaires de France.
- Al-Asʿad, Khaled, and Franciszek M. Stepniowski
1989 The Umayyad Suq in Palmyra. *Damaszener Mitteilungen* 4: 205–223.
- Avi Yonah, Michael
1970 Arab Rule. In *Atlas of Israel. Survey of Israel*, ed. Map No. IX/10. Jerusalem: Survey of Israel.
- Ben Zvi, Izhak
1976 *The Book of the Samaritans*. Jerusalem: Yad Izhak Ben Zvi (Hebrew).
- Birnbaum, Rachel, with Asher Ovadiah
1990 A Greek Inscription from the Early Byzantine Church at Apollonia. *Israel Exploration Journal* 40: 182–191.
- Bulliet, R. W.
1975 *The Camel and the Wheel*. Cambridge: Harvard University Press.
- Dauphin, Claudine
1998 *La Palestine Byzantine: peuplement et population*, vol. III. BAR International Series 726. Oxford: British Archaeological Reports.
- Elʿad, Amikam
1982 The Coastal Cities of Palestine During the Early Middle Ages. In *The Jerusalem Cathedral*, 2. L. I. Levine, ed. Pp. 146–167. Jerusalem and Detroit: Yad Izhak Ben Zvi and Wayne State University.
1989a Arsuf in the Early Arabic Period. In I. Roll and E. Ayalon, *Apollonia and Southern Sharon*. Pp. 289–301. Tel Aviv: Hakibbutz Hameuchad (Hebrew).
1989b Arabic Inscriptions from Arsuf. In I. Roll and E. Ayalon, *Apollonia and Southern Sharon*. Pp. 303–308. Tel Aviv: Hakibbutz Hameuchad (Hebrew).
- Fahmy, A. H.
1950 *Muslim Sea Power in the Eastern Mediterranean from the Seventh to the Tenth Century A.D.* Cairo: Bosco.
- Fischer, Moshe, with Oren Tal
1999 The Hellenistic Period. In *Apollonia-Arsuf: Final Report of the Excavations*, vol. I. I. Roll and O. Tal, eds. Pp. 223–261. Tel Aviv: Tel Aviv University.
- Gibb, H. A. R.
1960 *Arsuf. Encyclopaedia of Islam*, vol. I. 2nd Edition. P. 662.
- Gil, Moshe
1992 *A History of Palestine, 634–1099*. Cambridge: Cambridge University Press.
- Grossmann, Eva
1997 Maritime Apollonia (Arsuf) and its Harbours. *The Mariner's Mirror* 83: 80–84.
In press *Maritime Investigation of Tel Michal and Apollonia Sites*. BAR International Series. Oxford: British Archaeological Reports.
- Izre'el, Shlomo
1999 Arsuf: The Semitic Name of Apollonia. In *Apollonia-Arsuf: Final Report of the Excavations*, vol. I. I. Roll and O. Tal, eds. Pp. 63–75. Tel Aviv: Tel Aviv University.
- Khalilieh, Hassan S.
1999 The *Ribât* System and its Role in Coastal Navigation. *Journal of the Economic and Social History of the Orient* 42: 212–225.
- Le Strange, Guy
1890 *Palestine under the Moslems*. London: Palestine Exploration Fund/Alexander Watt.
- Lewis, A. R.
1951 *Naval Power and Trade in the Mediterranean, A.D. 500–1100*. Princeton: Princeton University Press.

- Marmardji, A.-S.
1951 *Textes géographiques arabes sur la Palestine*. Paris: Gabalda.
- Nebenzahl, Kenneth
1986 *Maps of the Holy Land*. New York: Abbeville.
- Ovadia, Asher
1970 *Corpus of the Byzantine Churches in the Holy Land*. Bonn: Hanstein.
- Roll, Israel
1992 Apollonia. In *The Anchor Bible Dictionary*, vol. 1. David Noel Freedman, ed., with Gary A. Herion, David F. Graf, John David Pleins and Astrid B. Beck. Pp. 298–299. New York: Doubleday.
1996a Medieval Apollonia-Arsuf: A Fortified Coastal Town in the Levant of the Early Muslim and Crusader Periods. In *Autour de la Première Croisade*. M. Balard ed. Pp. 597–606. Paris: Sorbonne.
1996b Roman Roads to Caesarea Maritima. In *Caesarea Maritima: A Retrospective after Two Millennia*, A. Raban and K. G. Holum, eds. Pp. 549–558. Leiden: Brill.
1999 Introduction: History of the Site, its Research and Excavations. In *Apollonia-Arsuf: Final Report of the Excavations*, vol. I. I. Roll and O. Tal, eds. Pp. 1–62. Tel Aviv: Tel Aviv University.
- Roll, Israel with Etan Ayalon
1987 The Market Street at Apollonia-Arsuf. *Bulletin of the American Schools of Oriental Research* 267: 61–76.
1989 *Apollonia and Southern Sharon: Model of a Coastal City and its Hinterland*. Tel Aviv: Hakibbutz Hameuchad (Hebrew).
1993 Apollonia-Arsuf. In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, vol. 1. E. Stern, ed. Pp. 72–75. Jerusalem: Israel Exploration Society.
- Roll, Israel, with Hagi Yohanan, Yotam Tepper and Tamar Harpak
2000 Apollonia-Arsuf in the Crusader Period in Light of New Discoveries. *Qadmoniot* 33: 18–31 (Hebrew).
- Roshal, Dvora
In progress “Black on White”: A Pottery Group from Medieval Apollonia-Arsuf, which Contributes to Historical Research. PhD thesis. Tel Aviv University.
- Scharabi, Mohamed
1985 *Der Bazar. Das traditionelle Stadtzentrum im Nahen Osten und seine Handelseinrichtungen*. Tübingen: Wasmuth.
- Schick, Robert
1995 *The Christian Communities of Palestine from Byzantine to Islamic Rule. A Historical and Archaeological Study*. Princeton, NJ: Darwin Press.
- Schürer, Emil
1979 The History of the Jewish People in the Age of Jesus Christ (175 B.C.–A.D. 135). New English Version Revised and Edited by G. Vermes, F. Millar and M. Black. Edinburgh: Clark.
- Schwartz, Eduard
1924–40 *Acta Conciliorum Oecumenicorum*, vols. I–III. Berlin: Gruyter.
- Sharon, Moshe
1986 The Cities of the Holy Land under Islamic Rule. *Cathedra* 40: 83–120 (Hebrew).
1997 *Corpus Inscriptionum Arabicarum Palaestinae*, vol. I. Leiden: Brill.
- Smith, George Adam
1966 *The Historical Geography of the Holy Land*. 25th ed. [1931]. New York: Harper & Row.
- Straub, Johan
1971 *Acta Conciliorum Oecumenicorum*, vol. IV. Berlin: Gruyter.
- Sussman, Varda
1983 The Samaritan Oil Lamps from Apollonia-Arsuf. *Tel Aviv* 10: 71–96.

- Tal, Oren
1999 The Persian Period. In *Apollonia-Arsuf: Final Report of the Excavations*, vol. I. I. Roll and O. Tal, eds. Pp. 83–222. Tel Aviv: Tel Aviv University.
- Tsafir, Yoram, with Leah Di Segni and Judith Green
1994 *Tabula Imperii Romani: Iudaea-Palaestina. Maps and Gazetteer*. Jerusalem: The Israel Academy of Sciences and Humanities.
- Van Beek, Gus W.
1996 Ancient Methods of Minimizing Earthquake Damage at Tell Jemmeh. *Eretz Israel* 25: 1*-8*.
- Weber, Ebehard
1976 *Tabula Peutingeriana. Codex Vindobonensis 324*, vol. II. Graz: Akademische Druck.
- Wexler, Lior with Gabi Gilboa
1996 Oil Lamps of the Roman Period from Apollonia-Arsuf. *Tel Aviv* 23: 115–131.
- Wirth, Eugen
1974–75 Zum Problem des Bazars (sûq, çarsi). *Der Islam* 51.2: 203–260; 52.1: 6–46.

The Contribution of “Light” Archaeology to the Study of Fortified Sites in Northern Syria

CRISTINA TONGHINI AND GUIDO VANNINI

Università di Firenze

The Project (GV)

A new archaeological project has been recently started by a joint team from the University of Florence and the University of London, entitled *Islamic Syria and Latin Kingdoms: a Mediaeval frontier. Settlements and interaction in the 12th and 13th centuries A.D.*¹ This project aims at analysing settlements, territories and fortified systems on both sides of the frontier in the coastal plain of Syria and in the Orontes valley. In this context, the frontier acquires the significance of an “observatory” on the interaction (for example, in relation to settlement modes, control of territory, exploitation of natural sources, and exchange of technology) between west European feudal society and Islamic society in the twelfth and thirteenth centuries (Figure 1).²

In the Near East, research topics such as the transformation of settlement in the period under consideration and the origin of fortifications do not seem to have been adequately developed. To date, the archaeological study of this period has mainly concerned standing

1. The Italian team was funded by grants from the Ministero dell’Università e della Ricerca Scientifica e Tecnologica and from the Ministero degli Affari Esteri. The Italian Embassy in Damascus provided in many ways advice, help and assistance, in particular H. E. the Ambassador Antonio Romano Napolitano. The Syrian Embassy in Rome kindly gave the team complimentary entry visas. The team wishes to thank the Directorate General of Antiquities for providing the assistance of Architect Asmahan al-Wazza during this phase of fieldwork. The team also wishes to thank the Institut Français d’Etudes Arabes de Damas and its Director, Professor Mallet, for the hospitality they provided. The results presented here relate to the campaign conducted in May 1999. The team consisted of the two authors, Professor Guido Vannini (GV) and Dr Cristina Tonghini (CT); Dr. Eugenio Donato, who also played a very important role in the analysis of the wall typology; Architect Asmahan al-Wazza, from the Department of the Antiquities. A first preliminary survey had also been conducted in November 1998. During that campaign the team also included, together with the present writers, Professor Hugo Blake (Royal Holloway, University of London) and Professor Franco Niccolucci (Università di Firenze).
2. Islamic culture can be considered the heir of Late Antique urban Mediterranean society in terms of social and territorial organization, although with well-known variations. In this setting, especially in the case of marginal areas (part of or close to the original desert environment), there are occasional swings towards the re-emergence of the nomadic or semi-nomadic way of life. This situation seems to characterize the Islamic side of the frontier in the two regions considered by our Mission: in southern Transjordan, and in the current project in Syria between the twelfth and thirteenth centuries. See, in general, Lombard 1980; Lapidus 1993.

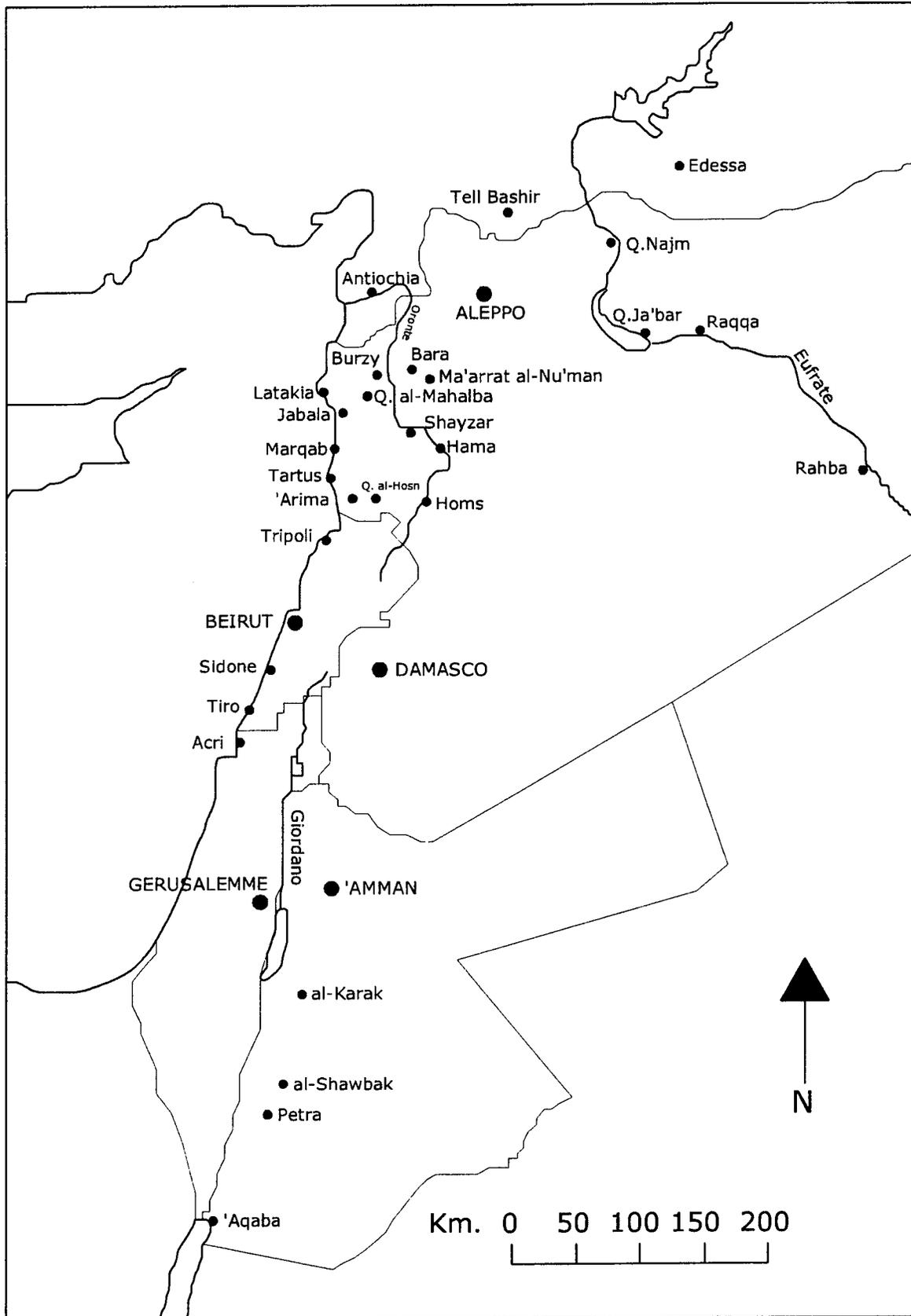


FIGURE 1. Map of Greater Syria showing the location of the sites mentioned in the text.

castles and town walls in the areas controlled by the Crusaders. Detailed studies of these monuments have been undertaken, but the aim of the work carried out in the first decades of the 20th century significantly differ from the aim of present day research. For example, the analysis of standing features has been architectural rather than archaeological, while no work has been undertaken on the contemporary environment.

The idea of this project proposal had been conceived in the light of the results achieved in the course of an archaeological project which had been carried out in Transjordan by a team of the University of Florence.³ This project aimed at studying the Islamic-Latin frontier at the edge of the Arabic desert, and focused on the system of fortifications of the Petra valley (Figure 1). More specifically, the goal of this research was to investigate and record on an archaeological basis the "caractères originaux" of the Crusader presence in the Holy Land of the twelfth century, while the Syrian project aims at extending the analysis to both sides of the frontier and to include the second phase of Crusader occupation up to the thirteenth century.

The methodological developments that have characterized archaeological research on Mediaeval Europe (so-called "Historical Archaeology") were adopted for the project in Transjordan. Specific methodological strategies and field techniques were developed and tested in the course of this research. They proved to be highly productive for approaching this type of research topic and provided the team with the necessary tools for further developing the research into other areas characterized by a similar historical setting.

The methodology selected for this project involves the strategic employment of a system of territorial analysis modelled on so-called "light archaeology". It is a system based on the integrated use of non-destructive (and in a broad sense economical) investigative methods standard in Landscape Archaeology,⁴ more specifically Environmental Archaeology and the Archaeology of Masonry. The system is characterized by the unifying role played by Information Technology,⁵ in relation to:

- the collection and processing of data (as it normally occurs);
- the setting up of specific research tools that can guarantee standardization on the one side and flexibility on the other, in the sense that they can be adapted to different contexts (a site/a topographic unit) and logistic situations (time, resources, and available skills).⁶

The system offers a high degree of generalization: a single aspect or problem can be analysed, such as the origin of fortified settlements. It aims to establish an integrated documentary series (for example, in the form of atlas) based on the material sources recorded stratigraphically either at a site or in a given territory. In this way, for instance, a chronotypology of masonry techniques established on the basis of a stratigraphic analysis of above-ground archaeology constitutes a systematic data-base on one hand and a tool to investigate the territory (in terms of cultural environment) on the other, and facilitates the identification of exchange and influence between different areas.

The Archaeology of Masonry can provide a detailed analysis of building phases for single structures (towers, palaces) as well as for more complex settlements (castles, urban areas)

3. See Vannini and Tonghini 1997; Vannini and Vanni Desideri 1995; see also the web site of the project: www.unifi.it/project/petra/

4. The most widely employed manual in Italy is Cambi and Terrenato 1994.

5. See, for example, Crescioli and Niccolucci 1999; Crescioli et al. *fc.* Specialist co-operation in the field of Information Technology and in the development of new techniques for surveying is provided by ITABC, the CNR Institute at Montelibretti-Roma, directed by Professor Salvatore Garrafo, in particular by Dr Roberto Gabrielli.

and can provide an articulated interpretation of the evolution of a site or of a homogeneous territorial system.⁷ The study of the finishing of stones has proved to be a productive way of analysing a structure and to investigate the cultural context within which the builders operated.

Traditional excavation procedures can also be undertaken, but more in the sense of a further development of research perspectives: to clarify problems related to the analysis of the upstanding fabric (sondages), and to provide data on specific topics identified in the course of the research (“open areas”).

The research in the field is cross-referenced in several places: with the application of the methods of Landscape Archaeology a number of structures in a given area (isolated or within a more complex settlement) are selected and their stratigraphy is analysed and recorded (USM recording sheets and others, see note 6). These structures are specifically selected to provide a relative chronological sequence of walls and to illustrate their technological features (building techniques in general, stone cutting techniques, surface finishing, identification of the tools employed, etc.). In a second phase, this kind of analysis is extended to the territories selected for the research and it is applied to a series of cases which can be considered a representative sample in relation to specific storiographic topics; the evidence is systematically classified in a masonry chrono-typology on the basis of which articulated atlas of the documentary series can be established.

The 1999 Season: The Results (CT)

The first phase of fieldwork for this project started in May 1999 with a preliminary survey. The aim of the first phase was to evaluate the potential of the available archaeological evidence in relation to the aim of the project, and to test the feasibility of applying and exploiting the field methodology proposed.

This preliminary survey did not attempt a systematic recording of data or a detailed analysis of a given territory, but rather set out to consider as wide a variety of sites as pos-

6. Information Technology plays a fundamental role in the strategy of the project. All kinds of the data collected (descriptive, graphic and photographic) can be filed in an integrated system based on a variety of recording sheets. Depending on the degree of analysis required, a wide range of recording sheets is available, all integrated with each other in an Information Technology System. The Site Recording Sheet (Scheda di Sito) is meant for recording a first examination of a given site. On this form, information concerning the site in general can be recorded, including, for example, a short description, a first evaluation of the geological formation, the use of the land, etc. and the strategy for future investigations at the site. The next level involves the study of above ground archaeology with the Topographic Unit Recording Sheet (Scheda di Unità Topografica): a first identification of the various areas—characterized by a certain unity in terms of function, features, etc.—is made, and they are recorded, mapped and described. Within these areas, subsequently, each structure which seems to constitute a “building unit” is recorded and analysed in the Building Unit Recording Sheet (Scheda di Corpo di Fabbrica). For a more detailed analysis of the phases of construction occurring in a given structure and an analysis of the building technology the Masonry Stratigraphic Unit Recording Sheet (Scheda di Unità Stratigrafica Muraria) is employed. On it is recorded a detailed analysis of a given Masonry Stratigraphic Unit, while a Matrix illustrating the relationship among the various Masonry Stratigraphic Units (of the same kind used for excavations) provides an interpretative illustration of the various Masonry Stratigraphic Units—grouped by phases—which are present in a given structure. All Recording Sheets can include graphic and photographic documentation, in a fully integrated system.

sible in order to collect those elements which would be essential in setting up a future research strategy. However, in the course of this preliminary survey, data were collected according to the methodology adopted by the project, and thereby constitutes a first step towards the construction of a database, and will integrate perfectly with research developments in the future.

The sites visited in the course of this preliminary survey were selected according to the evidence available in the relevant literature, which is mainly historical or related to architectural studies, rather than archaeological. The sites were selected primarily in consideration of the role they had played in relation to the Islamic–Crusader frontier of the twelfth and thirteenth centuries (Figure 1). As much as was possible, an attempt was made to explore a broad variety of sites in terms of location, size, function and building styles. These included sites characterized by a continuous occupational sequence, including fortifications with the features of urban sites (Shayzar) as well as citadels within towns (the citadel of Ma'arra) (Dussaud 1927: 187–190); sites which were abandoned at some stage in the Middle Ages on both sides of the frontier, such as Qal'at Abi Safiyan (Deschamps 1973: 313–316; Kennedy 1994: 68–73), Qal'at Burzy (Deschamps 1973: 345–348), Qal'at Mahalba (see for example Deschamps 1973: 339–340; van Berchem and Fatio 1914: 283–288) and Qal'at 'Arima (Deschamps 1973: 313–316; Kennedy 1994: 68–73); sites where the characteristics of the twelfth century building methods could be expected to be better identified because of an early abandonment (such as Qal'at Burzy); sites where the thirteenth century could be expected to be clearly studied (such as 'Arima), and even sites where a number of building phases could be dated in absolute terms because of the presence of inscriptions (such as Shayzar).

Because of the preliminary nature of this field operation, landscape and environmental archaeology investigations were not attempted at this stage; extensive areas in connection with a number of the sites visited were surveyed to plan this part of the research. To illustrate the methodology adopted by the project and the Archaeology of Masonry in particular, and some of the results achieved, this paper will discuss the case of Shayzar.

Shayzar

This site was selected because of its strategic position guarding the Orontes valley, notably a bridge over the river, communication routes and access to Hama (Figure 1), and because it seems to represent a very good example of a complex multi-stratified archaeological deposit. The abundance of Mediaeval written sources dealing with this site makes it a par-

7. The Archaeology of Masonry consists of a scientific methodology of stratigraphic analysis of up-standing fabrics employed in a number of archaeological schools in Italy; it differs distinctively from the traditional architectural analysis of structures, although it can be interrelated with it. Extensive research in this field in Italy has been carried out by: Tiziano Mannoni, who can also be considered the first scholar to test the productivity of this method, especially in Liguria; in Lombardia by Giampiero Brogiolo (see Brogiolo 1988); in Tuscany by Roberto Parenti (who is also responsible for the specialist journal on this subject *Archeologia dell'Architettura*) and by Fabio Redi (see Redi 1989). Research in this field has also been conducted by the Insegnamento di Archeologia Medievale, Università di Firenze, in north-central Tuscany, Calabria, Corsica and Jordan, with a specific historiographical approach and by attempting further methodological developments. In this project, Environmental Archaeology is the specific competence of the team from the University of London, while the Archaeology of Masonry is the specific competence of the team from the University of Florence.

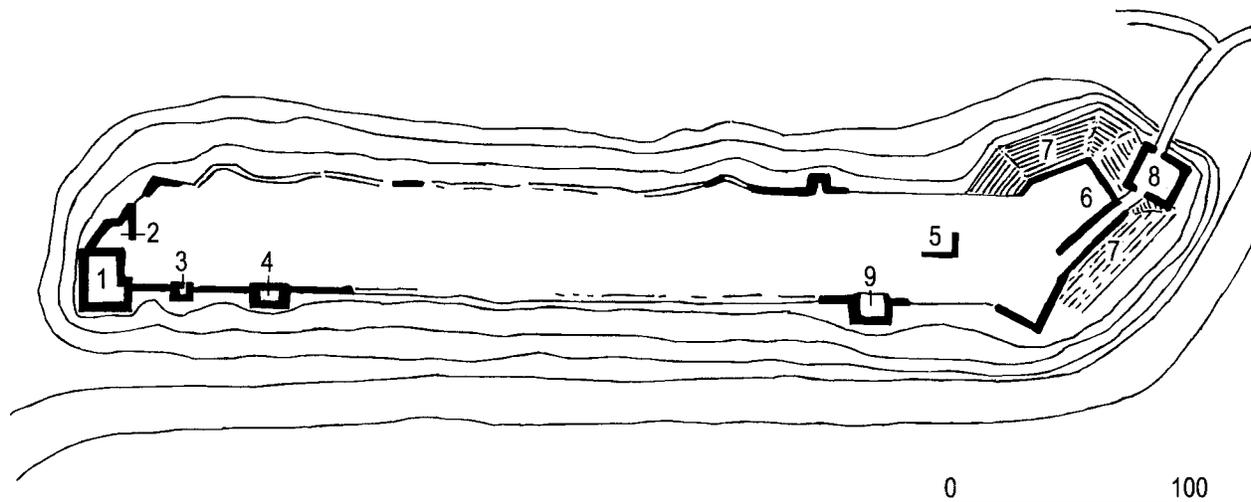


FIGURE 2. Shayzar: sketch-plan with the identification of the Building Units (CF) (redrawn after van Berchem and Fatio 1914).

ticularly appealing case for attempting an integrated study of its historical and archaeological phases as a whole (see Usama a and Usama b.) Moreover, the presence of a number of inscriptions in some of the main structures allows us to date in absolute terms some of the wall typologies occurring at the site (Deschamps 1973: 345–348).

The access system to the castle, at the northern edge of the rocky ridge over which the castle sits, illustrates well some of the major phases which occur at the site and their stratigraphic relationship (Figures 2–3). Three major building phases have been observed here and preliminarily recorded and analysed.⁸

Phase I

The remains of a structure with a rectangular plan (CF 6, Figures 2 and 4) and other related structures (for example a floor and an entrance system) have been observed south of the present access structure. It is characterized by a wall typology built in squared large blocks in horizontal and parallel courses, with occasional snecking (Shayzar type 1, cf. Figures 4 and 7). It probably relates to an early phase of the castle and constituted part of the ancient access to it. It clearly needs further investigation and a detailed mapping of the various structures. The remains of other structures similar to the one described have been observed at other locations within the castle; a detailed analysis of these may permit a hypothetical reconstruction of an earlier fortification.

Phase II

Phase II is represented by a glacis-structure and a gate (CF 7, Figures 2–5, 7). This system consists of a gate, built with ashlar (re-employed blocks are present) and still used as the present gate, and a glacis-like structure which covers the cliff, built in ashlar as well, bonded to this gate (Shayzar type 3, Figures 5, 7). The glacis clearly abuts the rectangular structure of Phase I (CF 6, Figure 4), which becomes incorporated in the new access system. In its turn, CF7 is included in the following transformation of the gate (CF 8, Figure 3).

8. In the course of this preliminary survey no digital techniques have been employed, and an adequate mapping of the site is not available yet. For this first approach, the map sketched by Van Berchem and Fatio was adopted (Figure 2).



FIGURE 3. Shayzar: the gatehouse from the northwest.

Because of the stratigraphic relationship with the last phase of the gate, it can be assigned a 1291 *terminus ante quem* (see *infra*).

Phase III

Phase III consists of the present gatehouse which abuts and incorporates the previous access systems (Figures 2–3). The ashlar wall, which also presents rustication, and the use of columns laid in section (Shayzar type 4, Figures 3, 7) is dated by an inscription which attributes this work to sultan Qala’un (10 July 1290).⁹ According to the sources, however, major repairs were undertaken by Baybars in 1261, and do not mention Qala’un’s work; the possibility that this inscription had been re-carved should be taken into consideration until further investigations are made. The issue is complicated by the presence of yet another inscription on the southern building (CF 1, Figures 2 and 6). The wall typology is very similar to that of the gate CF 8, and presents a number of other occurrences at the site, in particular in three of the towers of the eastern curtain wall (Figure 2, CF 3, 4, 9). In the southern building the inscription, in phase with the building, attributes the construction to sultan Malik Aziz Muhammad, 29 August 1233. In this case van Berchem observes that the inscription was carved after the laying of the blocks and therefore he expresses his doubts about the real dating of this structure (van Berchem and Fatio 1914: 186). Only a careful

9. The use of columns set in the walls is a well-known practice in the military architecture of the Islamic Near East, especially used from the end of the eleventh century. See for example Creswell 1952: 113–114.



FIGURE 4. Shayzar: CF7 abuts CF6.



FIGURE 5. Shayzar: wall type 3.



FIGURE 6. Shayzar: CF1 and CF2..

examination of all these structures will allow a more conclusive interpretation. At this stage, the team could only notice the similarity of the techniques in the southern building and in the northern gate (respectively CF 1 and CF 8, Figures 2–3 and 6), the occurrence of similar techniques in a number of towers (Figure 2, CF 3, 4 and 9), and the stratigraphic relationship among CF 8 and a previous access gate (CF 6 and CF 7, Figures 3–4).

Historical sources attribute major construction work to Nur al-Din (1171, after the 1157 and 1170 earthquakes) and to Baybars, around 1261, but do not mention the 1233 and 1290 restorations discussed above.

Another phase has been detected in relation to the southern building mentioned above (Figures 2, CF 1 and 6). It is a structure which CF 1 seems to abut, and therefore, in the light of the evidence available now, this should be assigned a 1233 *terminus ante quem*. The wall typology is different from the others, and it consists of roughly hewn large blocks laid in courses with abundant use of snecking (Shayzar type 2, Figure 7).

This masonry typology has also been observed at Q. Burzy in the curtain walls which correspond to the twelfth century Crusader phase; it can be distinguished by walls built with roughly hewn blocks laid with extensive use of snecking (Q. Burzy type 2). This technique seems in fact to characterize the twelfth century Crusader building phase, since it has been noted at other sites, such the fortress of al-Wu‘ayra in Jordan and ‘Arima on the coast. At Shayzar, in the light of the present evidence, this building technique can only be attributed to a local tradition.

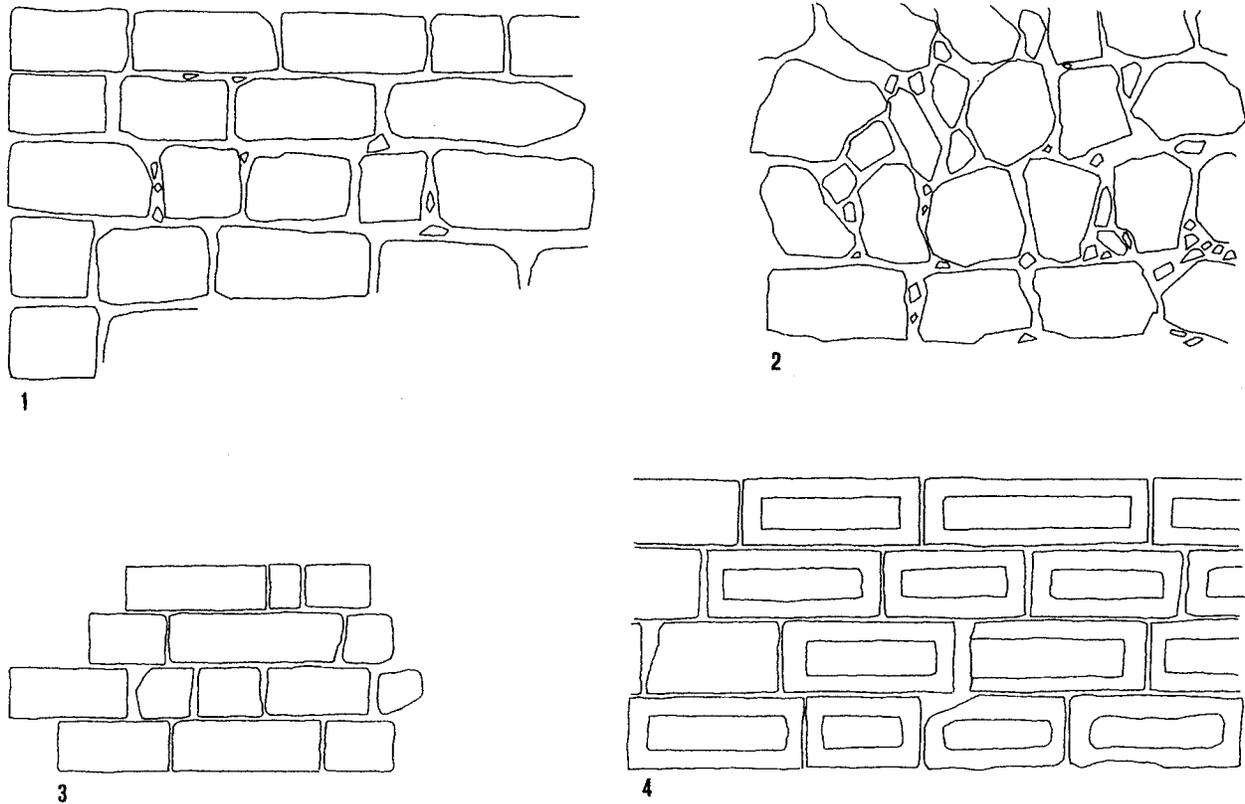


FIGURE 7. Shayzar: preliminary wall typology.

Conclusive Observations (CT and GV)

This survey phase of the project, briefly outlined here, will continue on regions and sites of the coastal plain and in the Orontes valley. Subsequently, a more systematic analysis will be conducted on two sample areas for the second phase of the research.

What emerged conclusively from this first phase of the research is that the regions under consideration are today facing a period of major transformation. Mediaeval monuments, in the general sense of the word, are being modified, partly as a consequence of the growing interest (and of the new resources) which tourist development has created. Above ground evidence seems to be exposed to a greater risk than archaeological deposits. Therefore, it is probably urgent to concentrate on this kind of evidence. The more cost effective and less destructive methods of light archaeology may acquire a prominent role in the rapid recording of evidence that is about to be lost through monument conservation.

APPENDIX: Shayzar—Masonry Typology (Figure 6)

TYPE 1 (Figures 4 and 7)

Squared blocks laid in horizontal and parallel courses; snecking of small size in the bed joints in most cases. The finishing of the stone surface preserves marks left by a tool provided with teeth, but also by a tool with flat blade.

This type of wall is probably built with a core, but no part of it was exposed. Quoins are unstressed, and built with the same alternating blocks that constitute the rest of the wall. Remains of plastering have been noticed in the joint beds and perpendicular junctions.

TYPE 2 (Figures 6–7)

Roughly hewn stones of medium and large size, laid in courses (approximately horizontal and parallel), with extensive use of snecking in both the bed and perpendicular joints.

Thickness of walls is generally remarkable (approximately two meters). The wall has a core built with rubble stones of variable size, laid according to the courses of the faces. The internal face is built as the external one.

For quoins, arches, pilasters, lintels, etc. well finished, squared blocks are employed. A tool equipped with teeth is used for the finishing of stones.

The use of columns placed horizontally, across the section of the wall, occurs only rarely (this is a characteristic of type 4).

TYPE 3 (Figures 5 and 7)

This type of wall constitutes the so-called glacis-structure, and it is in fact a scarp wall. It is built with squared blocks laid in horizontal and parallel courses. The core is built with rubble stone of small and medium size set in abundant mortar. The surface of the blocks is not perfectly even, and shows marks of a tool provided with a point (chisel). In some cases the surface is very well finished and even.

This scarp wall is set either directly on the bed-rock or on pre-existing structures.

TYPE 4 (Figures 3, 6 and 7)

Built with perfectly squared blocks of medium and large size, laid in parallel and horizontal courses. On the external face, a percentage of the blocks presents rustication; the laying of blocks with rustication does not seem to follow a precise pattern.

On the internal face the use of blocks with rustication disappears entirely. The wall is built with a core of rubble (small and medium size stones) set in mortar and built to courses.

A number of courses present columns (re-employed) set horizontally across the section of the wall, very likely with a specific function of increasing the solidity of the wall as well as serving aesthetic purposes. A number of these columns are slightly projecting from the wall, while others are perfectly aligned with the rest of the wall; whether this difference is caused by successive restoration work it is not clear at present.

The surface of the stones is well finished with a tool provided with teeth (at least ten); on the rustication work there are traces of a pointed tool (chisel or pick). Marks of masons have been observed on the external gatehouse wall (CF 8, Figure 3).

References

- van Berchem, Max and Edmond Fatio
 1914 *Voyage en Syrie*. Cairo: Institut français d'archéologie orientale.
- Brogio, Giampiero
 1988 *Archeologia dell'edilizia storica*. Como: Edizioni New Press.
- Cambi, Franco and Nicola Terrenato
 1994 *Introduzione all'archeologia dei paesaggi*. Firenze: N.I.S.
- Crescioli, Marco and Franco Niccolucci
 1999 Petra Data: An Integrated Environment for Archaeological Data Processing. In *New Techniques for Old Times: CAA 98, computer applications and quantitative methods in archaeology, proceedings of the 26th conference*, Barcelona, March 1998. Juan A. Barceló, Ivan Briz, and Asunción Vila, eds. Pp. 133–137. BAR International Series, 757. Oxford: Archaeopress.

- Crescioli, Marco, Franco Niccolucci, Cristina Tonghini and Guido Vannini
 2000. Petra: un sistema integrato per la gestione dei dati archeologici. In *Proceedings of the 1st Workshop Nazionale di Archeologia Computazionale, Napoli-Firenze 1999*. Andrea d'Andrea and Franco Niccolucci, eds. Pp. 49–67. *Archeologia e calcolatori* 11. Firenze: All'Insegna del Giglio.
- Creswell, K. A. C.
 1952 Fortification in Islam before A.D. 1250. *Proceedings of the British Academy* 38: 92–112.
- Deschamps, Paul
 1973 *Les Châteaux des Croisés en Terre Sainte, vol. III: La défense du comté de Tripoli et de la principauté d'Antioche*. Bibliothèque archéologique et historique, 90. Paris: Geuthner.
- Dussaud, René
 1927 *Topographie historique de la Syrie antique et médiévale*. Bibliothèque archéologique et historique, 4. Paris: Geuthner.
- Kennedy, Hugh
 1994 *Crusader Castles*. Cambridge: Cambridge University Press.
- Lapidus, Ira
 1993 *Storia delle società islamiche, vol. 1. Le origini dell'Islam*. [1988]. Turin: Einaudi.
- Lombard, Maurice
 1980 *Splendore e apogeo dell'Islam (VIII–XI secolo)*. [1971]. Milan: Rizzoli.
- Pringle, Denys
 1986 *The Red Tower (al-Burj al-Ahmar). Settlement in the Plain of Sharon at the Time of the Crusaders and Mamluks, A.D. 1099–1516*. London: British School of Archaeology in Jerusalem.
- Redi, Fabio
 1989 *Edilizia medievale in Toscana*. Firenze: Edifir.
- Usama
 a. *Ousama ibn Mounkidh, un émir syrien au premier siècle des Croisades (1095–1188). Vie d'Ousama*. H. Derenbourg, transl. Paris: École des lang. or. vivantes, 1889.
 b. *An Arab-Syrian gentleman and Warrior in the Period of the Crusades. Memoirs of Usamah ibn-Munqidh (Kitab al-i'tibar)*, translated from the original manuscript. P. Hitti, transl. New York: Columbia University Press, 1929.
- Vannini, Guido and Cristina Tonghini
 1997 Mediaeval Petra. The Stratigraphic Evidence from Recent Archaeological Excavations at al-Wu'ayra. *Studies in the History and Archaeology of Jordan* 6: 371–384.
- Vannini, Guido and Andrea Vanni Desideri
 1995 Archaeological Research on Medieval Petra: a Preliminary Report. *Annual of the Department of Antiquities of Jordan* 39: 509–540.

The Ancient *Macellum* of Gerasa in the Late Byzantine and Early Islamic Periods: the Archaeological Evidence

ALEXANDRA USCATESCU AND TERESA MAROT
.....5 DGUG

The archaeological fieldwork at the macellum of Gerasa (Jarash, Jordan) was completed almost ten years ago, although the whole building was not entirely excavated. Many of the discoveries, following the analysis of the different archaeological finds, were published during the nineties. Nevertheless, some stratigraphical aspects of the excavations carried out at the macellum need to be reconsidered, specifically those relating to the destruction date and the later phases of the building's life.¹ Therefore, this revised approach to the historical development of the building will focus on post-Byzantine occupation; that is, the archaeological evidence for early Islamic use (Figure 1).

The macellum itself had a long period of use, from its date of construction in the first part of the second century, to its final abandonment sometime in the second half of the eighth century. Originally, the building was designed to serve as a Roman macellum (Martín Bueno 1989), but it was extensively modified throughout the following centuries. For instance, in the late fifth or mid-sixth century the market size was increased by the construction of a new row of *tabernae* on the southern façade (Figure 1, *tabernae* 15–22). Finally, during the late Byzantine period, the building became an “industrial” area, mainly devoted to dye crafts (Uscatescu and Martín Bueno 1997: 75–81).

I. The Mid-Seventh Century Destruction at the Macellum

The late Byzantine craft-activity was abandoned sometime before the mid-seventh century destruction. It does not seem that this destruction was the reason for the break in human activity within the building, since nothing valuable was found under the collapse layer and the state of the ceramic finds was very fragmentary, with the exception of some broken amphorae found over the earthen floor of the abandoned *officina tinctoria* (Figure 5.1–2, 7). This extensive destruction is well evidenced by the fallen vaulted and tiled roofs and collapsed walls; a huge collapse that reaches a thickness of more than two and a half metres, and was composed by voussoirs, tiles, ashlar, architraves, column shafts, capitals and other architectonic elements.

1. This destruction was previously dated to the early seventh century, but now we are compelled to withdraw this date and propose, on the basis of both pottery and coin data, a mid-seventh century chronology for this collapse, that is some 20 years later than the first proposed chronology. However, this corrected date for the *macellum* destruction does not affect the established pre-Islamic phases of the building.

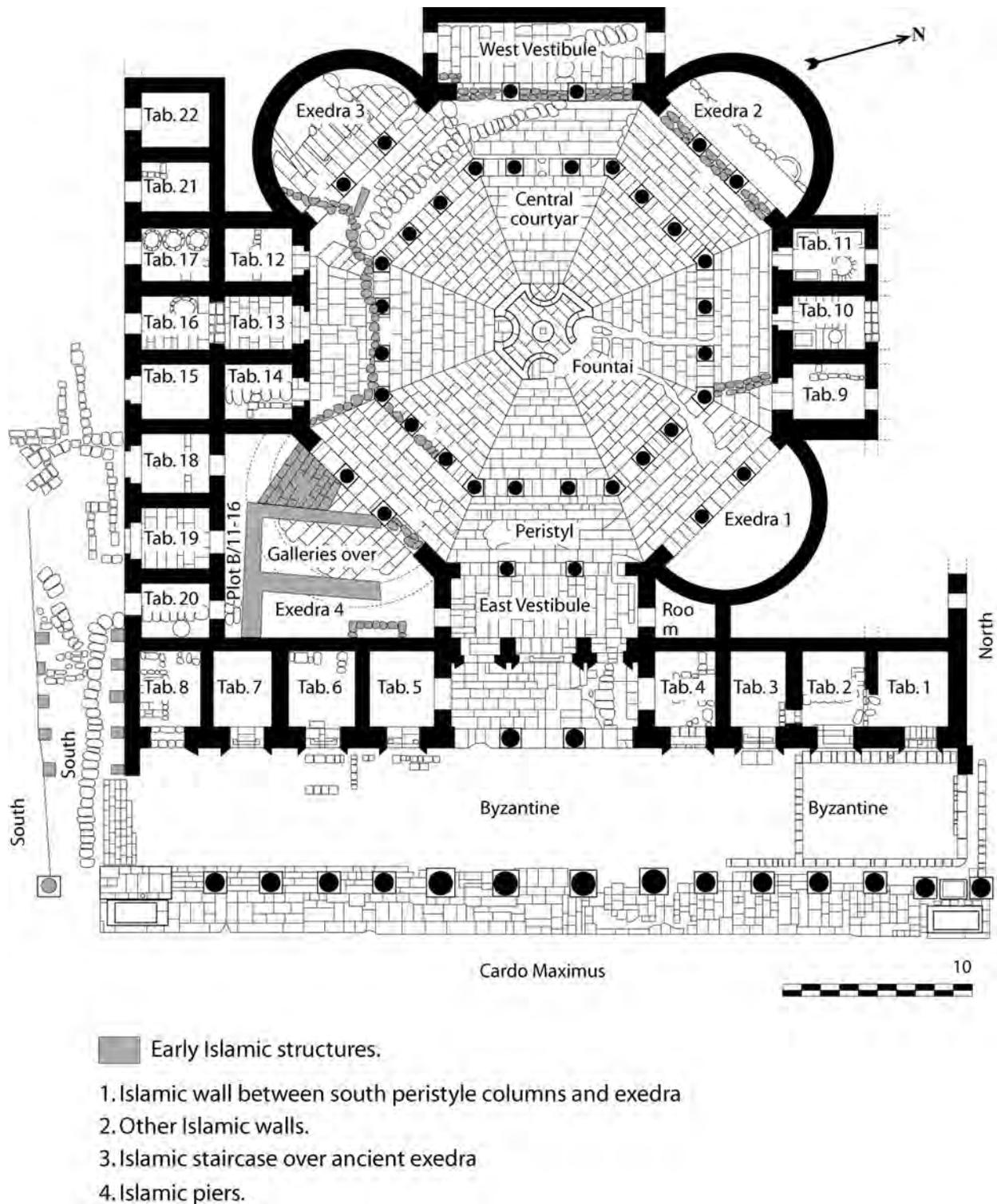


FIGURE 1. Macellum plan.

However, owing to the early Islamic activities, the mid-seventh century collapse layer remained untouched, especially at the southern part of the building since this layer was sealed by an Islamic wall (see below). Stratigraphically speaking, this context is located beneath the fallen Byzantine roofs and directly over the Roman slab pavement.

The study of the mid-seventh century context could be divided into two main areas: the southern and northern part of the building. Far from being an arbitrary decision, this division is determined by the fact that the southern part of the collapse was preserved by the construction of a retaining wall to hold back the mid-seventh century rubble (Figure 6.1). The northern part, lacking this protection, contained a tiny percentage of intrusive sherds of Islamic date from a red painted tall neck jar (Table 1, group XXXV-form 8). The southern sector included part of *exedra* 3, the southwest peristyle, south peristyle, the shops facing the central courtyard (*tabernae* 12, 14 and the ancient entrance or *taberna* 13) and the Byzantine *tabernae* at the southern façade of the building (*tabernae* 15 and 16). Within the northern sector of the building the original destruction level was restricted to *exedrae* 1 and 2, and *tabernae* 9–11 (Figure 2.1).

Taking into account the chronological framework of the symposium, we do not intend to make an exhaustive study of the sealed late Byzantine context.² Suffice it to say that the archaeological finds are dated at the latest to the second quarter of the seventh century. In addition, it is worth noting the total absence of any Islamic finds, apart from the above-mentioned early Islamic jar.

1. *The Material Culture of the First Half of the Seventh Century*

When analysing the mid-seventh century assemblage, the first remark that could be made is the striking maintenance of traditions found in the material culture of the sixth century. In fact, it is impossible to distinguish between local pottery types of the late sixth century and mid-seventh century, which poses some problems when attempting to establish the extent of residual material in this context. Therefore, in Figure 2.2 and Table 1 any pottery sherd dated earlier than the late sixth century has been considered as a residual one (ca. 20 per cent of the total amount of rims found in this context).³ As far as the coin data is concerned, the arrival of a limited quantity of Byzantine coins, dated to the second third of the seventh century, means that the currency then in use was largely made up of pre-existing coins of the sixth century. So the historical events that occurred immediately after the Islamic conquest, as one could expect, affected neither the traditional ceramic manufactures nor the currency of Byzantine Gerasa. It took more than two generations to perceive any substantial change in the material culture of the Islamic Jarash.

It must be stressed that, besides a few transitional innovations, most of the repertoire of pottery shapes belongs to the Byzantine manufacture tradition (Table 1).⁴ The graphic in Figure 2.2 illustrates the bulk of late Byzantine pottery types dated into the first half of the seventh century, accounting for the 79.72 per cent of the total. In the case of coins, it is much harder to define parameters of residuality, since coins have an extended period of currency (80.32 per cent of the total).⁵

2. Pottery and coins from the *macellum* have been already published separately. Detailed information on the coins and pottery can be found in Marot (1998) and Uscatescu (1995; 1996). Therefore, the following analysis will only deal with the mid-seventh century material culture.
3. In order to provide the reader with the most complete pottery examples, in Tables 1 to 4, the illustrated forms marked by an asterisk (*) are the actual vessels found within that context, while forms marked by a double cross (hash-#) correspond to other more complete vessels found in the *macellum* excavations, but not from the mentioned contexts.
4. For the correspondence of groups, forms and variants see Uscatescu (1996).
5. Percentage calculated on the basis of their value expressed in *nummi*, not on the number of coins.

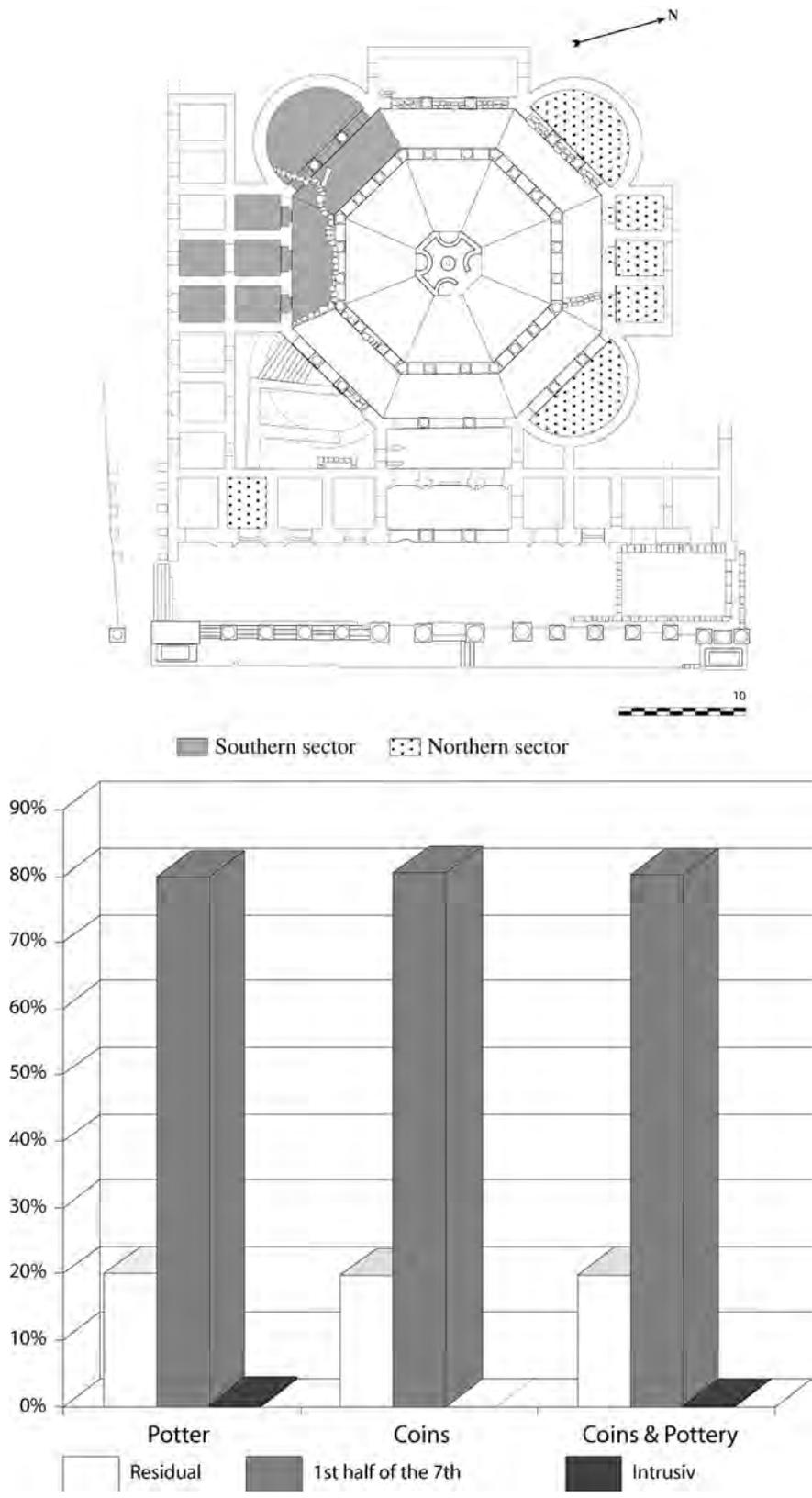


FIGURE 2. 1. Location of the mid-seventh century collapse layer.
 2. Graphic showing the percentages of pottery and coins found within the mid-seventh century collapse layers.

1.1. *The Late Byzantine Pottery (Late Sixth to Mid-Seventh Century)*. Fine wares are restricted to the locally manufactured Jarash bowls (Uscatescu 1995; Watson 1989). But it is well known that the city's market, at least during the first years of the transitional period (A.D. 636–661), still received imported wares from North Africa, Egypt, Asia Minor or Cyprus. Nevertheless, the last North African import in this context is an ARSW, Hayes form 104A, which has an end date of late sixth century and is, therefore, residual (Hayes 1972: 166). Beyond the seventh century no African imports, from well-stratified contexts, were recorded at the macellum, unless recovered from Islamic levels and thus considered residual sherds; a similar observation was made in the case of Pella (Walmsley 1995: 660).

On the basis of a microscopic comparison, most of the Jarash bowls (Figure 3.1–2) and other commonly recovered wares were probably produced at the Byzantine hippodrome kilns, discovered by I. Kehrberg and A. Ostrasz (1997: 171). These kilns were active during the late Byzantine period and produced a quite homogeneous ware that, with only some exceptions, was fired within an oxidising atmosphere (macellum a and d wares).

Within the mid-seventh century context, the main shapes are: the typical Jarash lamps with a zoomorphic handle (Scholl 1986: 165; Uscatescu 1992: 197–204) (Figure 3.8), dishes with a carinated wall (Figure 3.3), small hemispherical bowls (Figure 3.5), craters (Figure 3.4) and deep vessels (Figure 3.11). Basin grey ware (of a light grey colour corresponding to the macellum Byzantine z ware) can be considered a characteristic local ware of the sixth and early seventh centuries. There are plain versions (Figure 4.3–4), but also some examples decorated with wavy incised bands (Figure 4.2). Closed forms are illustrated by a small ribbed bottle without handles (Figure 3.6), a jug (Figure 3.9), a reconstructed lantern (Figure 3.10) and a jar (Figure 3.12). The storage vessels are represented by a dolium rim (Figure 4.5).

The local cooking-wares included casseroles decorated by a white-paint wavy band on the rim (Figure 3.14), sliced-rim casseroles and lids (Figure 3.13),⁶ fry-pans with a single horizontal long handle (Figure 4.1) and ribbed cooking-pots (Figure 3.15).

Most of the amphorae belong to local wares, all bag-shaped and ribbed, with an umbilicated bottom (Figures 4.6–7; 5.1–2). Prominent among the imported wares are amphorae exported from nearby regions, such as the LRA 4B (Figure 5.4–5) which seems to originate in the Palestinian regions of Gaza and the Negev (Blakely 1988: 38; Israel 1995a: 105; 1995b).⁷ The latest Byzantine Palestinian types, namely LRA 5 (Figure 5.7) and the Baysan's LRA 6 (not illustrated), were also recorded and dated to the first half of the seventh century (Hayes 1992: 65).

Amongst the long-distance imported amphorae there are some LRA 1b or Kellia 164 (Bonifay and Piéri 1995: 109; Egloff 1977: 112; Riley 1976: 116; Figure 5.3) and Sinope amphora (Figure 5.6). The latter, produced at the site of Demirçi near Sinope in the south coast of the Black Sea (Arthur 1998: 179; Reynolds in press; Uscatescu in press), could be considered residual. The Sinope amphora type was also found at Pella in a context dated to the second quarter of the sixth century, where it was classified as ware H5 (Watson 1992: 239).

Finally, some Late Roman *unguentaria* (Figure 3.7) that could be dated to the late Byzantine period complete the late Byzantine pottery picture (Hayes 1992: 8).

6. Probably due to their specific use, the sliced-rim casseroles together with several types of cooking-pots are some of the Byzantine shapes that survived well into the Islamic period, although in a different fabric (a black gritty ware).

7. This is the elongated LRA 4B, typical of the sixth and early seventh centuries (Remolà and Uscatescu 1998: 555–556).

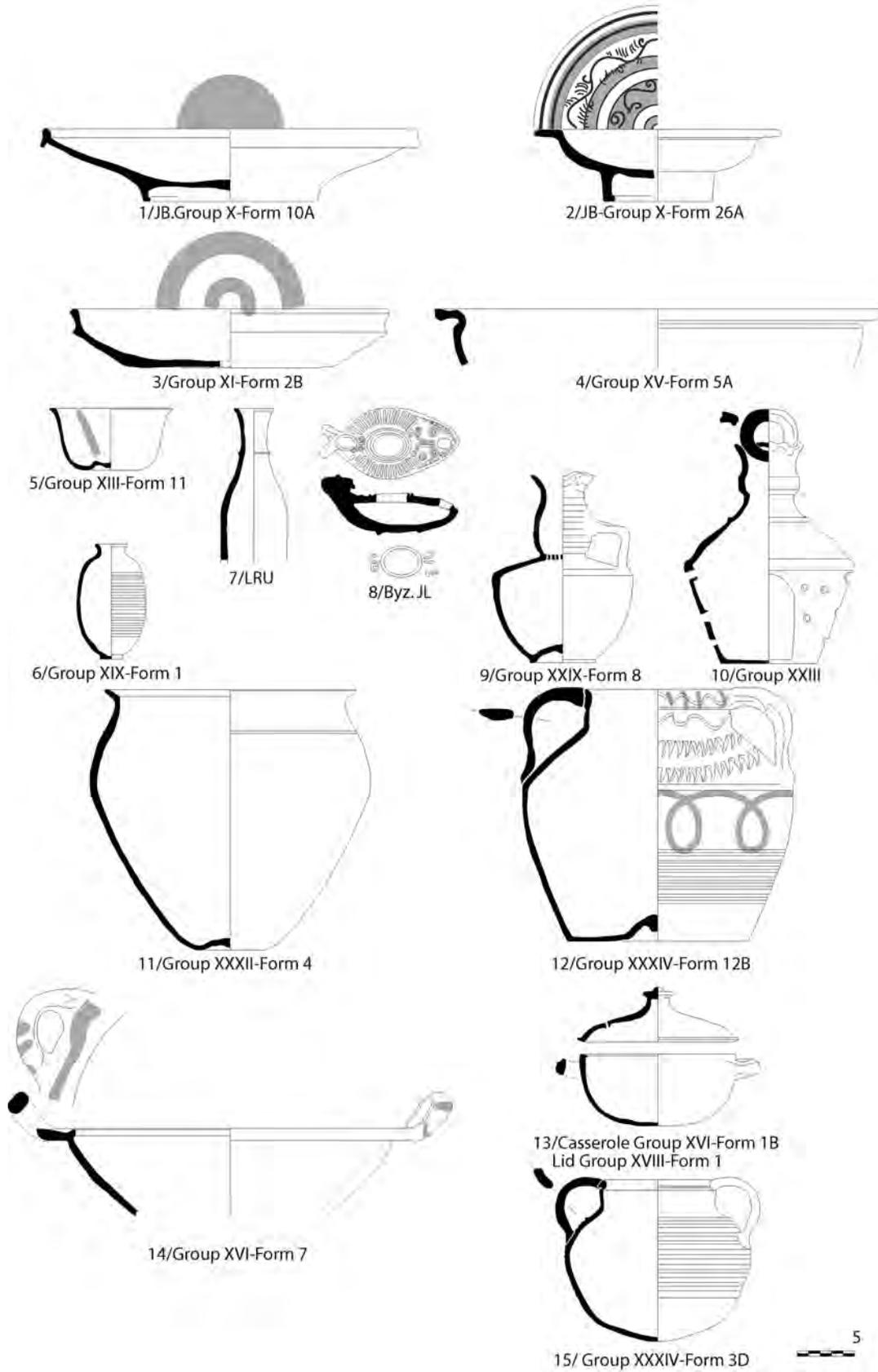


FIGURE 3. Selection of late Byzantine pottery.

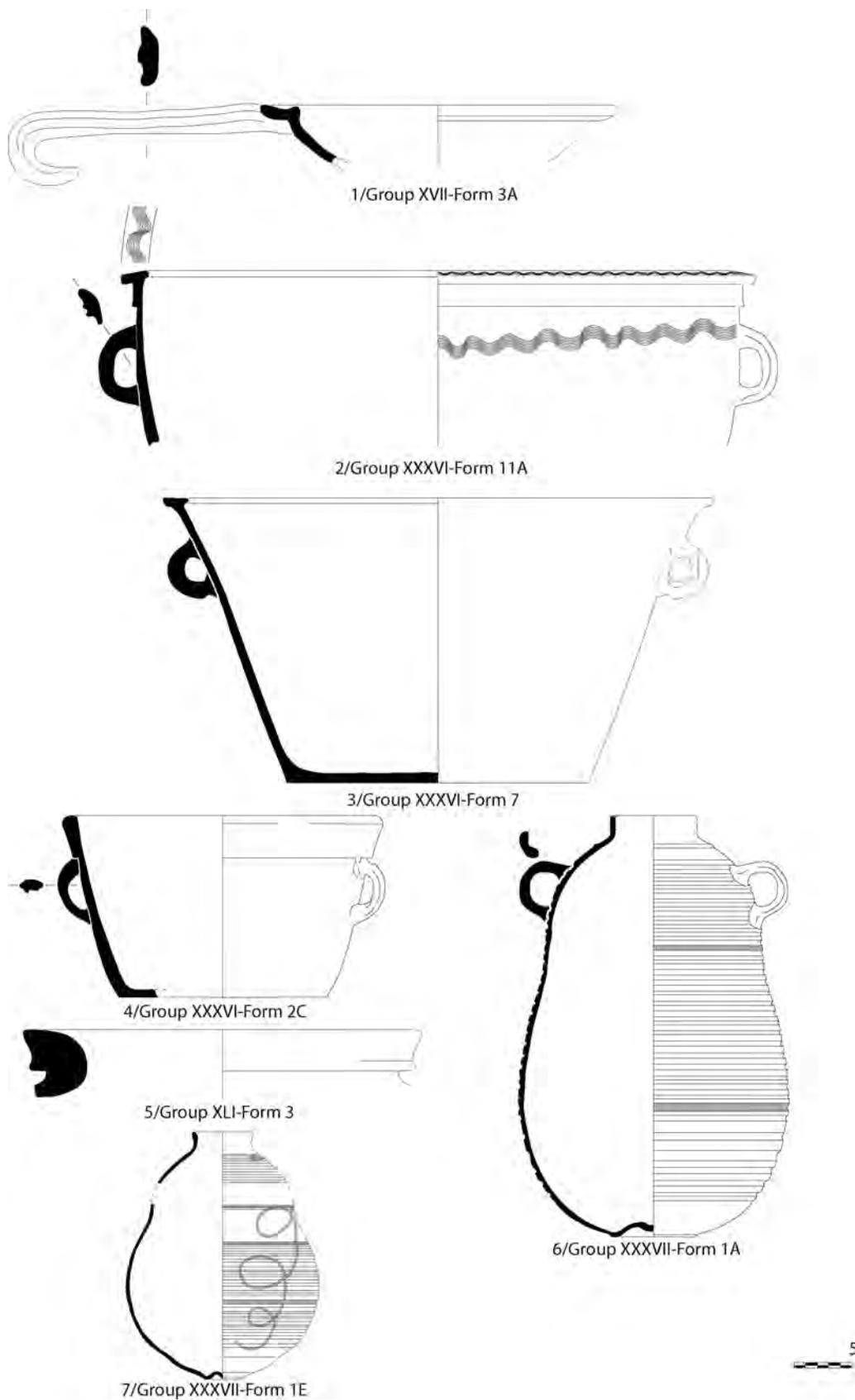


FIGURE 4. Selection of late Byzantine pottery.

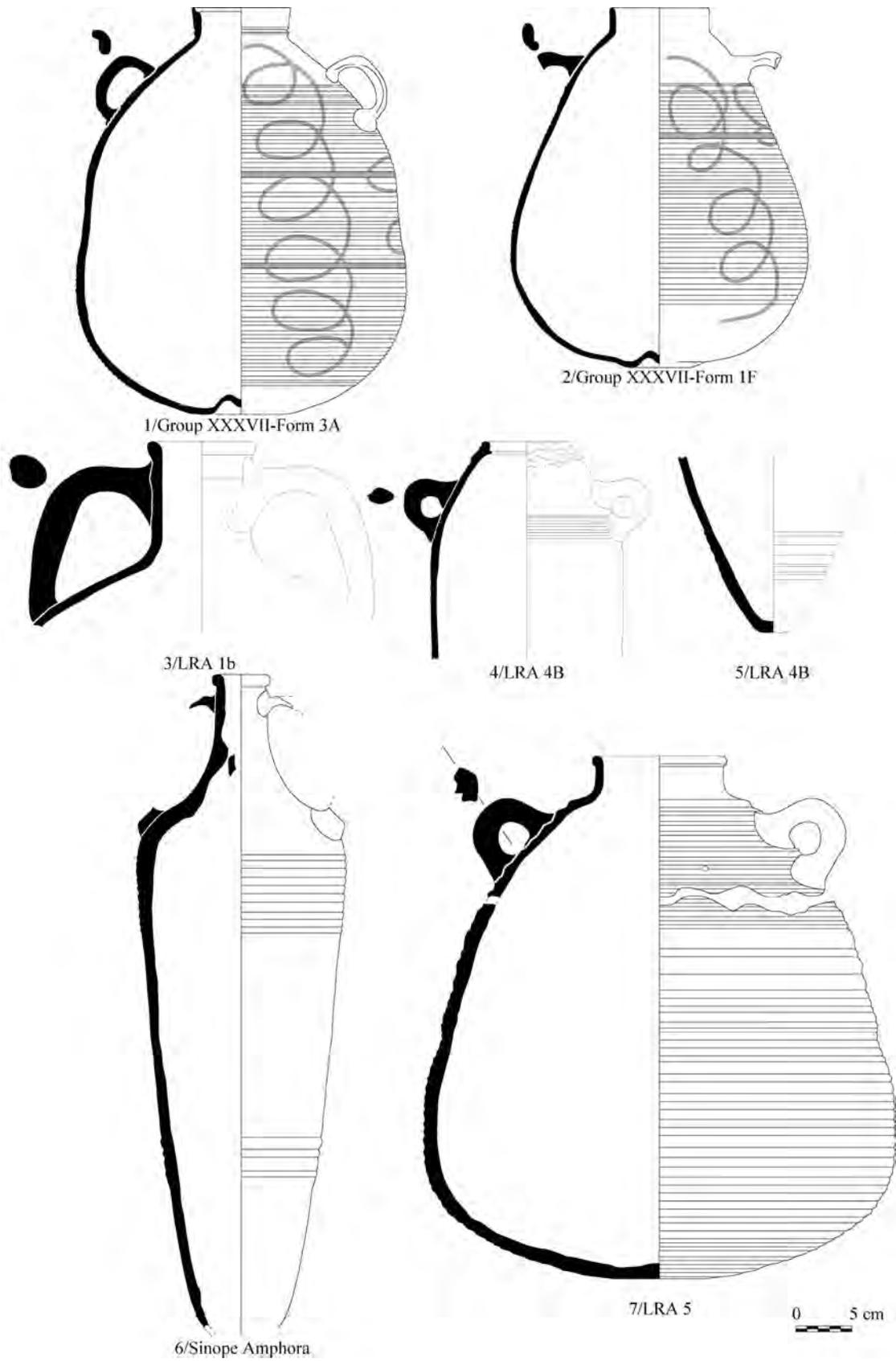


FIGURE 5. Selection of late Byzantine pottery.

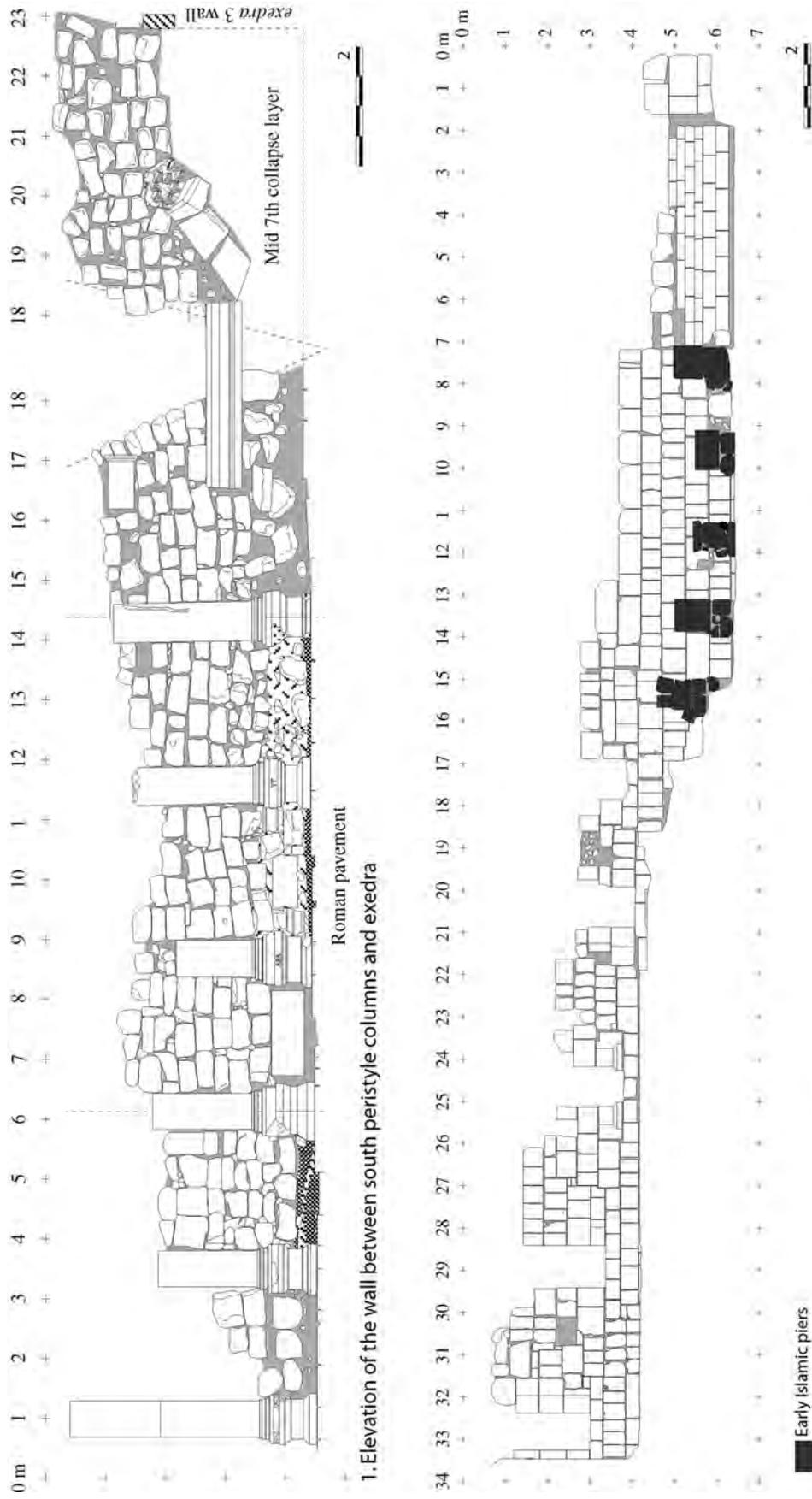


FIGURE 6. 1. Islamic wall between south peristyle columns and exedra 3. 2. South façade.

1.2. *Late Byzantine Coins (Late Sixth to Mid Seventh Century)*. From the end of the sixth century onward, the increasingly unstable political situation together with diminished levels of production at all Byzantine mints led to a remarkable fall in the quantity of coins occurring at the site (Yannopoulos 1987: 363). This situation continued until the time of Focas (A.D. 602–610) and Heraclius (A.D. 610–641). Moreover, the issues of Heraclius are characterized by a notable reduction in weight and by careless manufacture, which involves a high proportion of overstrikes and clipped coins (Morrisson 1989; Marot 1998: 129).

Nevertheless, an improvement in economic conditions at Jarash dating to the first half of the seventh century must have created a demand for higher-value coin. The currency of the city during the first half of the seventh century mainly comprised coins from the time of the great stability of the *folles* series, namely between Anastasius I and Focas (Figure 10.1–4). In addition, there are also some Constans II official issues. The obvious preference for *folles* of the heavy series, compared with the poor representation of issues of the light series, also appears to have favoured the re-use of much older coins of the early Empire, such as the second and third centuries imperial *sestertii* and provincial *tetradrachms*. Their reappearance completed the range of currency then required by the city. One could be tempted to assume that this re-use of older coins could only have happened as an outcome of an initiative of the city authorities (Marot 1998: 304–341).

II. The Early Islamic Archaeological Evidence at the Macellum

In spite of the massive mid-seventh century destruction, the building's life did not come to an end. But, unfortunately, our picture of the early Islamic period at the macellum is less sharp when compared to the previous periods. Most of the contexts attached to the building's latest occupational period appeared seriously disturbed, since they throw up an incredibly high percentage of residual pottery, which questions the reliability of the strata. Their compositions are shown in Tables 2 to 5.

1. The Early Islamic Architectural Evidence

To a certain extent the panorama is not as dark as it may seem, as there are some other valuable elements that support the hypothesis that the macellum was not abandoned in Islamic times (Figure 7.1). Apart from the above-mentioned contexts, there is fair evidence of building activity within the monument during the early Islamic period.

At an uncertain date, but clearly after the mid-seventh century—that is, sometime in the second part of that century—the following structures were built:

1. A retaining wall between the columns of south peristyle and the south corner of *exedra* 3 was built re-using ancient elements such as ashlar, architraves and column shafts. However, the use of column shafts in the first course of the wall introduced considerable structural instability in the wall itself. This obvious architectonic fault perhaps was counteracted by the wall's slight inclination to the south, abutting directly the mid-seventh century collapse layer (Figures 1, 6.1). Like other Islamic structures within the macellum, this wall lacks any foundations and was built over the Roman pavement. This fact poses some problems when attempting to date the wall. Nevertheless, at the southern corner of *exedra* 3 the wall clearly stands over the collapse, which undoubtedly constitutes a reliable *terminus post quem* of a mid-seventh century date for this Islamic wall. As far as the wall function is concerned, the discovery of the mid-seventh century collapse layer behind the wall led us to believe that it was built to retain the rubble.

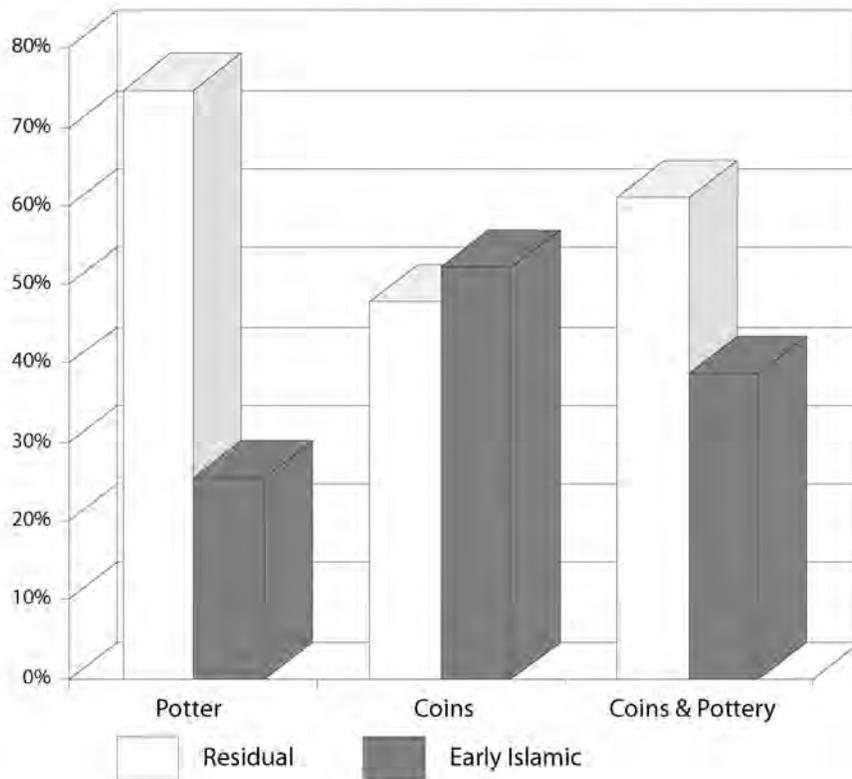
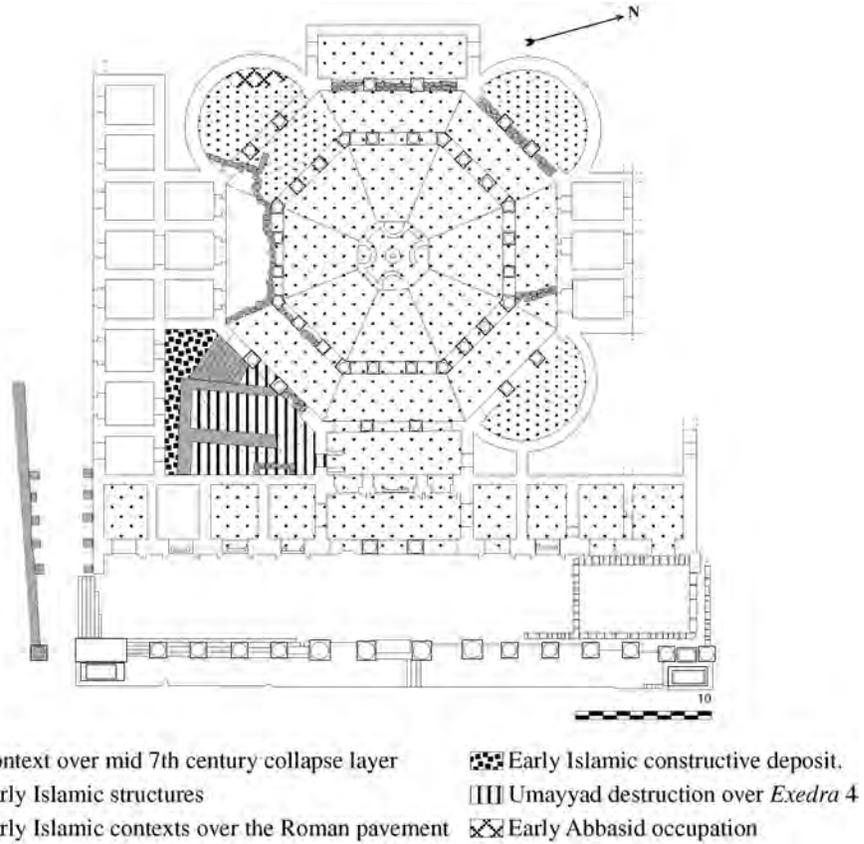


FIGURE 7. 1. Location of the early Islamic contexts and structures. 2. Graphic showing the percentages of pottery and coins found within the context over the mid-seventh century collapse layer.

2. In addition, some small closing walls were found at the intercolumniations of the western vestibule, *exedra* 2, north peristyle and the razed *exedra* 4 (Figure 1). In this case just the first two courses were preserved, so it is difficult to ascertain whether they were used as retaining walls or a kind of compartmentalization of the available space.
3. Other Islamic structures lay over the demolished Roman *exedra* 4. This *exedra* was razed to the ground and over its pavement two vaulted galleries were built (Figure 1). Once again this structure lacked any foundations, for it lay over the floor slabs. So the *terminus post quem* of its construction should be established by material from the construction deposit located between the rear wall of the galleries and the Roman-Byzantine back wall (see below: Umayyad constructive deposit B/11–16). In addition, there is a staircase abutting the western side of the galleries which connected the circulation level of the central courtyard with the upper level, over the mid-seventh century rubble, since all the Byzantine *tabernae* of the southern façade were filled up to the top (Figure 1). It seems that this staircase was designed to descend from the upper level, as if the central courtyard was then the ground floor.
4. The eastern section of the south street also shows some Islamic traces (Figure 6.2). It is difficult to assess the chronology of this pedestrian street, since the earliest structure belongs to the late Byzantine period. Equally, the south façade of the ancient macellum itself is well dated to the late fifth century (Uscatescu and Martín Bueno 1997: 75). The interpretation of the five piers added to the Byzantine façade and their counterparts at the front building is still obscure. It can be observed, however, that both façades of the south street are not parallel. On the contrary, the South building façade line is at an acute angle to the macellum wall (Figure 1). Hence the five pairs of piers are to be dated to the early Islamic period. This structure was initially interpreted as a covered street, but it could have also served as a shelter built over the ancient Byzantine street, since its western end has not yet been excavated.

2. The Contexts Found over the Mid-Seventh Century Collapse Layer

Stratigraphically these contexts lay directly over the mid-seventh century destruction and, therefore, have a *terminus post quem* of the mid-seventh century. The most reliable contexts were found in *exedrae* 1–3, *exedra* 3 peristyle and *taberna* 10 (Figure 7.1).

Although some transitional pottery and coins were found within this context, the presence of some undeniable early Islamic sherds and *fulus* of Umayyad date constitute a *terminus post quem* of ca. A.D. 705 (Table 2). Therefore, this context must be dated to the first half of the eighth century. The high percentage of residual sherds (74.58 percent of the total) is counterbalanced by the percentage of contemporary coins, accounting for 52.2 percent of the total. A comparison between the residual index of pottery and coins points firmly to the different characteristics of these archaeological artefacts. In order to counteract any possible distortion in the final figures, derived from the above mentioned feature, a third set of bars including both data was added to the graphic (Figure 7.2: pottery and coins). So the final degree of residuality totalled 61.18 per cent.

2.1. *The Early Islamic Pottery found over the Mid-Seventh Century Collapse Layer.* Most of the fine wares belong to the transitional period (A.D. 636–661), for instance some small cups either plain (Figure 8.3) or decorated by a single incised wavy line (Figure 8.4–5) in a fine

ware (Gichon 1974: 127–128). Also, some spouted jugs of Byzantine tradition were registered within this context (Figure 8.9).

In the case of the Umayyad Jarash, pottery production continued, although the kilns were relocated away from the Hippodrome to the north. New kiln locations included an Umayyad quarter next to the south Decumanus, and the North Theatre (Ball et al. 1986: 355; Gawlikowski 1986: 117; Schaefer 1986: 411–439).

The Umayyad pottery of Jarash is represented by a light pink ware covered by a cream or white slip and decorated by geometric red paint. Forms include craters (Figure 8.19) and tall neck jars (Figure 8.20). The starting date of this new ware (macellum k ware) may lie in the middle years of the eighth century, and the type survived till the first half of the ninth century (Haldimann 1992: 231; Walmsley 1995: 661). The new Umayyad cooking wares are characterized by a dark gritty ware (macellum i ware), such as the sliced-rim casseroles, lids (Figure 9.4) and cooking-pots (Figure 9.5), which undoubtedly continued the Byzantine pottery tradition.

With respect to the Islamic dark BGW (macellum η ware) dated to the first half of the eighth century, they present some decorative innovations such as a zigzag or chisel impressed decoration or even white paint mixed with other decorative techniques (Figure 9.8–9). This BGW could be called “Basket ware”, since the profuse impressed decoration and even the basket handles of some vessels seem to imitate real basketwork (Uscatescu: in press).

2.2. The Coins from the Contexts over the Mid-Seventh Century Collapse Layer. The Islamic occupation of the Byzantine province hardly favoured the arrival of new supplies of Byzantine issues. The delayed institution by the new rulers of a currency of their own accounts for the occurrence of a limited number of coins of Constans II (A.D. 641–668), as well as a number of irregular issues produced expressly to fill the gap (Figure 10.5–6).

It can be ascertained that the delayed development of an Islamic coinage favoured the continuing use of Byzantine coins at Jarash. Also it can be stated that the mid-seventh century constitutes the deadline for the supply of Byzantine coins, at least in the context of the macellum. Nevertheless, the arrival of a limited number of coins of Constans II meant that the currency then in use was made up of the surviving Byzantine higher-value coins. With rare exceptions, this residuality took the form of large numbers of sixth century issues, so ensuring an often-extended life for this series (Marot 1998: 343–345).

This is also probably the period when Gerasa (Jarash) and the neighbouring city of Scythopolis (Baysan) began an extraordinary, parallel coinage of their own (Figure 10.7–9). Although absent from this context, the new local coinage was linked to the Byzantine issues (Walker 1935). Intended strictly for local consumption, they followed the metrology and iconography of the imperial *folles* of Justin II and Sophia minted at Nicomedia, a prototype that dates back to more than one hundred years (Figure 10.3). The interruption in supply of official coin, the uncertain political situation and the existence of great regional diversity in the coinage must have been behind the striking of these rare coins. The purely Byzantine types, together with the Greek legends of this coinage, leave little doubt about the survival of an important Christian community in the Islamic Jarash. The mint workers were doubtless Byzantine people who still had some familiarity with Greek. Moreover, the naming of *Skynthopolis* and *Gerasion* as the issuing authorities in place of the emperor suggests that these cities enjoyed a certain freedom of decision-making. There are grounds for believing that the monetary practice and control of minting were largely made by local people, and its extent was mainly regional.

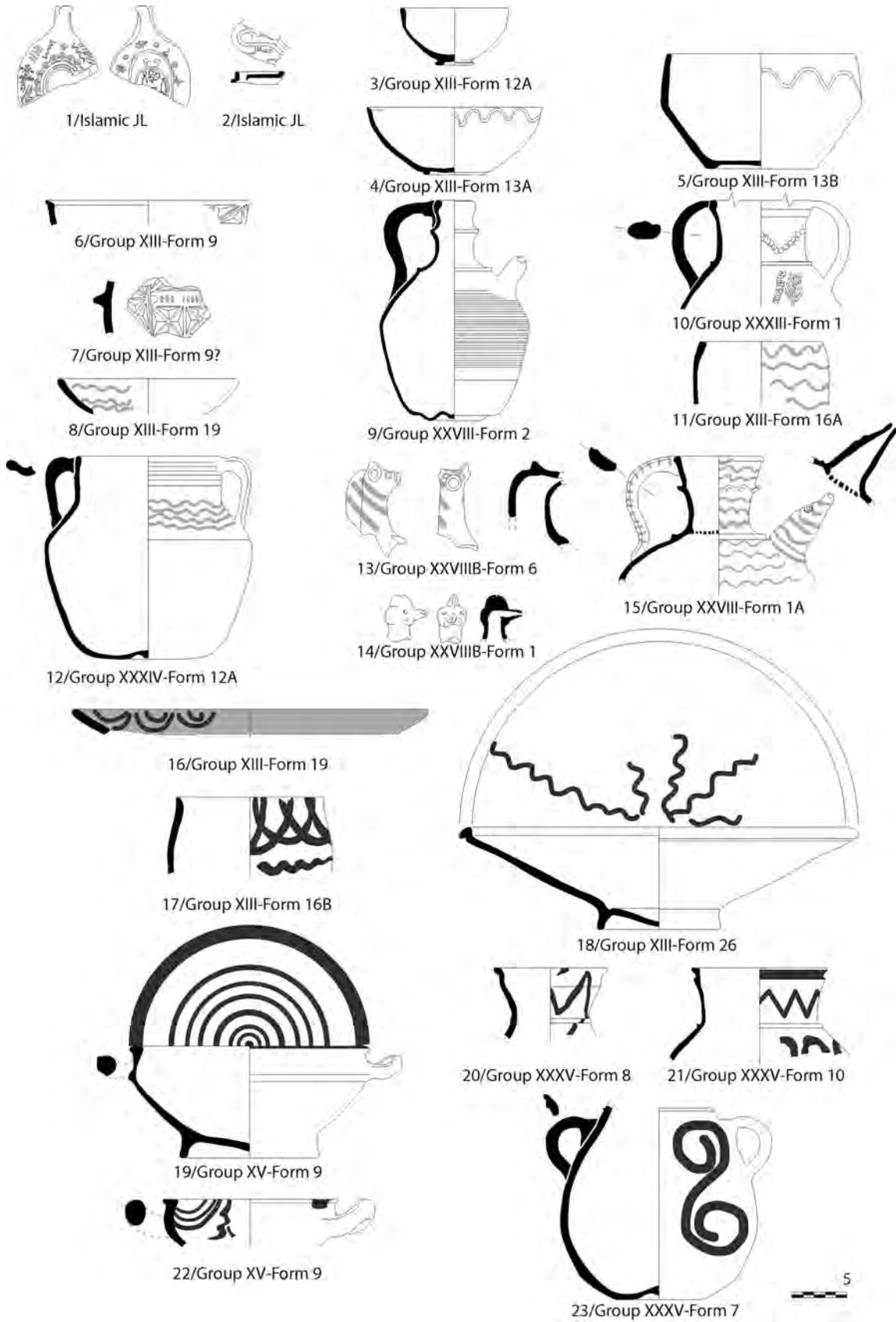


FIGURE 8. Selection of early Islamic pottery.

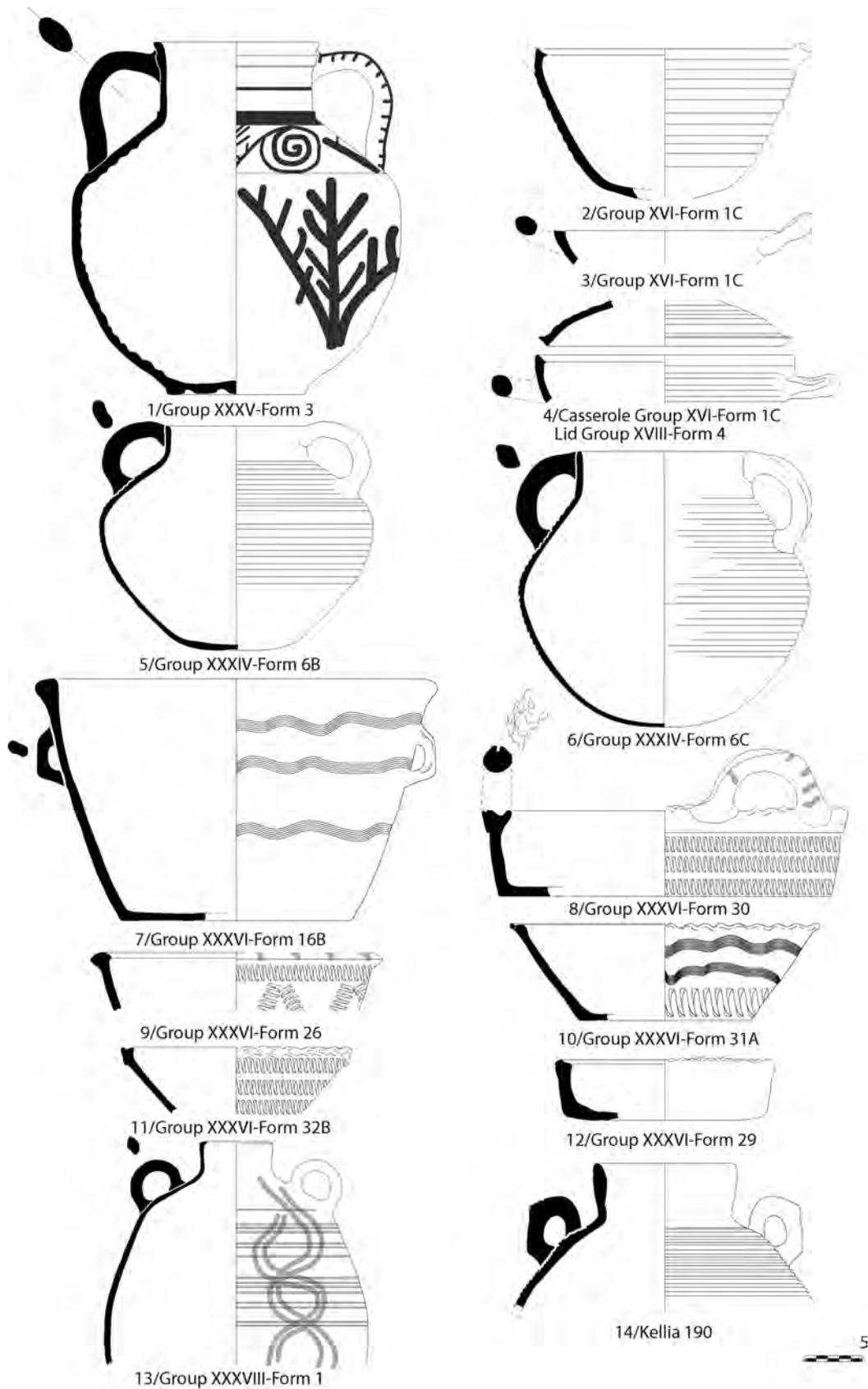


FIGURE 9. Selection of early Islamic pottery.

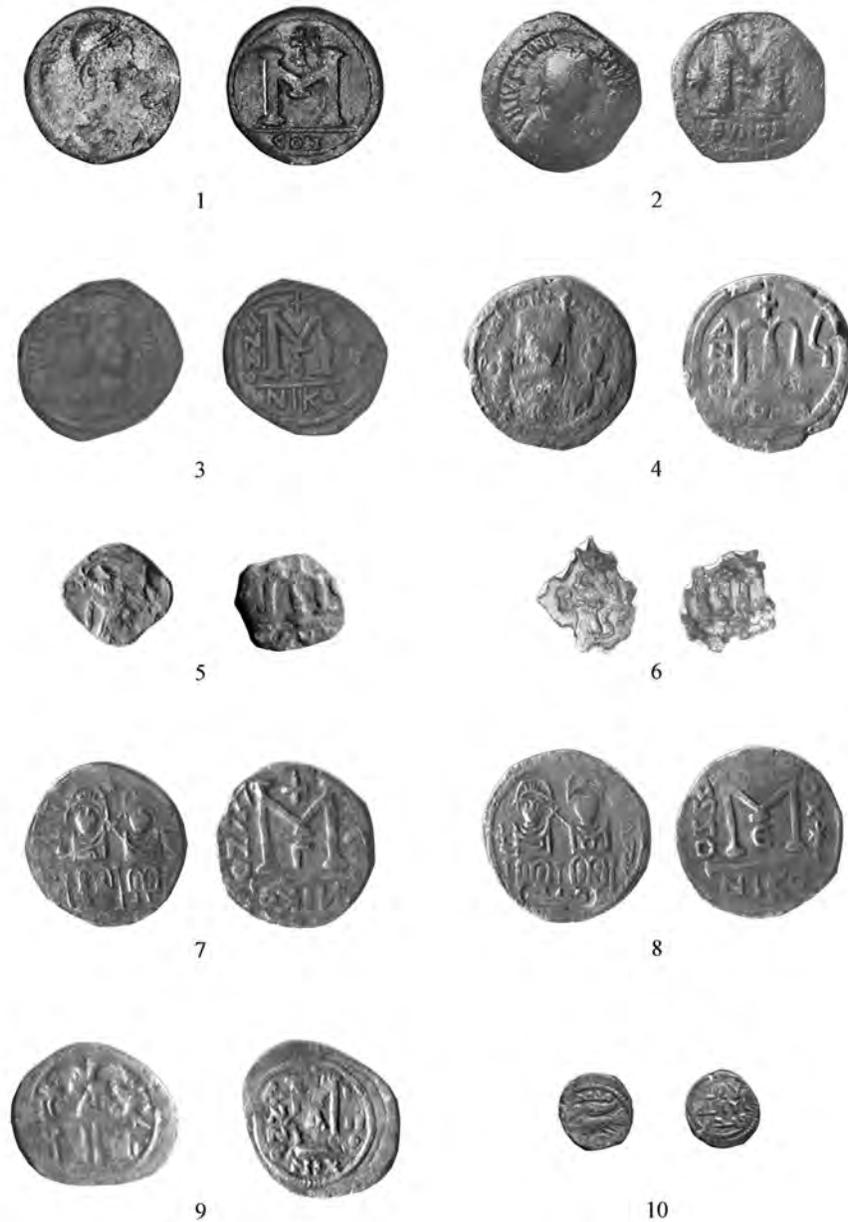


FIGURE 10. Byzantine and Islamic coins recovered from the *macellum*.

1. Anastasius I (A.D. 491–518), Constantinople mint, *folles*.
2. Justinian I (A.D. 527–565), Antioch mint, *folles*.
3. Justin II (A.D. 565–578), Nicomedia mint, *folles*.
4. Tiberius II (A.D. 578–582), Constantinople mint, *folles*.
- 5–6. Constans II (A.D. 641–668), irregular mint, *folles*.
- 7–8. Arab-Byzantine copper (second half of seventh century), Gerasa mint, *folles*.
9. Arab-Byzantine copper (second half of seventh century), Scythopolis mint, *folles*.
10. Umayyad *fls* (ca. A.D. 705–750).

The minting of these coin types at Gerasa and Scythopolis comes as no surprise, since from the outset excavations at Jarash have demonstrated that the large coppers of Justin II minted at Nicomedia—the type used as a prototype—were very common (Bellinger 1938: 13). Justin II issues are especially abundant within the archaeological levels dated to the seventh century at the macellum (Marot 1998: 331). A striking example is the hoard found near Jarash. It is composed of forty-five authentic Byzantine pieces: sixteen of Justin II opposed to seven Arab-Byzantine coins from Gerasa and one from Scythopolis (Bates and Kovacs 1996).

The demand for coinage is still evident during the first half of the eighth century. Substantial numbers of the new Umayyad coins were recorded within this context, indicating that the currency had been renewed (Figure 10.10). These circulated beside older Byzantine issues that had neither been demonetized nor withdrawn, and so continued to form part of the circulating medium during the first half of the eighth century (Table 2).

3. The Construction Deposit of Umayyad Date (Plot B/11–16)

A construction deposit of Umayyad date was located behind the rear wall of the two vaulted galleries built over the demolished *exedra* 4 (Figures 1; 7.1). Although the material culture is dominated by residual elements (comprising 95.03 per cent of the total, including pottery and coins), on stratigraphical grounds the chronology for this deposit lies sometime between the second half of the seventh century and the first half of the eighth century (Table 5a).

The Islamic sherds are limited to a fine small cup (Figure 8.3) with an end date of the mid-seventh century and a problematic tall neck jar with red paint (Figure 8.21), since the commonly accepted starting date for this ware is the end of the first half of the eighth century. The nine coins recovered here are of little help, since all of them are residual coins of an early Byzantine date (Table 5a).

4. The Contexts over the Roman Pavement and East Façade

Theoretically, the contexts found lying directly over the central courtyard pavement and the *cardo* main façade must belong to the last occupation of the building (Figure 7.1). Again, the high percentage of residual sherds forced us to consider this context as a greatly disturbed layer (residual sherds account for 81.91 per cent and residual coins represent 47.08 percent of the total). Nevertheless, the presence of some pottery and coin types that could be dated to the early Abbasid period supports the hypothesis that the central courtyard of the building was occupied or even frequented at least until the second half of the eighth century (Table 3).

4.1. The Pottery Recovered over the Roman Pavement and East Façade. Most of the eighth century pottery vessels are local products. Prominent in the assemblage recovered from the Roman pavement in the central courtyard and over the Eastern façade floor is the so called “metallic terracotta ware” decorated with white paint, mainly dated from the first half of the seventh to early ninth centuries (Walmsley 1995: 661). Recorded forms such include jugs with tubular spout (Figure 8.9) or with zoomorphic spouts of a grey ware (Figure 8.13–14), open or hemispherical bowls (Figure 8.8, 11) and jars (Figure 8.12).

Again, the Umayyad light cream/white slipped pink ware was registered in hemispherical bowls (Figure 8.16–18), craters (Figure 8.22) and tall neck jars decorated with geometric motives in a dark red paint (Figures 8.23; 9.1). As mentioned above, this ware is dated from the mid-eighth to mid-ninth century; that is, typical of the late Umayyad and early Abbasid

periods. Also a pale cream ware jar (Figure 8.10) of an uncertain origin together with some local dark BGW (Figure 9.7; Table 1) were recovered from this context.

The cooking wares typical of the early Islamic period are represented by the sliced-rim casseroles (Figure 9.2) and lids, and different cooking-pots (Figure 9.5). At Pella they correspond to ware 13 and are dated from mid-seventh to the end of the ninth century (Walmsley 1995: 664).

Some other finds, although recovered from superficial or even disturbed levels, expand the corpus of early Islamic pottery from the macellum. For instance, a high ring-foot bowl decorated with red-paint could be considered as a continuation of the Byzantine Jarash bowl (Figure 8.18). The Jarash lamp production continues during the early Islamic period, as demonstrated by the presence of some channel lamps with zoomorphic handles, geometric decoration and flat bottoms (Figure 8.1). According to Scholl, these can be dated around the mid-eighth century (Scholl 1986: 165). Another fragment of a Jarash lamp shows an Arabic inscription (Figure 8.2) indicating that the lamp was made at Jarash (Uscatescu 1992: 209). The Jarash inscribed lamps, according to Gawlikowski, had a short life from A.D. 730–750/H. 105–133 (Gawlikowski 1995: 672).

The importation of some Egyptian amphorae (Abu Mena) of Islamic date is evidenced by a single Kellia 190 or Berenice LRA 5 fragment (Figure 9.14) (Egloff 1977; Riley 1979: 224). Similar amphorae were recovered at Pella, where they are dated from mid-seventh to mid-eighth century (Walmsley 1995: 661).

Finally, some bowls with a cut decoration on the outside (Figure 8.6–7) belong to the Abbasid period (Whitcomb 1988: 56). According to Walmsley, this ware dates from mid to late ninth century (Walmsley 1995: 668), although other authors proposed a starting date of the first half of the ninth century (Sodini et al. 1992: 212).

4.2. The Coins Recovered over the Roman Pavement and East Façade. As for the coins, again Scythopolis and Gerasa issues were recovered in considerable amounts over the central courtyard pavement. However, some of them present a countermark written in Arabic (Figure 10.8). The Arabic word *tayyib* has been interpreted as “good”, so one could easily be tempted to assume that the countermark’s function was to validate the acceptance of these coins from the early eighth century onwards when the first Islamic issues went into circulation. The stamp is not known to appear on official Byzantine issues, but it was applied to the early post-reform Arabic copper (Bates and Kovacs 1996: 172).

The end of the Umayyad period marked a decline in the number of coins occurring at the macellum excavations, although some Abbasid coins were found within this layer. The relative isolation of Jarash after the removal of the capital of the Abbasid caliphate from Dimashq to Baghdad in A.D. 750 must have contributed to its slow, but inexorable, decline.

5. The Destruction Layer of Late Umayyad/Early Abbasid Chronology over the Islamic Galleries

The Islamic galleries were covered by a destruction level composed of ashlar blocks and voussoirs from the fallen walls and vaults. Archaeological analysis proves that it is also a disturbed layer, since the residual sherds account for 88.5 per cent of the total. In the case of the coins, the percentage of residuality is much higher, accounting for 92.68 percent (Table 4).

Unfortunately, only four sherds can be dated to the late Umayyad period; the rest are rubbish survival, including some transitional shapes such as imported Cypriot Late Roman D (Hayes form 9B), which has an end date of the late seventh century (Hayes 1972: 382). The

Umayyad pottery is limited to a cooking-pot (Figure 9.6), a handmade grey basin (Figure 9.12) and a probably local grey amphora (Figure 9.13). The absence of any Islamic coins within this context does not help when attempting to fix a more accurate date to the collapse.

6. *The Latest Occupational Context of Early Abbasid Date*

Finally, there are some traces of an early Abbasid occupation over the destruction level at *exedra* 3 (Table 5b). This evidence points to a very short occupation, with some burnt patches identified as small fireplaces and several complete cooking-pots (Figure 9.3, 6) and some dark BGW (Figure 9.9, 11). Therefore, this level should be dated, at least, to the second half of the eighth century on stratigraphical basis. No coins were recorded.

III. Conclusions

The first extensive destruction of the macellum is well dated to mid-seventh century. New stratigraphical considerations compelled us to change the previous assumption of an early seventh century date (Uscatescu and Martin Bueno 1997: 81–82). Therefore, this destruction took place some years after the Islamic conquest, that is during the Orthodox Caliphs period at Jarash.

However, this collapse did not result in the end of occupation at the macellum. On the contrary, the building was still in use during the early Islamic period, although the re-used spaces were clearly restricted, especially when compared to the Byzantine period. Several activities within the building can be definitively assigned to the early Islamic times. The archaeological evidence can be summarized by saying that most of the central courtyard and the north section of the building was cleared; this meant that the rubble in these areas was systematically looted and quarried for stone. But what is more important, the inhabitants of the structure built new structures over the Byzantine ruins, showing continuity in the occupation of the area.

It is difficult to ascertain the chronology of the second and final abandonment of the building. But most of the archaeological evidence recorded pointed to the second half of the eighth or early ninth centuries. Unfortunately, there is not a single undisturbed context that can be surely dated in the early Abbasid period, with the exception of sporadic occupation in *exedra* 3.

References

- Arthur, Paul
1998 Eastern Mediterranean Amphorae between 500 and 700: a view from Italy. In *Ceramica in Italia: VI–VII secolo*. Sagui, Lucia, ed. Pp. 157–183. Florence: Biblioteca di Archeologia Medievale.
- Ball, Warwick, Julian Bowsher, Ina Kehrberg, Alan Walmsley and Pamela Watson
1986 The North Decumanus and North Tetrapylon at Jerash: An Archaeological and Architectural Report. In *Jarash Archaeological Project, vol. I, 1981–1983*. Fawzi Zayadine, ed. Pp. 351–409. Amman: Department of Antiquities of Jordan.
- Bates, Michael L., and Frank L. Kovacs
1996 A Hoard of Large Byzantine and Arab-Byzantine Coppers. *The Numismatic Chronicle* 156: 165–173.
- Bellinger, Alfred R.
1938 *Coins from Jerash, 1928–1934*. Numismatic Notes and Monographs 81. New York: American Numismatic Society.
- Blakely, John A.
1988 Ceramics and Commerce: Amphorae from Caesarea Maritima. *Bulletin of the American Schools of Oriental Research* 271: 31–50.

- Bonifay, Michel and D. Piéri
 1995 Amphores du Vème au VIIème siècle à Marseille: nouvelles données sur la typologie et le contenu. *Journal of Roman Archaeology* 8: 94–120.
- Egloff, M.
 1977 *Kellia. La poterie copte. Quatre siècles d'artisanat et d'échanges en Basse-Égypte*. Recherches suisses d'archéologie copte, 3. Geneva: Georg.
- Gawlikowski, Michael
 1986 A Residential Area by the South Decumanus. In *Jarash Archaeological Project vol. I, 1981–1983*. Fawzi Zayadine, ed. Pp. 107–136. Amman: Department of Antiquities of Jordan.
 1995 Arab Lamp Makers in Jarash, Christian and Muslim. *Studies in the History and Archaeology of Jordan* 5: 669–670.
- Gichon, M.
 1974 Fine Byzantine Wares from the South of Israel. *Palestine Exploration Fund Quarterly* 106: 119–139.
- Haldimann, André-Marc
 1992 Umm-el-Walid: prolégomènes céramologiques. In *Actes du Colloque International 'La Syrie de Byzance à l'Islam, VIIème–VIIIème siècles'*. Canivet, Pierre, and Jean-Paul Rey-Coquais, eds. Pp. 228–232. Damascus: Institut Français de Damas.
- Hayes, John W.
 1972 *Late Roman Pottery. A Catalogue of Roman Fine Wares*. London: The British School at Rome.
 1992 *Excavations at Saraçhane in Istanbul, vol. 2. The Pottery*. Princeton, NJ: Princeton University Press.
- Israel, Y.
 1995a Asqelon. *Excavations and Surveys in Israel* 13: 100–105.
 1995b Survey of Pottery Workshops, Nahal Lakhish-Nahal Besor. *Excavations and Surveys in Israel* 13: 106–107.
- Kehrberg, Ina, and Anthony Ostrasz
 1997 A History of Occupational Changes at the Site of the Hippodrome of Gerasa. *Studies in the History and Archaeology of Jordan* 6: 167–173.
- Marot, Teresa
 1998 *Las monedas del macellum de Gerasa (Yaras, Jordania). Aproximación a la circulación monetaria en la provincia de Arabia*. Madrid: Museo Casa de la Moneda.
- Martín Bueno, Manuel
 1989 Notes préliminaires sur le Macellum de Gerasa. *Jarash Archaeological Project vol. 2, 1984–1988. Theme Issue. Syria* 66: 177–199.
- Morrison, Cécile
 1989 La monnaie en Syrie byzantine. In *Archéologie et Histoire de la Syrie, 2, La Syrie de l'époque achéménide à l'avènement de l'Islam*. Christian Augé, J.-M. Dentzer, and Winfried Orthmann, eds. Pp. 191–204. Saarbrücken: Saarbrücker Druckerei und Verlag.
- Remolà, Josep A. and Alexandra Uscatescu.
 1998 El comercio de ánforas orientales en Tarraco (siglos V–VII d.C.). In *II Colloqui Internacional d'Arqueologia Romana. El vi a l'antiguitat. Economia, producció i comerç al Mediterrani occidental*. Monografies Badalonines, 14. Pp. 553–562. Badalona: Monografies Badalonines.
- Reynolds, Paul
 In press Table Ronde: De Rome à Byzance; de Fostat à Cordoue. Evolution des faciès céramiques en Méditerranée (Ve–IXe s.). In *VIIe Congrès International sur la Céramique Médiévale en Méditerranée* (Thessaloniki 1999). John W. Hayes et al., eds. Thessaloniki.
- Riley, John A.
 1976 Late Amphorae. In *Excavations at Carthage Conducted by the University of Michigan, 1975*, vol. 1. J. H. Humphrey, ed. Pp. 114–120. Tunis: Cérès Productions.

- 1979 *The Coarse Pottery from Berenice. Excavations at Sidi Khrebish, Benghazi (Berenice)*, vol. 2. John A. Lloyd, ed. Pp. 91–467. Supplement to *Libya Antiqua*, 5. Tripoli: Dept. of Antiquities, Ministry of Teaching and Education.
- Schaefer, Jerome, with Robin K. Falkner
1986 An Umayyad Potter's Complex in the North Theatre, Jerash. In *Jarash Archaeological Project vol. I, 1981–1983*. Fawzi Zayadine, ed. Pp. 411–439. Amman: Department of Antiquities of Jordan.
- Scholl, Tomasz
1986 *The Chronology of Jerash Lamps. A Preliminary Report. Jarash Archaeological Project vol. 1, 1981–1983*. Fawzi Zayadine, ed. Pp. 163–165. Amman: Department of Antiquities of Jordan.
- Sodini, Jean-Pierre, and Estelle Villeneuve
1992 Le passage de la céramique byzantine à la céramique omeyyad en Syrie du Nord, en Palestine et en Transjordanie. In *Actes du Colloque International 'La Syrie de Byzance à l'Islam, VIIème–VIIIème siècles'*. Pierre Canivet and Jean-Paul Rey-Coquais, eds. Pp. 195–218. Damascus: Institut Français de Damas.
- Uscatescu, Alexandra
1992 *Un ejemplo de tradición en las producciones cerámicas: las lucernas bizantinas y omeyas de Gerasa (Yaras, Jordania)*. Caesaraugusta, 69. Pp. 183–218. Saragossa: Institución "Fernando el Católico".
1995 Jarash Bowls and other Related Local Wares from the Spanish Excavations at the Macellum of Gerasa. *Annual of the Department of Antiquities of Jordan* 39: 365–408.
1996 *La cerámica del macellum de Gerasa (Yaras, Jordania)*. Informes Arqueológicos/Jordania. Ministerio de Educación y Cultura. Madrid.
In Press Report on the Levant Pottery (5th–9th Century A.D.). Table Ronde: De Rome à Byzance; de Fostat à Cordoue. Evolution des faciès céramiques en Méditerranée (Ve–IXe s.). In *VIIe Congrès International sur la Céramique Médiévale en Méditerranée (Thessaloniki 1999)*. John W. Hayes et al., eds. Thessaloniki.
- Uscatescu, Alexandra, and Manuel Martín Bueno
1997 The Macellum of Gerasa (Jerash, Jordan): from a Market Place to an Industrial Area. *Bulletin of the American Schools of Oriental Research* 307: 67–88.
- Walker, John
1935 A New Byzantine Mint and Some Early Umayyad Bronze Coins. *The Numismatic Chronicle* 95: 102–126.
- Walmsley, Alan G.
1995 Tradition, Innovation and Imitation in the Material Culture of Islamic Jordan: the First Four Centuries. *Studies in the History and Archaeology of Jordan* 5: 657–668.
- Watson, Pamela
1989 Jerash Bowls: Study of a Provincial Group of Byzantine Decorated Fine Ware. Jarash Archaeological Project vol. 2, 1984–1988. Theme Issue. *Syria* 66: 177–199.
1992 Change in Foreign and Regional Economic Links with Pella in the Seventh Century A.D.: the Ceramic Evidence. In *Actes du Colloque International 'La Syrie de Byzance à l'Islam, VIIème–VIIIème siècles'*. Pierre Canivet and Jean-Paul Rey-Coquais, eds. Pp. 233–248. Damascus: Institut Français de Damas.
- Whitcomb, Donald
1988 Khirbet al-Mafjar Reconsidered: the Ceramic Evidence. *Bulletin of the American Schools of Oriental Research* 271: 51–67.
- Yannopoulos, Panayotis
1987 *Production monétaire à l'époque byzantine, avant l'an mil. Rythmes de la production monétaire, de l'Antiquité à nos jours*. Georges Depeyrot, Tony Hackens, and Ghislaine Moucharte, eds. Numismatica Lovaniensia, 7; Publications d'histoire de l'art et d'archéologie de l'Université Catholique de Louvain, 50. Pp. 359–372. Louvain-la-Neuve: Séminaire de numismatique Marcel Hoc, Collège Érasme.

Mid-seventh century contexts. <i>Terminus post quem</i> : Constans II <i>folles</i> (A.D. 641-648)									
Class/Type	Gr.	Form	Frag.	Chronology	Class/Type	Gr.	Form	Frag.	Chronology
ARSW	II	H-58B	1	290/300-420	Jug	XXIX	7	1	320-500
		H-104A	1	530-580			8*	1	500-620
LR Local <i>Sigillata</i>	VII	?	1	?-550	Deep Vessel	XXXII	4*	1	500-620
Local <i>Sigillata</i>	VIII	4	1	200-320	Closed Vessel	XXXIII	2	1	500-600
Jarash Bowl	X	1A	1	530-650	Cooking-Pot	XXXIV	1F	2	500-600
		10A#	4	530-650			3D#	2	500-620
		12A	4	530-650			3E	26	520-650
		14A	1	530-650			3F	9	520-650
		15A	1	530-650			3H	7	500-620
		26A#	3	530-650			6B	3	500-600
		29C	1	530-650			6E	1	640-850
		?	15	530-650			?	1	600-750
Open Bowl	XI	1B	2	500-620	Jar	XXXIV	12A	4	?
		2A	2	500-620			12B*	1	600-700
		2B#	4	530-620			12C	7	500-620
		2C	1	500-620			?	1	500-600
		?	1	500-620			13	1	500-600
Bowl	XIII	7A	1	400-600			16	1	500-620
		11A#	4	500-620			17	1	500-620
		11C	4	500-650			4	1	600-650
		11?	6	500-650	Byz. Tall Neck Jar	XXXV	8	1	740-850
Sliced-rim Casserole	XVI	2I	1	500-650	Isl. Tall Neck Jar	XXXV	8	1	580-600
		1A	1	500-600	Byzantine BGW	XXXVI	1B	1	500-600
		1B#	17	520-650			2C#	1	500-600
Casserole	XVI	5	1	100-320			2D	1	500-600
		7#	1	500-620			3B	1	520-650
Fry-Pan	XVII	3A#	2	520-650			4A	5	500-600
		3B	4	500-600			4C	5	520-650
		3C	1	500-600			6C	1	500-600
		3D	2	500-600			7*	1	500-620
		3E	5	500-600			9	5	520-650
Lid	XVIII	1#	4	500-620			10	3	520-650
		1*	2	500-600			11A#	1	500-650
Jug without handles	XIX	3A	6	500-620			12A	5	520-650
		3B	7	500-620			12B	1	520-650
		?	34	500-620			12C	2	500-650
		?	1	400-650			12D	1	500-650
<i>Unguentarium</i>	XX	?	1	400-800	Transitional BGW	XXXVI	?	16	?
Lantern	XXIII	?	2	400-800			16A	8	640-800
Juglet	XXIV	?	1	?			20	6	580-650
Bottle/Juglet	XXVI	2	5	400-620			24A	3	580-650
		3	1	500-600			1A*	16	520-620
		5	3	400-620			1B	5	520-620
Jug	XXVII	16	1	500-620			1C	1	500-620
Spouted Jug	XXVIII	3A	1	500-620			1D	1	520-650
		3B	9	520-650			1E#	1	500-620
		?	5	?			1F*	1	500-600
Spout	XXVIII	A	3	500-700			2A	1	500-600
							3A*	1	500-600

Type	Authority	Nr.	Chronology
AE	Antoninus Pius	1	138-161
Tetradrachm	Alexander Severus	1	222-235
Nummus	Constantius II	1	327-330
AE	(with uncoined blanks)	77	300-500
Follis	Anastasius I	2	498-518
Half Follis	Anastasius I	1	498-518
Follis	Justin I	2	518-527
Nummus	Justinian I	1	529-541
Follis	Justin II	3	565-578
Half Follis	Justin II	2	565-578
Dodecanummium	Justin II	2	565-578
Follis	Tiberius II	1	580-581
Half Follis	Maurice/Tiberius	2	591-601
Follis	Focas	2	604-610
Half Follis	Heraclius	1	629-631
Follis	Constans II	1	642-644
Irregular Follis	Constans II	2	ca. 641-648
Total		101 coins	

Percentages	Residual	Intrusive	1st half of 7th cent.
Pottery	20.04%	0.24%	79.72%
Coins	19.67%	-	80.32%
Coins & Pottery	19.85%	0.12%	80.02%

Table 1: Pottery and coins from mid-seventh century collapse layer.

Contexts over mid-seventh century collapse layer. <i>Terminus post quem</i> : Umayyad <i>fulvas</i> (1st half of the eighth century)									
Class/Type	Gr.	Form	Frag.	Chronology	Class/Type	Gr.	Form	Frag.	Chronology
Eastern <i>Sigillata</i>	I	?	1	-100-150	Juglet	XXIX	4	3	500-600
ARSW	II	?	2	300-650	Cooking-Pot	XXXIV	2A	1	500-620
		H-104C	1	525-625			3A	3	500-620
LRCW	IV	H-9	1	380-420			3D	2	520-650
Jarash Bowl	X	IC	1	530-650			3E	4	520-650
		6A	1	530-650			6A	2	640-850
		7A	2	530-650			6B	4	640-850
		10A	1	530-650			6D	2	580-800
		12A	2	530-650			6E	2	600-750
		14A	1	530-650			?	?	?
		26A	1	530-650	Jar	XXXIV	13	2	500-600
		?	6	530-650			14B	1	?
Open Bowl	XI	2B	2	530-620	Byz. Tall Neck Jar	XXXV	1	2	500-650
		3B	1	600-650	Isl. Tall Neck Jar	XXXV	5	1	740-850
		?	1	500-650		8*	2	2	740-850
Bowl	XIII	11A	3	500-620	Byzantine BGW	XXXVI	2A	1	580-600
		11C	1	500-650			4A	2	500-600
		12#	1	500-650			4B	1	500-600
		13B	1	580-750			4C	3	520-650
		18	1	500-600			4D	1	500-600
		22	1	700-800			6C	2	500-600
		27	1	500-550			6D	2	500-600
Deep bowl	XIV	9	1	500-620			9	1	520-650
Crater	XV	1A	1	550-600			10	2	520-650
		4A	1	500-600			11A	1	500-650
		5A#	4	500-600			12A	3	520-650
		5B	4	500-550			12B	1	500-650
		8	1	500-600			12C	2	520-650
		9#	1	740-850			13	15	500-650
Sliced-rim Casserole	XVI	1A	10	500-600			15	1	500-600
		1B	4	520-650			18	1	500-620
		1C	1	640-850	Transitional BGW	XXXVI	5	1	500-700
Casserole	XVI	2A	1	100-250			16A	15	640-800
		7	4	500-620			20	7	580-650
Fry-Pan	XVII	3A	1	520-650			21B	2	580-700
		3B	2	500-620			23	2	600-700
		3C	1	500-600			24	12	580-650
Lid	XVIII	1	2	500-620	Islamic BGW	XXXVI	26	3	700-750
		2	6	500-600			30#	2	700-750
		4#	1	640-850			32	2	700-850
Jug without handles	XIX	?	7	500-620	BGW	XXXVI	?	14	500-800
Cooking-Pot	XXI	1	1	320-620	Local Amphora	XXXVII	1A	3	520-650
Juglet/Bottle	XXVI	2	4	320-620			1B	1	520-650
		5	1	320-620			1D	7	520-650
Spouted Jug	XXVIII	1A	1	580-600			1E	1	500-650
		3B	7	520-650			1?	2	500-650
Spout	XXVIII	A	4	500-700	Islamic Amphora	XXXVIII	4	1	600-800
Juglet	XXIX	2	1	200-400	<i>Dolium/Pithos</i>	XLI	3	1	500-600
Total									
299 fragments									
Total									
Type	Authority	Nr.	Chronology						
AE		33	100-500						
<i>Follis</i>	Anastasius I	1	498-518						
<i>Follis</i>	?	1	500-550						
<i>Follis</i>	Justin II	2	565-578						
<i>Half Follis</i>	Justin II	2	565-578						
<i>Follis</i>	Maurice Tiberius	1	582-602						
<i>Half Follis</i>	Focas	1	606-607						
<i>Half Follis</i>	Heraclius	1	610-641						
<i>Follis</i>	Constans II	1	641-648						
<i>Fis</i>	Umayyad	13	ca.705-750						
Total		56	coins						
Percentages	Residual	Post mid 7th cent.							
Pottery	74.58%	25.42%							
Coins	47.79%	52.20%							
Coins & Pottery	61.18%	38.81%							

Table 2: Pottery and coins over mid-seventh century collapse layer.

Late Umayyad/early Abbasid destruction context									
Class/Type	Gr.	Form	Frag.	Chronology	Class/Type	Gr.	Form	Frag.	Chronology
Eastern <i>Sigillata</i>	I	?	3	-100-150	Spouted Jug	XXVIII	3A	1	500-600
African Cooking W	II	H-181	2	100-420	Spout	XXVIII	3B	3	520-650
ARSW	II	H-104?	1	530-625	Jug	XXIX	A	3	500-700
ERSW	III	?	4	400-650	Cooking-Pot	XXXIV	?	4	500-600
LRCW	IV	H-104C	1	580-620		XXXIV	1A	1	?
		H-2A	1	425-450			2B	2	320-620
		H-3F	2	550-600			3B	1	500-600
		?	2	380-660			3D	18	500-600
LRDW	V	H-9B	2	580/600-680			3F	9	520-650
Local <i>Sigillata</i>	VII	1A	1	-20-100			3G	3	500-620
Jarash Bowl	X	1C	1	530-650	Jar	XXXIV	6C	1	500-600
		14A	2	530-650			12B	1	640-850
		15A	2	530-650			13	3	500-620
		25A	1	530-650			14B	3	500-600
		28A	1	530-650	Tall Neck Jar	XXXV	1	1	?
		?	14	530-650	Byzantine BGW	XXXVI	1A	3	500-650
Bowl	XI	2A	12	500-620			1B	3	500-600
		2B	3	520-620			1C	1	580-600
		?	1	500-620			2C	2	500-600
Deep Bowl	XII	2	1	320-600			3A	1	500-600
Bowl	XIII	7B	1	320-600			4A	1	500-600
		11A	3	500-620			6B	2	500-600
		11?	1	500-620			6C	2	500-600
Bowl	XIV	27	1	500-550			8	10	500-600
Crater	XV	5	1	500-525			9	2	520-650
		1B	1	550-600			11A	2	500-650
		6	1	500-550			11B	7	500-600
		7A	1	500-620			12A	3	520-650
		7B	3	500-620			12C	1	520-650
Sliced-rim Casserole	XVI	1A	3	500-600			12D	2	500-650
		1B	8	520-650			13	2	500-650
Casserole	XVI	2B	3	580-620	Transitional BGW	XXXVI	5	1	500-700
		5	2	100-300/320			20	2	580-650
		7	1	500-620	Islamic BGW	XXXVI	29#	1	600-800
Fry-Pan	XVII	3A	2	520-620	BGW	XXXVI	?	25	500-800
		3C	1	500-600	Local <i>Amphora</i>	XXXVII	1A	11	520-650
		3D	17	500-600			1C	3	500-620
		3E	1	500-600			1D	5	520-650
Lid	XVIII	?	1	500-620	Islamic <i>Amphora</i>	XXXVIII	#	1	700-800
		1	8	500-620	<i>Dolium/Pithos</i>	XLI	1	1	500-620
Jug without handles	XIX	2	7	500-600			3	1	500-600
Lantern	XXIII	?	4	400-800			5	1	500-600
Jug	XXVII	2A	1	500-600	Storage Vessel	XLII	1B	1	500-620
		3	1	500-600			1C	2	?

Class/Type	Gr.	Form	Frag.	Chronology
Storage Vessel	XLII	1D	5	500-600
		2A	1	500-620
		2B	6	?
		6A	1	500-600
		6B	1	500-600
		?	6	?
Eastern <i>Amphora</i>		LRA 1	2	500-650
		LRA 4	1	500-650
		Sinope	1	480-550
Total				313 fragments

Type	Authority	Nr.	Chronology
<i>Sesteritius</i>	Vespasian	1	69-79
<i>AE</i>	?	15	300-500
<i>Follis</i>	Anastasius I	1	498-518
Half <i>Follis</i>	Anastasius I	1	498-518
<i>Follis</i>	Justin I	1	518-527
<i>Follis</i>	Justinian I	4	527-565
<i>Follis</i>	?	2	500-550
Half <i>Follis</i>	Justin II	2	570-576
<i>Follis</i>	Justin II	1	565-578
<i>Dodecanumium</i>	Justin II	1	565-578
Cop. Standing Caliph type Dimashq		1	ca. 694
Byzantine Lead		1	600-700
Total		31	coins

Percentages	Residual
Pottery	88.50%
Coins	92.68%
Coins & Pottery	90.59%
Umayyad	11.50%
	7.31%
	9.40%

Table 4: Late Umayyad or early Abbasid destruction context.

Early Umayyad constructive deposit											
Class/Type	Gr.	Form	Frag.	Chronology	Class/Type	Gr.	Form	Frag.	Chronology		
LRCW	IV	?	2	380-660	Lid	XVIII	1	5	500-620		
Jarash Bowl	X	3A	1	530-650			2	8	500-600		
		6	1	530-650			5	1	500-550		
		15A	1	530-650	Jug without handles	XIX	5	2	500-620		
		16A	2	580-650			?	1	500-600		
		19A	1	580-650	LR <i>Unguentarium</i>	XXVI	10*	2	500-650		
		24A	1	530-650	Spouted Jug	XXVIII	3B	14	520-650		
		?	5	530-650	Spout	XXVIII	A	29	500-700		
Open Bowl	XI	2B	11	530-620	Jug	XXIX	6	8	500-600		
		?	3	530-620	Cooking-Pot	XXXIV	3C	1	500-600		
Bowl	XIII	11A	6	500-620			3D	3	520-650		
		12B	1	500-650			3E	15	520-650		
		17	1	500-620			3F	24	500-650		
Crater	XV	6	1	500-550			3G	3	500-600		
Sliced-rim Casserole	XVI	1A	6	500-600	Tall Neck Jar	XXXV	10*	1?	740-850		
		1B	1	520-650	Byzantine BGW	XXXVI	1B	2	580-600		
		1?	2	?			2A	7	580-600		
Casserole	XVI	2B	1	580-620			2C	3	500-600		
		7	5	500-620			6A	2	500-620		
Fry-Pan	XVII	3A	5	520-650			?	7	500-620		
		3C	18	500-600							
		3D	16	500-600							
				Total						302 fragments	
				Type		Authority		Nr.		Chronology	
				AE				9		300-500	
				Total				9		coins	
				Percentages		Residual		Umayyad			
				Pottery		90,06%		9,94%			
				Coins		100%		-			
				Coins & Pottery		95,03%		4,97%			

a. Early Umayyad constructive deposit.

Early Abbasid occupation.											
Class/Type	Gr.	Form	Frag.	Chronology	Class/Type	Gr.	Form	Frag.	Chronology		
Sliced-rim Casserole	XVI	1C*	1	640-850	Islamic BGW	XXXVI	26	2	700-750		
Cooking-Pot	XXXIV	6C*	1	640-850			32B*	1	700-850		
Islamic BGW	XXXVI	21B	1	580-800				6	pieces		
				Total							
				Percentages		Residual		Abbasid			
				Pottery		-		100%			
				Coins		-		-			

b. Early Abbasid occupation context.

Table 5: a. Early Umayyad constructive deposit; b. Early Abbasid occupation context.

Then and Now—Now and Then: Strategies for Islamic Archaeology in the 21st Century

ALAN WALMSLEY
University of Western Australia

Genesis of a Workshop/Symposium

In the last days of the Seventh International Conference on the History and Archaeology of Jordan, held in Copenhagen during June 1998 and just days after the convening of the first ICAANE meeting in Rome, a number of archaeologists interested in Islamic Jordan puzzled over a suitable forum for a workshop on Islamic archaeology in Bilād al-Shām (“Syria-Palestine”; for principal regions and sites, see Figure 1). The discussion resulted from a feeling of growing frustration. There was increasing dissatisfaction with existing venues for presenting and discussing archaeological advances in the newly emergent field of Islamic archaeology in Bilād al-Shām, and the desire to reach a much larger audience, both in terms of geographical area and discipline boundaries. In the years before, several venues had been explored to promote Islamic archaeology, but not with a lot of success. There had been the “desert and sown” series at the ASOR conferences, coordinated by Cherie Lenzen and Alison Betts, but topically restricted in scope and without an established successor program. Also, individual scholars had also explored the American-based MESA congress, but the interest in Islamic archaeology appeared limited. Overall, the perception was that there were significant regional and subject drawbacks with these conference venues: problems not really resolved by the Jordanian series either due, in this case, largely to limitations of geography. Therefore Jeremy Johns, Alison McQuitty, and Cherie Lenzen—among others—proposed we should “give it a go” at the next International Congress on the Archaeology of the ancient Near East, at which a special topic in Islamic archaeology had been accepted.

The task of organising an Islamic workshop (which grew in size and purpose, and eventually took on the character of a symposium) was handed to me. While some of the original instigators of the symposium were not able to make it to Copenhagen for 2ICAANE, I was pleased and grateful to have been offered this opportunity to advance our subject further. The general consensus at our June ’98 informal gathering was that the symposium should focus on the future direction of Islamic archaeology in Bilād al-Shām and the Jazīrah, building on the achievements (and failures) of the last decade or two. In keeping with the overall theme of 2ICAANE, the objective was to scrutinize Near Eastern archaeology at the beginning of the 3rd millennium A.D., specifically “The State of Islamic Archaeology”, and search for the way(s) ahead. Hence the symposium title: “Strategies for Islamic Archaeology in Bilād al-Shām and the Jazīrah”.

Then, and Now: a brief history of the discipline

In the last ten to twenty years the “concept” of an Islamic archaeology, with its own identity, objectives and procedures, has gained considerable strength in Jordan, propelled by

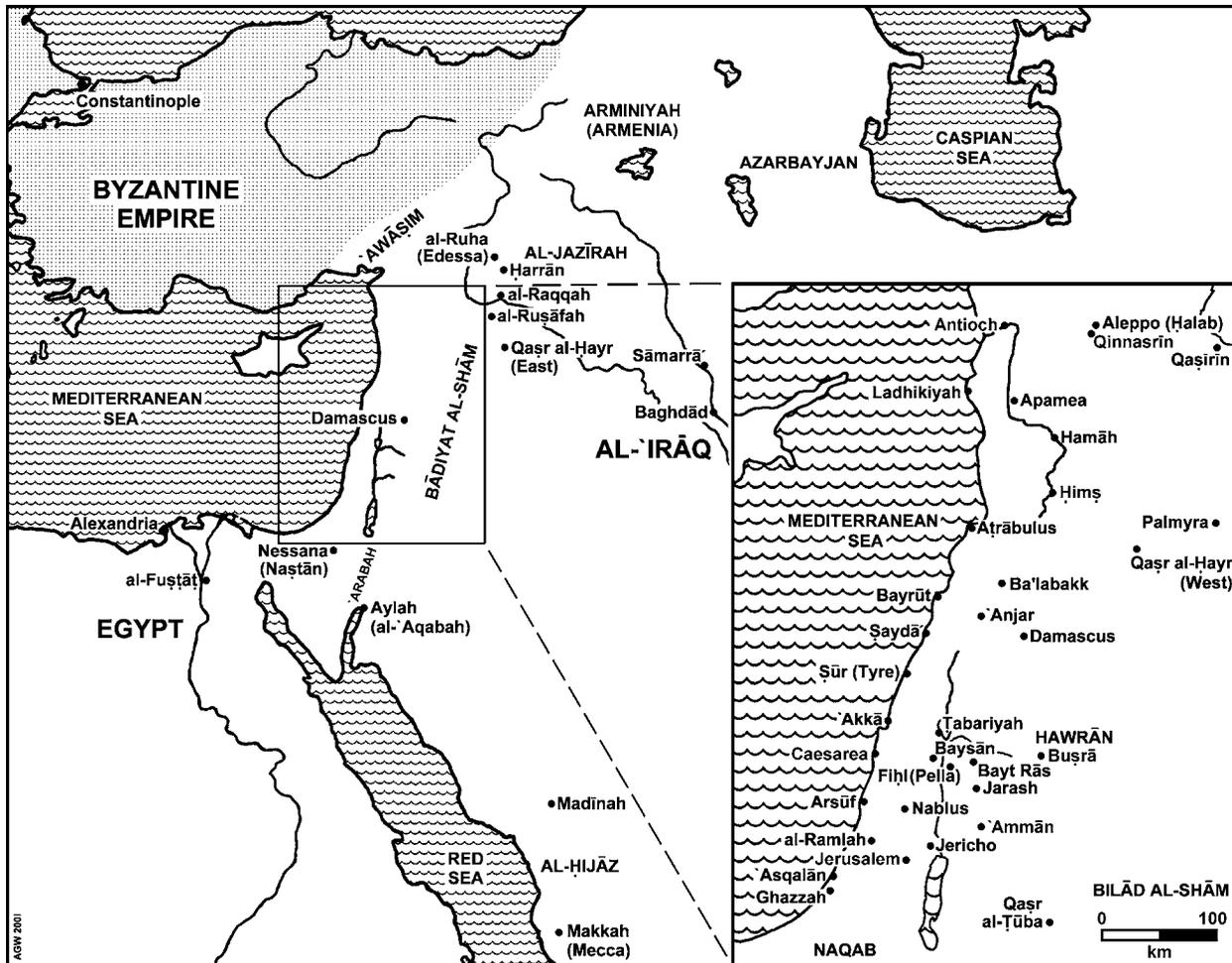


FIGURE 1. Map of Bilād al-Shām and the Jazīrah in the first Islamic centuries, showing principal sites mentioned in the text.

significant archaeological projects at important sites such as al-‘Aqabah, Khirbat Fāris, Bayt Rās and Pella/Fihl, which followed on from pioneering work at Ḥisbān, Pella and ‘Ammān Citadel. The change in attitudes and research objectives promulgated by a reasonably small, yet growing, body of archaeologists from a diversity of backgrounds between the early 1980s and the early 1990s was profound. Probably the most significant, if rather controversial (at the time), turning point in the formation of an Islamic archaeology in Jordan was the 1989 Lyon conference (The Fourth International Conference on the History and Archaeology of Jordan; see especially the papers of Johns, Walmsley and Whitcomb). Since Lyon, approaches have matured and attitudes mellowed—in some quarters at least (see the review in Schick; also the comments of Whitcomb). Yet major impediments clearly remain, and one of the objectives of the symposium was to identify and characterize these as a path to focus future research.

Levantine archaeology, forked between the three “archaeologies” of prehistory, biblical studies, and classical history, has been ill equipped to tackle the Islamic periods. The theories and methodologies of these archaeologies, each focusing on an earlier period, had grown out of a different and, for Islamic archaeology, often quite irrelevant set of objectives. These disciplines, furthermore, often brought with them considerable cultural baggage, thereby intro-

ducing, regrettably, entrenched attitudes (indeed prejudices) irrelevant and inappropriate to the study of pre-modern Islamic societies. To some extent, especially early on, the intellectual tradition of each archaeologist was also reflected in their work: ancient/medieval historian, architectural historian, art historian, or a “dirt” archaeologist from a classical, biblical and/or prehistoric background. While, in the last decade or so, a certain “blurring” of backgrounds has occurred, gaps still exist between major discipline groups, notably historians, art historians and archaeologists—both dirt and architectural. Another drawback has been that, with only few exceptions, the academic goals of project directors and, even more disturbing, those of their funding bodies have severely discriminated against the appropriate consideration of Islamic remains, both in terms of excavation strategy and publication record. The problem is compounded by the fact that modern international tourism only rarely places an equal priority on sites with a predominantly Islamic heritage. This is sadly true for the whole region, but hopefully the recent pioneering “Museum with no Frontiers” project, featuring sites of early Islamic Jordan, will begin to break down this unreasonable bias.¹

Now and Then: the application of the discipline

Field archaeology of the Islamic periods in Bilād al-Shām and the Jazīrah could be summed up in two words: sporadic and haphazard. Of course, I would not want to underrate or discredit important work that has already been done, nor fail to acknowledge the establishment of an increasing number of structured research programs in the last few years. However, research into the Islamic periods has traditionally been identified with architectural and urban studies into places such as Damascus, Aleppo, Jerusalem and the so-called “desert castles”, and clearance excavations at large sites such as Anjar and Khirbat al-Mafjar, the latter originally thought to have been Hellenistic in date.

Until recently at least, archaeological field projects have been dogged by a “now and then” approach, a direct outcome of funding shortages, the (unquestionable) priority of rescue survey and excavation work in the face of modern development, and the continuing disinterest in “irrelevant periods” by project directors and their funding organizations. In this respect, the last 50 years have seen few changes. One only has to casually observe the recent career paths of a number of north American archaeologists to recognize the equivocal commitment of many institutions to Islamic archaeology and its practitioners, with only rare—if most welcomed—exceptions.

Observing these setbacks, it is not surprising that Islamic archaeology still struggles to make a real and credible contribution to the social history of pre-modern Bilād al-Shām; the promise may be understood, but the information has not been forthcoming. Few Islamic historians have found it possible to access archaeological and, likewise, numismatic sources, simply because of the scarcity of a comprehensive data set and the unreliability of that which does exist. It is incumbent upon us as archaeologists to deliver that information.

Pointers towards New Strategies for Islamic Archaeology

The forging of lines of communication and a focussing of purpose is what I thought the symposium might begin to achieve. Yet, I don’t think I am so naive to believe that any one

1. Only with incredulity can I recall the telling by a tourist guide in Jordan that the large circular reservoir on the ‘Ammān citadel was used by Roman soldiers garrisoned in the adjoining complex to wash their horses. An Islamic attribution for the citadel complex seemed inconceivable to both the Jordanian guide and his international clients.

event such as this symposium could bring about systemic change in the way our discipline is practiced and presented. That will require a more regular series of meetings, each tackling a different issue, possibly within the already established framework of ICAANE. Nonetheless, the workshop has provided a valuable summation of where we stand at a particular point in time, the opportunity for people to crystallize current practise, and a chance to communicate and discuss future “strategies”—the first of the strategies required to promote our discipline at the start of the 21st century. Often, I feel, we are striving towards a common goal, using similar approaches and obtaining comparable results, yet we fail to communicate this effectively, both to others and among ourselves!

During the symposium, speakers addressed several significant themes within a rather loosely imposed session structure, and these tackled, to varying extents, many of the issues outlined above. Unfortunately, some of the participants were able to meet the publication deadline for the congress, and not all of the papers appear in this volume.² However, a short summary of the published papers, grouped according to their sessions, may be worthwhile here.

In the first session (Thursday 25 May, 9: 00–10: 40 am), four papers dealt with the question of “Archaeology and the State”; that is, how archaeology records the origin, development and changing dynamic of the ruling elite and the way they projected themselves in early Islamic society. Two of those papers are presented here:

1. Mirko Novák, “Change of Caliphate Ideology in the Light of Early Muslim Architecture”, which offers the long view on this issue; and
2. Alastair Northedge, “‘Al-Ḥayr’ in ‘Abbāsīd Iraq”, a study of hunting reserves from Sāsānid to ‘Abbāsīd times.

The second session (Thursday 25 May, 11: 00–13: 00) dealt with the topic of “Sites and their Contexts”. Fortunately, all five papers were submitted for publication, each focusing on excavations at a specific site and evaluating the implications of this work for our understanding of social and urban developments in early Islamic times. The papers as published are:

1. Ignacio Arce, “Early Islamic Urban Patterns and Features at Amman Citadel: Analysis and Discussion”, which presents and analyses the important new discoveries in front of the early Islamic “audience hall” (gateway) on the ‘Ammān citadel;
2. Kay Prag, “Umayyad Building II in Jerusalem”, offering evidence for a likely corrective to the destruction date of the Umayyad complex south of the Haram al-Sharif in Jerusalem;
3. Alexandra Uscatescu and Teresa Marot, “The Ancient Macellum of Gerasa in the Late Byzantine and Early Islamic Periods: The Archaeological Evidence”, in which they reconsider the final phases of early Islamic date at the macellum in Jarash;³
4. Israel Roll, “Early Islamic Arsûf: the Archaeological Aspect of an Urban and Maritime Centre of the Eastern Mediterranean Coast”, where more than a decade of ar-

2. My editorial objective was to seek constancy within each paper, rather than over the whole collection. Therefore, the reader will find variations between papers within the symposium, such as with the spelling of place names.
3. Within the context of Syro-Palestinian archaeology, the period ca. 324–640 (that is, from Constantine the Great to the Islamic Conquest) is conventionally termed “Byzantine”. See the table at the end of this introduction.

chaeological discoveries have uncovered a major early Islamic Mediterranean commercial centre and port; and

5. Sami el-Masri, “Islamic Archaeology in the Lebanon. The Contribution of the Beirut Excavations to the Understanding of Islamic Ceramics of the Eastern Mediterranean”, an exceptionally valuable report on discoveries at another Mediterranean port, Bayrūt, within the (largely undeveloped) context of Islamic archaeology in Lebanon.

In the third session (Thursday 25 May, 14: 30–15: 30), three papers dealt with the issue of early Islamic settlement profiles. The two offered here are:

1. Jodi Magness, “Making the Invisible Visible: the Case of the Early Islamic Period in Palestine”, which decisively upgrades the extent of settlement in the Negev desert of south Palestine during early Islamic times through a reinterpretation of published archaeological data from Nessana (Naṣṭān); and
2. Alison Betts, “Water Systems and Settlements in the Badiyat al-Sham”, which explores the socio-political context of the creation of water systems in the Jordanian *bādiyah* (steppe lands) in Byzantine times, and the implications of these developments for early Islamic settlement in this marginal zone.

The fourth and fifth sessions concentrated on architecture within the context of sites. Three papers are presented here:

1. Andrew Petersen, “Approaches to the Islamic Built Heritage”, a critical analysis of current practise in the study of architectural remains, using examples from Lebanon (‘Anjar, Ba’albak and Tripoli);
2. Cristina Tonghini and Guido Vannini, “The Contribution of ‘Light’ Archaeology to the Study of Fortified Sites in Northern Syria”, which details work on fortified settlements in Syria using modern techniques that focus on matters of architecture and environment within their socio-historical context; and
3. Julia Gonnella, “The Citadel at Aleppo: the Islamic Periods”, which presents a (surprising) study of the historical attribution of standing architecture on the citadel in the face of modern restoration work, and results from the Islamic levels of excavations within the citadel.

Participation at the symposium, which reached an unanticipated 50 delegates or more in some sessions, confirmed the growing acknowledgment of Islamic archaeology as a distinct and valuable discipline. The sessions served the important function of continuing to forge new lines of communication between historians, art historians, architectural archaeologists, and dirt archaeologists and, critically, served to further break down the increasingly blurred boundaries separating each discipline area.

The symposium did involve some preliminary effort, but I was very happy with our sessions and the subsequent papers for publication, and genuine thanks to everyone for their considerable cooperation and enthusiastic participation. I would specifically like to thank Jere Bacharach for overseeing proceedings and offering observations at the end, Claus-Peter Hasse for adopting the symposium within the special theme area of Islamic Archaeology, and Ingolf Thuesen along with other members of the organising committee of 2ICAANE for taking the symposium on board. May it be the first of many such meetings to enhance and promote the growing discipline of Islamic archaeology.

Table of Chronological Periods in the Archaeology of Bilād al-Shām

Hellenistic Period

- Early Hellenistic, 332–198 B.C.E. (B.C.)
- Late Hellenistic, 198–63 B.C.E.
- Nabataeans, 312 B.C.E.–106 C.E. (A.D.)

Roman Period

- Early Roman, 63 B.C.E.–106 C.E.
- Late Roman, 106–324

Byzantine Period

- Early Byzantine, 324–491
- Late Byzantine, 491–640

Islamic Period

Dynastic

- Orthodox Caliphs, 632–661
- Umayyad, 661–750
- ʿAbbāsīd, 750–969
- Fāṭimid-Saljūk, 969–1099
- Crusader, 1099–1187
- Ayyūbid, 1173–1250/60
- Mamlūk, 1250/60–1517
- Ottoman, 1517–1917
- Modern, 1917–present

Archaeological (Whitcomb)

- Early Islamic 1, 600–800
- Early Islamic 2, 800–1000
- Middle Islamic 1, 1000–1200
- Middle Islamic 2, 1200–1400
- Late Islamic 1, 1400–1600
- Late Islamic 2, 1600–1800
- Modern, 1800–present

References

- Bates, Michael L.
1986 History, Geography and Numismatics in the First Century of Islamic Coinage. *Revue Suisse de Numismatique* 65: 231–262.
- Chehab, Hafez K.
1993 On the Identification of ʿAnjar (ʿAyn al-Jarr) as an Umayyad Foundation. In Essays in Honor of Oleg Grabar. Theme issue. *Muqarnas* 10: 42–48.
- Chehab, Maurice
1963 The Umayyad Palace at Anjar. *Ars Orientalis* 5: 17–25.
- Creswell, K. A. C., revised by J. W. Allan
1989 *A Short Account of Early Muslim Architecture*. 2nd edition. London: Scolar Press.
- Ettinghausen, Richard, and Oleg Grabar
1987 *The Art and Architecture of Islam 650–1250*. Harmondsworth, Middlesex: Penguin.

- Grabar, Oleg
1973 *The Formation of Islamic Art*. New Haven: Yale University Press.
- Grabar, Oleg, Renata Holod, James Knustad, and William Trousdale
1978 *City in the Desert: Qasr al Hayr East*. 2 vols. Harvard Middle East Monographs, 23–24. Cambridge: Harvard University Press.
- Hamilton, Robert W.
1959 *Khirbat al Maffjar*. Oxford: Oxford University Press
1988 *Walid and His Friends. An Umayyad Tragedy*. Oxford Studies in Islamic Art, 6. Oxford: Board of the Faculty of Oriental Studies/Oxford University Press.
- Hillenbrand, Robert
1982 La Dolce Vita in Early Islamic Syria: The Evidence of Later Umayyad Palaces. *Art History* 5(1): 1–35.
- Hournai, A. H., and S. M. Stern, eds.
1970 *The Islamic City. A Colloquium*. Oxford: Bruno Cassirer.
- Humphreys, R. Stephen
1991 *Islamic History. A Framework for Inquiry*. Princeton: Princeton University Press.
- Johns, Jeremy
1992 *Islamic Settlement in Ard al-Karak*. Studies in the History and Archaeology of Jordan, vol. 4. S. Tell, G. Bisheh, F. Zayadine, K. ‘Amr, and M. Zaghoul, eds. Pp. 363–368. Department of Antiquities of Jordan.
1994 The Longue Durée: State and settlement strategies in Southern Trans jordan Across the Islamic Centuries. In *Village, Steppe and State. The social origins of modern Jordan*. E. L. Rogan and T. Tell, eds. Pp. 1–31. London: British Academic Press.
- Lenzen, Cherie J.
1995 From Public to Private Space: changes in the urban plan of Bayt Ras/Capitolias. In *Studies in the History and Archaeology of Jordan*, vol. 5. K. ‘Amr, F. Zayadine, and M. Zaghoul, eds. Pp. 235–239. Amman: Department of Antiquities.
- Lenzen, C. J., and E. A. Knauf
1987 Beit Ras/Capitolias. A Preliminary Evaluation of the Archaeological and Textual Evidence. *Syria* 64(1–2): 21–46.
- McQuitty, A.M., M. A. Sarley Pontin, M. Khoury, M. P. Charles, and C. F. Hoppe
1997–98 Mamluk Khirbat Faris. *ARAM* 9–10: 181–226.
- Museum with no Frontiers
2000 *The Umayyads. The Rise of Islamic Art*. Vienna: Arab Institute for Research and Publishing.
- Northedge, Alastair
1992 *Studies on Roman and Islamic ‘Amman. The Excavations of Mrs C-M Bennett and Other Investigations*. Oxford: British Institute at Amman for Archaeology and History/Oxford University Press.
- Raby, Julian, and Jeremy Johns, eds.
1992 *Bayt al-Maqdis: ‘Abd al-Malik’s Jerusalem, Part One*. Oxford: Oxford University Press.
- Sauer, James A.
1982 The Pottery of Jordan in the Early Islamic Period. In *Studies in the History and Archaeology of Jordan*, vol. 1. A. Hadidi, ed. Pp. 329–337. Amman: Department of Antiquities.
1994 The Pottery at Hesban and its Relationship to the History of Jordan: An Interim Hesban Pottery Report, 1993. In *Hesban After 25 Years*. D. Merling and L. T. Geraty, eds. Pp. 225–281. Berrien Springs, MI: Andrews University Press.
- Sauvaget, J.
1934 Esquisse d’une histoire de la ville de Damas. [1937]. *Revue des Études Islamiques* 8: 422–480.
1941 *Alep*. Paris: Librairie Orientaliste Paul Geuthner.
1949 Le Plan Antique de Damas. *Syria* 26: 314–358.

Schick, Robert

- 1998 Palestine in the Early Islamic Period: Luxuriant Legacy. *Near Eastern Archaeology* 61(2): 74–108.

Smith, Robert H.

- 1973 *Pella of the Decapolis Volume 1. The 1967 Season of the College of Wooster Expedition to Pella*. Wooster, Oh.: College of Wooster.

Urice, Stephen K.

- 1987 *Qasr Kharana in the Transjordan*. Durham, N.C.: American Schools of Oriental Research.

Walmsley, Alan

- 1988 Pella/Fihl after the Islamic Conquest (A.D. 635–c. 900): a convergence of literary and archaeological evidence. *Mediterranean Archaeology* 1: 142–159.
- 1992a Fihl (Pella) and the Cities of North Jordan during the Umayyad and Abbasid Periods. In *Studies in the History and Archaeology of Jordan*, vol. 4. S. Tell, G. Bisheh, F. Zayadine, K. ‘Amr, and M. Zaghoul, eds. Pp. 377–384. Amman.
- 1992b The social and economic regime at Fihl (Pella) and neighbouring centres, between the 7th and 9th centuries. In *La Syrie de Byzance à l’Islam VIIe—VIIIe siècles: actes du colloque international*. P. Canivet and J.-P. Rey-Coquais, eds. Pp. 249–261. Damascus: Institut Français de Damas.
- 1995 Tradition, Innovation, and Imitation in the material Culture of Islamic Jordan: the first four centuries. In *Studies in the History and Archaeology of Jordan*, vol. 5. K. ‘Amr, F. Zayadine, and M. Zaghoul, eds. Pp. 657–668. Amman: Department of Antiquities.
- 2001 Fatimid, Ayyubid and Mamluk Jordan and the Crusader Interlude. In *The Archaeology of Jordan*. B. MacDonald, R. Adams, and P. Bienkowski, eds. Pp. 515–559. Levantine Archaeology, 1. Sheffield: Sheffield Academic Press.

Whitcomb, Donald

- 1992 Reassessing the Archaeology of Jordan of the Abbasid Period. In *Studies in the History and Archaeology of Jordan*, vol. 4. S. Tell, G. Bisheh, F. Zayadine, K. ‘Amr, and M. Zaghoul, eds. Pp. 385–390. Amman: Department of Antiquities of Jordan.
- 1994 *Ayla: art and history in the Islamic port of Aqaba*. Chicago: Oriental Institute, Chicago.
- 1998 Out of Arabia: Early Islamic Aqaba in its regional context. In *Colloque international d’archéologie islamique*. R.-P. Gayraud, ed. Pp. 403–418. Cairo: Institut Français d’Archéologie Orientale.
- 2000 Hesban, Amman, and Abbasid Archaeology in Jordan. In *The Archaeology of Jordan and Beyond: Essays in honor of James A. Sauer*. L. E. Stager, J. A. Greene, and M. D. Coogan, eds. Pp. 505–515. Harvard Semitic Museum Publications: Studies in the Archaeology and History of the Levant. Winona Lake: Eisenbrauns.
- 2001 Umayyad and Abbasid Periods. In *The Archaeology of Jordan*. B. MacDonald, R. Adams, and P. Bienkowski, eds. Pp. 503–513. Levantine Archaeology, 1. Sheffield: Sheffield Academic Press.

2nd ICAANE

Programme

MONDAY 22.5.2000

9.45-12.00	Introduction and plenary sessions. Chair: Ingolf Thuesen			
9.45	Welcome address by Kjeld Møllgård, rector			
10.10	Zeidan Kafafi: The Landscape Archaeology of Jordan			
10.30-11.00	Coffee break			
11.00-11.20	Paolo Matthiae: Gods and Humans in Mesopotamian Art			
11.20-11.40	Ian Hodder: The Tell			
11.40-12.00	Claus Peter Haase: Archaeology of the Islamic period			
12.00-14.00	Lunch			
	NIEBUHR AUDITORIUM	NORDEN AUDITORIUM	KJÆR AUDITORIUM	INGHOLT AUDITORIUM
	Theme: <i>The Tell</i> Chair: H J Nissen	Theme: <i>Images</i> Chair: P. Matthiae	Theme: <i>Islamic Archaeology</i> Chair: M. Barrucand	
14.00-14.20	T. J. Wilkinson: Integrating Human Activity and Environmental Change	Brentjes: Nimrud-Kalakh and Ancestor Worship	Arnon: Ceasarea Maritima and the Sea-Borne Trade During the Early Islamic Period	
14.20-14.40	Hole: Interpreting the Logic of Ancient Settlement Patterns from Space	Kolbus: Der Raumkanon alorientalischer Statuetten	Meshel: Islamic Archaeology in the Desert of Israel	
14.40-14.45	Short break			
14.45-15.05	Greenberg: The Afterlife of Tells	Felli: On the Scribes Seat from Tell Brak	Houssel: Le Peuplement des Marges Arides (Region de Salamiyya, Syrie)	
15.05-15.25	Farah-Fougères: Architecture	Bonechi: More than one: weapons against the monsters in Western Asia	Mortensen: Islamic iconography in a nomadic funerary context	
15.25-15.50	Coffee break			
	Chair: R. Matthews	Chair: H. Kühne	Chair: D. Whitcomb	
15.50-16.10	Peilstöcker: Salvage Work: Benefit or Burden for Archaeology in Israel	Winter: Images of Gods and Kings	Barrucand: Relations entre ville et palais islamique	
16.10-16.30	Mottram: Estimating Ancient Settlement Size	Müller-Karpe: Where did They Bury King Meskalamdug	Meyer: Erste Ergebnisse der Ausgrabungen in Kharab Sayyar, Syrien	
16.30-16.35	Short break			
16.35-16.55	Nimis & Doice: Planning Activity in Ancient Mesopotamia, Some Questions and Hypotheses	Watanabe: Divine Symbols or Apotropaic Animals? A Contextual Approach to the Animals in Babylon	Becker: Unknown Materials from the Syrian Excavations in Abbasid Raqqa	
16.55-17.15	Gerber: Tall al-Hamidiya (Tell Hamidi): Spatial Structure of the Central Palace	Kohlmeier: The Weathergod of Aleppo and his Attendants	Keali: Survey and Excavations at the Islamic City of Zabid, Yemen, 1982-99	
17.15-17.20	Short break			
	Chair: Müller-Karpe	Chair: Müller-Karpe	Workshop: <i>Internet and Archaeology</i>	
17.20-17.40		Muller-Margueron: Les représentations anthropomorphes des peintures de Mari	Herrmann: The Traditional Buildings at Merv	
17.40-18.00		Bonatz: Style and Prestige in the Early Dynastic society	Karev: Le Palais de Abou Muslim à Afrasiab (Samargand)	Org.: I. Thuesen Other participants: Jones, Hodder, Hoffmann Jensen
19.00	Reception at the Carsten Niebuhr Institute			
	Hands-on session (Shemshara) begins at 18.30			

WEDNESDAY 24.5.2000

	AUDITORIUM A	AUDITORIUM B
	<i>Theme: Excavation reports</i>	
	Chair: M. Fortin	
11.30-11.50	Margueron: Le systeme defensif de la cité de Mari: Resultats des dernières recherches	<i>Workshop: The Individual as Force in History</i>
11.50-12.10	Abdul-Rahman et al.: Qatna in the Bronze Age	Organizers: L. Kaliszan & B.D. Hermansen
12.10-12.20	Short break	Other participants:
12.20-12.40	Abdul-Rahman et al.: Qatna in the Iron Age	Bintliff
12.40-13.00	Betts: Tell Rukeis: the Early and Middle Bronze Age in the Southern Hauran	Kerner
13.00-14.00	Lunch	
	Chair: Al-Wohaibi	<i>Workshop: Economy and Commerce</i>
14.00-14.20	Crawford: Ubaid in the Gulf: Survey and Excavation in Kuwait	Organizers: Kletter & Kochavi
14.20-14.40	Orazi: The Conservation of the Monumental Complex of Khor Rori, Sultanate of Oman	Other participants:
14.40-15.00	Kontani: Black Top Pottery from the Gaziantep Region	Gophna
15.00-15.30	Break	Bienkowski
15.30-15.50	Luciani: Iron Smelting and Smithing in Northern Syria: The Context and its Interpretations	Steiner
15.50-16.10	Belgorno: Excavations at Pyrgos/Mavroraki Cyprus. The Metallurgical Installations of EB-MB Age	Meyer
		Negbi
16.45	Buses leaving from Moesgaard	

THURSDAY 25.5.2000

	NIEBUHR AUDITORIUM	NORDEN AUDITORIUM	KJÆR AUDITORIUM	INGHOLT AUDITORIUM	GLOB AUDITORIUM
	<i>Theme: Excavation reports</i>	<i>Theme: Images</i>			
	Chair: N.-P. Lemche	Chair: J. Winter			Chair: P. Mortensen
9.00-9.20	Ussishkin: The Renewed Excavations in the EBA Cultic Compound	Pincock: Mermaids and Squatting Women		<i>Workshop: Climate, Weather and History</i>	Baird: Settlement and Landscape in the Konya Plan, South Central Turkey
9.20-9.40	The Canaanite City Between Ideology and Archaeological Reality	Largacha: Gods and Kings in Protodynastic Egypt		Organizer: Brentjies Other participants: Kusserow Frenzel Gabriel Reichelt	Houtari et al.: Archaeological Survey Around Jebel Haroun
9.40-9.45	Short break				
9.45-10.05	Miroschedji: Fouilles préliminaires à Tell Sakan (bande de Gaza) en 1999	Faagersten : Egyptianizing Sculpture from Archaic Cyprus	Organizer: A. Walmsley Other participants: Arce, Betts, Bacharach, Ghazi-Bisheh, Gonnella, Hawawi, Kennedy, Leisten, Magness, el-Masri, Northedge, Novak, Petersen, Politis, Prag, Redford, Roll, Shboul, Tonghini, Vannini, Tsafir, Uscatescu, Marot, Whitcomb <i>Continues on Friday</i>		Barti: Archaeological Survey of the Khanasiri Region, Northern Jordan
10.05-10.25	Watrin & Blin: Staggered Development and Cultural Mutation	Ulbrich: Cyproite IA Sanctuaries and Female Deities			Janetski & Chazan: Excavations at Wadi Mataha: An Epipaleolithic Site in Southern Jordan
10.25-10.50	Coffee break				
	Chair: D. Stronach	Chair: Meier			
10.50-11.10	Gibson: Northern Mesopotamian Urbanism as Seen at Hamoukar	Oren: The Diffusion of Religious Ideology and Cult Institution in the Southern Levant			Banning: Housing First Farmers
11.10-11.30	Matthiae: Nouveaux résultats des fouilles d'Ebla 1998-99	Kletter: The Judean Pillar-Figurines & Asherah			Politis: Adobe in the Jordan Valley
11.30-11.35	Short break			<i>Workshop: Chronology</i>	
11.35-11.55	Pfälzner: The Project of 3rd Millenium North Mesopotamian Urbanism at Tall Mishrif/Qatna	Dever: Aniconism in Ancient Israel		Organizer: Bietak Other participants: Heinz Bagh Müller Czerny et al.	Chair: M. Najjar Bourke: Ecology, Chronology and Pre-state Formation in the Jordan Valley
11.55-12.15	McMahon: Renewed Excavations at Chagar Bazar	Daviau: Diversity in Ammonite Religious Iconography			Kemer: Tell Khanasiry in its Setting
12.15-12.20	Short break				
12.20-12.40	Pruss: The "Kranzhuigel" Culture: Fact or Fiction	Gerlach: Motifs of the Ancient Near East as Adapted in the Art of South Arabia			Lovell: New Data from Teleilat Ghassul, Jordan: A Conspectus
12.40-13.00	Bachelot: Les résultats de la dernière campagne de fouilles à Tell Shiukh F.	Gershuny: Deities & Animals: A Zoomorphic Rhyton Representing a Divine...			Nieuwenhuys: From Pre-Halaf to Halaf in Syria, New Insights from the Khabur Region
13.00-14.30	Lunch				
	Chair: A. McMahon	Chair: B. Sälje			
14.30-14.50	Debruyne: Canals and Drains: Sewers in the Early Jezirah Palatial Complex	Oman: The Lion as a Symbol in the Ancient Near Eastern Imagery			Festuccia: The Bronze Age Moulds from the Levant: Typology and Materials
14.50-15.10	Lyonnet: Epingles à double spirales et céramique grise: probleme d'origine	Gurainick: NE Bronzes from Olympia			Mulder Hymans: Bread Ovens in the Near East
15.10-15.15	Short break				
15.15-15.35	Duistermaat: Pottery Production at Middle Assyrian Tell Sabi Abyad	Rizack: Microprobe Analysis of the Electrum Coins of Cyzicus			Poster Session
15.35-15.55					
15.55-16.00	Short break				
16.00-18.00	Hands-on session (Hama)				
16.00-16.40	Plenary session: ICAANE organization. Chair: I. Thuesen				
18.00	Reception at Nationalmuseum				

FRIDAY 26.5.2000

	NIEBUHR AUDITORIUM	NORDEN AUDITORIUM	KJÄER AUDITORIUM	INGHOLT AUDITORIUM	GLOB AUDITORIUM
	<i>Theme: Excavation reports</i>	<i>Workshop: Orontes Valley</i>	<i>Theme: Images</i>	<i>Workshop: MB and LB Pottery</i>	<i>Workshop: Strategies for Islamic Archaeology in Bilad al-Sham & the Jazirah</i>
	Chair: A. Abdul-Rahman	Organizer: Harrison	Chair: S. Lumsden	Organizer: P. Fischer	Continued from Thursday
9.00-9.20	Kühne: After the Fall of Nimveh: Life in Assyria	Other participants:	Dashti: The Origins of Archaeology	Other participants: Czerny Mullins	
9.20-9.40	Rossi: L'acropole de T. Mardikh à l'époque perse	Yener	Lafli: Eisenzeitliche Steinplastik Kilikiens	Nigro	
9.40-9.45	Short break	Mazzoni		Killebrew	
		Tsuneki		Clarke	
		Dornemann			
9.45-10.05	Vincenz: Ein Gedi Excavation Season 2000	Graff	Casanova-Gosse: La vaisselle d'albatre de l'Orient		
10.05-10.25	Lipschits: The Population of "Yehud" Province	Fortin	Fontan: Les Sarcophages de pierre phéniciens		
10.25-10.50	Coffee break	Thuesen			
	Chair H. Thrane	Philip	Chair: R. Kletter		
10.50-11.10	Stronach: The 1999 Season at Kerkenes Dag (Turkey)	Wilkinson	Di Paolo: La communication du roi avec les dieux		
11.10-11.30	Kepinski-Lecomte: Tilbeshar in the Sajour Valley		Matoian: Images de faïence et de verre à Ougarit		
11.30-11.35	Short break				
	Chair: J. Eidem				
11.35-11.55	Fuensanta, Charvat & Moya: The Tilbes Project				
11.55-12.15	Sertok: Some EBA Tombs from Three Different Sites				
12.15-12.20	Short break				
12.20-12.40	Omura: Dark Age in Kaman-Kalehöyük				
12.40-13.00	Lumsden: 4 Seasons at Gavur Kalesi				
13.00-14.30	Lunch				
	Plenary sessions. Chair: John Strange				
14.30-14.50	Dahari: Policy, Activities and New Archaeological Discoveries in Israel				
14.50-15.10	Jafar Mohammadi: Iran				
15.10-15.30	Taha: Five Years of Archaeology in Palestine				
	Chair: J.-Cl. Margueron				
15.30-16.15	Concluding session				
18.00	Reception and official dinner at NY Carlsberg Glyptotek. Free access to Tivoli afterwards				