Leen Fakhoury Architect/Conservationist Lecturer, Dept of Architecture University of Jordan fakhoury@ju.edu.jo

Leen Fakhoury

Mādabā Archaeological Sites: Bridging the Gap Between the Living and Once Living Sites of Mādabā

Introduction

The archaeological sites of Mādabā are scattered within the sprawl of the nineteenth and twentieth century town. Several efforts have been initiated to preserve this cultural heritage, involving the Studium Biblicum Francescanum, American Centre of Oriental Research (ACOR), the Department of Antiquities of Jordan (DoA) and the local authorities. Funding has been provided by several local and international donors, including the Italian government, USAID, the World Bank and, most recently, the ongoing Siyaha project at Madaba Archaeological Park (MAP).

In the absence of a comprehensive management plan agreed upon by all stakeholders, much of the effort and study related to protecting and interpreting the present archaeological landscape of Mādabā falls short.

This paper aims to bridge the gaps created by the present boundary of the Madaba Archaeological Park (MAP), the visitors' centre and urban islands of ruins (e.g. the western tall, cathedral etc.) and the local Madabites in an attempt to reunite 'the living and once alive sites' of Mādabā.

Edges and walls can become barriers, creating — whether intentionally or not — islands of ruins of no immediate interest to most of the residents. The role of the edge as...

- 1. Physical barrier/edge,
- 2. Information barrier,
- 3. Time edge, i.e. past / present,
- 4. Activity limitation,
- 5. User limitation,
- 6. Limited collaboration by the different institu tion(s) involved, ...shall be explored and their role as part of the whole shall be redefined.

This paper attempts to evaluate the current situation of MAP and present the related policy

and management objectives that are necessary to manage the archaeological resources of MAP / Mādabā, *viz.* protection, planning, interpretation and education, tourism management objectives etc.

The two main questions that need to be addressed here are: (1) can the archaeological sites become an integral part of the development of the living soul of the city and (2) can there be a link between the 'living' and 'once alive' sites of Mādabā?

History of Mādabā

Mādabā has a long history, dating back to as early as a settlement of the Bronze and Iron Ages.

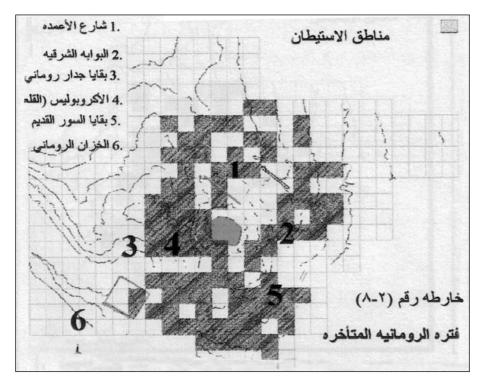
Several layers of history can be traced from Figure 1:

- Roman Mādabā
- Byzantine Mādabā
- Early Islamic Mādabā
- Late Ottoman Mādabā
- Hashemite Mādabā

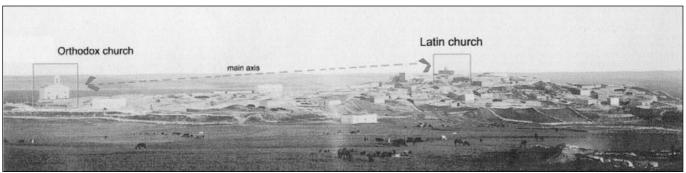
Stories of Resettlement and Rediscovery

Modern Madabites settled on and around the historic tall of Mādabā. The Latin Church and al-Saraya occupied the tall itself, once the acropolis, while the Orthodox Church / St George's occupied the plain (FIG. 2). This formed the main axis along which the present city developed.

- The present Mādabā Museum contains *in situ* Byzantine mosaics that were part of the al-Twal houses of the 20th century, in addition to other collections of mosaics.
- The Church of St George was built on top of the site of a Byzantine church.
- The Khoury Speer, al-Sunna' family residences, and al-Ma'aiyah Hosh are located over the remains of the Roman road.



 Late Roman occupation of Mādabā (Source: Cultural Heritage of Mādabā / ACOR).



2. Mādabā in 1905 (Source: Cultural Heritage of Mādabā / ACOR).

- Al-Bajjaly Hosh (currently the visitors' centre) lies on top of early Islamic remains.

This archaeological heritage is widely dispersed in hidden pockets surrounded by the urban fabric of modern Mādabā (FIG. 3).

Tourism

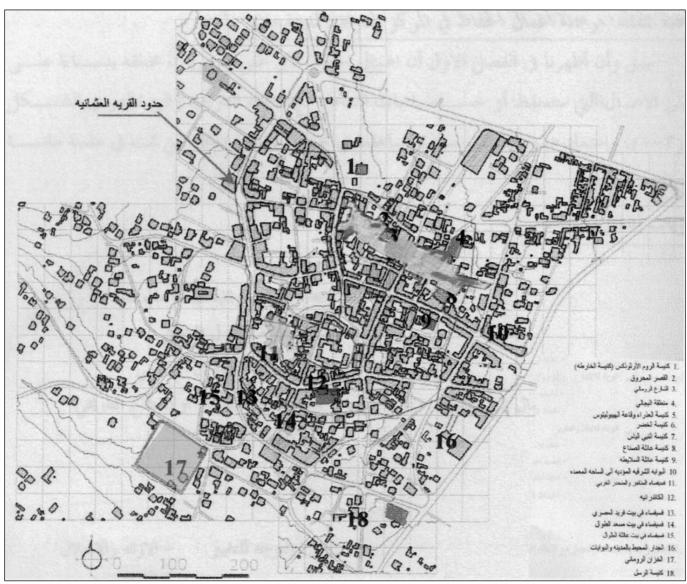
In 2005, approximately 137,000 foreign visitors visited St George's Church (i.e. the 'Mādabā Map'). 1 in 13 of those visitors toured the DoA-managed Archeological Park, Museum and Apostles Church. Little time and money is spent by the tourists who visit Mādabā — less than one hour and 4JD per person. Although 180,000 foreign visitors visited Mt Nebo in 2005, with most passing through Mādabā *en route*, fewer than 1 in 17 of those visitors stopped at the Mādabā / DoA archaeological sites,

including MAP.

Tourism Development and Cultural Heritage Projects and Studies Undertaken in Mādabā

Over the past decade, several studies and projects have been conducted to develop and / or protect the cultural heritage of Mādabā.

- -The projects that were chosen and are being currently implemented by the Second and Third World Bank Tourism Projects, amongst other donors, mostly advocate cosmetic treatment rather than the establishment of institutional set up and framework for heritage protection, such as suitable planning tools and legislation, financial set-ups and capacity building within the local authorities.
- As currently advocated, the protection of single



3. Cultural heritage of Mādabā and the present urban fabric (Source: Cultural Heritage of Mādabā / ACOR, adapted by the author).

buildings is being undertaken as part of the new tourism development projects. Priority is not being given to the implemention of an integrated urban conservation plan.

Second World Bank Tourism Project

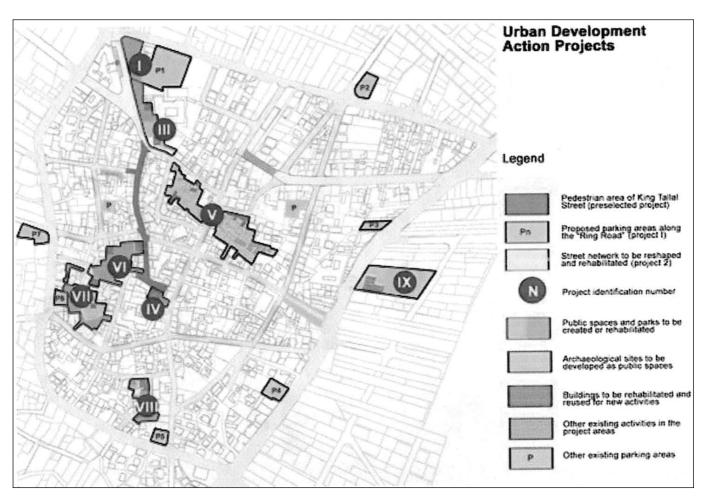
By the end of 2003, the "Preparation of Urban Regeneration and Tourism Development Plans, Programs and Action Projects for the City of Mādabā" study had been developed as part of the Second World Bank Tourism Project. This was a joint venture involving Lufthansa Consulting, Lahmeyer ERM International and Sigma (Consulting Engineers) (FIG. 4). Siyaha

Siyaha is a USAID-funded project; one of its components is to develop the Tourist Visitor Experience in Mādabā. It is currently being implemented with the following objectives:

- Design and development of the "Walking Tour" project concept (FIG. 5) and related business planning, with assistance in targeting private sector participation (PSP) opportunities.
- Technical assistance (TA) for "Walking Tour" operators, relating to site interpretation, tourism management and the maintenance of services and facilities.
- Integration with and support of the World Bank urban revitalization project, including program-



4. Artists' impressions for a street in Mādabā as part of the Walking Tour, before and after (Source: Siyaha Projects, 2007-8)



5. Action projects selected for the development of the historic center (Source: Preparation of Urban Regeneration and Tourism Development Plans, Programs and Action Projects for the City of Mādabā).

- ming and investment promotion.
- Supporting the DoA in heritage conservation and management planning.

Madaba Archaeological Park: Towards a Management Plan

Introduction

MAP includes several structures from the Roman and Byzantine periods, e.g. palatial buildings and churches, that are primarily aligned along the Roman road. Many of the most important mosaics and archaeological discoveries have been protected by shelters.

The park is divided into two parts by Prince Hassan Street, a busy commercial throughfare with a heavy vehicular traffic. It is surrounded by very ordinary buildings and is not visible from the urban fabric of the modern town, but rather from openings in a wall along Prince Hassan Street. As a result, visitors have to leave one section of the park and cross an intersection in order to get to the second part of the park.

At the eastern end of the park, the Madaba Mosaic School complex and Visitors' Centre area have been developed.

Heritage Works (Undertaken and/or Planned) MAP was established in 1992, following a series of excavations and research undertaken in the 1970s and 1980s by the Studium Biblicum Francescanum at Mount Nebo, under the direction of M. Piccirillo. The work was completed by a joint team comprising the same institution and ACOR, in co-operation with the DoA, with funds provided by the Italian government and USAID. The aim of the project was to preserve important archaeological remains, while re-vitalising the core of downtown Mādabā by expanding its potential for tourism, thereby bringing economic benefits and employment opportunities to the local community.

As part of this project, shelters were constructed over a series of Byzantine churches and other buildings that flanked the old Roman road, with the sole exception of the Church of the Martyrs and the Church of the Sunna Family — both owned by the Greek Orthodox Church — which should form an important part of the park. The other sites, *viz.* Church of the Virgin, Hippolytus Hall, Burnt Palace and Church of the Prophet Elias, have all been restored, sheltered and presented to the public.

These show different and sometimes contradictory architectural approaches to the issue of site presentation, whilst at the same time creating a new urban landscape.

Later in the 1990s, the Mādabā Mosaic School was established — as an integral part of the park — with the help of the Italian Co-operation Agency. The school re-uses a series of pre-modern buildings and develops training programmes for the manufacture of mosaics and their restoration. It is currently at the core of an initiative to develop it into a conservation institute funded by Siyaha and European Union.

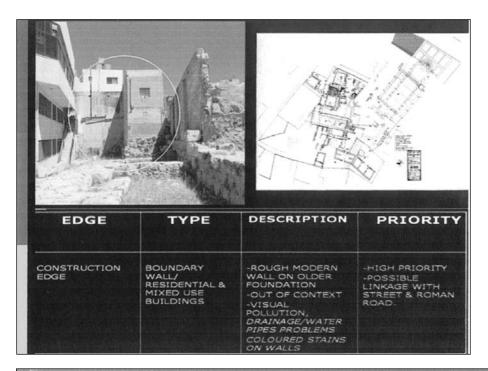
Madaba Archaeological Park Boundaries / Edges (see Appendix 1)

A survey of edge types relating to MAP which extends throughout the historic centre of the town was conducted. A description of the edge and its existing status — including potential, limitations and priority for intervention — was made (see FIG. 6).

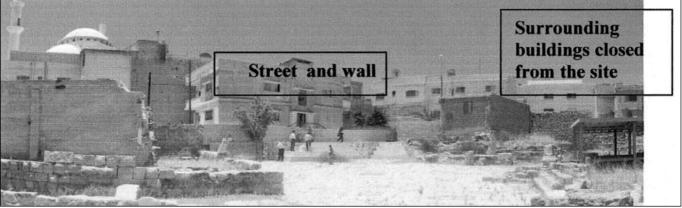
Major threats derived from the presence of barriers can be summarised as follows:

A. Threats in Relation to the Edge

- Physical barriers / edges: the park has turned into a detached island (FIG. 7); it does not even act as a backyard for the surrounding buildings or as a space to be viewed through their windows and doors.
- Information barriers: present Madabites living around the park are often unaware of and do not relate to the history of that place; that 'Roman site' or 'church and site of mosaics' is how it is typically referred to, making it a product of some other time and people.
- Temporal barriers, i.e. past / present: this edge emphasises the limitation of continuities between the past, recent past and present. Few activities try to integrate the past (e.g. sites or locations) within the present community, although occasional classical or other western musical concerts are held there. None of the interpretation or display panels mention the role of the modern community. The significance of the park is in "its archaeological and historical significance", as Dr Ghazi Bisheh (archaeologist and researcher at the Burnt Palace) once commented. This is also the official interpretation of the site, as presented in brochures published by MoTA and on display panels at the Church of the Virgin.

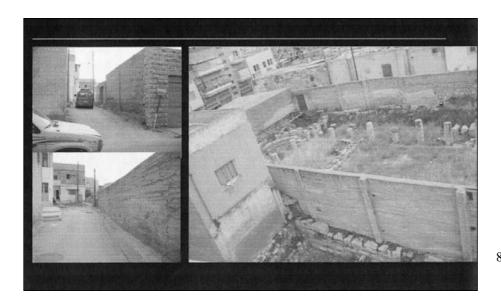


Sample of documentation: type of edge, constraints and priority for intervention (Source: Author).



7. The park is isolated, both physically and visually, from the surrounding urban scene.

- Activity limitations: the perimeter fence and other walls and barriers limit the type of activity that the local community can undertake within the park; indeed, the local community seems not to undertake any daily activities in the open sections of the park. Is MAP no longer part of the living urban space of Mādabā? In addition, the Greek Orthodox Church — owner of the Martyrs' and Sunna' Family churches — has surrounded the sites with high concrete walls, accessible only though a small, usually locked gate, in order to protect them (FIG. 8). One part of MAP closes before 18:00 pm, in line with normal summer and winter opening hours for archaeological sites in Jordan, whereas the other part of the park is not fully open for visitation — it has no presentation panels — although
- it is nominally accessible during the normal opening hours of the Mādabā DoT offices.
- User limitations: MAP also alienates local Madabites; the area of the park no longer forms part of the daily memory or even the occasional or traditional festive memory of the core of late 19th and 20th century Mādabā (FIG. 9).
- Different institutions are present at MAP, with limited collaboration between them. They include MoTA (comprising DoA, including the Mādabā Antiquities Office and Mosaic School, and DoT, who have their offices at the Burnt Palace), the Orthodox Church (the Christian Orthodox waqf owns the sites of the Martyrs' and Sunna' Family churches), immediate neighbours and the local community at large.



 The concrete walls surrounding the archaeological site of the Martyrs' church.



9. Litter in the park, thrown in by the neighbours from surrounding windows (Source: Author).

B. Social Indicators¹

Preliminary studies, based on interviews and questionnaires completed in Mādabā city centre, have been conducted with the aim of documenting attitudes towards MAP by a sample of local inhabitants, shop owners, students and teachers at the Mosaic School, and tourists. These yielded the following information:

- Several families adjacent to MAP have abandoned their houses owing to recent social or economic changes.
- New residents / tennants are occupying some of

the houses, and have no connection with the history of the locality.

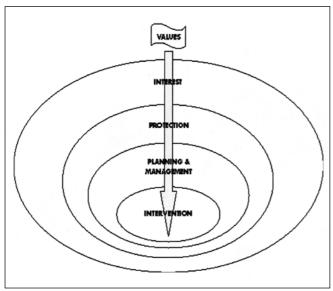
The older generation have more intimate memories of the park; some visit it to collect *khubeizeh* or edible green leaves, one retained the key to his house, another remembers the park since it provided access to their residence, whilst others referred to the removal of any evidence that they had ever lived there, with no recognition of their former houses within the area of the park (although efforts to maintain some of houses are apparent in the second part of the park).

questionnaires), interviews with tourists coming to the visitor centre (15 questionnaires for tourists). Thanks to Shadia Hamarneh, Catrina Hamarneh, Hussein Shawabkeh and Siyaha Project.

Interviews with the surrounding residents(6 families were interviewed), Interviews with students and teachers of the Mosaic School (15 questionnaires), Questionnaire to surrounding shop owners (15

- Shop keepers clearly recognise the economic and touristic value of the park.
- Some shop keepers also recognise the cultural heritage value of the park.

The following table summarises the major limitations and barriers related to the edges of the park and proposes a way forward (TABLE 1: Challenges and solutions).



10. From assessment to implementation (Source: Research Report, The Getty Conservation Institute, Los Angeles, USA).

TABLE 1. Challenges and Solutions

Stakeholders

As stated above, several institutions are present within MAP. Direct beneficiaries include MoTA (DoA and DoT), the Orthodox Church, immediate neighbours and the local community at large. Indirect beneficiaries include the Municipality of Madaba, hoteliers and tourist businesses and associations, the Chamber of Commerce (for businesses along the main tourist route), NGOs, research institutes and donors (ACOR and the Franciscan Institute of Archaeology have conducted several archaeological digs and conservation interventions in collaboration with DoA; a local NGO - the Madaba Heritage Society — ran a shop in the second part of the park until a few years ago) and the Directorates of Education, Health, Environment and Works, amongst others.

Towards a Management Plan

A site management plan for MAP is being developed by a working group appointed from the main stakeholders, with a heritage specialist as co-ordinator / facilitator and support from Siyaha. Support for DoA in planning and managing heritage conservation in Mādabā was one of the objectives of Siyaha for the period 2006 to 2008. The aim of this paper is to describe the potential role of MAP and the related urban scene within an integrated management vision.

- Physical barrier/edge
- Information barrier
- Time edge, past/present
- Activity limitation
- User limitation
- Different institution (s) present, limited collaboration

- Promote an interactive edge
- Educate, interpret
- Present all layers
- Diversify activities/incorporate present needs
- Open to community
- Active participation, work together

DEVELOP AN INTEGRATED MANAGEMENT APPROACH

What is a Management Plan?

A management plan is a document, which describes how to care for the natural and cultural heritage and non-heritage features of a place (FIG. 10). It may contain a conservation plan or some of its components. Management plans usually go further than conservation plans and include more detail on the practical, political, resource and economic circumstances affecting the place and the best ways to deal with those issues. They are usually best prepared by a group of people who are actively involved in the management of the site. A management plan should include:

- A description of the place and its setting;
- An identification of the key people interested and sources of information;
- A statement of the significant heritage values of the place;
- An identification of the key issues affecting the future of the place, e.g. threats, opportunities, constraints;
- Management objectives;
- Appropriate future actions, taking into account the significance of the place;
- Who will be responsible for implementing of the plan;
- How the protection of the place will be monitored and reviewed;
- A process and timescale for reviewing and updating the plan.

This research also aims to present and further discuss the planning and education objectives proposed in the draft site management plan, in order to facilitate the re-unification of MAP and the present urban landscape.

Significance²

The first step in assessing the significance of the site was undertaken by the appointed site management group. A summary of its findings follows below:

Historical and Archaeological Values

MAP demonstrates various stages of settlement:

- The park has a cluster of Byzantine churches³: the Virgin's church, Martyrs' church, Sunna' Family

- church and Elija's church. These are four out of a total of 15 churches built in Mādabā; of the others, the two most important are St George church and the Apostles' church.
- The Roman road and the structures along it reflect urban changes at important points of political and social transition in the period.
- The 'new' churches and residences (e.g.the burned palace), built at the end of the sixth and beginning of the seventh centuries, continued to be used throughout the tolerant Umayyad (early Islamic) period and beyond. They lie along the colonnaded Roman road (*documanus*) connecting Mādabā with the regional centres of Jarash, Petra, Umm Qays and Pella.

Social, Symbolic and Cultural Values

- The park is part of the modern urban fabric, where local inhabitants have settled on many of the ruins (e.g. the Virgin's church and Sunna' Family church);
- The local community has a strong living memory of the site and its social structure before it was excavated:
- Mādabā is associated with Christian identity at a local and national level.

Tourism Values

- There is significant tourism and economic potential, especially in the fields of cultural, heritage and religious tourism;
- There is potential to prolong average visitor stay and spending, and to increase economic and employment opportunities for the local community;
- There is educational value for tourists and the local community relating to the Christian identity of Mādabā and Jordan.

It is clear from the above that social, symbolic and cultural values form an integral part of the overall significance of the site.

Priority Issues

Several problems and issues have been noted, both during the study and during ongoing work undertaken at the park by the author. These range from conservation and protection issues to tourism and

² Significance and Management Values. These were interactively assigned as part of Siyaha Project.

UNESCO charter discusses two broad categories of management values; Cultural Value, Identity value, Scientific and historical values, Rarity values, Aesthetic and artistic values.

Madaba Archaeological Park is located in Mādabā and contains archaeological and extensive mosaic floors from the Byzantine period where Mādabā was a provincial town and a regional Bishopric (Diocese) center.

integration with local community. All evidence indicates the need for an integrated management approach, including site management and operational management plans for the archaeological sites of Mādabā, which builds on several initiatives that have already been invested in.

The concern of this paper is to highlight present urban threats and vulnerabilities in relation to the park edge / urban context and overall significance of the site (TABLE 2: Urban threats and values of MAP, Source: author).

It is clear from the data in TABLE 2 that the significance of the site is affected by current impacts caused by the surrounding urban context; visual pollution, encroachment by neighbours and — principally — the discontinuity between the urban fabric and site which affects its aesthetics and archaeological and social values.

The management objectives, operational plan for MAP and organisational structure must permit an integrated and participative approach, in order to mitigate against negative impacts from the surrounding urban context and to re-introduce the park to the modern urban scene. Consultations with the local community and stakeholders are necessary to acheive this, and to maintain the significance and other values of the site.

Vision and Management Objectives

The management objectives of a cultural site are

TABLE 2. Urban threats and values of MAP.
Source: Author

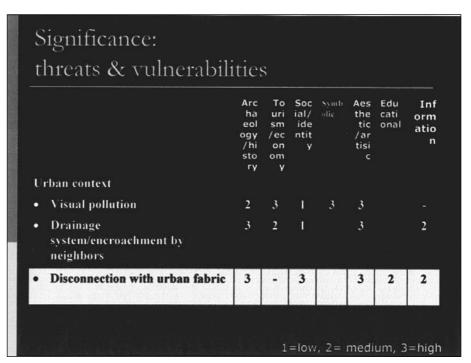
built upon its significance and assigned management values. Several interactive sessions were initiated with a local working group composed of DoA, DoT, Madaba Municipality and the Orthodox Church, in addition to a group of experts from the Siyaha project, in order to develop the site management plan for Mādabā in 2007. The facilitator for this project was the author. The following vision and objectives were adopted, which clearly reflect the status of the edge and related urban impacts, especially with regard to land use, planning and interpretation. The protection of all periods of the site is another concern, which is reflected in the heritage conservation objectives. The following vision also projects a balanced approach, in which all the various stakeholders participate.

Vision for the Site Management Plan

The Madaba Archaeological Park is protected, promoted and integrated with the surrounding city and its heritage sites as an exemplary model for site management, to be implemented in partnership with all stakeholders to maximize its cultural and socio-economic value for the benefit of the Madabite community, Jordanians and tourists.

Heritage Conservation Objectives

 Protect and conserve the park, artefacts (e.g. mosaics), structures, historic urban fabric and traditional buildings in accordance with international



professional practices and charters, and to raise awareness of the importance of protecting the cultural heritage of Mādabā.

Policy Objectives

- Approval and implementation of the management plan by DoA / MoTA and all stakeholders, after its preparation, and to develop both a community-based approach for all protection endeavours and a partnership between all stakeholders.

Sustainable Tourism and Visitor Management Objectives

- Ensure that the visitors' facilities and services are adequate to meet basic needs and are maintained to the highest standards, in addition to ensuring visitors' safety in accordance with the Principles of Sustainable Tourism / ICOMOS.
- Provide for visitor education and appreciation, in such a way that the archaeological remains are not significantly affected.
- Ensure that local people are involved in the planning and management of the site, and provide employment opportunities wherever possible.

Interpretation Objectives

- Ensure that the local inhabitants and Jordanian

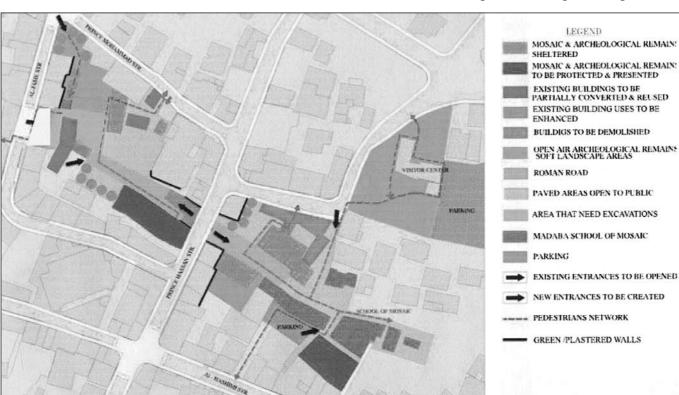
people as a whole understand the role of Mādabā in their cultural identity and history.

Conservation, Planning and Land Use Objectives

- Promote MAP as an integral part of the present open urban space of the city of Mādabā, by linking archeological sites both visually and physically with their urban contexts whenever possible; treat the edges and boundaries of the archaeological sites as places for education, visual communication and interaction.
- Develop a land use policy aimed at establishing a buffer zone around the park, to include building regulations and restrictions on building height.

Conservation, Land Use and Planning Objectives

The framework established for the objectives outlined above covers all issues related to the protection of the park's resources, including recent memory. It should therefore lead to the creation of an interactive boundary to the park and the opening up of parts of the site to local inhabitants, as well as helping to engage with and educate the community, especially youngsters. This is clearly reflected in the land use and planning objectives, which describe the action required to integrate the park with



11. Proposed interventions developed after the Second Tourism Mādabā study (Source: Adapted by the author).

the urban fabric of the modern town.

Promoting the park, or parts of it, as an open urban space for the city of Mādabā is the main tool with which to combat the phenomenon of isolated islands of ruins, standing isolated within the modern urban sprawl as illustrated in Figure 11. This is one of the main planning recommendations, but it needs to be coupled with a political decision to open selected, less sensitive areas to the public all day and, gradually, to monitor the engagement of the public at large. Furthermore, the proposed project for the Martyrs' church shelter and perimeter reflects the importance of providing an interactive edge to the site, instead of the physical barrier proposed in Figures 8 and 12. Here, the introduction of an educational / information edge to replace the high concrete walls separating the audience and passers by forms a basis for including the site within the daily pulse of the urban scene.

The protection and development of the late Ottoman ruins at the western edge of the park as in a small enterprise / concession project, to be managed by the local community (see FIG. 11), also projects a more interactive feel to the park, accessible to all users of the surrounding urban landscape.

Current and Proposed Management Organization

Current Situation

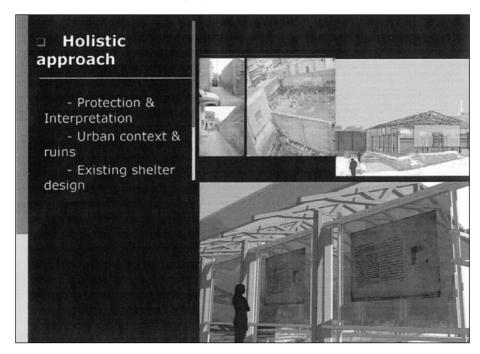
Responsibilities are currently divided amongst DoA, the Mosaic School (MI) and DoT. The DoA

office has responsibility for the entire Governorate of Mādabā, as well as the districts of al-Jīza and Nā'ūr. Only three or four archaeologists are allocated to this office, which also has responsibility for the Mādabā Museum. No experts in conservation or site management are currently employed; most of the conservation and maintenance work is carried out by the Mosaic School. The DoT office manages the second part of the park, which has no signage or interpretation panels for visitors, and the Visitors' Centre. Capacity building within these institutions is necessary in order to implement any management plan.

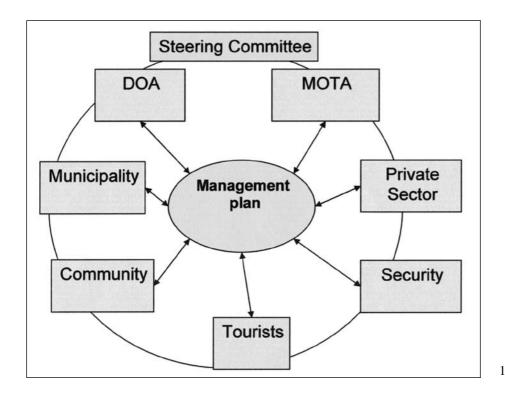
Proposed Organisation

Successful management of park policy needs to recognise and relate to the policy makers at DoA and MoTA, and to put forward a site-based management organisation to develop, implement and monitor the management plan. A possible framework for the management of the park is as follows:

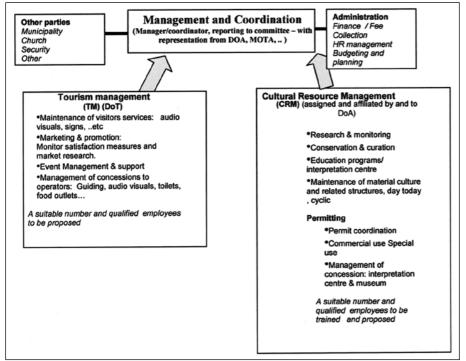
- A park manager / supervisor for day-to-day site operations needs to be assigned to Mādabā as suggested in Figures 13 and 14, in order to head up the cultural resource and tourism management fields that are respectively managed by DoA Mādabā and DoT Mādabā according to an approved site management plan.
- The manager will work closely with a 'followup committee', to be formed — initially — by the main stakeholders of DoT and DoA, which



12. Treatment of edges and boundaries of the urban archaeological sites / Martyrs' Church as places for education and / or visual communication (Source: Author, based on the Preliminary Design Proposal for the Martyrs' church shelter by the Author, commissioned by ACOR 1995-6).



13. Framework for management.



14. Proposed management roles and responsibilities for the park (Source: Draft Site Management Plan, 2007)

will be directed by a 'steering committee' made up of senior decision-makers at MoTA and DoA in Amman. The 'follow-up committee' should subsequently be expanded to include the other stakeholders.

The responsibilities of the park manager / supervisor should cover:

Cultural Resource Management (CRM) (DoA)

- Research and monitoring;
- Conservation and curation;
- Education programs / interpretation centre;
- Day-to-day and ongoing maintenance of material culture and related structure etc.;
- Permits: permit co-ordination; commercial and /

or special use; management of concessions at the interpretation centre and museum.

Tourism Management (TM) (DoT)

- Maintenance of visitors' services, e.g. audiovisuals, signage etc.;
- Marketing and promotion: monitoring of visitor satisfaction and market research;
- Events management and support;
- Management of operators' concessions, e.g. guiding, audiovisuals, toilets, catering.

An appropriate number of qualified employees needs to be recruited and trained, following screening of available human resources, to assist in the implementation of an approved site management plan and the administration of the human and financial resources of the park.

Conclusions

Site management planning is an interactive process without which the process of getting the different stakeholders to manage their resources effectively cannot easily be achieved. A site management plan for MAP cannot be conceived without taking the wider urban context into account, nor without a holistic view of how best to manage the urban archaeological sites of Mādabā. The roles of the local community and major local stakeholders will be critical to the success of the process and its sustainable implementation in the long term, with the aim of bridging the gap between the living and once alive sites of Mādabā.

Acronyms	
ACOR	American Centre for Oriental Re-
	search
DoA	Department of Antiquities
DoE	Directorate of Education
DoT	Directorate of Tourism
FoA	Friends of Archaeology
ICOMOS	International Council of Monuments
	and Sites
MAP	Madaba Archaeological Park
MoE	Ministry of Education
MoTA	Ministry of Tourism and Antiquities
MI	Mosaic Institute
NGO	Non-Governmental Organisation
UNESCO	United Nations Education, Scientific
	and Cultural Organisation
USAID	United States Agency for International
	Development

Bibliography

Bikai, P.M. and Dailey, T.A. (eds). 1996. Madaba-Cultural Heritage. Amman: American Centre for Oriental Research.

Piccirillo, M. 1993. Churches and Mosaics of Madaba. Jerusalem: Franciscan Archaeological Institute.

Rabadhi, R. 2000. Conservation of the Centre of Madaba, unpublished M.Sc. Thesis. Amman: University of Jordan.

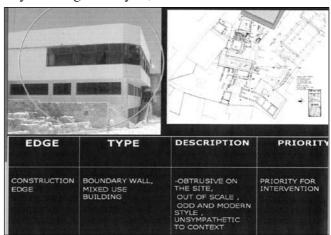
Fakhoury, L. and SMT. 2006. Draft Site Management Plan. Unpublished Report. Amman: Siyaha- Jordan Tourism Development Project.

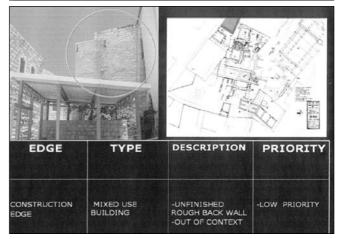
Joint Venture of Lufthansa Consulting, Lahmeyer ERM International, Sigma-Consulting Engineers

8, 2004. Preparation of Urban Regeneration and Tourism Development Plans, Programs and Action Projects for the City of Madaba, Final Report. Unpublished Report. Amman

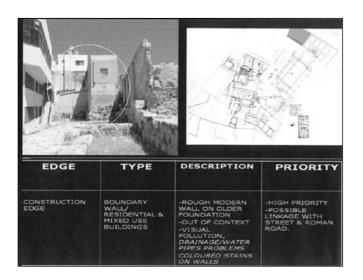
Australia ICOMOS. 1999. The Burra Charter. http:// www.org/australia

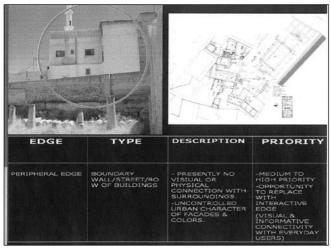
Appendix 1 Physical Edges Analysis; Burnt Palace

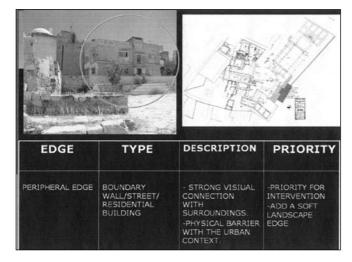


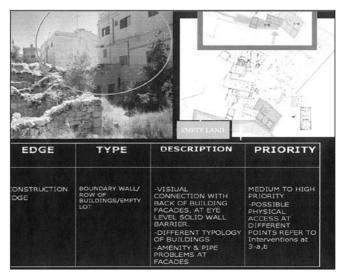


MĀDABĀ ARCHAEOLOGICAL SITES









Edge Analysis Church of Virgin.



