The Baptism Archaeological Site of Bethany Beyond Jordan: Towards an Assessment for a Management Plan

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ABSTRACT  Thanks to the 1996 archaeological excavations on the eastern side of the Jordan River, the Jesus baptism archaeological site of Bethany beyond Jordan was identified. This internationally significant historical and religious site has the potential to become one of the most popular stops on the regional Holy Land tourism circuit. The work up to date has identified 15 related sites, dated to the Roman and Byzantine periods, within an area of about 600 hectares. Most of the excavated sites are still under conservation and restoration and provide great challenges for the cultural heritage society. However, while the Ministry of Tourism and Antiquities of Jordan and other interested stakeholders and individuals believe that the site should be developed appropriately, people involved with conservation are generally more conservative and reluctant to encourage the use of the site for tourism purposes and activities, before understanding and evaluating the potential impacts.

The infrastructure system adapted to the site still suffers from many deficiencies, mainly related to insufficient planning practices, acting as a challenge for tourism and local community development. There is a need to evaluate and develop an appropriate religious and eco-tourism plan, to enhance consistent conservation within such a fragile historical and eco-religious context. This approach should consider several parameters related to a “sustainable holy and eco-site”, such as the environmental, spiritual, religious values, architecture, landscape qualities, and human comfort. This can mainly be achieved through systematic site management and planning, taking into consideration the issues of controlling use and monitoring in all phases of preservation and developing the site for modern use.

This paper attempts to present and evaluate, the impact of activities and services to the cultural significance of the site, taking into consideration the area status and the site’s particularity and capacities. This will be achieved through: 1) a general understanding of why the baptism archaeological site should be preserved, by evaluating its cultural significance, the existing conditions, and defining the causes of deterioration and threats (natural and human), and 2) understanding how the cultural significance and the attraction factors of the baptism site, should guide and direct the management plan.

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Introduction

Tourism can have both positive and negative outcomes for residents in communities where sharing and preserving their culture could be seen as conflicting goals (Besculides et al., 2002). There are various examples around the world where tourism has developed and caused destructive impact on physical and cultural environments. Pollution, destruction of natural habitats, loss of forest cover, displacement of local communities, destruction of traditional cultures and life styles, loss of traditional land use, and economic hardship, are examples of such threats and deteriorations. The archaeological excavations conducted on the eastern side of Jordan River have identified the site of Bethany beyond Jordan, a major significant site of the late Classical Antiquity (Figure 1). The discovery of 15 sites, dating back to the Roman and Byzantine period (most of them are still under conservation and restoration), encouraged the Ministry of Tourism and Antiquities of Jordan, and other interested stakeholders to believe that the site should be developed appropriately (Waheeb, 1998a). This will offer the opportunity to visitors and other interested people to visit this internationally significant historical and religious site.

Jordan declared the site a Natural and Archaeological Park and a master plan was drafted including a preliminary environmental impact analysis, in preparation of the site as a tourism destination. The preparations for the site included a sustainability action plan, which was prepared for the Ministry of Tourism and Antiquities of Jordan (Green Globe, 2000). This was based on the draft master plan prepared for the Royal Committee established to take charge of the baptism site.

The Royal Society for the Conservation of Nature in Jordan (RSCN, 1999) also proposed the site to be a natural reserve in order to preserve the unique and or threatened fauna and flora of the site. The Late Pope John Paul II also declared the importance of the site and the Vatican listed the site as an official pilgrimage site in the year 2000. In 2001, the site was categorized as a cultural site to be included in the Jordanian tentative list for inclusion in the UNESCO world heritage site.

The development of the site visitor facilities as supporting attraction factors continued (construction phase) between 1996–2002. A steering committee/Royal Commission is responsible by law for its tourism management while the Department of Antiquities of

Figure 1. Aerial photo of the baptism archaeological site of Bethany beyond Jordan, the Jordan River winding in the background. Source: Modified and based on the Department of Antiquities (DoA) Jordan, 2000.
the Ministry of Tourism and Antiquities is responsible for protecting and managing its cultural resources and is represented on the above mentioned committee.

The conditions and infrastructure system adapted in the site still suffers from many deficiencies, mainly related to the insufficient planning practices, i.e. capacity of the site, location and building of new churches and absence of local community activities and involvement, acting as a challenge for eco-tourism and local community development.

Managing tourism at places of heritage significance, according to the International Cultural Tourism Charter (ICOMOS Australia, 1999, principle 2, 1), is that “The long-term protection and conservation of living cultures, heritage places, collection, their physical and ecological integrity and their environmental context, should be an essential component of social, economic, political, legislative, cultural and tourism development policies.” Furthermore, according to the Burra charter (ICOMOS, 1999, article 1.11, 20.1), any modern use should achieve a sustainable site, otherwise it will be destructive.

General Understanding of the Baptism Archaeological Site of Bethany Beyond Jordan

The archaeological survey and excavations on the eastern side of Jordan River was initiated in the 1996–1997 season, as part of the Jordan Cultural Resources Management Project (Waheeb, 1998b). The archaeological remains are located along the southern edge of Wadi al-Kharrar, opposite Jericho (Herschfield, 1992). These remains are scattered over small hills and barren terraces of marl and limestone. Most of the sites are clustered along the south bank of Wadi al-Kharrar’s perennial stream. The baptism site contains important archaeological remains and significant natural features in an area rich in natural resources, where flora, fauna, natural caves and water exist. The archaeological site is spread on top of the al-Kharrar hill, at the base of the valley, and along the Jordan River (Disi et al., 2001). The key discoveries can be summarized as in the following:

- The Roman remains and Byzantine monastery at al-Kharrar
- Several smaller churches, chapels, monks’ hermitages, caves and cells
- A large Byzantine church complex adjacent to the Jordan River
- An impressive water system including a ceramic pipeline, bringing water from several kilometres to the Bethany site
- Large plastered pools and adjacent caravanserais, halfway between the Bethany settlement and the Jordan River
- Pilgrims’ rest station and watch towers east of Bethany on the route to Mount Nebo.

All these churches and structures including water installations, baptismal pools, caves, cisterns, and mosaic floors are of high cultural significance. In fact, a visit to the baptism site presents the chance to see, to feel and touch the place, where many religious events and ceremonies have been mentioned in the New Testament.

Interestingly enough the location, the mosaic and marble floors of the three churches (originally called St John the Baptist church) were discovered during the 2000 excavation season, near the eastern part of the River. The second church is built partly on the foundations of the first one, and the third church is built directly on the top of the second one (Figure 2). The archaeological excavations during the 2001/2002 season, to the east of St John the Baptist church, near the east end of the north wall revealed a small church, partly built on the edge of the north wall (Waheeb, 1998c) and at the southeastern parts of St John’s Church (200 m to the west of Jordan River, and 50 m to the
This church is dated to the late Byzantine period and is located to the east of the complex of the three churches.

What distinguishes this church from the other baptism archaeological site churches is its location and relatively small size (4 m by 6 m). The church was linked, through stairs (2.5 m in width and with 22 black marble steps), directly to the river (Figure 3). However, to erect this small church, strong foundation bases were first installed in the mud and alluvium, where the al-Kharrar spring and the Jordan River ran into it, with a high water level. What distinguishes the stairs is the discovery of a marble slab (95 cm x 115 cm), which was used in paving the small space at the end of the stairs (Figure 3). The slab was installed, parallel to the middle of the stairs, in a way that makes it the final standing point, for whoever

**Figure 2.** Wooden shelters built over the discovered remains of the small church and the three churches on the eastern bank of Jordan River. *Source: Zouby (2000).*

**Figure 3.** Plan of the architectural remains of the small church, the northern wall and the black marble slab. *Source: Waheeb (1999).*
wishes to use the stairs to descend to the water. These factors might indicate that to plan and to erect this church in such a hazardous place, isolated from the rest of the other churches, was not by chance. It can be assumed that it is an indication for the importance of this chapel/church. History tells us that there should be specific aims, for certain functions and liturgy, to allow the building of such an edifice at this hazardous place (Waheeb, 1998b).

What is the Cultural Significance of the Baptism Site of Bethany Beyond Jordan?

According to the Burra Charter, the policy for managing a place must be based on a deep understanding of its cultural significance. The cultural significance of a place and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. (ICOMOS, 1999, article 6.1, 2). In addition, varying degrees of cultural significance may lead to different conservation actions, for the development and management of the necessary assessment of the site. Understanding cultural significance comes first, then development of the policy and finally the management of the place, in accordance with the policy. Meanwhile, the policy should identify a use, or combination of uses, or constraints on uses that retain the cultural significance of the place (Haddad, 2007). The cultural significance of the archaeological baptism site of Bethany beyond Jordan can be defined in relation to four main issues: holy ancient landmark; eco-site; the impressive architectural formation within the landscape and the site modern use for baptismal ceremonies and events.

Holy Ancient Landmark

The baptism site is located in the lowest spot on Earth, the Jordan Rift Valley, where the sacred Jordan River and Elijah’s Hill were the setting for several religious incidents. Al-Kharrar valley forms the core of the site, of the pre-Roman, Roman, Byzantine and Islamic periods (Waheeb, 2004). The historical and religious incidents that took place in this part of the Holy Land, marks it as one of the major religious sites of Jordan and the entire world. It is worth noting that some travellers have mentioned those churches and their functions (Abbot, 1888). Many pilgrims travelled to visit the Holy Land, where the baptism site forms a major part. They documented their visits and described the place they saw, the location and the main events that took place.

As a holy ancient cultural landmark it forms a heritage encompassing not only the monuments of Byzantine times but also the history of alterations affecting the site, the successive uses to which the baptism site was put and the cultural and religious traditions associated with it. The archaeological excavations indicated that there were extraordinary efforts exerted by the Byzantines in bringing the stones, marble, and the builders. In addition, it is clear that there was a keenness to erect other structures to promote the areas to the east, such as Mar Ellias, al Rameh, and al Kafreen.

In the mean time, the baptismal ceremonies and liturgies were considered a big event in the history of Christianity. This was reflected by the huge number of visitors. Unfortunately, a huge area of the churches and structure was destroyed. What is left are the ruins of the bedding lime material, used in tiling marbles of different shapes, most of which is lost. However, a visitor can see and discover all the historical layers that go back to the time of Jesus Christ.

Eco-Site

This area is the joining point for the al-Kharrar spring (springs from Tel Mar Elias through al-Kharrar valley) and the Jordan River; where the water finally pours into Jordan River,
after passing the excavation site. Wadi al-Kharrar is one of the Jordan River tributaries consisting of a fresh water stream, which flows from a spring 2 km to the west before it empties into the Jordan River, while Wadi delta (Tamarix woodland) is the triangle area of which the base is at the Jordan River and tip at Wadi al-Kharrar (Damhoreya and Khader, 2003).

The site is characterized by its distinguished natural landscape that includes a hill, a valley, a river and springs. There is an extensive existence of tamarisk trees surrounding the excavations sites. The excavated buildings were built in the Al Zore area which consists of silt and alluvium ground, brought about by Jordan River which floods and deposits it along the river bank. The baptism site is a place rich with fauna (Canis lupus, Canis aureus, Lupus capensis, resident birds; moustached and cetti, warblers, plovers, bulbuls and matins) and flora (Phragmites australis, Tamarix spp., Ziziphus spina-cristi and Pheonix dectylifera) (RSCN, 1999, Disi et al., 2001). The site is also an important place for wildlife viewing and bird watching.

Their Impressive Architectural Formation within the Landscape

The baptism churches and infrastructures actually, are a specialized category of ecclesiastical architecture designed for public assembly for baptismal ceremonies and liturgies. Initially, the 15 discovered archaeological sites, until now, consist of improvised indoor and outdoor structures constructed of mud bricks and timber that over time became formalized as architecture and were constructed of stone and marble masonry. It is a unique and well organized ecclesiastical architectural complex of ancient and rare archaeological structures and churches in an area that extends 2 km north-south and 0.5 km east-west. From the architectural remains of the excavated buildings we can appreciate how the Byzantines found solutions for problems and obstacles of such a place, especially the water problem. Using arches to avoid the flood of the river was quite evident, especially when building the first church. The famous map of Madaba documents some towers to the east of Jordan River that were built with arches to avoid the flood of the Jordan River.

The architectural formation of the baptism site structures reflects the social structure also of the Christian society, while spatial planning and the material at hand, and the solutions for the flood of the Jordan River converged to form an architectural creativity. The way the baptism churches were constructed, their architectural planning, location and technical execution of the water arrangement and topographical issues all demonstrate a high degree of excellence, in virtually all aspects. Each church posed its own problems which typically arose from its location, in combination with its topography and landscape. However, the location of the churches was affected by the natural formation of the site, such as the contour lines, the paths, the vegetation, and the water resources and they consisted as part of the natural landscape. The relationship between those structures and the landscape emphasized the spatial and sequential concept of the dramatic liturgy in the early Christian period, respecting the apse orientation towards the east.

The Use of the Site for Modern Baptismal Ceremonies and Liturgical Events

Places with religious significance are also revered pilgrim places. Tourism and religion are historically related through the institution of pilgrimage, from which later the phenomenon of religious tourism emerged (Terzidou et al., 2008). The baptism site was one of the major pilgrimage destinations on the pilgrim route from Jerusalem to Mount Nebo, passing through Jericho and other sites. When baptismal ceremonies and events occurred at the site, the area became the centre of attention. However, the archaeological finds and
ruins, especially the pottery shards that are dated to the late Byzantine era, draw the attention to the idea of continuity (some other pottery shards are dated to the eighth century AD, (Abu-Shemis and Waheeb, 2002)). This may indicate that there was civic continuity at the site and that the site had been in use until the recent past. Nowadays, two kinds of contemporary uses take place at the baptism site:

1. The regular use of the archaeological site of baptism by navigating through the site with a guide helping to interpret the historic, religious and environmental site values.
2. Special events. Several events have been affiliated with the baptism archaeological site, such as the day-long baptismal ceremonies which started in January and March 2000 (Figure 4). Statistics show that about 40,000 visitors attended a ceremony held at the site after its rediscovery when the site was listed by the Vatican as an official pilgrimage site in Jordan in 2000. More than 10,000 visitors attended the ceremony held at the site in January 2009. In conclusion, the baptism archaeological site of Bethany beyond Jordan, is still serving—in some cases—the purpose for which it was planned and designed for, as a place of gathering of ritual events and baptismal ceremonies.

**Assessment of the Existing Situation and Conditions of the Archaeological Baptism Site**

Since every archaeological site has his own conditions that differ from one to another, and since the use of these archaeological sites are not separated from the whole ancient/modern elements that surround them (Haddad, 2007), it is important to clarify that the modern use of the baptism site is altogether something different from its ancient use and does not involve the local communities.

After the Byzantine times and before the rediscovery of the baptism site in Jordan, Christian pilgrims usually used to be baptized on the west bank, directly across the
river. The reuse of the site is new and there is no present tradition associated with religious tourism or tourism concepts amongst the local people. The eastern bank of the river was seldom used for baptism in the last century.

Presently the baptism site is a vulnerable resource, threatened by the erosion of time and improper uses, to which it is sometimes put. Hence, it is of importance to study and analyse the existing situation of the baptism site, the causes of deterioration and threats, with specific reference to its historic, ecological and religious importance and significance, in addition to its past and recent popularity as pilgrim destinations.

Causes of Deterioration and Threats to the Baptism Site

This section focuses on defining and assessing the current status of the existing conditions at the study area. Such assessment highlights the major drawbacks that the system suffers from, affecting the efficiency and sustainability of its environment. This represents obstacles for tourism development at the site, where assessing the condition of such elements is crucial to identifying the development needs.

Natural Causes of Deterioration and Threats

In addition to the natural threats of the wind, the orientation, the temperature and the rain, the ecosystem, in fact, is fragile. The flooding of the Jordan River and frequent flash-floods occur during the rainy season in the area. This causes serious threats to the safety of the baptism archaeological site. The high level of water was an obstacle for at least four years due to the increase of the Jordan River water during spring and winter seasons, and the increased flow of the al-Kharrar spring that pours directly into this part during winter.

The reason behind al-Kharrar’s flooding during winter is the general increase in the water level in the basin where the water floods over the banks, especially in the period between December to April. Another reason for the flooding is the flow of the valley water that goes directly to al-Kharrar valley, causing the level of water of al-Zore area to increase and then pour into the Jordan River where the archaeological site is.

It is most likely that the reason behind the destruction of the south wall (Figure 3), was the River Jordan’s flooding, which led to severe pressure that the foundation bases were not able to take, regardless of the role of the humidity. The destruction of the south wall also introduces an assumption, that there was always running water near the foundation bases of the wall, and this may lead to the hypothesis that there was a water path of the Jordan River beneath the wall (the Jordan River is 50 m further to the west from the wall now). Recently and during excavations, solutions were adopted to overcome water and flood problems as urgent solutions, but these were not enough; waiting for the water level to decline, to hold excavations and maintenance during August and September, when the decline of water is notable, while using pumping techniques to get rid of accumulated water are urgent solutions only for the excavation work, but not for the whole site.

Human Threats

In fact, pilgrimage, whether traditional and religious or modern and secular, is experiencing a resurgence around the world. Increasing indications suggest that there is more competition for access and use of sacred sites. This competition sometimes involves traditional owners who likewise hold these sites sacred, and with their managers and commercial
operators that are also drawn into this conflict (Digance, 2003). The human threats which might destructively affect the baptism site can be summarized in the following:

- The vulnerability of the baptism site’s competitiveness as a tourism destination due to the uncoordinated approach between government, private sector and local community in managing the site for tourism. The lack of planning for the longer term, which must take into consideration the changes in tourist and visitor expectations and needs are major issues, which may negatively affect the baptism site. In addition, there are improper modern uses of the site due to the overloaded capacity, especially when the site is used for huge-scale events such as baptismal ceremonies (Figure 4). Visitors staying away may wander in uncontrolled areas. Visitors also often wear inappropriate dress and shoes.
- The absence of immediate action and legislation to protect this religious historic and eco-site, especially technical regulations. For example the intensive agricultural practices in the vicinity of the site have the potential to degrade groundwater quality and the quality of the wadi springs. Proper guard rails at dangerous parts of the site as well as a better network are among the other services that the existing site system is lacking.
- The vulnerability of Jordan’s tourism industry to events and political instability within other countries in the Holy Land tourism circuit region and the fluctuating tourist numbers (Doan, 2006) is reflected in the finances of the site. This is reflected in the maintenance, public services at the site, and the cost of operating the baptism site and the competitiveness of pricing.
- The existing resources suffer from lack of documentation, conservation and careful maintenance. This has resulted in significant deterioration and site status change, getting worse with insufficient temporal monitoring, which requires an immediate adoption of proper restoration actions. The lack of documentation and research of environmental conditions survey (temperature variations, air pollutant levels, salinity of soil, wind and so on) of the site can lead to inappropriate development, since the thematic patterns that could emerge from the research, may be useful for the planners. Meanwhile the absence of a holistic conservation plan and lack of skilful people could cause further decay to the infrastructure of the historic site.
- Lack of technical expertise, cultural education and awareness about the site fragility, where improper modern uses are allowed, including allowing the visual pollution arising from some supplementary buildings. This lack of awareness can also harm the natural environment including vegetation, wildlife, landscape and even the ancient materials of the monuments. While all utility buildings on-site were planned to be built below ground level, and be constructed of local materials to merge into the surrounding visual landscape, and not to impose extremely on the site, there are other cases that did not consider this perception. Examples include the Orthodox church built in 2004 (Figure 5), and currently the Catholic church and other planned Eastern churches, where it is clear how supplementary buildings can harm the cultural significance of the place. These buildings were not originally planned for in the master plan for the baptism archaeological site.

Towards an Integrated Management Plan of the Baptism Eco-Site

This section presents an analytical discussion and assessment of the major development and planning problems affecting the existing conditions and infrastructure at the baptism site, due to tourism. This will be mainly based on the attraction factors of the baptism site, since the cultural and natural resources are limited and non-renewable.
Assessment of the Attraction Factors

The attraction factors of the baptism site of Bethany beyond Jordan can be divided into two main categories; the core and supporting attractions. The core attractions are the primary features that the site and the community can offer to the visitors and tourists, while the supporting attractions are the modern man-made attractions that either provide entertainment or encourage tourist and visitor involvement and participation.

Core Attractions

The baptism site has several attractions including religious, historical, archaeological, environmental and ecological attractions. These provide a base for a multi-tourism destination, especially religious and eco-tourism. In addition to its location in the Jordan valley which is considered an important tourism destination, its nice weather especially during winter and spring, compared to other areas in the country at this time of the year is highly favourable (El-Khouri et al., 2005; Savage and Keller, 2007).

The core attractions of the baptism site are:

- The natural attractions. The area represents the lowest spot on Earth, rich with its geological formations and sandy hills (lissan marl formation), in addition to its rich eco-diversity of tamarisk and palm trees on the eastern bank of the Jordan River and of Wadi al-Kharrar (Figures 1 and 2). It still has an active spring running in the valley which was called “John the Baptist spring” by pilgrims and travellers (Abbot, 1888) and Wadi al-Kharrar. In fact the location of the baptism site makes it an excellent place for bird-watching during different times of the year, as the site is a part of a major bird migratory route between Europe and Africa. Migrating birds pass and stay for a short time and others visit and stay in summer and/or winter at the baptism site and the vicinities of the Jordan River (Disi et al., 2001).
- The cultural heritage attractions. Archaeological remains are scattered in Wadi and Tell al-Kharrar, extending about 2 km east of the Jordan River, such as the archaeological sites of Elijah’s Hill, the Byzantine remains of the churches, the pools, the pilgrim stations, the lauras (hermit cells) and the caves.
- The spiritual and religious attractions. These include both natural and cultural heritage attractions. This spiritual-based visitor attraction is not only characterized by its buildings that were built for religious purposes, but also by the sacred Jordan River and Elijah’s Hill that witnessed several religious incidents. In addition the site was one of the main pilgrim destinations on the route from Jerusalem to Mount Nebo.

Supporting Attractions

During the construction phase between 1996–2002, the following facilities were completed (Figures 2, 5 and 6).

- The John the Baptist Research Centre was established.
- A visitor centre which includes a guesthouse, ticket office, five-star restaurant, three-star fast food outlet, souvenir shops (souk), a heliport with separate building for VIP arrivals and an electricity generator. The visitor centre is approximately 700 m from the first main archaeological site (Elijha’s Hill) and is linked by small roads as well as footpaths.
Several shelters, footpaths, wooden staircases, sites for carrying out baptism and two viewing-point courtyards, a water tank, a (distant) wastewater treatment facility and landscaped parking for an estimated 32 coaches and around 80 private vehicles were constructed to protect both the archaeological remains and visitors.

Figure 5. General view showing the newly built Orthodox church at the baptism site. Source: Jordan Tourism Board (JTB) (2000).

Figure 6. A map showing the archaeological sites and the developed areas at the baptism site. Source: Zoubi (2000).
The Current Tourist Management Plan

The tourist site management plan specifies the total number of visitors who can visit the baptism site at one time as 200. It also divides the visitor route into four stopovers: Tell al-Kharar; the baptism pools; the Byzantine church near the Jordan River and the Jordan River, with an estimated 40 people at each stopover at one time (Disi et al., 2001).

However, the baptism attractions and significance attract visitors in unexpectedly high numbers for religious celebrations. This may cause a destructive impact on the cultural and religious environment of the baptism archaeological site, the water resources, the vegetation, the wildlife and bird watching, the landscape and even on the quality of the visitor experience. The numbers reached 40,000 in less than a week in January 2000 and 10,000 during two celebrations in one week in January 2009. Due to the sudden huge congregation of people at one time, a number of problems are generated which may adversely affect the site’s environmental authenticity (Figure 4). During these religious holidays and celebrations the traffic congestion problem also reaches its peak, where large volumes of traffic come to visit the site.

Of the various developmental activities, pilgrim activity has the potential to cause irreversible reactions in the environment and hence is posing a major threat. It was found that, whilst religious tourists are perceived as being different from “ordinary” tourists and are seen as similar to the residents themselves, they are not necessarily preferred to non-religious tourists (Terzidou, et al., 2008). The other important aspect of environmental degradation at the site concerns the lack of proper sanitation facilities at these events. There is also an urgent need to develop, based on a detailed field survey, a Geographic Information System (GIS)-based map to document all cultural–natural resources in term of spatial location, site attributes, threats, current condition and existing infrastructure services at each part of the site, including full documentation of fauna, flora, soil, geology of the site and its surrounding areas. This map could be used as a basis to assess the current situation and for future consideration in relation to a monitoring scheme.

On the other hand, there has been limited cooperation between the different stakeholders in the management of the site, in addition to a general lack of local community involvement in consultation regarding the site development at the present time. Very limited local and traditional productions by the local community are promoted or available at the site. However, to achieve a balance between strict protection of archaeological sites and planned development of tourism and site development, it should be realized that the developmental activities need to be planned in such a way that the socio-economic objectives are fulfilled without causing adverse impact on the environment. In the meantime, respecting the diversity of the cultural backgrounds of the local community and the diversity of visitors is a key issue that should be clarified.

The importance of the study area at both levels, cultural and natural, puts heavy duties on all governmental and NGO bodies to promote a “compatible use” of such a rich environment. A compatible use means respect of the cultural significance of the place. Such a use should involve no or minimal impact on the cultural significance. (ICOMOS, 1999, article 1.11, 6.3, 7.2). The American Institute of Architects defines sustainability as the ability of a society to continue functioning into the future without being forced into decline through exhaustion or overloading of the key resources on which that system depends (Haddad, 2007).

There is a real opportunity to attract a wider range of visitors, including cultural, religious and natural tourists, due to the diversity of the baptism site’s tourism product. This can provide the basis for a multi tourism destination. Still, a cautious approach in the tourist management plan is needed, as the cultural significance and the attraction factors of the baptism site may change.
An integrated resource management plan should be drawn up, where local people should be further included in the management team and steps should be taken to improve the relationship between the authorities and the local population, in general. The policy development should also include consideration of other factors affecting the future of the site, such as its physical condition, owner needs, resources and any external constraints. The management of the baptism site must deal and agree with the adequate handling of all the resources found within the reserve area from the biophysical and the human aspects. This requires a strong coordination between governmental and non-governmental agencies for a better planning of available resources and services (Henderson, 2002).

Efforts are still needed in terms of marketing and fundraising to start a number of priority natural and cultural conservation projects. All these should consist of key components in the integrated management plan, and must be clarified before any further intervention.

**Recommendations and Guidelines for an Integrated Management Plan**

The following are the main issues, parameters and guidelines that should be investigated as part of an integrated management plan in this religious/historic and eco-tourism site.

**Develop Detailed Conservation Plans for Religious/Historic Sites**

It must be realized that, to preserve this cultural heritage site, is not only a matter of discovering and revealing the archaeological sites, and the construction of new structures and utility buildings, but the documentation, conservation and monitoring of conditions and visual pollution control of all those kinds of remains of past human activities that have occurred in this holy site. The major challenge is not just in finding a site for the tourism industry or a developmental activity, but is in finding a solution for achieving sustainable protection of these resources. Since the baptism site is fragile, this will limit the carrying capacities of the archaeological components in addition to the environmental and perceptual capacities. The management plan of a religious-based attraction site should also work on providing visitors with their demands, that is, the intangible and subjective, including atmosphere and spiritual experience (Shackley, 2003). In fact, there is an obvious need to establish a management zone; in which strict protection areas, such as the archaeological churches, the pools and the caves must be identified, where tourists and visitors are not allowed to enter without permission.

**Develop a Detailed Conservation Plan for Environmental Improvement**

There is a need for preparation of a detailed study, especially for environmental protection, to monitor water supply, road networks, the wildlife, infrastructure improvements including the design of other necessary footpaths. There is an urgent need to establish and define protected areas and reserves at different locations of the site to protect the natural—cultural diversity and to provide destinations for tourism. Guidelines should demarcate and clearly bring out information on environmentally sensitive zones/areas to be avoided for location of new structures, or certain processes or operations to be restricted in the district. Some form of wilderness zone could be designated where the tourists and visitors are allowed to enter, but only on foot. Furthermore, moderate tourism use zones where tourists and visitors are encouraged to carry out diverse activities compatible with the natural and cultural environment such as the baptismal ceremonies, could give a new dimension to the site.
The protection should not be limited to the site only, but should also include its surroundings. An urgent need exists to develop and promote appropriate policies and tools for landscape, infrastructure, and environmental site management at the site at large. In addition, a conservation approach and plan for the river should be started. This should focus on improving river environs so as to position it as a sustainable destination for the pilgrim population.

We have to be aware of the impact of the implementation of new structures and utility buildings. This means that, besides continuous evaluation and maintenance of the existing infrastructure elements in the planned design and re-evaluation phases, in the case of new infrastructure services to be constructed, a careful consideration of all planning aspects, such as location, accessibility and serviceability, is needed as well as environmental impact assessment (EIA) which should be conventionally used as tools before permitting any new project on the site.

Based on the outputs of all the above, an integrated environmental improvement plan (IEIP) should be prepared for the site. Spatial planning based on assessment of existing environmental profiles as well as potential assimilative capacity could help environmentally acceptable development and resolve the conflicts that authorities are otherwise confronted with. This plan would take into consideration the relation of the protected area to its surrounding and avoid any superfluous elements in the visitor areas of this religious and ecologically fragile place. It should provide all the tools and policies for designing, developing, distribution and maintenance of infrastructure services at locations with highest priority.

Environmental Improvement at the Religious Baptism Site for Eco-tourist Destinations

The serene setting and religious atmosphere of the baptism site provides an ideal platform for the development of the site locations as eco-tourist destinations. Ecotourism is the one possible component of an entire eco-system management strategy that aims to achieve sustainable development (Gauthier, 1999).

Actually, there is a need to develop and support infrastructure for eco-tourist destinations by the improvement of the tourism infrastructure in the surrounding area, there is also an opportunity to link the site better with other nearby sites such as the Pilgrims’ Road, Mukawir, Mount Nebo and the city of Madaba.

In view of the above, a comprehensive eco-tourism plan needs to be prepared for the area and the site. In addition, the site has the potential to host a biodiversity research centre in addition to the established John the Baptist Research Centre.

Improvement and Augmentation of the Water Supply System

Water is mainly required for non-drinking purposes such as washing, toilets and bathrooms, laboratories, gardening and other ceremonial purposes. One of the two baptism pools in Wadi al-Kharrar is filled with the running water from Jordan River. The water for baptism can come primarily from groundwater (both shallow and deep aquifers), from the Jordan River and from piped water. Hence, the groundwater exploitation should be stopped by the farmers in the area, for it decreases the spring’s flows within the valleys in the area.

Water supply facilities in the pilgrim baptism site are generally not satisfactory for large numbers of people, such as those seen during pilgrimages. With the intention to develop the site as an eco-tourist destination, the current water supply and infrastructure for future development needs to be applied carefully. A study is therefore proposed to explore the
need for augmentation of the water supply in the site. Each water resource must be treated and stored on the site. A water distribution system of pipes, tanks, pumps, and rainwater harvesting could be further developed and better organized, taking into consideration the fragility of the site.

The plan should consider exploring the possibility of implementing rainwater harvesting techniques. There is a need to popularize the idea of conservation of vastly depleting natural resources in areas, by constructing an illustrative model of rainwater harvesting. This could include the incorporating of a rooftop rainwater harvesting system. The principal objective of rooftop rainwater harvesting is to make water available for future use.

**Applying Strict Regulations for Architectural Design, Techniques and Materials**

Several new churches have been built in the last few years at the baptism location. Limited guidelines were implemented and no detailed impact assessments were conducted. These constructions are compromising the character of the architecture of the site. Ultimately, the architectural design, techniques and materials should use “low tech” design solutions and features of researched traditional architectural styles, with high technical specifications. Even road, footpath, shelters, benches, toilet areas, should also use mainly traditional designs and local building materials. Soil investigations should be completed before the design of various structures. Noise and dust emissions during the construction phase should be kept to minimum. In addition, the necessity for utilities infrastructure for further development to support baptism needs to be researched, in addition to developing green areas such as parks, gardens and landscaping in and around new facilities.

One area at Elijah’s Hill and another at a small spring near the banks of the River Jordan are planned for carrying out baptisms, and these areas should be linked to the visitor centre by footpaths with an interpretation signage system. This can assist in creating eco-site tours.

The car park spaces which have been included in the current design for the Elijah’s Hill area, the slopes and curves of all roads leading from the visitor centre, have to be restricted for electrical vehicles only. Meanwhile, facilities for disabled individuals should be provided and take into consideration issues of access.

**Preparation of a Field Guide for the Protection and Preservation of the Site to Educate People Before and During Events and Festivals**

It is of importance to provide the local community, the tourist guides, visitors and tourists with scientific study results that were conducted on site, to emphasize especially the baptism site fragility, and how this limits the environmental and perceptual carrying capacities. Furthermore, tourism plans must include clear explanation and definition of the cultural and natural significance of the site, such as aesthetics, history, functions, physical characteristics for the structures, biodiversity and natural characteristics of the whole site (International Cultural Tourism Charter, principle 6.3). Tourism programmes should also be compatible with conservation and interpretation programmes, within a comprehensive compatible plan for the type of permitted activities to present the true history and function of each area of the site.

It is of meaning also to explain the ancient techniques and technologies of the water systems; function and solutions, even the relation of the site to its surroundings. This can be achieved for the present time by brochures, making presentations, publications, sessions, and Internet websites and creation of an interpretive system (audio-visual displays)
with different languages, for better and wider communication and understanding of the cultural significance and values of the site.

**Implementation of Monitoring Programmes**

Monitoring the results of the different activities on the site in relation to the number of visitors is required. Such monitoring should be done before, during and after each activity and intervention, in spite of its range. While the number of visitors who can visit the baptism site at a time is 200, it is important to ensure that the site should host only religious visitor tourists during the high seasons of baptismal ceremonies and events, for which there is a need for a quick evaluation of the positive and the negative impacts in relation to tourism activity and events in the last few years. Monitoring and capacity should be the aim for decision makers and technical people involved with the site. The number and flow of tourists should be controlled in order to ensure site protection and tourist satisfaction. Hence, we should be in a position to consider whether such investments are effectively optimistic and really achieve the site perpetuity and if it satisfies user requirements.

**Summary and Concluding Remarks**

The main attractions, potentials and threats of the baptism archaeological site of Bethany beyond Jordan have been identified, discussed, and placed in their historic context. They indicate that there is an urgent need to enhance the existing infrastructure system to improve tourism sustainability. There is a need to establish a comprehensive GIS-based master plan for the baptism site aiming to preserve its natural and cultural diversity and ensure long-term sustainability. Furthermore, re-evaluation of adopted policies is also needed to ensure their compatibility with the existing landscape infrastructure system. There is also a need to design effective coordination mechanisms among the different authorities and administrations to ensure the sustainable interaction between eco-tourism and the archaeological conservation plans.

This requires a deep understanding and evaluation not only of the cultural significance and attraction factors of the site (respect for the diversity of the natural, cultural, spiritual and religious values of the whole site), but also a respect for the local community and the diversity of the visitors. The baptism site has the potential to become one of the most popular stops on the regional Holy Land tourism circuit, as it has the capability of linking to its surrounding religious and eco-sites. However, the most important key strength for the baptism site should not only rely on the 15 discovered archaeological sites, but on the documentation, conservation and restoration works presently being undertaken within the rich context of the natural site. The site should also be developed with an aim to improve the environs of the archaeological sites and promote them as an eco-tourism destination.

An integrated management plan should explore and deal with the particularity of this eco-religious site, in cooperation with the local authorities for the development of the tourist infrastructure to achieve the overall goal of comprehensive religious and eco-tourism. The main components for the assessment of the baptism archaeological site should also highlight issues of monitoring and re-assessment and analysis of the visitation characteristics of the site, besides the issues of conservation, restoration and maintenance, interpretation and presentation, and promotion and marketing.

Taking into consideration the protected area status in relation to the site’s capacities, and to avoid any alteration of the physical and natural environment of the site to achieve a “sustainable eco-site”, an enhanced law enforcement and regulation is required.
to clarify the role of each authority concerning the activities of the tourism sector, particularly in terms of respect of the authenticity of the site, as both an archaeological, spiritual and natural park and as potentially a UNESCO World Heritage Site.

In other words, in terms of a balance between the assets and needs of the site, the needs of the visitors and the local community, the following main issues are urgently needed for the Jesus baptism site:

1. To develop a mechanism to produce a system of regular and permanent maintenance calculated to ensure the preservation and conservation of the site. This needs to clearly illustrate the guidelines for the adaptation of the site for modern baptismal ceremonies. There also should be on-going programmes of evaluation to assess the progressive impacts of visitor numbers, tourism structures, activities and developments on the site as well as their impact on the local community. Meanwhile, the decision makers should realize that minimizing fluctuations in arrivals and avoiding excessive numbers of visitors at any one time can enhance the visitor experience.

2. All the activities of the visitors and local community throughout the whole site should be checked, monitored, and documented and kept as part of the history of the site. Regular monitoring and checking of the physical environment and the infrastructure works is required during and after every activity and intervention is carried out. This can start by conducting comprehensive carrying capacity studies to guide future development of tourism in undeveloped areas of the site. This should be continual in order to respond to the new management and changes in the environmental, cultural, social and religious aspects of the baptism site, while the infrastructure projects are fully developed. A comprehensive care for the physical environment, the cultural significance and the architectural remains need to be regularly monitored.

3. Any reuse of the baptism archaeological site should involve minimal change to significant fabric, respect associations and meanings, and where appropriate should provide for continuation of practices which contribute to the cultural significance of this archaeological and natural site, within these churches and pools. The “modern use” of the baptism site should be illustrated in the form of a flowchart, clarifying the criteria, the process, or sequence of investigations, the decisions and actions, for the next 25 years.

4. There is a need to adapt and develop a multidisciplinary approach. This approach should depend on multidisciplinary sciences to carry out technical studies for the archaeological and environmental issues. It is necessary to extract the old treatment and technologies that are found, in relation to the flooding of the Jordan River and the frequent flash-floods which occur during the rainy season in the site area, and cause serious threats to the safety of the discovered archaeological sites. This will help to protect the authenticity of the site. Meanwhile, the conservation and restoration of the monuments in the site must have recourse to all the science and technology which can contribute to the study and safeguarding of the architectural heritage.

5. Finally, awareness programmes should be developed to understand the site fragility and the importance of water to the sustainability of the baptism site through establishing training courses and programmes for the local residents, guides and tour operators. At the same time, visitor management strategies should be developed to disperse tourist numbers, using control mechanisms, such as type of tourist—whether organized in large/small groups or as individuals, and the distribution of visitors during the day, tour numbers available and transport to the baptism site, in addition to the creation of an interpretive system (audio-visual displays, brochures, and so on).
References


