
CHAPTER EIGHT KV SITE MANAGEMENT

The preparation of any future proposals, and the acceptance of the proposals contained in this report by the stakeholders responsible for the management of KV, is essential. These stakeholders include:

- Office of the President
- Ministry of Culture
 - Supreme Council for Antiquities
- Ministry of Tourism
- Ministry of Housing, Reconstruction and Urban Communities
- Ministry of Local Development
- Ministry of Agriculture and Land Reclamation
- Ministry of Water Resources and Irrigation
- Ministry of Finance
- Luxor City Council and High Council of Luxor

However, within the borders of the Arab Republic of Egypt, all archaeological sites are owned by the state and administered on its behalf by the SCA, therefore making this organization the major stakeholder and consequently the focus of this chapter.

The successful management of KV requires the co-ordination of planning and information sharing procedures to be in place. The success or failure of any management plan will lie with its ease of implementation and the successful training of the managers that will have to carry out its execution. With this in mind, we have studied the existing management framework and suggested an alternative approach below. We have also addressed the issue of site funding, site personal levels and training and maintenance levels. Finally, we have investigated how all this information can be managed and successfully utilized.

8.1 The SCA

In Egypt, the SCA under the Ministry of Culture is the official government agency responsible for the registration, preservation and management of the cultural heritage. However, to understand fully how this works in practice we need to look at the structure of the organization and its legal codes. The service began in 1858 during the colonial era, it was originally named the Service des Antiquites, was run by the French, and had control of all archaeological excavations in the country.

After Egyptian independence in 1922, the service was increasingly brought under the control of Egyptian government officials and was renamed the Egyptian Antiquities Organization in 1971.

The current headquarters of the SCA is in Cairo in Zamalek. The organization is headed up by a Secretary General, currently Dr. Zahi Hawass, and a permanent committee, and has 19,000 employees.

Its main roles in relation to archaeological sites in addition to the recording, management and preservation of these sites are to:

- Approve all excavation concessions and personnel
- Stipulate conditions under which foreign missions carryout archaeological work in Egypt

A note here should be made here about the legislative framework in which the SCA operates (Appendix V). Legislative development regarding antiquities protection in Egypt was meagre until Law 215 of 1951 was passed, this was considered the first piece of legislation that covered all aspects of antiquities protection, however it contained many loopholes and was superseded in 1983 by Law 117.

The main points of Law 117 are:

- The SCA was made the legal guardian of antiquities
- “Antiquity” was defined as any object movable or immovable over 100 years old, or objects or sites selected by prime ministerial decree and therefore public property
- The prohibition of the trade in antiquities
- The banning of the exportation of cultural property

8.1.1 Administrative Division of the Theban Necropolis

By any standard, the Antiquities Zone on the West Bank is a large area. At a minimum (the 1926 decree definition, for example), it covers about 10km². By some measures (such as the 1980 decree), it covers twice that. Add to it the 2004 “buffer zone,” and its size again doubles or even triples. However it is defined, the Theban Necropolis must also be divided into smaller administrative units if it is to be adequately administered and protected.

The West Bank has within its boundaries archaeological sites, agricultural land, touristic facilities, highways and roads, canals and irrigation channels, old villages and new ones. Therefore, officials from such diverse ministries and departments of Agriculture, Irrigation, New Towns, Environment, Culture, Tourism, Interior, Power, Luxor city council and others all have a stake in its administration. Often, the goals of these agencies are in conflict.

The West Bank can be divided in several ways into broad zones. These divisions can be based on environment, ethnographic, sociological, historical, archaeological or administrative boundaries.

Environmentally, from east to west, they are:

- a. An agricultural zone, also containing modern villages and archaeological remains. This zone can be sub-divided into irrigation basins called “hawds,” that are natural depressions used from ancient times to the 1960s as part of the annual flood irrigation system. Hawds are defined by dykes that today, many decades after basin irrigation was abandoned, serve as the foundations of the roads on the West Bank.
- b. Low-lying desert along the edge of the cultivation. This relatively level area of rolling sand and stone, with occasional small hillocks rising from it, lies only slightly higher than the elevation of the agricultural zone. It is seriously affected by changing levels of ground water. The water has caused serious damage to the many temples and small tombs that lie here. The area varies from a few hundred meters to a kilometre or more in width, and extends the entire length of the Necropolis.
- c. High desert and complex wadi systems, in which lie the East and West Valleys of the Kings, the Valley of the Queens, and many small outlying wadis used as burial sites, work stations, or quarries.

Ethnographically, there are four areas of desert lands, generally called al-Qurna. Each one is associated with founding families whom local tradition says came from south Arabia and who settled here in the 15th century AD. These are the Hurubat, the Hasasna, the Attiyyat, and the Ghabat. They were called Troglodytes by early European travellers and lived in the nobles’ tombs at al-Qurna. The agricultural lands of the West Bank have been occupied by an indigenous local agricultural population, some of them Muslim, some Christian, that claims descent from the ancient Egyptians.

Sociologically and bureaucratically, the West Bank can also be divided into a series of about 20 villages, including: al-Gezirat, al-Qariya Hassan Fathy, Naga Kom Lola, Naga al-Qatr, Naga Medinat Habu, Qurnet Mara’i, al-Bairat, Naga al-Rasayla, Naga al-Ramesseum or al-Sahal al-Sharqy, Ezbet al-Ward, Suwalim, al-Qabawy, al-Suyul, al-Genina, al-Tarif, al-Rawagah, Ababda, and Qamula. Nearly all lie within the agricultural zone. These villages and hamlets are recognized by the government as quasi-independent entities, governed by a locally chosen sheikh and a committee of elders who decide on matters of local importance. Some villages lie away from archaeological sites (al-Gezirat, for example); others lie directly atop them (Naga Kawm Lola, for example, or al-Kawm).

Historically, the archaeological zone (mainly desert areas) has been divided into 10 parts (from north to south). The number of tombs in each counts only those that have been catalogued by the SCA. In fact, at least two or three times this number are known to exist.

- a. al-Tarif (“the limit”), at the northernmost end of the Necropolis, heavily damaged by modern building; site of many Middle Kingdom tombs and shrines, Old Kingdom *mastabas*, and prehistoric work stations.
- b. The Valleys of the Kings, actually two valleys, East and West, containing the tombs of Egypt’s New Kingdom rulers and others. There are 62 tombs in the East Valley, four in the West. This is arguably one of the best known and most important archaeological sites in the world.
- c. Dira Abu al-Naga, between the Hatshepsut causeway and al-Tarif, a hill with tombs of 17th Dynasty rulers, their families, and New Kingdom Priests.
- d. Deir al-Bahari and Birabi. A natural amphitheatre in which the memorial temples of Mentuhetep II, Thutmes III, and Hatshepsut were built.
- e. al-Asasif (meaning “interconnected tunnels”), the area north and south of the Hatshepsut causeway, contains about 40 New Kingdom tombs.
- f. al-Khokha (meaning “hill of vaults”), a small hill north of Sheikh Abd al-Qurna and east of al-Asasif, with five Old Kingdom and 53 New Kingdom tombs.
- g. Ilwet al-Sheikh Abd al-Qurna, a small hill south of the Hatshepsut causeway and west of the Ramesseum, named for a mythical local Muslim sheikh. A modern wall divides the hill into an upper and lower enclosure. These, plus a third, smaller, area contain about 100 New Kingdom tombs.
- h. Qurnet Mara’i (“the peak of Sheikh Mara’i”), southernmost of the private tomb complexes, with about 17 New Kingdom tombs.
- i. Deir al-Medina. Workmen’s village and necropolis, home to the New Kingdom craftsmen responsible for carving and decorating royal tombs in the Valley of the Kings and other royal projects.
- j. Valley of the Queens. Burial place of various New Kingdom queens and royal family members. About 82 tombs are known here.
- k. Medinat Habu. The memorial temple of Rameses III, a townsite occupied until the 9th Century AD, and a complex array of other New Kingdom memorial temples.
- l. Malkata and Birkat Habu. The palace complex of Amenhetep III and a huge harbour dug by him for celebration of his several jubilees, lying at the southern-most limit of the Theban Necropolis.

- m.** Outlying areas. A series of small wadis to the north, west, and south of the Necropolis proper contain small tombs of royal family members, Christian hermitages, prehistoric work stations, quarries, graffiti, and Graeco-Roman temples.

Archaeologically, the Necropolis contains several types of monuments. These tend to distribute themselves within the Necropolis in geographic clusters.

- a.** Memorial temples, found mostly along the edge of the cultivation. Before the New Kingdom, such temples lay adjacent to their pharaoh's tomb. At Thebes, however, they were separated. This was because, while the king's tombs had to be dug in isolated, dry, and well-protected places, his temple had to be accessible to religious processions coming by boat from temples across the river.
- b.** Nobles' tombs, in the low-lying desert and in some *wadis*. At least 2,000 such tombs, most of them small, many well-decorated, were cut into hillsides along the Nile floodplain.
- c.** Royal tombs, in the Valleys of the Kings and Queens. 62 tombs are known in KV, 82 in QV. All date to the New Kingdom. They vary considerably in size, preservation, and quality.
- d.** Habitation sites, between the memorial temples and in Deir al-Medina
- e.** Prehistoric work stations, surface sites lying largely on top of the *gebel* or to the north of Thebes proper.
- f.** Graeco-Roman monuments, including temples and tombs, on hillsides and within ancient structures
- g.** Christian monasteries and hermitages, scattered in several different localities. Several dozen such sites are known, and one of them, founded in the 7th Century, is still in operation.
- h.** Graffiti, stelae, rock-cut chapels mostly in or on low *gebel* cliffs. Thousands have been recorded.
- i.** There is also archaeological material buried beneath agricultural lands, including ancient temple buildings, villages, canals, and landing stages.

Administratively, four different categories of land are recognized on the West Bank:

- a.** An archaeological zone under the control of the SCA. Surprisingly, the boundaries of this zone are vague. A line was drawn on the 1925 Survey of Egypt maps purporting to show its eastern extent, but that line in some cases runs through archaeological sites, not around them. The SCA is currently trying to develop legally-binding definitions of the West Bank land under its control, but these have not yet been published. It is likely they will result in disputes, court cases, and sequestrations.

- b. Non-archaeological areas, under the control of the Luxor City Council or other governmental agencies. These lie mainly in undeveloped desert land, owned by the state, and on the banks of the River Nile.
- c. Privately owned lands, mostly agricultural
- d. Illegally occupied lands in both archaeological and non-archaeological areas.

8.1.2 Current SCA Administration of the Theban Necropolis

Since about 1998, the SCA has divided the Theban Necropolis into three sub-areas for administrative purposes. Each area is under the supervision of an inspector of antiquities who reports to the Chief Inspector of the West Bank.

- a. North Thebes, including the Valleys of the Kings, the Thoth Temple, al-Tarif, Seti Temple, Dira Abu al-Naga, and adjacent archaeological areas
- b. Central Thebes, including everything between North and South Thebes
- c. South Thebes, including Malkata, Medinat Habu, Valley of the Queen, Deir al-Medina, Qurnet Mara'i, Colossi of Memnon, and adjacent archaeological areas

The rationale for this division is that it divides bureaucratic and archaeological tasks into smaller and more manageable units than those that preceded its implementation.

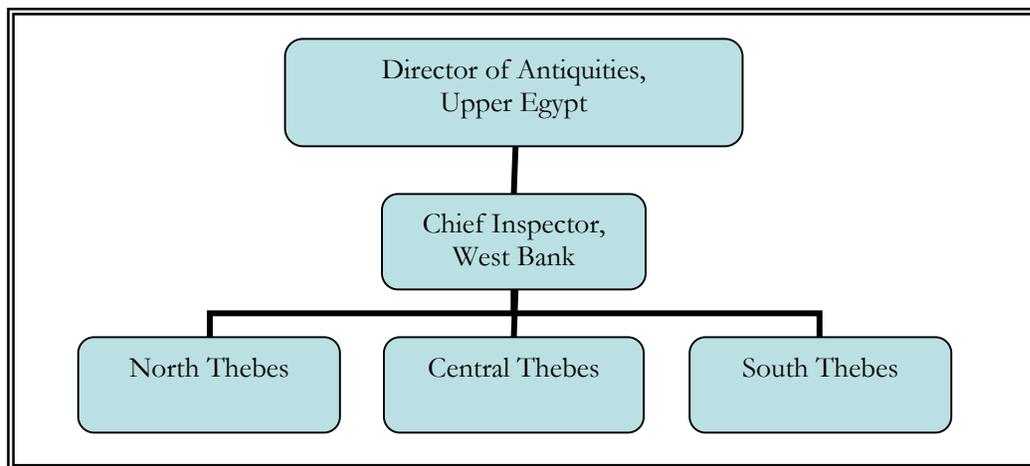


Figure 103: Current Division of the SCA Administration

8.1.3 Current KV Staffing Levels

The valley is managed on a day-to-day basis by a chief inspector and three inspectors working for him/her, however the management of KV and its workforce involves many different agencies, and

no single individual has overall control of the site. SCA staff includes inspectors, guards, cleaners, restorers, security, ticketing, and engineers. The toilets are managed by a concession and security is covered by the tourist police and the internal security police.

The guards or guardians make up the bulk of the employees, some 134 guards work in two shifts of 24 hours, and they are headed up by two head guards for each shift. The guardians are the cornerstone of the management of KV. They are in regular contact with the visitors and are the effective police force of the tombs. They can prohibit entry due to overcrowding etc, they have to deal with ticketing issues, disputes over camera use and manage tour leaders and guides.

The inspectors in KV apparently have no set responsibilities, their management style is reactive not a proactive one. Issues that they can be expected to deal with include crowd control, disputes between visitors and or guides and guardians, emergencies, requests for entry to closed tombs and enquires re concessions.

8.1.4 TMP Proposed Division of the SCA Administration

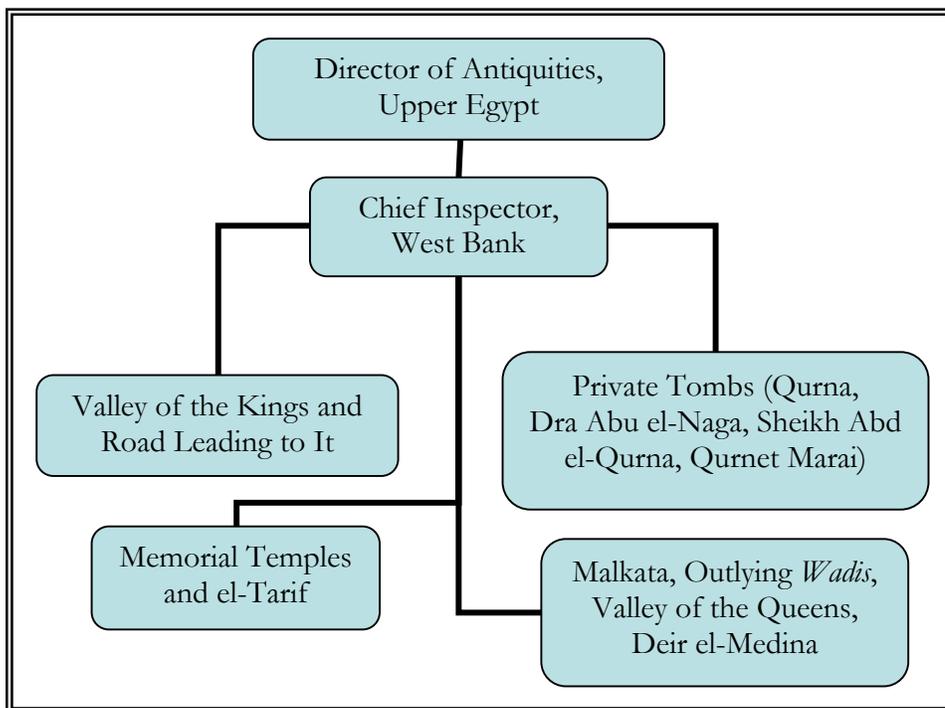


Figure 104: Proposed Division of the SCA Administration

We believe that the archaeological administration of the West Bank would be better served by dividing it into areas that are defined both geographically defined and by monument type.

The SCA Administrative Areas we would propose to establish are:

- a. The Valleys of the Kings, East and West Valleys, approach, and surrounding hillsides
- b. Malkata and the western outlying wadis, Valley of the Queens, Deir al-Medina, Qurnet Mara'i, Mentuhetep Cirque, Hekanakht Cirque, Cachette Cirque, High gebel (Village de repos)
- c. Deir al-Bahari and Birabi, al-Asasif, al-Khokha, Sheikh Abd al-Qurna, Deir al-Medina, Christian remains on hills above these areas
- d. Low-lying desert adjacent to the cultivation (and largely but not exclusively east of the main north-south, paved road) in which most memorial temples are located, extending from the northern limit of al-Tarif in the north to the temple of Deir al-Shelwit in the south. The area along the cultivation presents special problems: ground water, boundary disputes, and structural problems among them. The area includes most West Bank memorial temples, and has few monuments of other kinds. The inspector in charge should develop a specialized knowledge of these problems in order to prepare both monument-specific and area-wide solutions to them

8.1.5 SCA and KV Funding

As is the situation in most heritage sites worldwide, revenue from ticket sales from KV goes directly to the Egyptian treasury. Funding of the running of the site is via an annual grant allocation from the Minister of Finance to the Ministry of Culture, which in turn make a budget allocation to the SCA. The SCA then grants funds to regional centres for the running of particular sites and activities. Ticket sales at SCA sites throughout Egypt generate a large amount of cash for the Egyptian economy. However, these revenues are not directly linked to the amount of funding the SCA receives. Recent price increases have seen ticket prices rise substantially, however these are not excessive when compared with similar attractions in other countries.

Recently the management of some heritage sites have questioned this system of funding by central government. For example, at the site of Pompeii in Italy, the management have formed a trust to manage the site and ticket revenues stay with the site and are used for the site's management and conservation. Calls have been made in Egypt by representatives of the SCA for ticket prices to rise 25% across the board to fund ongoing conservation projects. This action would find public backing, many of the responses in our stakeholder surveys indicated a willingness to pay higher ticket prices as long as funds went into site conservation.

8.2 Site Management and CRM Training

Currently the inspectors working in KV receive little or no site management training. What is available in Egypt is well planned but only provided on an ad-hoc basis by outside agencies. Effective management of the site is essential if long-term goals of this masterplan are to be achieved. Many of the site staff are keen to learn more about the work they do and wish to work more effectively.

8.2.1 TMP Proposals

A. Development and Implementation of a Training Program in Cultural Resource Management:

Cultural Resource Management (CRM) seeks to locate, identify, evaluate, preserve, manage, and interpret qualified cultural resources in such a way that they can be enjoyed and learned from in the present and be handed on to future generations unimpaired. Unfortunately, although Egypt's cultural heritage is among the most extensive in the world, very few of its numerous cultural sites or monuments are “unimpaired” today due to their great age and the various environmental pressures to which they are being subjected. What is worse, only a small percentage of them has ever been adequately documented: deterioration means their total and irretrievable loss. Egypt's cultural heritage is thus becoming increasingly fragile and finite, and the need for CRM training programs has accordingly become vital if this heritage is ever to be preserved in a sustainable and unified manner. Management and documentation must increasingly provide improved interpretation and enhanced experience among those who visit cultural sites.

There is a need for a CRM program that will produce a cadre of trained Egyptian site managers and support staff who can deal with problems of site management and preservation today and in the future. This CRM training program will approach the problems of Egypt's antiquities synergistically, concentrating on the training of young Egyptians who are in, or about to enter, the Supreme Council of Antiquities and other relevant agencies. They will be trained in the planning, management, and monitoring processes that are common to any kind of cultural site, thus allowing them to deal effectively with many kinds of periods, monuments, or archaeological materials. In turn, they will train the future generations of site managers who will inherit the responsibility to preserve Egypt's past.

During the past few years, many agencies in Egypt and America have developed CRM programs at both national and international levels. These agencies are all generally agreed as

to what CRM is and what it should accomplish. The United States Office of the International Council on Monuments and Sites (US/ICOMOS) states the consensus well in describing one aspect of CRM, Archaeological Resource Management (ARM) as a system to “actively promote the preservation, conservation, and management of the world's archaeological sites and monuments, both excavated and un-excavated, through international cooperation, the sharing of information and technical expertise, and education.”

US/ICOMOS, as well as the Getty Conservation Institute (GCI), the US National Park Service, and numerous other agencies acknowledge that a host of factors determine the effectiveness of the CRM. However, no factor is thought more likely to determine the success of specific CRM programs, than the roles of archaeological sites managers, storeroom and database managers, and their support staff. The duties of these persons are broadly similar:

- To collect all available information on the physical and cultural history of the site or monument in their charge;
- To determine the site's significance and value;
- To document its physical conditions and recognize the implication of these conditions for conservation and preservation;
- To take into consideration the legal, social, and environmental factors that will affect management responsibilities;
- To preserve and protect the site, also taking into account the needs of tourism, scholarly research, and socio-economic development.

No CRM program can hope overnight to make major changes in any government's policies or procedures. To realize our goal of maximizing site protection, we propose to initiate a training program consisting of: Mid-level site management and supervisor-level CRM training for promising young employees in various government agencies, especially the Ministry of Culture, the SCA, and the liaison officers in other agencies who deal directly with them.

The primary reason that CRM problems have not been more effectively dealt with in Egypt is the lack of on-site managers and administrators who are sufficiently trained in CRM that they can allocate funds and staff-time wisely and plan for and supervise their proper use. Thus in the CRM training program which we propose, each site manager should develop the skills and understanding needed to:

- Identify CRM problems;

- Supervise appropriate solutions to small problems of protection, site development and administration, and work knowledgeably with specialists to treat the larger ones;
- Help the local public realize that it is in their own social and economic interest to protect local archaeological sites and historical documents;
- Work with tourists and tour guides both to protect the sites and ensure visitors a sense of learning and satisfaction;
- Maintain a database to ensure regular monitoring of a site's changing condition and to improve management decisions;
- Understand their country's laws and regulations to help prevent potential problems at a site, and improve their ability to work with local groups, administrative agencies, and ministerial representatives.

In short, what is needed are managers who have the training to monitor, preserve, and manage this fragile, irreplaceable, and increasingly threatened cultural heritage, and to do so within the constraints of existing Egyptian bureaucracy.

- B.** Secondly, a training schedule for all KV site staff should be implemented immediately, not just the ones involved in site management. There is a serious need for training programs in site management at KV, and such programs should be offered and tailored to the needs inspectors, security personnel, guards, conservators, and maintenance staff.
- C.** Thirdly, a site management plan should be draw up by the inspectors in KV, taking account of the suggestions in this masterplan. A suggested template for management activities and goals in KV is also suggested by the Unesco model below.

Unesco Suggested Site Management Checklist

- Do you have a management plan for the maintenance strategy of your World Heritage site, and is this plan regularly updated?
- Have long-, medium- and short-term objectives been clearly defined?
- Have the values, priorities and the least harmful action been taken into consideration in this plan?
- Is there an inventory, and has the resource been adequately recorded and documented?
- Is the relevant documentation concerning the site accessible?
- Has the site documentation been duplicated in a safe place?
- Is there a fire protection plan, and is it practiced on a regular basis?
- Do you have the disaster hazard plan for your region?
- Have a disaster response officer and alternate been designated?
- Have contacts for effective research programmes been established with universities and other institutions?
- Do the laws and regulations that are being applied reflect the latest technical knowledge and attitudes to conservation?
- Is their application effective? If not, where do they fail?
- Is the management infrastructure adequate and effective in fulfilling its role?
- Have lines of communication been established with international organizations concerned with preservation of World Heritage?

D. Fourthly, one further point to be made re site personnel is their visibility to visitors and workers in KV. It is important that inspectors of antiquity assigned to the Valley of the Kings be properly attired. In this way, they can be identified by tourists and guides as the responsible authority in KV and can be seen to speak with the authority of the SCA behind them. Such uniforms also bestow a sense of pride on the wearer that is reflected in his work attitude and dealings with foreign and local tourists and tour guides. Such a uniform can also be worn by an individual who would operate an enquiry desk in the Visitors Center. Maintenance staff can wear boiler suits like those worn by private maintenance contracting companies such as Amon or Care Services. Tram drivers should be attired in uniforms that are of a colour or design that cannot be confused with the inspectors' uniforms. Security personnel should be appropriately dressed as well and especially those inspecting tourists'

bags at the Visitors Center should not wear informal civilian clothes. First Aid personnel should be appropriately dressed.

8.3 Emergency and Disaster Planning

Provisions must be made for an adequate response to such emergencies as flash flooding, earthquakes, illness, accidents, theft or vandalism. A Necropolis-wide Emergency Conservation Response Team should be designated and trained to handle these rare but serious problems and



Figure 105: Emergency Response

necessary equipment and supplies should be stored in one of the SCA warehouses for easy access. Debris that has washed into tombs must be removed, small pumps used to remove any accumulated water, and blowers installed to reduce moisture levels. Screwjacks and other engineering devices should be available to shore up fractured or collapsed walls and ceilings until more permanent repairs can be made. Conditions must be carefully monitored.

8.3.1 TMP Proposals

A risk assessment plan similar to the one shown below (by Unesco) should be developed alongside a disaster action plan. All managers and staff should be trained in the procedures to be carried out in the event of such a disaster.

Unesco Principles of Risk Preparedness

- The key to effective protection of cultural heritage at risk is advance planning and preparation.
- Advance planning for cultural heritage properties should be conceived in terms of the whole property, and provide integrated concern for its buildings, structures, and their associated contents and landscapes.
- Advance planning for the protection of cultural heritage against disasters should integrate relevant heritage considerations within a property's overall disaster prevention strategy.
- Preparedness requirements should be met in heritage buildings by means which will have least impact on heritage values.
- Heritage properties, their significant attributes and the disaster-response history of the property should be clearly documented as a basis for appropriate disaster planning, response and recovery.
- Maintenance programs for historic properties should integrate a cultural-heritage-at-risk perspective.
- Property occupants and users should be directly involved in development of emergency-response plans.
- Securing heritage features should be a high priority during emergencies.
- Following a disaster, every effort should be made to ensure the retention and repair of structures or features that have suffered damage or loss.
- Conservation principles should be integrated where appropriate in all phases of disaster planning, response and recovery.

8.4 West Bank Conservation Office

The West Bank at Luxor is a densely packed and varied archaeological zone and in such represents a unique challenge to conservators and archaeological site managers. Recognizing this fact, the SCA, in 2005, established an office (in Davis House, at the entrance to the West Valley of the Kings) that would act in concert with the West Bank Inspectorate to manage and protect the area. We strongly support such an office.

Although not yet in operation, when open the West Bank Archaeological Management Center is intended to be both an archive and an active centre for monitoring and management of the

archaeological Zone. It will act as a co-ordination centre for all agencies involved in work in the Luxor area.

The centre will house copies of records relating to the history and condition of the West Bank, including records of excavation, conservation, epigraphy, and modern construction. It will monitor conditions on the West Bank, including weather, geology, agriculture, modern construction, and all other activity that might have an effect on the archaeological monuments there. It will oversee all archaeological, engineering, and other work on the West Bank. In addition, it will implement the Valley of the Kings management plan and develop a broader plan for the entire West Bank.

Agencies with an active involvement in the scheme include:

- Supreme Council of Antiquities
- Theban Mapping Project
- Getty Conservation Institute
- American Research Center in Egypt
- Egyptian Antiquities Information System
- World Monuments Fund
- Centre National Recherche Scientific
- Oriental Institute, The University of Chicago

8.5 Site Maintenance

Maintenance—keeping a site clean, safe, and in proper order—involves tasks that overlap conservation, clearing, and security efforts. Here, we refer specifically to the cleaning of the site, including rubbish and dirt removal, and to the cleaning of tourist and administrative facilities. A program of maintenance in the Valley of the Kings must be organized as part of one for the entire Necropolis. Here, we will concentrate on the Valley of the Kings. To ensure the safety of its tombs, the aesthetic appearance of its hillsides, and the quality of tourist experience, the Valley of the Kings should be subject to regular cleaning.



Figure 106: Rubbish Dumped in KV 27

There are five different staff groups who take part in maintenance programs:

1. General maintenance staff of local-hire employees responsible for cleaning the footpaths, roadways, and hillsides in and around KV
2. General maintenance staff responsible for the paved roadway leading from Carter House to KV, who are part of the Necropolis-wide maintenance staff
3. Toilet attendants
4. Visitors Center employees
5. Conservation staff who are trained conservators responsible for the well-being of KV tomb interiors. These groups, which may include persons from private contractors, are under the joint supervision of the SCA Inspectorate and the Conservation staff.

8.5.1 TMP Proposals

- A. A training program should be required of each employee involved in maintenance programs. It should explain the importance of this work and the care needed for its successful performance. Supervisors should demonstrate proper techniques and emphasize to what not to do on site. Employees' work should be regularly evaluated.
- B. Maintenance employees should wear an appropriate uniform, designed and provided by the SCA.

- C. Rubbish bins should be placed at appropriate locations throughout the Valleys of the Kings, parking area, the Visitors Center complex, the paths and roadways between them, and the rest stops along the road from Carter House. Ashtrays should be provided in each KV shelter.
- D. Work schedules. At the outset: Before the regular schedules outlined here are implemented, a major cleaning operation must be conducted. Hundreds of piles of construction and excavation debris line the road from Carter House to the Visitors Center, and should be removed to an approved dumping site; raw sewage has for years been dumped here and must be removed; KV tomb entrances are filled with rubbish and human waste; hillsides are littered with plastic bottles and bags.

On a daily basis:

- Rubbish—water bottles and soft drink containers, paper, cigarette butts, and the like—should be collected throughout the working day from the pathways, public facilities, and tomb entrances.
- Rubbish bins should be emptied at least once daily and, when necessary, temporarily removed to be washed and cleaned.
- The SCA should acquire a small lorry for rubbish removal as part of its Necropolis-wide maintenance plan.
- Public areas and offices—covered rest stops, the main KV rest area, security checkpoints, the inspector's office, and tram stops—should regularly be swept, wastebaskets emptied, and windows washed.
- Toilets should be cleaned throughout the day by the toilet attendants using water, approved solvents, and other cleaning aids. These, together with toilet paper, are to be provided by the attendants, if the current system of awarding maintenance and operation rights to private contractors is to be continued. At present, individuals are awarded this concession by the SCA in exchange for paying all operating costs plus a fee.
- The cafeteria will be run as a private concession under license to the SCA. The concession contract should stipulate that high standards of hygiene and cleanliness must be maintained, and that items sold be in containers that are as environmentally friendly as possible. Rubbish removal either should be the responsibility of the concessionaire or, if handled by the SCA rubbish lorry, should be charged for.
- The Visitors Center should be thoroughly cleaned each day by its own staff.

- Tomb interiors should be checked for rubbish each morning and at midday by the guards assigned to each tomb. Any other cleaning, however, should be performed by the conservation staff.
- Archaeologists working in KV must remove their excavation debris and cart it from the Valley to an SCA-approved dumping site outside the West Bank archaeological zone. They should ensure that their concession is clean, safe, and orderly throughout their field season. A check of the excavation site should be made by the inspector at the end of the field season and a report filed on its condition.
- The security offices and visitor checkpoints should be cleaned by the staff of the Tourism and Security Police.
- The First Aid station and ambulance should be cleaned by their employees and the highest standards of cleanliness adhered to. Appropriate supplies and equipment should be on hand and in proper condition at all times. This includes wheelchairs, stretchers, oxygen tanks and masks, and bandages.

On a weekly basis:

- Wind-blown debris often litters the hills in and around KV, and tourists toss litter along the tram route. The hillsides in KV and between it and the Visitors Center, the road from Carter House, and the footpaths between KV, Deir al-Bahari, and Deir al-Madineh should be examined weekly and any rubbish carried away.
- Regular monitoring of the roadway from Carter House to KV should be undertaken to prevent illicit dumping of raw sewage, construction debris, excavation backdirt, hospital waste, and other materials that have ruined the landscape in years past. Evidence of such illicit dumping should immediately be reported to the SCA's West Bank office.
- An inspection tour of the KV tombs open to the public should be made by the inspector and a member of the conservation staff each week.

On a quarterly basis:

- The interiors of KV tombs in both the East and West Valleys should be regularly inspected by an inspector and a member of the conservation staff at least once every quarter, more often if conditions warrant. Staff members should check for damage, changes in the structure of the bedrock, changes in paint and plaster, broken electrical or HVAC equipment, and the like. Using a low-power vacuum, the conservation staff member should remove accumulated dust from the wooden walkways and steps. The

bedrock floor at the base of walls should be closely examined for traces of fallen plaster or stone before vacuuming. Any problems should be immediately reported to the SCA inspector.

- Until they are permanently removed and replaced by new walkway systems, glass or plastic panels in tombs should be cleaned as necessary by employees under the direct supervision of the conservation staff. Large glass panels should be removed from their mounts before cleaning, and the cleaning should be done outside the tomb. Cleaning should be done with treated rags. Sprays like Windex or the like, which can attract dust and affect walls, should not be used. Containers of water and other liquids should never be brought into the tombs.
- HVAC equipment should be inspected and cleaned according to manufacturer's instructions. Lamps should be cleaned or replaced as necessary.
- The aluminium signs in KV should be dusted or washed. Signs at the KV entrance and in the rest area should be checked to ensure that "closed" labels are in place adjacent to tombs temporarily closed to the public.

On an annual basis: a survey of the cleanliness of KV, its tombs, and the surrounding area should be conducted annually by the head of the maintenance staff and a conservation staff member to ensure that work has been properly performed and future needs identified. A report should be made to the office of the Chief Inspector.

E. When rubbish has been collected, it should be taken by lorry to an approved dump site outside the archaeological zone. There should be separate sites for rubbish disposal, excavation debris, and garbage.

F. Necessary Equipment and Supplies:

- Store room in the Visitors Center area for cleaning supplies
- Rubbish bins, they should be of a neutral colour
- Industrial brooms
- Two industrial vacuums with speed controls (like that supplied by the TMP)
- Cloth for cleaning of glass panels
- Cleaning solvents for glass panels
- Toilet cleaning equipment (to be supplied by contracted toilet attendants)
- Uniforms for staff, to be designed by the SCA.

- Small lorry for removal of rubbish. This should be a small, neutral-coloured vehicle, identified by Arabic and English sign and SCA logo. Like the trams, it should be electric powered so as not to create noise or air pollution.
- Small portable pumps for flood emergencies. To be kept on site and checked every few months to be sure they are in working order. No more than three would be needed, and there should be several hundred meters of hose available. Over long distances, and in some tombs, the pumps would have to be used at intervals along a long uphill line in order to extract water from inside tombs.
- Small, low power, portable blowers to dehumidify flooded tombs. Flexible tubing should also be available to control the direction of air movement.
- Screwjacks to provide temporary structural support
- Mouse traps to discourage vermin attracted by tourist litter
- Fire extinguishers

G. Maintenance Personnel Requirements:

- Inspectors, appointed by SCA, to supervise the Valley of the Kings
- Conservators, to oversee cleaning of tombs and their condition
- Driver for rubbish lorry
- Four or five local hire men to collect and remove rubbish

It is likely that a part of the maintenance staff will be contracted by the SCA to the private sector, as is already the case at Giza and Karnak. Private sector employees could perform such tasks as those outlined above in programs (1)-(4). However, they cannot be expected to perform adequately the tasks of program (5), which requires trained conservators.

8.6 Site Management Information Systems

An effective visitor management system requires full integration with many other key areas of the overall site management plan. The decisions to be made and questions answered about the system include:

1. The infrastructure requirements the system will need, e.g., electricity consumption
2. Level of integration with the main Valley ticketing system
3. The feasibility of linking of any visitor number controls to internal environmental conditions, e.g., humidity, temperature, and visitor levels

It will be necessary to decide, at the outset, the level of sophistication and integration of the management information system. Should all management systems be inter-linked? How should they

be linked to other information and environmental systems? These issues are discussed in the Spanish technical proposal (Appendix V).

8.7 Summary of Proposals

- Effect changes in management structure
- Establish a program in site management training
- Establish a West Bank site management office
- Develop plans for emergencies and disasters
- Establish maintenance program
- Feasibility study of information technology needs is needed