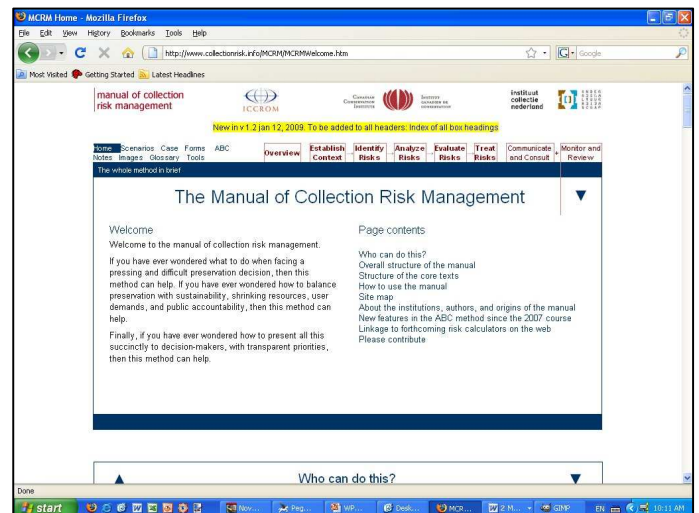
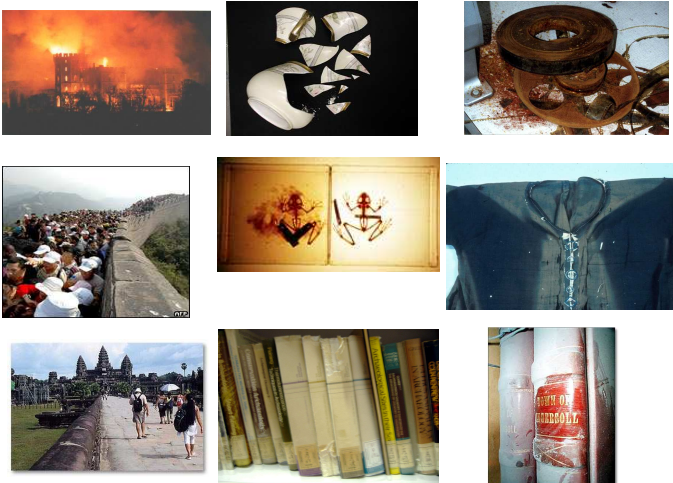


II. RISK AND DETERIORATION ASSESSMENT

TESTING THE ICCROM-CCI-ICN MANUAL OF COLLECTION RISK MANAGEMENT



For the Museum Section,
Cultural Heritage Division of UNESCO
Contract n. 4500045507
MARCH 2009

INTRODUCTION

In this area, the UNESCO-ICCROM objective is by 2009-2010 to contribute to the development of a user-friendly Risk Assessment method that could be carried out by institutions with fewer resources in a reliable and autonomous way, by:

- assessing the relevance of the method in different contexts; and
- ensuring access to the method to Spanish-speakers.

ICCROM and its scientific partners in the field (i.e., the Canadian Conservation Institute and the Institute for Cultural Heritage of the Netherlands) developed a prototype for a web-based manual of collection risk management to guide museums to assess risks to their collections and to establish an order of priorities.

In order to assess the relevance of the method in a variety of contexts, five museum professionals have been contracted to review the manual prototype. They come from Colombia, India, Kenya, Serbia and Turkey.

The reviewers assessed the manual looking at the structure of the manual and the organization of the information, the content, the language level, the level of information provided, the design of the manual, the technical accessibility (downloading, navigability) and technical errors (i.e., broken links, etc.). They also tested the manual trying to identify and analyze at least 2 risks in their specific context (i.e. write the scenarios and score the risks) and made comments on how the manual could be improved in order to better guide the users through the formulation of the scenarios.

The Universidad Externado de Colombia agreed to collaborate on the translation of the manual in Spanish. This collaboration was formalized through a Memorandum of understanding between ICCROM and the University.

ASSESSMENT REPORTS

THE MANUAL OF COLLECTION RISK MANAGEMENT

- Review by **Aisha Fadhil Ali (Kenya)** *page 4*
- Review by **Mario Omar Fernandez Reguerra (Colombia)** *page 15*
- Review by **Rohit Jigyasu (India)** *page 20*
- Review by **Vesna Zivković (Serbia)** *page 24*
- Review by **Nevra Ertürk (Turkey)** *page 27*

Aisha Fadhil Ali

**Curator
Malindi Museum
P.O. Box 939 -80200
Malindi – KENYA**

A) Comments From Going Over The Manual

1. Design of the manual

- a) Why have the scenario in the different downloadable forms if so then to have a short note to inform that if one is not able to open the document in one format then they have other options to have to open or access the document.
- b) No short instructions on how to proceed with use of the manual.
- c) To enable to have to score and scale easily, to have the score column as the last in the arrangement of the columns.

For example in Scoring Scale A

Is it possible to re-arrange and start with type of risk, the number of years, probability of occurrence and have in the last column as the score apart.

The same thing for the Value Scale B,

Again to start with type of risk, fraction of value column, word guidelines and score being in the last column.

Also for the C Scale,

Is it possible to start with range of percentage, approximate percentage, fraction of percentage, word guidelines and last column being the score.

- d) Font for the following areas at the front of the risk management manual require to be increased as the current font are very small, not quick to detect for the eye the first time and is easy to overlook;

- Overview
- Establish context
- Identify risk
- Analyze risks
- Evaluate risks
- Treat risks
- Communicate and consult
- Monitor and review

- e) The following also require to be in bigger font size as they are easy to miss with the current font size and the headings positioned to the left of the manual at the top:

- Home
- Scenarios

- Case
- Forms
- ABC
- Notes
- Images
- Glossary
- Tools

f) It would be good if the page contents were printed in a page of its own or half of the page so as to be conspicuous (stand out).

g) It would be easier to follow the order of the manual if the sub-headings had a sort of sequence to follow to indicate section that come first, those that follow and so on and also how you can move through the manual, even though one may opt not to follow the set sequence but to go directly to browse those sections that are of interest to them. Or some advice towards the arrangement of the pages for printing and binding into a document ready for reference/use.

2. The content the language level, and level of information provided

- a) Is it possible to have all the contents of the manual be arranged in a way so as to have all the information in a document with sequence without having to browse or open many windows to have access to the required information e.g to have to access to the scales, or the A, B, C scale.
- b) A lot of information to read, what about those who do not have time and need a small quick explanation to test the manual without having had a facilitator to take them through the manual.
- c) Currently not clear which information should be read or accessed first to understand the manual.
- d) The manual would be better understood by first time users if they were to be taken through the manual via a course or facilitator who can demonstrate the different aspects: for example:
 - how to use and score with the ABC scales
 - how to make use of and draw up the collection value pie for one's collections
- e) A lot information has been provided and many linkages can be found within one page link and linking to other areas e.g List of images, gives a link to the list of pictures which also provides a link to the risk management cycle (a bit slow in coming up) and so on.
- f) The important parts to assess risks should be bigger and easier to see. e.g the tools to access the spreadsheet is in small and tucked away. It would be good if this was bigger. Also as you try to open the spreadsheet it sorts of freezes and comes up after a bit of time.
- g) Being very important parts of the risk management manual, the 7 steps, which consist of: establish context, identify risks, analyze risk, evaluate risk, treat risk communicate and consult, monitor and review, these have been set up and illustrated well and are very clear.

- h) On the page, 'methods of risk based decision making' the following words have been explained well, especially for the first time users and decision makers who may not be informed of what risk management or risk assessment is all about
- Integrated risk management
 - Comprehensive risk assessment
 - Comparative risk assessment
 - Same risk assessment
 - Single risk analysis

3. The design of the manual, the technical accessibility (down loading, navigability) and technical errors (i.e broken links etc)

- a) It is easy to open the attachments and view them in the internet. Even the smaller links highlighted in blue inside each page link can be opened and comes up easily.
- b) Easy to navigate through the different sections of the manual. The pages come up quickly.
- c) Easy to navigate, the attachments come up quickly considering that some areas like ours that have on and off internet connections and this is what you need. A page that can come up easily, quickly.
- d) Tested the opening of the risk management manual in two different internet access points: one in Fort Jesus and the other from a server point hosting a cyber cafe
- i) Fort Jesus:
Accessing the manual from the Fort Jesus internet services/access encountered some slight delay for the risk management manual to come up. As you open up the risk management manual, there is a small window that pops up to say that you need to install Microsoft premium 2000, what is this?

- A window pops up to say the path 'microsoft office 2,000 premium' cannot be found. Verify that you have access to this location and try again or try to find the installation package. 'DATA.MS' in a folder from which you can install the product Microsoft office 2,000 premium' then click OK.
- The features you are trying to use are on a CD rom or other removable disk that is not available. Insert the 'microsoft office 2,000 premium'. Insert disk and click OK. Use source it says as an option
- After saying cancel and then OK the risk management manual comes up. However if you just say OK it will not come up.
- Also if you want to open up the different areas, the same thing happens, you will have to say cancel first then another window pops up and you will have to say OK for the sub-section to come up.
- During printing also the window that says 'the feature you are trying to use is on a cd-rom or other removable disk that is not available, comes up and then you have to press cancel and then ok.
- For every window that you want to open. It says above.

Il thought this to be a problem with our windows program or internet services with the Fort Jesus computer so I wanted to find out and later went to a server point that hosts a commercial cyber café.

ii) server point with a commercial cyber café.

NONE OF THE TEXT ABOVE CAME UP IT WAS EASY TO OPEN UP INDICATING A PROBLEM WITH THE FORT JESUS INTERNET OR COMPUTER PROGRAMS.

e) Endnotes and other links (not about the manual) also easy to pull up for example, even those that provide information on other aspects e.g links on museum, museum of nature, AUS/NZ STANDARD RISK MANAGEMENT cycle.

Other Comments

I gave the bound risk management manual to some colleagues not from the collections conservation field and asked for their comments on the risk management manual document that I had printed and bind for reference. Their comments are as follows:

Manager Commercial Cyber Cafe

Q. Would you be able to understand what this document is about?

R. 'With the score page as the first page in the risk management manual as it is bound, I would understand this document to be something to do with weighing risks'

Q. Are you able to understand what the scale is about?

R. 'It can be understood, this for example (the A scale), here can be understood to mean 100 events per 1000 years, have I understood this correctly, he then asks?'

Librarian

Q. Please go through the manual and give me your comments

R. After reading the example, (earthquake risk example), one can understand one what the manual is about. I would have liked the manual better if you could introduce risk management, What it is, How it is done and you provide a provide a practical example. Also it would be good if you could define what the risk scale A+B+C is about. The notes on the scale at the bottom are well explained. These scales A+B+C have to come last because if they are at the front I cannot understand, it is confusing.

CONTRIBUTIONS RISK MANAGEMENT MANUAL

NATIONAL MUSUEMS OF KENYA

RISKS IDENTIFIED, OBSERVATIONS AND COMMENTS

<u>Station</u>	Archaeology store Fort Jesus	Mombasa Wreck Store Fort Jesus	Malindi Museum	Lamu Museum
Persons Interviewed	Mr. Mohammed Mchulla Curator, Archaeological Collections	Mr. Brian Nyambu Conservation assistant	Mr. Jambo Harro Curator Gede Historical monument and museum	<u>Mr. Alawy Abzein</u> <u>Administrative officer</u>
Context	Store with archaeological and ethnographic collections store together	Store with archaeological and ethnographic collections store together	Museum in a historical/heritage Site and Nature forest. Types of collections found are: contemporary art collections, built heritage, artifacts from excavations, and natural forest within the 45 acre fenced cultural heritage historical site.	The Museum is located at the seafront of an Island. Lamu museum is an ethnographic museum in a former colonial administrative building. Lamu museum is located within a world heritage site (historical/town)
Risk 1	Physical forces	Physical forces	Physical forces	Physical forces
Comments	<ul style="list-style-type: none"> - Pots break during cleaning, - No proper supports for artefacts, - No proper storage, - No directions for accessing collections - Use salty water for washing collections, - Leakages as store directly under tree, fallen leaves clog drainage pipes - No plans to address flood problems although no floods - Arrangement of artifacts, when one falls, can break others in the process 	<ul style="list-style-type: none"> - space in store small, inadequate to enable movement with objects freely -crowding of collections -no ladders to retrieve artifacts on higher shelves use stools -packaging materials not secure -non staff who maintain equipments e.g the a/c's not aware of the importance of collections, can touch them without asking - 	<ul style="list-style-type: none"> - as the heritage site is fenced and found within an active living community, they are always threats from people who want to cut trees in the site (for use as building materials). The site fence is always cut by the community not because they want to appreciate the built heritage or appreciate the built without paying but because they want to cut the forest/trees for their multi-purposes uses (building materials, making charcoals, etc). - they also pose a security to the collections 	<ul style="list-style-type: none"> .- political interference. All policy makers in Lamu understand issues of conservation of heritage sites but conservation matters not upheld
Risk 2	Criminals	Criminals	Criminals	Criminals
Comments	<ul style="list-style-type: none"> - No case of theft or criminal on collections so far - only problem is with the outside of the store with the presence of the drain, which is always vandalized 	<ul style="list-style-type: none"> -no theft so far because keys controlled, door secure, -store is a further from visitor traffic pathway 	<ul style="list-style-type: none"> - as the museum collections have no price tag, they are valuable. - criminals are attracted to the museum because of the gate collection and monies from other 	

			<p>activities happening within the heritage site, for example at the Kipepeo butterfly farm that promotes butterfly farming and produces honey has been broken into as people thought money was kept here. Money is easily accessible to steal from this office which is near the museum.</p> <p>- also as people see many international visitors come into the site, they think there is a lot of money to steal and so are attempted to come and break especially as they see few staff in comparison to the large area of the site.</p> <p>- another reason perhaps for criminal activities is that the community feel delineated from the museum management process.</p>	
Risk 3	Fire	Fire	Fire	Fire
Comments	<p>- if fire comes no control no facilities to secure fire outbreaks no extinguishers, electrical lines touch the roof of the store, fire risk great, store has iron roof</p>	<p>- No experience with fire as a hazard so far</p> <p>- Some fire control equipments are in place</p> <p>- The staff have had short training in fire fighting</p> <p>- No cooking or smoking in store is allowed</p> <p>- Chances to deal with fire problems are those of electrical faults</p> <p>- electrical system is such that if there is a problem the main electrical board trips</p> <p>-Minimal gadgets of electricity located in store, only the fluorescent lights</p> <p>And two switch points to use with electrical appliances</p> <p>- wood shelves are also away from the wall and electrical switch boxes</p>		<p>- unplanned developments of Lamu town. The museum has no capacity to supervise the construction work in Lamu (for example, there is a building that has been built next to Lamu museum leaving very little space in between the two. If fire catches the next building, the museum will also catch fire and great damage will occur from the fire, even theft would be easy one simply jumps from one building to the next.</p> <p>- as museum has not done</p>

Risk 4	Pests	Pests	Pests	Pests
Comments	<p>Termites appear occasionally round the building. They come and go but when they come the cons. Staff apply some chemical round the store building (in trenches). At one time, entered store and attacked the wooden shelving accommodating the boxes of sherds. No breakages from this so far. Silver fish and wood borers have also been noticed on shelves holding boxes with art A lot of problem of dust due to openings\air vents</p> <ul style="list-style-type: none"> - no assigned to clean store on a daiy on weekly basis and store the dust stays - artifacts from the filed also come with a lot of dust increasing the dust concentration in store - no designated space in store to clean collections ifacts 	<ul style="list-style-type: none"> - Rare risk as all wooden collections are frozen before they are put into the store with the rest of the collections - Have experienced termites attacking the doors of the store but these controlled and regular checks made - store has only two window openings and two doors and all these sealed most of the time except for the entrance door which is closed when no one is in store 		<ul style="list-style-type: none"> - pests is our second major threat especially rodents. Lamu town has open sewerage systems (old sewerage/drains that are functional to date) and a meat and vegetable market close by, a distance of 200metres. These make good .environments for rats to thrive
Risk 5	Pollutants	Pollutants	Pollutants	Pollutants
Comments	<ul style="list-style-type: none"> - A garbage dump is found nearby. A lot of bad gases also come into the store as nearby, there is the small court which sometimes pours off illicit brew caught evidence. - A lot of problem of dust due to openings\air vents - no assigned to clean store on a daiy on weekly basis and store the dust stays - artifacts from the filed also come with a lot of dust increasing the dust concentration in store - no designated space in store to clean collections 	<ul style="list-style-type: none"> -Dust introduced in store when people enter the store only -Smoke filters in when leaves and garbage is being burnt outside 		<ul style="list-style-type: none"> - pollutants in the form of sea salts that come in to the museum. Our collections on open display suffer a lot e.g the bronze canons outside Lamu museum have to be cleaned with brasso daily.

Risk 6	Light	Light	Light	Light
Comments	Bones are found on open shelving, fans can be found inside the store, fluorescent lights switched off most of the time only when people are working,	-Only three fluorescent tube lights found in store - No one works in store -Lights switched off most of the time -windows blocked -Both doors locked most of the time -Bird light cages at walls to the side emit some light		
Risk 7	Incorrect Temp.	Incorrect Temp. (water)	Incorrect Temp.	Incorrect Temp. (water)
Comments	Presence of mould on bones perhaps because of the problem of temperature	- During rainy season, the flat roof of the store allows water to penetrate in the cracks - No major floods so far -Damage by water to collections is from the a/c due to lack of proper drainage when the pipes block - No major floods so far -Currently controlled through two a/c's that run continuously day and night - all openings sealed	- My threats to collections also are as a result of the natural forces (incorrect temp and RH) . Some metal objects corroding. - we do not have a conservator on site to monitor and control these problems.	- as the museum is found along the seafront only 10 metres from the sea, and the museum building has been built in an area that has been reclaimed from the sea, the greatest threat is water and strong winds even though we have not experienced major flooding.
Evaluation of Risks	Overall Comments, perception of the biggest risk on a level scale of 1 - 5	Overall Comments perception of the biggest risk on a level scale of 1 - 5	Overall Comments perception of the biggest risk on a level scale of 1 - 5	Overall Comments, perception of the biggest risk on a level scale of 1 - 5
	1. Fire: If a fire breaks out, can do nothing	1. Fire: If a fire breaks out in the night, no fire alarms, no emergency plans to deal with fire, difficult to detect fire outbreak immediately, due to vicinity of store	1. Un-foreseen Fire This is the biggest threat for me as we are in a heritage site with many trees and surrounding by a forest. We have a lot of visitors, local visitors, school children, international tourists, even the community who come to request for dried firewood from the forest around the museum. These people when they visit the museum, they want to discover. Also the fact that nearby we have an active community who cook and burn trees to produce charcoal poses a big fire threat to	1. Water (Flooding) This is the biggest threat as our museum is just directly facing the sea (hardly 10metres from the sea line wall) and while we have had no floods, we could be submerged or flooded in minutes should the sea wall collapse.

			<p>the Gede cultural heritage site. When fire will happen we will be completely destroyed.</p> <ul style="list-style-type: none"> - afraid of electrical faults or power surges which are very frequent around this part and because we are surrounded by forest, difficult to monitor all visitors and their activities and therefore if fire breaks out in the night or anywhere around the site will be difficult to detect and control it immediately <p>3. Natural forces 4. Physical forces</p>	
	<p>2. Dust: Because of structure of the building</p>	<p>2. Criminal: Can happen without someone knowing and can only be detected when there is a request for this particular item or during inspection of collections or during audit</p>	<p>2. Criminal activities One way that the museum has tried to bring the community closer to the museum to reduce the threat of vandalism especially from the feelings of being delineated from the museum management process is by bringing the community closer to the museum. The museum brings the community on board by for example providing a market place for the buyer and the producer of artwork and handicrafts of the local community. This has been done by creating space where temporary exhibitions can be put up by the community, a place where they can bring their things and sell to visitors coming into the museum. Museum encourages producers of eco-friendly products and in one month can raise around 200,000Kshs (approximately 2,666US\$ when calculated at the current exchange rate of 1US\$= 76Kshs).</p>	<p>2. Incorrect Temp (RH and temp) we have no equipments to control or monitor the climate so this is also a big problem for us</p>

	3. Physical forces: Due to proper shelving an storage facilities	3. Physical Forces Can happen disastrously during conservation management processes or when the maintenance people are not supervised in the store		3. Pest/Rodents We cannot relocate neither the fish market or the vegetable market so pest will be a problem.
	4. Incorrect temp: Due to dampness and problem of mould growth on bone collections		4. Physical forces To reduce the problem of the community cutting trees in the heritage site without the knowledge of the museum, the community is allowed to come into the museum/forest with rope and get dried firewood. They are not allowed to come in with a 'panga' or 'shoka'	
Issues Overlooked	Plans of the store: future expansion of store not considered -what will be stored inside the store not given consideration -storage space to define types of collections to be stored and to go hand in hand with storage management plans -to have a system for researchers for storage of their collections that they bring from the field and their access and management, because when they have excavated and brought to the museum store, the find these are left as museum collections with no further plans -require to have a full time person attached to researcher when they are doing research on collections in store		Designs of the museum during construction	- Illiteracy or lack of awareness to staff on basic conservation measures and environment
Treatment of Risks from evaluation above	Treatment of Risks from evaluation above	Treatment of Risks from evaluation above	Treatment of Risks from evaluation above	Treatment of Risks from evaluation above
	1. Fire -Provide for iron shelving	1. Fire -improve by installing fire alarms, put	1. Fire - train staff on how to deal with	1. Water (Flooding) - need to put up a continuous

	<ul style="list-style-type: none"> -re-route the electric cable above the iron sheets (roof of store) -install fire extinguishers -regular checks for electrical faults, electrical wiring, 	<p>in place fire management committee, and plans to deal with fire, increase fire fighting equipments that can handle all types of fires, provide fire fighting training programs</p>	<p>fires, have had fire fighting training programs but these require to be provided on a regular basis</p> <p>-insufficient knowledge and facilities to handle large fires</p>	<p>maintenance program for the museum building and the sea wall just in front of the museum</p>
	<p>2. Dust</p> <ul style="list-style-type: none"> -Cover ventilation Openings -put up a schedule for cleaning -assign one specific cleaner to store -create separate area for sorting, cleaning and labeling collections -proper researcher depository policy 	<p>2. Criminal</p> <ul style="list-style-type: none"> -put in place security gadgets, to detect theft, duplicate keys and to stay with curator, have awareness programs on issues of theft of museum collections and what to do when this is observed 		<p>2. Incorrect temp. (water).</p> <p>- If had an opportunity would like to control temp and RH and to have tools to take readings and monitor them and readings to be interpreted.</p>
	<p>3. Physical forces</p> <p>Proper handling and supporting, adequate storage units</p>	<p>3 Physical forces</p> <ul style="list-style-type: none"> - Come up with ways to improve storage space and to lessen overcrowding of collections. Install adequate shelving, supports, - Provide tools for handling artifacts, enlighten staff on handling practices - Introduce tools to access artifacts on higher shelving levels <p>Equipments e/g the a/c's create more space for maintenance of these without them having to compete for space with the museum collections</p> <ul style="list-style-type: none"> - Put instructions on the storage door on the best methods for handling collections or signs to contact collection manager for retrieving collections <p>Put</p>		<p>3. Pests</p> <p>We keep cats to catch the rats. They have helped us with this problem. Also if we could have contracts with pest control companies, to do dusting and spraying regularly, this would help a lot. We hope to have a plan for monitoring and trapping.</p>

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I. Review of the Manual

I.1. Structure and organization

The Manual's overall structure through the seven steps follows the organization of the technical norm (**AS/NZS 4360:2004**). The site gives clear information for users of different kinds; even without having any experience about risk assessment, is easy to understand all the components involved into the process.

Another important point is the layer organization within each step. This structure provides as well, different information levels according to the user's needing. Flexibility is probably the most important thing about the whole structure. Overview pages and/or "the whole method in brief" section for instance, give to the users the possibility of having access to the diverse parts of the Manual.

In addition, supporting pages provides complementary and helpful information without interfering with the use of the Manual itself.

I.2. Content and language level

According to the Manual's structure and its flexibility, the contents and language cover a wide specter of information; from a very basic *beginner* stage to a deeper and complex level such as the "background ideas" layers. In an overall view, the language is succinct.

A remarkable aspect of the content is the "examples layer" which brings precious information about the methods application. Even if it's a preliminary version, it is important to complete the examples for all the different steps.

On a more specific degree, in the “analyze step” the *dissociation* agent is not easy to understand mainly because it does not follow the same classification logic than the other agents. Water, light or pollutants for instance, are actual forces that generate deterioration processes while dissociation rather seems to be a result of many other factors that one cause in itself.

I.3. Design and technical accessibility

In general terms the design gives a clean and neat look which helps viewers not getting tired when reading. The use of color in order to differentiate the main section from the supporting pages section it's really functional. However the red section is very large and it's not always easy to keep the location on a specific point like, for instance, in the “analyze step” where there are 10 different agents. As a suggestion, maybe it will be convenient to employ some design elements in order to make a more emphatic distinction between each agent across the page and not only on the headings.

The technical navigability of the website is good and there is no delaying or downloading problems opening the pages; even the image files can be easily downloaded with any average internet connection.

Some of the downloading files, as for instance the PDF's ABC scales, should be able to open in a different window without getting out of the main Manual's page.

Technical errors

1.
Page: Home page (<http://www.collectionrisk.info/MCRM/MCRMWelcome.htm>)
Section: Overall structure of the manual
Error: First glossary broken link.

2.
Page: Home page (<http://www.collectionrisk.info/MCRM/MCRMWelcome.htm>)
Section: Site map Step 3 Analyze Risks
Error: The numeric order of the agents fire and water is twisted.

3.
Page: Home page (<http://www.collectionrisk.info/MCRM/MCRMWelcome.htm>)
Section: Site map Step 4 Evaluate risks
Error: methods broken link.

4.
Page: Home page (<http://www.collectionrisk.info/MCRM/MCRMWelcome.htm>)

Section: Site map Step 6 Communicate and Consult

Error: Overview broken link.

5.

Page: Home page (<http://www.collectionrisk.info/MCRM/MCRMWelcome.htm>)

Section: Site map Step 7 Monitor and Review

Error: Overview broken link.

6.

Page: Images (http://www.collectionrisk.info/MCRM/X_ImagesList.htm)

Section: List of slide shows

Error: Download link is broken

7.

Page: Method of the identify risks step

(http://www.collectionrisk.info/MCRM/3Identify_00_C.htm)

Section: Checklist

Error: CCI Preservation framework poster link is broken

8.

Page: Method of the identify risks step

(http://www.collectionrisk.info/MCRM/3Identify_00_C.htm)

Section: Write the specific risk scenarios

Error: Anomarchi et al 2005. link is broken

9.

Page: Method of the analyze risks step (all agents)

(http://www.collectionrisk.info/MCRM/4Analyze_00_C.htm)

Section: Between Analyzing C if all objects have equal value and Analyzing C if objects vary in value: Using the collection value pie

Error: Open the C scale in a new window link is broken.

10.

Page: Method of analyzing the agent "light and UV"

(http://www.collectionrisk.info/MCRM/4Analyze_07LightUVIR_C.htm)

Section: Adverse effect theory

Error: Note link is broken.

11.

Page: Method of analyzing the agent "light and UV"

(http://www.collectionrisk.info/MCRM/4Analyze_07LightUVIR_C.htm)

Section: A score: How to calculate time for fading by light

Error: Both links "technical facts about object sensitivity:" does not work.

12.

Page: Method of analyzing the agent "light and UV"

(http://www.collectionrisk.info/MCRM/4Analyze_07LightUVIR_C.htm)

Section: A score: How to calculate time for fading by light

Error: Note link is broken.

13.

Page: Method of analyzing the agent "light and UV"

(http://www.collectionrisk.info/MCRM/4Analyze_07LightUVIR_C.htm)

Section: Describing adverse effects of light (B score)

Error: Note link is broken.

14.

Page: Endnotes (http://www.collectionrisk.info/MCRM/X_Notes.htm)

Section: Average effect

Error: Analyze Overview, Analyzing for the B score link is broken.

15.

Page: Endnotes (http://www.collectionrisk.info/MCRM/X_Notes.htm)

Section: Value measurement: Public value

Error: Second "Jura Consultants, 2007" link is broken.

16.

Page: Glossary of collection risk management

(http://www.collectionrisk.info/MCRM/X_Glossary.htm)

Section: AS/NZ 4360:2004

Error: <http://www.riskmanagement.qld.gov.au> link is broken.

17.

Page: Glossary of collection risk management

(http://www.collectionrisk.info/MCRM/X_Glossary.htm)

Section: Agent(s) of deterioration

Error: http://www.cci-icc.gc.ca/framework/index_e.shtml link is broken.

18.

Page: Glossary of collection risk management

(http://www.collectionrisk.info/MCRM/X_Glossary.htm)

Section: Guideline

Error: The page of the source

www.agimo.gov.au/publications/2005/04/agtifv2/glossary no longer exists on that web address.

19.

Page: Glossary of collection risk management

(http://www.collectionrisk.info/MCRM/X_Glossary.htm)

Section: Linguistic scale

Error: <http://www2.ipe.liu.se/rwg/igls/igls2002/Paper140.pdf> link is broken

20.

Page: Glossary of collection risk management

(http://www.collectionrisk.info/MCRM/X_Glossary.htm)

Section: Stage(s) of control

Error: CCI Preservation Framework Poster (http://www.cci-icc.gc.ca/framework/index_e.shtml) link is broken.

II. Test and study cases

The use of the Excel form sets a limit of five classification options for the value group, reducing the flexibility of this tool. Furthermore, the lack of examples in the Manual makes really difficult to build the whole scenario. Even if the Manual is clear for the understanding of the method, another different thing is to apply it. In that sense, the “examples layer” and the “background ideas layer” build bridges between these two sides.

Another suggestion in order to improve the formulation of the scenarios is to incorporate the ABC scales into the Excel sheet as one unique tool.

Through the use of the Excel form and due to the experience we have in our regional context, the introduction of the “worst case” and “best case” scenarios, adds much more complexity in the risk analysis, mainly because sometimes there is not enough information in order to accurately calculate the degree of uncertainty. This inconvenience becomes clearer, watching the examples like “viewers collision” provided on the sheet, where the differences between the worst and the best cases imply a huge range of variation for the B score.

III. Future collaboration

Taking advantage of the strengths on the field of professional formation, the University can collaborate in the training of different publics in the use of the Manual in two senses: on one hand, incorporating the method into the regular preventive conservation lectures for restorers and museologists; on the other, preparing training courses for museum’s staff in Colombia and in other countries of the region, under the frame of the ICCROM's LATAM programme.

Rohit Jigyasu

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Firstly, I wish to thank ICCROM for giving me an opportunity to review the manual. I would like to commend the author and other contributors of the manual for putting together this excellent document, which will serve as a great tool for the museum professionals for undertaking comprehensive risk assessment and management of their collections by following a systematic methodology.

In this report, I have put together a few comments and suggestions, from the perspective of a risk management professional and also that of a potential end-user of this manual.

1.0 The Structure of the Manual and the Organization of the Information

The manual of collection risk management is very clearly structured into various sections, which deal with essential steps for undertaking risk management. However, I would like to make the following suggestions:

1.1 Users' Guide:

The structure of the manual and links between various parts should be explained in a greater detail as Users' Guide. More suitable graphical method like 'concept tree/flow diagram' can be a useful to explain how various parts of the manual link to each other.

1.2 Layout of Each Step:

Each step has been sub-divided into three parts, namely the examples, the method and background Ideas respectively. This helps in clearly organizing the content on each step. However, I would like to recommend that the sequence of these subheads be changed to background Ideas, the method and examples.

Rather than having a separate sub-head on examples, it might also be useful to hyperlink the examples at suitable location in the background and method.

Alternatively the examples may be put in boxes and included along with the main text at appropriate location. This would make these examples relevant to the context in which they are understood.

"Page contents" within each sub-heads should be reformatted so that they do not get mixed with the main content.

1.3 Hyperlinks to notes and glossary:

The notes should be hyperlinked to the main text, wherever they are relevant. The glossary is very exhaustive and has well organized list of key terms and definitions with references. It is suggested that in the main text of the manual, these terms are hyperlinked to their definitions in the glossary.

2.0 The Content, the Language level, the level of the information provided.

The manual is very rich in its content. It explains the background and methods in great detail and substantiates these with relevant examples.

The language level as used in the manual is easy to comprehend even for nonnative English speakers.

2.1 Suggestions on the Content:

- Since the manual is to be used as a comprehensive guide to the users, who may not have enough time at their disposal to do extensive reading, it might be better to write the main text as bullet points with hyperlinks to detailed explanations, wherever required.
- Some of the content can be redesigned as checklists, which would help the Users to accomplish various steps e.g. checklist to evaluate existing management systems.
- More visual illustrations/photographs should be included to substantiate the text.
- Since the users may not be able to follow all the steps at once, it may be useful to develop some exercises/activities that can be done by the users at their own will for example 'Cause-Effect Analysis' or "Stakeholder Interviews for Identifying risks', 'Assessing Institutional Capacity' etc.

In my opinion, the following topics need to be explained in greater detail in the manual:

- The difference between various types of risk management and risk assessment (ref. the section on 'Risk-based decision-making' under the head of 'overview) should be explained in detail.
- The diagram under the head of "Establish the Context' may be made more legible.
- Page contents under the head of "Methods of the Establish Context Step" may be organized in logical order e.g. collection value pie may be dealt after stakeholders, sources of knowledge. Also the 'tasks scope and decisions supported' is more closely linked to legal, financial and government contexts.
- The probability theory needs explanation, especially in relation to risk assessment methodology. This may be covered in notes and hyperlinked to the main text.
- Method for identifying and analyzing risk step (all agents) may be explained through visual illustrations.
- Calculations of scoring process using ABC method should be explained in greater detail. More examples/self exercises are needed to explain the process.
- Since the manual is on 'Risk Management of collections' and not just risk assessment, it is suggested that the sections 'Treat Risks', 'Communicate and Consult' and 'Monitor and Review' should be expanded to include various relevant topics in greater detail. For example, the section 'Treat Risks' should include options for treatment of various kinds of risks depending on the types of agents/hazards.

2.2 Detailed Case Study:

A detailed case study may be included in the manual to explain the entire risk management process. This would help to show the practical application of the

methodology explained in the manual using electronic as well as paper based method for risk assessment. One of the examples in risk assessment spreadsheet (in Excel) may be expanded for this purpose. The case study should also demonstrate evaluation, prioritisation of risk treatment options as well as monitoring and review.

2.3 Review Exercises:

I strongly recommend that review exercises are included at the end of each main section (step). These review exercises may be designed using various formats such as objective type questions (single or multiple answers), true/false, drag and drop, mix and match. The user of the manual should be able to take these self tests to qualify for the next step. A final exercise may be designed at the end, which would test the user's ability to understand the manual.

3.0 The design of the manual, the technical accessibility (downloading, navigability) and technical errors

The manual has been well designed. However, I would like to make following suggestions:-

- The design of the manual is quite user-friendly. However there is scope for improving it.
- It would be useful to develop a better user interface through hyperlinks and more visual illustrations.
- Audio / Video clips may also be included to make it attractive for the end users.

Main Design and Layout:

I am of the opinion that there are too many variables/tabs at the top of screen page. I would suggest that only main steps of risk management should appear in the horizontal format. Other variables should be moved to the vertical format and designed to appear as supplementary information. Links to these may also be provided to the main headers on the top (e.g. the sections on 'establish context step' and 'identify risks step' may be linked to specific forms and tools, ABC may be linked to analyze risks etc.) – Refer Figure on the next page. No technical errors like broken links, language error, and discrepancy in the format were found in the current draft.

I would be happy to provide further support in the finalisation of this important manual, notably in the content, design and format.

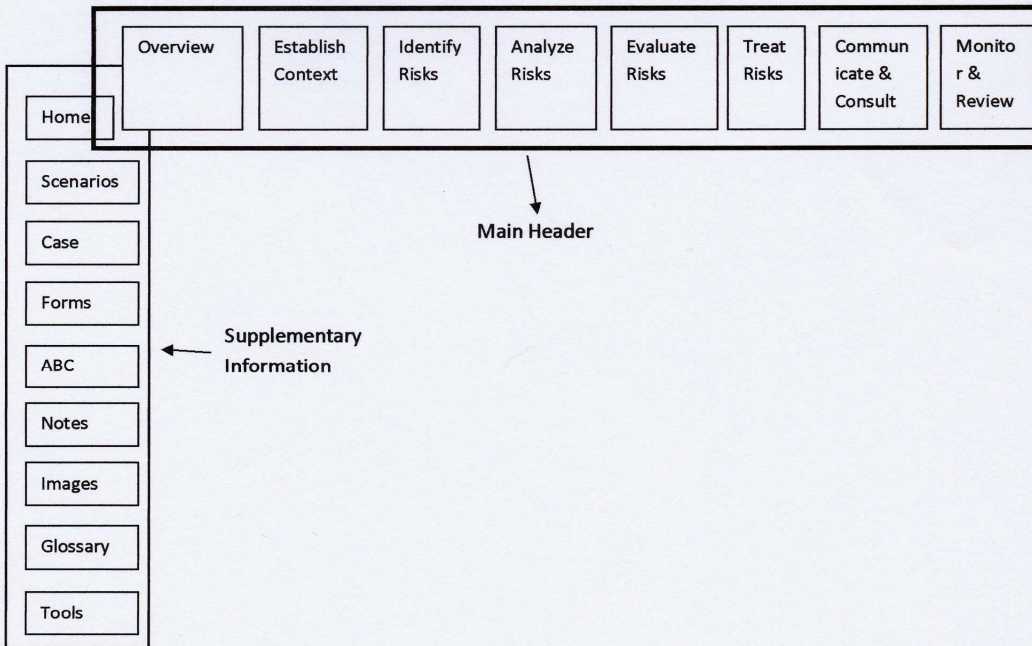


Fig.- Main Design and Layout

Vesna Živković

National Museum of Belgrade
SERBIA

Browsers which were used in review: Mozilla Firefox version 3.0.5 and Windows Internet Explorer 7.0.5730.13. I did not notice specific browser problems, except that there is an appearance difference in fonts between two browsers.

I. Review and assess the Manual of Collection Risk Management

The structure of the manual and the organization of the information

Purpose of the site is clearly stated in the head title. It is an educational and informational site and follows the structure of the manual (who, where, how). But since there is also an intention that the site is used as a tool, it would be preferable to have a section which only follows the steps for calculations of the risks. For now link to ABC scales gets you back to analyse step with all the data and in detail explanations.

The home page should focus on welcome and on the basics of the website purpose since all the information which are now on the home page give too much data for search engines and load time (see further downloading).

I had a problem in use of multilayered structure of the steps of the method and the way the information are, as it was said, scattered through the site. At one point with no connection with the site review I needed the table for sensitivity of materials and I knew that I saw it on the site. I went for tools as first logical point, then to analyse step and could not find it simply because I was not sure where to look for. Even now while I write this I needed some time to remember where the table was (see further navigation).

This approach to the organization of the information will limit the usability of the site when a user who has never seen the interface or used the methodology needs to learn how to apply the method. After a month though I'm familiar with the method and approach I still do not feel totally comfortable in using the site and I'm a bit confused when trying to juggle the data provided in examples, method and background information.

Additional questions: Why for example Area Scale shows on top menu separately, but not on the home page, only after, while it exists in the tools. And when you click on Area scale you are in Analyse risk step, but where - in the method or in example?

Should not be index separated from glossary in the menu?

"The whole method in brief" link is basically hidden in the toolbar, which should be avoided by using unified navigation.

As service tool the index was developed and helpful tools provided as glossary, charts and diagrams, etc, so I would consider that aspect of the site very well covered.

The content, the language level, the level of information provided

As the site is developing as the real content provider, the content has to be with clear focus and consistent, which is the case. The sources of information and factual data are listed and

they can be checked through references. The text has backup in very practical information and examples. Visual content is not very clear but building it is still in process, so I would expect more concerning that element of the site.

Relevant articles can be accessed through the site and for need of reviewing there is a list of recent updates which should be maintained.

The language is clear and the level of information in accordance with the expertise of the authors.

The design of the manual, the technical accessibility (downloading, navigability) and technical errors (i.e., broken links, etc.)

The design of the site is simple and clear, and the texts are easily readable. Any of the viewers, like flash, were not used. The format and colours code is quite appropriate to the purpose and the content.

Technical accessibility: The pages do not have page description which is important for the search engines on the web. Though the pages have large HTML size they upload quickly. For example the home page of 143.39kb uploaded in 1.246885 seconds. However the size of the pages, especially with the large amount of the material could represent the problem.

List of images: When there is a large image for download there should be a "small" version for review and other uses. The ideal version is to have thumb for quick review, with a possibility for full screen preview (still small in size compared to full version like image of risk management cycle for poster). It is possible to organize list of pictures as a gallery with several download option for each image.

The site is not too deep. The scrolling is minimized by using anchors on the page.

At the first look navigation of the site looks easy provided by unique and clear system at the pages using top menu, page menu and anchors; mouseover is also used. But there are two top menus which could be confusing. Top menu should only cover the main sections and the side menu is used for specific topic. And when it comes to main steps of the process too many navigation methods have to be used to come to the specific topic. In these cases the tree view menu is usually used. Probably each section in this site should have side menu organized as tree view so that at every page it is clear where it is page's in section hierarchy. The side menu should unify all the navigation in current section (selected in the main top menu).

Technical errors: At first I did the tracking of broken links manually but as it was obvious that there is a rather important number of broken links, as well as that in further development of the site more broken links will be created I used Free Link Checker (<http://www.control-f.com/FreeLinkChecker/>). The result of the analysis is a list of links with 404 error but also the fragmented links and external links which were not available. The programme gives a reference to the specific link which was not found at the processed page and the line (+1) in the page source where the reference is located. The result also contains the number of anchors at that specific page (a hyperlink destination inside a document).

Anchors are not active at the following pages:

http://www.collectionrisk.info/MCRM/0RiskMan_B.htm#SingleRiskAnalysis

http://www.collectionrisk.info/MCRM/4Analyze_00_C.htm#IntroductionABCScalcs

Please find enclosed a txt result of the broken link tracking.

II. Test and become a user

The scenarios which were used are related to the small gallery collection of 417 paintings where the whole collection is considered to be of important local value. The process of categorisation is still in process and the curator was not able to give an information on the objects of national importance or the precise number of objects in other value categories, but the tendency is to categorise the whole collections and not singular objects. Based on the discussion it was concluded that the paintings which are considered to be of any higher importance are exhibited (around 90 to 130 paintings), but in the process the paintings are treated as of equal value, taking into account that the lost of the exhibited paintings in the worst case could be higher. The risks analysed are risks due to inadequate relative humidity, risk of theft and risk of water leaking through the roof in the exhibition space.

Results from the paper and electronic forms are similar, though the equivalence approach gave a bit elevated magnitude of risk in the case of RH risk, probably due my inexperience in such calculations.

Commentary on how the manual could be improved: Unification of the navigation would provide a better overview of the available information on the development of the scenarios. For example in tree view it would be possible to see where are both introductory infos and example of the bad scenario (in identify risk) and data on the main body of scenario (in analyse risk).

I would also suggest the creation of a tool section which would guide users through the process of scenario writing and calculations step by step using simple guidelines like in the Excel form and using for example a tool tip for each specific topic, with the references to the main text.

I'm looking forward that web calculator will be integrated in the manual which means that the Excel will be excluded from the use. Excel is a part of the commercial software and it might not be available to everyone. It is intended to be used as tabular calculator and it is not very handy tool for this kind of use.

Note: in the automated value pie calculator and in the explanation of the value pie the possibility that for example the 4 national treasures carries the different percentages of value in the total of 25% is not addressed.

III. Future collaboration

Since the web site is still in development the different situation will be created when the site is in use. It will be necessary to do additional review after the site is completed and than regular reviews in its use on functionality, usability, update, maintenance, etc. I would be interested to continue to work on the reviewing aspect in both major phases, before the completion and after completion of the site.

The other thing where I could contribute is with examples from my specific context, especially dealing with lack of information, issue of values and development of scenarios, based on experience in applying the method in my and my colleagues work.

The contribution is not dependant on the specific timeframe.

Nevra Ertürk

**Yildiz University
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TURKEY**

I. To review and assess the Manual of Collection Risk Management

• The Structure of the Manual and the Organization of the Information

The web manual is well-structured and well-organized in general, however, the following minor changes are needed;

Home page

Welcome

Prevent repetitions in “welcome” part, start with the following sentence “This manual can help”, and then continue with “if you have ever...” . In this way, the benefits of this manual is much clear.

Page contents

Reorganize the titles of the page contents in the following order as well as with some wording changes:

Who can use the manual?

Overall structure of the manual

Webpage structure

How to use the manual

About the manual

Linkage to the forthcoming risk calculators on the web (add information)

Site map

Please contribute

Structure of the core texts/Webpage structure of the Overview and the 7 Steps

Add the following information to the text; “when one click blue boxes, links are provided on all pages to allow one to navigate via steps or via layers”.

Site map-core pages

In Step 3, switch the place of water with fire.

About the institutions, authors and origins of the manual

Write the explanation of the abbreviation of ICCROM .

New features in the ABC method since the 2007 course

Put this text under ABC scales link on menu bar in order to put all information regarding the ABC scales under one title.

References

References link can only be accessed through home-supporting pages. References which may consist of books, articles or technical notes, are either important for further reading or to give an idea of publications in the field. Thus, this important item, should be added to the menu bar as a separate title.

Menu bar

Reorganize the titles in the menu bar as follows;

Home

ABC Scales (it is better to understand the content first and then download the tools/forms; read scenarios and check images)

Tools

Scenarios

Case-studies

Images

Glossary

Notes

References

Scenarios

Add scenarios for the following agents of deterioration; criminals, fire, water, pests, light UV, incorrect temperature, incorrect RH, dissociation.

Case-study

Add information to case-study.

Forms

Highlight the words of "ABC method" and "tool" in blue and put links for both.

Add the titles of "basic lists of risks" as well as "scenario form" into the forms. It will be useful to see the titles in case of printing.

Endnotes

Add short information to the following endnotes;

ABC Scales: Design issues

ABC Scales: Conservation to other scales

ABC Scales: History of changes

Bounded rationalism

Collections in historic buildings: the RH problem

Collections in historic buildings: The New Orleans Charter

Frameworks: ICCROM Risk to Collections

Frameworks: Plenderleith and Werner

Global Warming: Effect on the future

Lack of feedback, the problem of

Light fading: Rate change over time

Light fading: Rate change with prior exposure

Light damage: Forms other than fading

Likelihood, probability, and frequency, equivalence

Likelihood and rate, equivalence

Linguistic scales
Multi-attribute utility theory
Risk management: Use by government
Social Discount Rate
Systems of risk management
Systems of risk management: Insurance
Uncertainty

Images

Add instructions on how to use the images.

Glossary

It is good to have glossary sources and especially their abbreviations at the beginning of the glossary section.

Add definition to the following words; aggregating, disaggregating, ensemble (Mw)

Put the following words in alphabetical order; aggregating, average fractional loss of value to the objects, magnitude of risk, magnitude scale, no observed adverse effect level, numerical scale.

Tools

Put "forms" and "tools" together under one link as separate 2 links (forms and tools) cause confusion. Forms and tools can be accessed through "tools" link as forms are also another types of tools used in the collection risk management.

7 steps of the risk management cycle

Reorder the sub-links in the 7 steps of the risk management cycle in the following order;

Summary

Methods (it is better to learn the method first and then check the examples)

Examples

Background ideas

Overview

Remove "the whole method in brief" link from "overview" section as the same link is always on the left side of the main page.

Page contents

Change the second content entitled "single risk assessment example" into "same-risk assessment example".

Methods of risk-based decision making

Add links to the 7 steps under the following contents; "same-risk assessment", "comperative risk assessment", "comprehensive risk assessment", "comprehensive risk management"

Background ideas of risk-based decision-making

Add information to "dealing in value and loss of value"

Establish the Context

Examples of the establish the context step

Add information to this step.

Methods of establish the context step

Add information and reorganize the page content.

Background ideas for the establish context step

Add information to this step.

Identify Risks

Summary

Underline or make bold the following words; "same-risk assessment", "comperative risk assessment" and "comprehensive risk assessment".

Examples of the identify risks step

Add information to this step.

Background ideas of the identify risks step

Complete the sentence under the diagram of "objects at risks".

Analyze Risks

Examples of the analyzing risks (all agents)

Add example and information for sporadic events.

Add information and examples to the following agents; criminals, fire, water, pests, light and UV, incorrect temperature, incorrect RH, dissosication (as aforementioned in [scenarios](#) link).

Add risk scenario final form, ABC scores and discussion of the uncertainty to incorrect RH.

Evaluate Risks

Add diagram and content for the steps of examples, method and background ideas.

Treat Risks

Add diagram and content for the steps of examples, method and background ideas.

Communcation and Consult

Add a short introductory information (summary), diagram and content for the steps of examples, method and background ideas.

Monitor and Review

Add a short introductory information (summary), diagram and content for the steps of examples, method and background ideas.

A general observation is that the hard-copy of the web manual is required as it is sometimes getting harder to follow up the information via the web.

• The Content, The Language Level, The Level of Information Provided

The dictionary defines the term "manual" as pertaining to a "small reference book, esp. one giving instructions". However, the web manual consists of 10 titles including "home page",

“scenarios”, “case-studies”, “forms”, “ABC scales”, “notes”, “images”, “glossary”, “tools” and “area scale” on the menu bar; “references” in the supporting page; an overview of the whole method in brief along with 7 steps of collection risk management cycle that each of the steps include the layers of “summary”, “methods”, “examples” and “background ideas”. The content of the web manual provides very informative, long and useful texts along with well-designed diagrams, well-developed tools and forms. In this respect, it is more than a manual.

The web manual emerges from the materials developed in “Reducing Risk to Collections” international training courses, which are organized by experts in the field for 4 times in the previous years. The web manual is edited and co-authored by the experts in the field through the contribution of the experts/trainers of the previous training courses as well as an external risk consultant.

The web manual is the first in its kind with its aforementioned features and content, and provides important contribution to the field with the followings;

- revision and improvement version of ABC method in a more practical approach
- collection value pie with equal values of objects
- development of automated risk assessment spreadsheet and collection value pie
- formalization of worst and best case scenarios
- usage of equivalent loss, rather than fractional loss

The web manual can serve as a very useful tool in the collection risk management for the conservators, curators or scientists in the field, as well as for the first time users and regular users with its detailed and comprehensive explanations. The users easily navigate through texts, steps or layers via links, and follow up the information depending on their levels.

The language level is easily understandable in the whole manual.

Endnotes

Shorten the following endnotes to make them readable;

ABC scales: Order of magnitude scales

Area scales

Experts and stakeholders: Roles

Goal of risk management

Predicting the future: Problem of induction

Value measurement: Intrinsic, instrumental, and institutional

Glossary

A glossary of key terms used throughout the web manual is a useful guide to understand the professional jargon.

Besides, add the following words to the glossary; contaminants, enclosure, envelope, fluctuate, fraction of the collection, integrated pest management, lumen, lux, mitigate, pollutant, preservation, prevent, recovery, response, sensitivity.

- **The Design of the Manual, The Technical Accessibility (downloading, navigability) and technical errors (i.e., broken links, etc.)**

The page are well-designed. Their design are all same, and thus the web manual is easy to use.

Each page provides links with the related content, tools, forms, endnotes or glossary which is very useful.

All links are working well and opening fast except the broken ones. Unbroken links are easily accessible.

All downloadable files are downloaded very fast.

The following minor changes are required;

The whole method in brief

Change the colour of "the whole method in brief" link as it is an important link that summarizes the whole method as an introductory text.

Home

Page contents

If you click the glossary through the following steps (home page, overall structure of the manual and supporting pages), the first glossary link is broken.

Web page structure of the Overview and the 7 Steps

When you click fire on the examples layer, water page is opened.

"Find" link can be added to be able to find a word more quickly.

Forms

The design and technical accessibility of the forms and guidelines are very good. It is also very useful to download/print-out each of the forms and guidelines in one page.

As in the scenario form, "basic lists of risks" and "guidelines" can be in different formats as well.

Endnotes

Following links are broken;

Analyze Overview

Analyzing for the B score in avarage effect

Hill, 2007

Add link to the following writers/texts;

Abarquez and Murshed, 2004

Renn, 2004

Michalski, 1994a

Social Discount Rate

Waller, 2005

Nightingale, 2006
Juna Consultants, 2007
Bolton's Museum, Library and Archive Service, 2006

Images

List of slide shows is a broken link.

Glossary

The following links are broken;

<http://www.riskmanagement.qld.gov.au/>

http://sector.amol.org.au/publications_archive/museum_management/significance

http://www.cci-icc.gc.ca/framework/index_e.shtml

<http://www.agimo.gov.au/publications/2005/04/agtifv2/glossary>

<http://www2.ipe.liu.se/rwg/igls/igls2002/Paper140.pdf>

<http://www.collectionrisk.info/MCRM/Notes.htm#OrderOfMagnitudeScale>

Tools

"Guideline to facilities survey path" and "lists of risks to collections from ICCROM poster" are not available yet.

Establish the Context

Summary

Use another colour in stead of two different green tones in the diagram.

Identify Risks

All diagrams in this step are well-designed. They all help for better understanding.

Add downloadable versions for "the 5 stages of control for each agent", "the 6 possible layers of enclosure around an object", and for the "suggested facilities survey path".

Method of the identify the risks step

"Antomarchi et al., 2005" link is broken under the content of "write the specific risk scenarios".

Risk scenarios: How not to write one

It is a very good idea and useful to launching an example of a bad scenario along with explanation. However, when you print the form, the right side of the form is not printed.

II. Test and become a user

Risk assessment spreadsheet in excel

Well-designed and useful, however, at the beginning it takes time to understand the methodology of the spreadsheet and get use to work on it properly.

To be able to print every worksheet on A4 or letter size paper is useful as well. It helps to file the printed documents.

Explanations like "time between events, or time for accumulation of effects, years" on A score and "equivalence, and denominator in fractional loss" on B score can only be read, when you zoom the chart into %25.

III. Future collaboration

I would be able to contribute to the following topics after April 12, 2009;

- Developing scenarios for different agents of deterioration,
- Developing case-studies,
- Adding images on potential risks or mitigation methods on different agents of deterioration,
- Adding information on treat risks step (examples, methods or background ideas),
- Compiling references.