

## **Unit AE7          Develop and implement remedial conservation procedures for items**

### **Elements**

**AE7.1   Explore, test and develop conservation procedures to solve specific problems**

**AE7.2   Minimise the deterioration of items**

**AE7.3   Physically intervene to aid interpretation of items**

### **Unit Commentary**

This unit is for archaeological conservators; people who are required to have knowledge of a range of items or specific groups of items, as well as having expert knowledge of the potential conservation problems that may be encountered with such items, collections or archives.

Once a conservation option has been specified it has to be implemented. One type of option is the application of remedial conservation procedures. This could involve a range of professional interventive procedures depending on the condition of the item, and the type of action being agreed by the owner or keeper. The specific complexities of the items must be taken into account during this. This might also involve the need to explore and test options that have not been used by the candidate or have not been applied to that particular situation before. This unit covers exploring and testing new conservation procedures; minimising deterioration in the item, i.e. stabilising the items condition and applying interventive procedures to conserve the item.

## AE7 Develop and implement remedial conservation procedures for items

### AE7.1 Explore, test and develop conservation procedures to solve specific problems

#### Performance Required

*This will involve:*

- a) Identifying clearly the conservation problems to be solved and agreeing them with all **relevant people**
- b) Identifying and reviewing the effectiveness of existing conservation procedures and materials in the specific situation
- c) Reviewing any relevant **sources of information** for appropriate solutions and ideas
- d) Modifying, testing and developing techniques
- e) Recording data generated by the testing of the conservation procedures and materials accurately in the appropriate format
- f) Ensuring the information provided to others to support the new procedures is complete and accurate
- g) Accurately assessing the **resources** that are required to implement the new procedures
- h) Carrying out **risk** assessments for all the materials and procedures involved in the selected conservation procedures, and determining whether the procedures are acceptable on health and safety grounds.
- i) Comply at all times with the Health and Safety precautions determined by the risk assessments.

#### Occupational Context

##### 1 Relevant people

- Other conservators' members of the archaeological team
- Conservation/materials scientists
- Item specialists
- Health and safety advisors
- Organisational/professional representatives
- Funding/statutory/regulatory bodies

##### 2 Sources of information

- Publications/abstracts
- Databases/internet
- Bibliographies/research catalogues and indexes
- Professional expertise/consultation
- Experience or articles/written reports of previous solutions and ideas
- Conservation records
- Suppliers and manufacturers

##### 3 Resources

- Human: administrative and technical report as well as professional/ experiential expertise
- Financial resources
- Technical resources: material and equipment

##### 4 Risk

- Relating to personnel
- Relating to archaeological items/ artefacts/ sites/ structures/ landscapes
- Relating to the exhaustion, depletion or restriction of resources
- Relating to the capacity, reputation, integrity, culture and professionalism of the discipline

#### Knowledge Requirements

*You need to know and understand how to:*

- Apply research methods for developing new techniques, including the use of controls
- Record, interpret and apply the results of the testing

*You need to know about:*

Conservation

- Conservation problems which require exploration
- The existing conservation procedures and materials that are available to resolve the problems

Information sources

- Networks, directories, authorisation, channels of communication
- The most relevant sources of information
- Ways of accessing resources

The health and safety issues and implications of different conservation procedures, and how to comply with appropriate regulations.

**AE7 Develop and implement remedial conservation procedures for items**

**AE7.1 Explore, test and develop conservation procedures to solve specific problems**

**Required Skills**

*You should demonstrate:*

- Observation and Risk Assessment skills
- Data interpretation
- Planning

**Evidence Required**

*You should provide evidence that you can explore, test and develop conservation procedures to solve specific problems*

The candidate should be questioned, based upon the documentation provided, to explore how they

- explore, test and develop existing conservation procedures to solve specific problems for items.

**Evidence Rules**

The candidate should have been developed and implemented a range of remedial conservation procedures typical to their work area

## AE7 Develop and implement remedial conservation procedures for items

### AE7.2 Minimise the deterioration of items

#### Performance Required

*This will involve:*

- a) Treating the items as specified in the selected conservation plan, without compromising their **integrity**
- b) Removing, reducing or neutralising potential and active agents of **deterioration**
- c) Minimising any potential or actual physical weakness, and countering its cause
- d) Minimising further deterioration by the application of the appropriate materials
- e) **Evaluating** the application and effect of the treatments and modifying them as necessary
- f) Evaluating what is required in the future to maintain the condition of the treated items and specifying a program of actions
- g) Recording the **data generated by the treatment procedures** and materials accurately and correctly in the appropriate format
- h) Complying at all times with health and safety procedures

#### Occupational Context

##### 1 Integrity

- As an item from a different time/ culture
- As a representation of its origins
- As an archaeological resource for interpretation

##### 2 Deterioration

- Biological/ physical /chemical
- Due to time/ change in conditions/ environment
- Preventable/ inevitable
- Irregular/ steady
- Gradual/ rapid
- Overtly visible/ hard to detect

#### 3 Evaluating

- In terms of efficacy
- In terms of cost efficiency
- In terms of reliability/ sustainability
- In terms of ease and ability

#### 4 Data generated by the treatment procedures

- Qualitative change: visual, tactile
- Quantitative/ measurable change: compositional, chemical

#### Knowledge Requirements

*You need to know and understand how to:*

- How to evaluate the effect of a treatment

*You need to know about:*

##### Conservation planning

- What is in the conservation plan, and the parameters for action
- The agents of deterioration likely to be found in the item

##### Evaluation and Assessment

- The weaknesses likely to be found in the item
- How the item's treatment should be monitored and measured
- The sort of data that should be recorded, and how it should be recorded

The health and safety procedures for the available treatments

The types of intervention that could be considered unethical and why

## **AE7 Develop and implement remedial conservation procedures for items**

### **AE7.2 Minimise the deterioration of items**

#### **Required Skills**

*You should demonstrate:*

- How to remove, reduce or neutralise potential and active agents of deterioration
- How to minimise weaknesses and their causes
- How to minimise deterioration by treating items with appropriate materials
- How to evaluate and modify treatments as necessary
- How to record data generated by treatments accurately and in the appropriate format

#### **Evidence Required**

*You should provide evidence that you can minimise the deterioration of items*

The candidate should be questioned, based upon the documentation provided, to explore how they

- minimise the deterioration of items that are moderately or seriously degraded and at least one unstable item

#### **Evidence Rules**

The candidate should have been developed and implemented a range of remedial conservation procedures typical to their work area

## AE7 Develop and implement remedial conservation procedures for items

### AE7.3 Physically intervene to aid interpretation of items

#### Performance Required

*This will involve:*

- a) Treating the items as specified in the selected conservation plan, without compromising their **integrity**
- b) Checking the **professional interventions** are designed to enable the items to fulfil their agreed role and use
- c) Removing or reducing material that inhibits interpretation of the items
- d) Adding **materials** which are, wherever possible, reversible, appropriate and identifiable
- e) Evaluating continually the application and effect of the interventions, and modifying them as necessary
- f) Evaluating what is required in the future in terms of conservation to maintain the condition of the items and specifying a **program of actions**
- g) Recording the data generated by the treatment procedures accurately and correctly in the appropriate format
- h) Complying at all times with health and safety procedures
- i) Communicating with the appropriate people any **new information** revealed about the item during the above procedures
- j) Ensuring that any samples of material removed are recorded in the correct format, and **correctly packed**.

#### Occupational Context

- 1 Integrity**
  - As an item from a different time/culture
  - As a representation of its origins
  - As an archaeological resource for interpretation
- 2 Professional Interventions**
  - Minor consolidation
  - Major reconstruction
  - Removal of accretions.
- 3 Materials**
  - Chemical/structural
  - Altering/supportive
  - Additional/replacement
- 4 Program of actions**
  - Strategic monitoring
  - Planned intervention inspections
  - Observation and measurement
  - Ordering and administering intervention materials
  - Management and supervision
- 5 New information**
  - Concerning composition
  - Concerning environmental origin
  - Concerning status: ownership/ stability/ vulnerability
- 6 Correctly packed**
  - For its identification
  - For its protection
  - For reference
  - For its potential later use

## **AE7 Develop and implement remedial conservation procedures for items**

### **AE7.3 Physically intervene to aid interpretation of items**

#### **Knowledge Requirements**

*You need to know and understand how to:*

- Ensure that additions to the item can be reversed
- Evaluate the effect of the treatment

*You need to know about:*

#### **The Item**

- Its conservational needs
- Its sample's packaging requirements
- Future additional information about it

#### **Planning Professional Intervention**

- What is in the conservation plan
- What material can be removed from the item, and from where on the item
- The methods that should be used for removing or reducing materials and accretions on the item
- How the item's treatment should be monitored
- The sort of data that should be recorded, and how it should be recorded

The health and safety implications of the available treatments

#### **Required Skills**

*You should demonstrate:*

- Dexterity in handling, sampling, packaging, applying materials.
- Observation and attention to detail.
- Accurate data recording

#### **Evidence Required**

*You should provide evidence that you can physically and professionally intervene to aid interpretation of items*

The candidate should be questioned, based upon the documentation provided, which will include

- evidence of the treatment of a number of items (in the form of records)
- graphical and statistical depictions of change
- strategic plans for professional intervention.

#### **Evidence Rules**

The candidate should have been developed and implemented a range of remedial conservation procedures typical to their work area