



BSI Standards Publication

**Conservation of cultural
heritage — Guidelines for
management of environmental
conditions — Open storage
facilities: definitions and
characteristics of collection
centres dedicated to the
preservation and management
of cultural heritage**

National foreword

This British Standard is the UK implementation of EN 16141:2012.

The UK participation in its preparation was entrusted to Technical Committee B/560, Conservation of tangible cultural heritage.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Published by BSI Standards Limited 2012.

ISBN 978 0 580 71703 1

ICS 97.195

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 January 2013.

Amendments issued since publication

Date	Text affected
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EUROPEAN STANDARD

EN 16141

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2012

ICS 97.195

English Version

**Conservation of cultural heritage - Guidelines for management
of environmental conditions - Open storage facilities: definitions
and characteristics of collection centres dedicated to the
preservation and management of cultural heritage**

Conservation des biens culturels - Recommandations pour
la gestion des conditions d'environnement des biens
culturels - Pôle de conservation: définitions et
caractéristiques des espaces permettant la conservation et
l'exploitation des biens culturels

Erhaltung des kulturellen Erbes - Richtlinien für den
Umgang mit Umwelt- und Umgebungsbedingungen -
Schaudepots: Definitionen und Merkmale von
Sammlungszentren bestimmt für die Bewahrung und Pflege
des kulturellen Erbes

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Introduction

The importance of preserving and transmitting cultural heritage under the best conditions is imperative for all, but is of utmost importance for cultural heritage institutions. They have the responsibility of preserving, presenting and developing spaces dedicated to the public or reserved for collections. Stored collections have often remained inaccessible to the public but increasingly there is an expectation that collections should be accessible even when not on display, either for the general viewing public or for controlled research and collection management activities. To meet this demand, dedicated facilities are being developed to allow access and research. These "Open Storage Facilities" or "Collection Centres" place new demands on cultural heritage institutions and this guidance document is intended to assist institutions by describing common best practice in the design and function of such facilities.

Open Storage Facilities have four main purposes:

- to fulfil the requirements of conservation;
- to facilitate access to the collections;
- to allow for the management of collections;
- to provide a secure place for the safekeeping of collections.

This standard may be used for designing new open storage facilities or for the improvement of existing storage facilities.

The concept of open storage facilities is general. It relates to places gathering the functions defined in this standard belonging to any type of institutions (archives, libraries, archaeological deposits, museums,...) dedicated to the safekeeping of any type of collection (archives, books, archaeological items, etc...)

1 Scope

This European Standard defines the characteristics of specific areas dedicated to the preservation, storage, management of, and access to collections. It lists the considerations that should be taken into account to achieve optimum storage and accessibility.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15898:2011, *Conservation of cultural property - Main general terms and definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15898:2011 and the following apply.

3.1

handling

method of holding and moving an object according to established procedures in order to limit the risks of damage and deterioration

3.2

integrated pest management

IPM

established procedure for controlling pests such as insects, rodents

3.3

packing

measures and actions to safeguard objects during movement, transport and for storage

3.4

protocol

agreed procedures defining the progress of an operation

3.5

quarantine

isolation and observation of an object which may present a danger of biological contamination

3.6

safety

pertaining to human health

3.7

security

protection against theft and physical damage

3.8

storage

designated area where objects are housed providing the necessary conditions required for preservation, safety and security while not on display

Note 1 to entry: The term “repository” is used in archives and libraries.

3.9

open storage facilities

places dedicated to housing collections, and to activities relating to their management providing the necessary conditions required for preservation, safety and security and public access

4 Open storage facilities

4.1 General organisation

Open storage facilities are part of the general organisation of a cultural heritage institution. Such premises constitute a set of areas isolated from each other but interdependent and organised according to use.

Open storage facilities have four principal functions:

- a) permanent and temporary storage of objects;
- b) collection management: study of the collections, display, consultation, and scientific examination; some of these functions require areas dedicated to public access;
- c) collection services: movement, packing/unpacking, workshops, and sometimes treatment of the collection;
- d) facilities management (e.g. security system, alarm control unit, and plant room).

The purpose is to offer the best conditions of collections conservation and management. However, all functions of an open storage facility do not necessarily require their own specific area.

4.2 Storage

A clear and rational organisation of the collections is important as well as policies and procedures for managing operations. A balance should be maintained between security of collections and access.

Collections are arranged in spaces which are exclusively devoted to them. These areas constitute the central and vital core of the open storage facilities. Safety and security, climate control, fire prevention and other preventive measures require attention. Storage areas should be protected from risks of natural disasters. They should be kept dark, except when lighting is required for access. They should be equipped with fire detectors, sensors reacting to dampness and pest monitors.

The distribution of the collections in storage areas should follow these principles:

- stable environmental conditions adapted to the requirements of the various collections;
- the placement of storage units such as shelves, cabinets, etc., should be appropriate to the collections, ensuring easy and effective access to objects and secure handling of artefacts.

Storage furniture should be designed according to the characteristics and conservation requirements of the collections and the activities of the institution. It should be designed to allow easy maintenance of the area and facilitate the movement of people and collections without risk. The furniture arrangement should facilitate cleaning of the floor.

Storage areas and furniture should be able to adapt to the growth of the collections without risks to safety and security.

4.4.6 Salvage and recovery storage area

A storage area should be set aside for use in emergencies, for example fire or flood. It should be used exclusively for storing first aid equipment, reviewed and updated information on the building, local services and emergency call-out list, and material for collections emergency response, for example water vacuums, absorbent paper, bubble wrap, etc.

4.5 Technical services

Technical services relate to all the elements concerned with the operation of the building, such as plant room and alarm control unit.

These areas are distinct from storage and exhibition areas. They have different access from areas where objects are stored and handled.

Maintenance, regulation and monitoring devices specific to the storage area, such as climate control, should be positioned and accessible outside these areas.

Objects should not be placed in these areas.

4.6 Water

Storage areas do not contain any water point nor water pipes or distribution network with the exception of a sprinkler system. Shelving is elevated from the ground and moved back from the walls to avoid running water from the walls and condensation. Objects shall not be put directly on the floor or against walls. Flood risks are fully assessed and suitable alarm systems installed.

4.7 Staff and visitor facilities

Staff and visitors may require special facilities such as reception area, information desk, cafes, canteen, cloakrooms and toilets which should be separate from activities relating to storage and collections management.

5 Distributions and connection between the areas

5.1 Indoor circulation

The arrangement of areas and the connections between them could be described in a functional diagram, identifying activity and use. They are based on optimising the management of collections and equipment, and on ease of access.

Movement of collections and people complies with principles that guarantee the preservation and the safety of the objects.

Corridors serving the technical and management areas shall be obstacle free or adapted for unobstructed use with, for example, lifts and ramps.

The location and arrangement of such areas shall facilitate the movement of the collections: heights and widths are calculated and clearances are configured according to the characteristics of the collections and the traffic flow.

Duration and distance of movement of objects should be kept as short as possible, and changes in floor levels kept to a minimum.

The type, nature and quantity of the collections shall be thoroughly documented in order to determine the conditions required for long-term preservation.

It is advisable to consult an expert for fire protection or burglar alarm (e.g. police, insurance).

Areas and equipment for work within the storage areas are made with materials compatible with conditions for preservation (avoiding dust, off-gassing, volatile organic compounds, etc.). These materials should contribute to preserving a stable climate.

For each aspect of design of the facility and activities carried out inside, preservation of collections should be taken into account.

9 Sustainability

Sustainability shall be taken into account, both in the construction and use of the facility.

The materials and cost of building are a factor, as well as how well the building is constructed or adapted to operate with minimal calls on energy.

New construction and adaptation should take account of the latest practice and research in the design of cultural property facilities.

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