

## New Standards in Preventive Conservation Management

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### Abstract:

*Standards are an important tool in preventive conservation management. The international standard ISO 11799:2003 “Information and documentation - Document storage requirements for archive and library materials” covers many relevant areas where preventive conservation is applied. Therefore, this standard is a crucial tool in establishing and demanding of “good” environmental conditions for collections, e.g. with regard to set points of temperature and relative humidity in storage. In times when climate change and the impact of fossil fuels on the planet receive a lot of attention the necessity to restrict oneself to narrow range values is being discussed, as is more flexibility in climate control standards in an international debate on the so-called Plus/Minus Dilemma.*

*In addition to this international standard and to ISO 16245 on enclosures for documents a large number of European standards relevant for libraries have been published in the last years or are underway. The standardization project “Conservation of cultural heritage” of the European Committee for Standardisation (CEN, Technical Committee 346) represents the first initiative to cover all areas of conservation. The intended series of standards is relevant for immobile as well as mobile artefacts. The CEN/TC 346 closely interacts with international organizations such as ICOM-CC, International Council of Museums Conservation Committee. The IFLA Section Preservation and Conservation has Liaison status as well. The new standards are expected to unify and improve the quality of conservation throughout Europe. Eleven Working Groups with about 200 experts from cultural institutions, universities, and global companies are dealing with issues such as environmental conditions, showcases, packaging, and transport methods. Since 2010, 18 standards have been published. Currently, 22 draft standards are being developed. The standards are intended to become international standards (ISOs).*

*This presentation will give an overview on the relevant standards in the field of preventive conservation and will focus on the progress achieved in the European standardization project CEN/TC 346.*

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My goal today is to talk about new standards in preventive conservation.

First, I will deal with standardization.

Second, I want to report on the European standardization project CEN/TC 346.

And third, I will focus on the latest developments of environmental standards, in the current international debate called the Plus/Minus Dilemma.

Before we start, I want to show you where I come from: the Bavarian State Library in Munich, Germany. The front facade of the Library. Built by the Bavarian King Ludwig I. in the 19th century. Today, 800 employees work here.

Let me very quickly remind you some key facts and figures about the Library:

The Library was founded in the mid of 16th century. Today, the Bavarian State Library holds 10 million books, among them 1 million digitized titles available online. The Library is open 112 hours per week.

132.000 new acquisitions each year

63.400 current periodicals, and over 1 million e-books.

Among the world's great libraries, it holds a special place because of its very rich collection of manuscripts and miniatures, as well as early and rare printed books. More in detail see on the screen shots ...

The Library holds 97.000 manuscripts. That makes the Library the number 4 in the world for manuscripts!

With 20.000 copies – the Bavarian State Library has the largest holding of incunabula in the world.

140.000 rare books from 16th century only, most among libraries in Germany

12 medieval manuscripts inscribed in the UNESCO's Memory of the World Register.

To preserve the excellent and rich collections of manuscripts and rare books for present and future use, the Bavarian State Library built a conservation laboratory in 1963, the Institute of Book and Manuscript Conservation.

Staffed with 16 people, it consists of 6 workshop areas and a chemical laboratory on 700 sqm, or about 7500 square feet.

Even if the picture here shows an example of remedial conservation, our main focus is on preventive conservation.

Now let's talk about standards. In the wide field of preventive conservation, standards can play an important role. For example, standards may help to establish good environmental conditions for collections. In contrast, there is no place for standards in remedial conservation since every object is unique, and every intervention needs to be tailored to the specific situation.

Standardization takes place under the authority of standards organizations on a national level, a regional level, which in our context is the European level, or an international level.

Standards are developed by experts, and they are subject to review every five years.

Therefore, standards reflect the current state of the art. Standards are implemented on a voluntary basis, so there is no legal obligation to adhere to them.

- International standardization takes place at the International Standards Organization (ISO), which is a network of national standards bodies.

- Standardization in Europe runs under the auspices of the European Committee for Standardisation, in short CEN. It is based on the national standards bodies of the 30 member countries.
- National standards are developed by experts from a country at the national standards body, e.g. Association Française de Normalisation in France (AFNOR). A national standards body represents its country in European and international standardization efforts.

International standards can be adapted unchanged by national standards bodies. Thus, an international standard becomes a national standard. One example: The international standard ISO 16245 that specifies the requirements for enclosures made from paper for storage of paper and parchment documents has been adapted by France. Consequently, as a „Norme Française“ it is named NF ISO 16245:2011.

For all types of enclosures in direct contact with the objects the international standard ISO 9706 has to be followed as it defines the requirements for permanence of paper and boards. Double adapted as a European and a French standard it is named: NF EN ISO 9706:1998

Now let's move on to the European initiative on standards in conservation. The standardization project started in 2004 and was named Technical Committee 346 „Conservation of Cultural Heritage“ by the European Committee for Standardization, known as CEN.

The objective is to create a series of standards for the conservation of all types of movable as well as immovable objects. The standards represent the consensus on current best practices in the conservation of cultural heritage.

The European standards will be published as national standards in about 30 countries.

Following European policy these standards are intended to become international standards: ISO.

Who will use these standards?

The standards are likely to be used by public and private commissioning or grant-giving organizations, as well as by commercial services.

For instance, by:

- cultural institutions, such as libraries, archives, museums
- manufacturers and distributors of materials used in conservation
- and, of course, by transport and insurance companies.

To ensure the standards are set up correctly, it is crucial that conservation professionals take an active part in the process.

Like other international organizations, which have a direct interest in the field of application of the CEN/TC 346 the IFLA has so-called Liaison status at CEN/TC 346. This status gives IFLA the right to participate in the Technical Committee as an observer.

Here, then, some information about the structure of CEN/TC 346.

To date, 26 European countries participate in the project.

The national standards bodies of these countries have established so-called national mirror committees with representatives from all interested parties.

The national standards organizations are, for instance,

- the French Association Française de Normalisation, AFNOR
- the Italian Ente Nazionale Italiano di Unificazione, UNI
- or the German Deutsches Institut für Normung, DIN.

As can easily be seen in the current structure of the Committee some of the Working Groups are dedicated to topics rather distantly related from the book and paper world, e.g. the WG 9 Waterlogged wood.

Others, however, like the WG 4 Protection of collections work on standards immanently related to the Library's needs with the Task Groups on Biodeterioration and housekeeping, or on Risk management or on Showcases.

Don't worry I will not give you the details of all the individual steps of European standardization. I just want to mention the procedure of Public Enquiry, which - if the first Enquiry vote is negative - takes place a second time. The procedure of Public Enquiry gives all the parties involved and everyone interested the opportunity to comment on drafts within a period of two months. Once a standard has been adopted at the European level, it must be adopted unchanged at the national level in the 30 member countries.

Up to now 18 standards have been published and 22 standards are „in the pipeline“:  
The published standards deal with e.g.:

- Main general terms and definitions
- Condition report of movable heritage
- Packing principles for transport
- Showcases

I would like to illustrate some of the European standards:

The standard „Main general terms and definitions“ comprises 50 general and widely used terms. Its purpose is to bring about a greater understanding and to facilitate collaboration among those responsible for cultural heritage. This is necessary, because - as everybody knows - there are regionally different terms and meanings in use in the field of „conservation“, and some of them you can even see on the screen.

The definitions of the crucial terms presented here: conservation, preventive conservation, remedial conservation and restoration were developed in parallel with those of the International Council of Museums - Conservation Committee (ICOM-CC) defined in the New Delhi Resolution in 2008. The term „conservation“ is the all-embracing term, an umbrella term, for preventive conservation, remedial conservation and restoration. As a consequence, „conservation“ is defined as follows: Measures and actions aimed at avoiding or minimizing future damage, deterioration and loss and, consequently, any invasive intervention.

Lighting is one of the most important factors in enabling the audience to fully enjoy works of art and written cultural heritage. But, exposure to light causes fading of dyes, inks and pigments and contributes to the aging and embrittlement of paper, cloth and leather. The “Guidelines and procedures for choosing appropriate lighting for indoor exhibitions” is intended to be a European Technical Specification and as a Specification this is to be understood as being below the level of a standard. This Technical Specification gives recommendations on values of minimum and maximum illumination levels. It aims to provide a tool for setting up a common European policy and a guideline to help curators, conservators and project managers assess the correct lighting that ensures the safeguarding of the objects.

In the context of exhibitions also the standard for showcases is relevant. Part 1 with general requirements is published. Part 2 on technical requirements is currently in preparation.

The increase in mobility of cultural heritage worldwide has had significant consequences on packing and transport. In previous years there have been several initiatives to regulate various aspects of collection mobility. Therefore the need to structure and harmonize packing and transport practices and to define responsibilities has become more important than ever. Transportation of cultural heritage requires an appropriate range of knowledge, skills and competencies of those involved in the process. The European standard EN 15946 "Conservation of cultural property – Packing principles for transport" defines the successive steps of moving objects, using relevant means of transport. This standard should be used in accordance with the European standard on Transport methods EN 16648 that will likely be published next year.

As I've mentioned earlier, in addition to the published standards, 22 further standards are „in the pipeline“:

These standards deal with e.g.:

- Integrated Pest Management
- Conservation process
- Glossary of alterations (damages)

Further standards relevant to libraries are on

- Risk assessment and
- Emergency planning

The standard referred to as „New sites and buildings intended for the storage and use of collections” tackles the question of environmental conditions for the safeguarding of collections.

Good environmental conditions are critical in the safeguarding of collections of cultural heritage objects. Therefore, the relative humidity (RH) and air temperature since long are often defined around a strictly controlled narrow range of about 50 % plus/minus 3 % RH and about 20 °C plus/minus 2 °C to provide safe, stable conditions for hygroscopic artefacts. The international standard ISO 11799 Document storage requirements for archive and library materials in Annex B provides the recommended set points of relative humidity (RH) and temperature with additional range values for acceptable daily fluctuation.

However, to reach and maintain the recommended standards without wider fluctuation often leads to higher levels of energy consumption. In times of great focus on climate change and the impact of fossil fuels on the planet the restrictions to narrow range values are discussed, as is more flexibility in climate control standards. The first standard to follow this new strategy with broad relative humidity and temperature bands is the British Standard Published Document BS PD 5454 Guide for the storage and exhibition of archival material from 2012, which was issued in conjunction with the Public Available Standard PAS 198. Since the new strategy represents a move away from the precautionary principle and towards a risk-managed approach, the international debate on the so-called Plus/Minus Dilemma will go on.

The Plus/Minus Dilemma was the second roundtable discussion in the ongoing series Dialogues in the New Century organized by the International Institute for Conservation of Historic and Artistic Works in London. The events took place in 2008 and 2010. The transcripts of the panel discussions are available online with translations of the 2008 dialogue into eight languages including Chinese and Japanese. The Plus/Minus Dilemma panel discussion can be followed on Youtube.

The current issue (July 2014) of the journal „Studies in Conservation“ is dedicated to the debate and to environmental monitoring.

Thank you for your attention!

## Further Sources and Literature

- CEN/TC 34, <http://standards.cen.eu/dyn/www/f?p=CENWEB:6:::NO::>
- IFLA List of Standards, [www.ifla.org/standards-committee/list-of-standards](http://www.ifla.org/standards-committee/list-of-standards)
- First, do no Harm. A Register of Standards, Codes of Practice, Guidelines Recommendations and Similar Works relating to Preservation and Conservation in Libraries and Archives, compiled by John McIlwaine, [www.ifla.org/publications/first-do-no-harm](http://www.ifla.org/publications/first-do-no-harm)
- Dialogues for the New Century: Climate Change and Museum Collections, a Discussion held on September 17, 2008, The National Gallery, London, [www.iiconservation.org/dialogues/IIC\\_climate\\_change\\_transcript.pdf](http://www.iiconservation.org/dialogues/IIC_climate_change_transcript.pdf)
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