International Preservation News

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International Preservation News is a publication of the International Federation of Library Associations and Institutions (IFLA) Core Progamme on Preservation and Conservation (PAC) that reports on the preservation activities and events that support efforts to preserve materials in the world's libraries and archives.

IFLA PAC

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Editorial

In 1979 IFLA published its first 'Principles for the Preservation and Conservation of Library Materials'. Revised and expanded in 1986 by J.M. Dureau & D.W.G. Clements, those 'Principles' have been the bible of many a librarian for more than ten years. Nevertheless the development of new carriers and a growing concern about preservation led PAC to update it. PAC started consulting three years ago and a few colleagues sent their comments. We held two expert meetings during which the outline of the new version was drawn. The CPA (Commission on Preservation and Access) generously offered to support the publication and to contribute its own expertise.
The work was then compiled under our supervision by Edward Adcock who works at the

Preservation Office of the Bodleian Library.

Considerably improved thanks to expert comments from the world over, and dealing primarily with the preventive preservation of all media, this new version entitled 'Principles for the Care and Handling of Library Materials' is in print and will be distributed through the PAC Regional Centres. A digital version will soon be available on the CPA website*.

We have been trying to be very practical and have indicated the best and most cost-effective practices to prevent the deterioration of the world's documentary heritage. We have deliberately omitted conservation that requires practical training. We hope that these 'Principles will be useful to all our colleagues who need reminding that preservation precedes any activity, whatever the library.

Continuing on the topic of prevention, IFLA is one of the four non-governmental organisations (together with the International Council on Archives (ICA), the International Council of Museums (ICOM) and the International Council on Monuments and Sites (ICOMOS) that have amalgamated the International Committee of the Blue Shield (ICBS). The Blue Shield is a Unesco programme for the prevention and safeguarding of cultural properties in case of armed conflict or natural disaster. The PAC is much involved and aims to share information on endangered regions and sites and to discuss types of action to be undertaken. PAC wishes to intensify the activities of the Blue Shield by the creation of national committees throughout the world, particularly in areas at risk.

On March 31, 1998 Winston Roberts, Coordinator of Professional Activities, left IFLA. I would like to say how much PAC will miss his constant, efficient and friendly support. Most of the work done by PAC over the last four years would not have succeeded without his determination and involvement. Always present whenever needed or called for, Winston Roberts has paved the way for cooperation between PAC and other professional groups or institutions either within the IFLA or outside. The PAC intends to keep on developing this cooperation with the help of the IFLA's new coordinator, Sjoerd Koopman.

* http://www.clir.org
Marie-Thérèse Varlamoff

Editorial

En 1979, l'IFLA publiait ses "Principes de sauvegarde et de conservation des documents de bibliothèques". Revus et augmentés en 1986 par J.M. Dureau and D.W.G. Clements, ces "Principes" ont été la bible de nombre bibliothécaires depuis plus d'une décennie. Cependant le développement de nouveaux supports et un intérêt grandissant pour la conservation a conduit le PAC à les mettre à jour. Des consultations ont com-mencé il y a trois ans et quelques collègues ont envoyé leurs commentaires. Ensuite, deux réunions d'experts ont eu lieu au Centre International du PAC à Paris au cours desquelles les grandes lignes de la nouvelle version ont été dégagées. La Commission on Preservation and Access a proposé d'apporter son généreux concours et son expertise à cette publication.
Nous avons fait appel à Edward Adcock de la Bibliothèque Bodléienne à Oxford pour rédiger ces principes selon nos directives.

Considérablement augmentée grâce aux commentaires de nos collègues du monde entier et traitant essentiellement de conservation préventive, cette nouvelle version intitulée "Principles

for the Care and Handling of Library Materials" est en cours d'impression et sera distribuée par le canal des Centres Régionaux PAC. Une version numérique sera bientôt accessible sur le site internet de la CPA* et la traduction en français para"tra en 1999.

Nous avons tenté d'être très empiriques et d'indiquer les pratiques les moins onéreuses pour prévenir la détérioration de notre patrimoine documentaire. C'est délibérement que nous avons laissé de côté la restauration qui réclame une formation pratique. Nous espérons que ces "Principes" seront utiles à tous les collègues qui doivent garder en mémoire que la conservation est inhérente à chacune des activités de toute bibliothèque, quelle qu'en soit sa nature.

Toujours dans le domaine de la prévention, notons que l'IFLA est l'une des quatre ONG (avec le CIA, l'ICOM et ICOMOS) qui se sont unies pour former le Comité International du Bouclier Bleu (CIBB), un programme de l'Unesco pour la prévention et la sauvegarde des biens culturels en cas de conflit armé ou de catastrophe naturelle. Le PAC est très impliqué dans les activités du CIBB et souhaite parvenir à un partage de l'information sur les régions et les sites menacés et discuter des types d'action à entreprendre. La création de comités nationaux, tout particulièrement dans les zones à risques, est l'une des priorités du PAC.

Le 31 mars 1998, Winston Roberts, Coordinateur des activités profession-nelles, a quitté l'IFLA. Je voudrais dire ici combien l'équipe du PAC regrettera son soutien constant, efficace et amical. Au cours des quatre dernières années, c'est grâce à sa détermination et à l'attention qu'il témoignait que le PAC a pu mener à bien la plupart de ses activités. Toujours présent quand il le fallait, Winston Roberts a ouvert la voie d'une coopération fructueuse entre le PAC et les autres groupes professionnels ou institutions, que ce soit au sein de l'IFLA ou à l'extérieur. Cette coopération, le PAC entend la poursuivre et la développer avec l'aide du nouveau coordinateur, Sjoerd Koopman.

* http://www.clir.org
Marie-Thérèse Varlamoff

Warning

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La Numérisation Au Service De La Conservation Des Globes

Depuis 1973, Alain Roger, à l'origine restaurateur de grands formats à la Bibliothèque nationale de France, met son imagination et son talent au service des globes détériorés par le temps et

l'usage. Des globes en piteux état, souvent perforés, lui parviennent de toutes les institutions de France. Grâce au travail minutieux de son équipe, il les restaure de façon spectaculaire.

On trouve les premiers globes dans les civilisations arabe et chinoise. Dès le Xème siècle, les Arabes réalisent des globes céleste et terrestre. En Europe, le plus ancien globe manuscrit est attribué à Martin Behaim et date de 1492.

La production de globes se développe à la Renaissance avec le renouveau des sciences et les grandes découvertes. Les globes sont composés de fuseaux gravés sur bois ou cuivre puis, imprimés sur papier vergé, découpés et collés sur des boules de carton recouvertes d'enduit. Ils sont le plus souvent produits par paires, un globe céleste accompagnant un globe terrestre.

Au XVIème siècle, la gravure en taille douce s'épanouit en Flandre et dans les Pays-Bas du Sud, important centre scientifique. Les globes hollandais se propagent dans toute l'Europe grâce à l'habilité des graveurs, cartographes et la puissance maritime de ce pays.

Les globes français s'imposent au XVIIIème siècle par leur exactitude et leur élégance, suivis des britanniques qui, forts des voyages du capitaine Cook, complètent les dernières inconnues de la carte des cites du monde.

Au XIXème, la production s'industrialise parallèlement au développement de la scolarité. De nos jours, la géopolitique impose un rythme de production effréné, relayé par la vente de masse qui offre les globes les plus divers, notamment interactifs ou hologrammes, mais de qualité inégale.

Depuis le début du siècle, les globes anciens ont été soumis à des conditions déplorables de conservation. Les changements brusques de température et d'hygrométrie provoquent l'éclatement du vernis, la dilatation des plâtre et carton ; l'accumulation de poussière encrasse le papier et rend la cartographie illisible. La lumière est aussi facteur de détérioration. Mais c'est surtout la forme spécifique des globes qui entra''ne des dégâts récurrents tels que coups crevant la structure en carton, griffures causées par le frottement de la boule désaxée contre la table d'horizon ou le méridien en laiton, disparition de la gravure à force de pression de l'index sur un lieu précis. La jonction des deux hémisphères en carton, collées au niveau de l'équateur, reste la partie la plus fragile et subit les plus gros dégâts.

Principes de restauration

Malgré une évolution dans l'emploi des matériaux, la méthode de fabrication est restée sensiblement la même au cours des siècles : une sphère est composée de deux hémisphères en carton qui sont reliées d'un pôle à l'autre par un axe en bois appelé l'os de mort. Elles sont recouvertes de plâtre sur lequel on colle les fuseaux imprimés par gravure. Ceux-ci sont réencollés, puis vernis. L'équilibre du globe est assuré par des petits sacs de plomb fixés à la jonction des hémisphères à l'intérieur de la coque.

Une recherche bibliographique est préliminaire à toute restauration. Tout au long du processus un dossier photographique, accompagnant l'oeuvre une fois restaurée, est constitué.

Une analyse des éléments constitutifs est nécessaire pour identifier les matériaux, les paramètres responsables des dégradations, et afin de retrouver la technique de fabrication utilisée. Elle permet aussi de déceler les restaurations précédentes. L'examen visuel donne les bases de l'analyse esthétique et historique de l'objet.

Plusieurs techniques scientifiques complètent ces informations : la micro-analyse à la lumière naturelle et aux UV permet d'analyser le vernis. L'analyse microchimique identifie les pigments, l'encre et les liants, la chromographie les différentes couches.

Au moyen de l'endoscopie, on observe directement et on évalue les éléments internes. L'endoscope est introduit à l'intérieur du globe à travers l'orifice aménagé près de l'os de mort.

Grâce au scanner, les dégradations sont repérées et archivées.

Une fois le globe démonté - les parties en bois et métal, telles que le socle et la table d'horizon, sont confiées à un restaurateur ébéniste - il faut prévoir un support de travail en fonction de la taille du globe. On peut utiliser une caisse remplie de sable déshydraté ou de billes de verre ou bien construire un support métallique adapté.

Plusieurs techniques sont nécessaires pour restaurer les diverses composantes du globe. Le nettoyage se fait à l'aide d'un aspirateur à poussière, d'un compresseur à air comprimé et d'une brosse souple.

Traditionnellement les fuseaux sont dévernis avec un tampon d'ouate trempé dans un solvant composé de 30 % de white spirit, 30 % d'éthanol et 30 % de méthyl-éthyl-acétate d'acétone. Ce travail s'effectue sous hotte aspirante, par mouvements circulaires, jusqu'à élimination du vernis, tout en évitant le contact prolongé du tampon avec les parties aquarellées.

Le nettoyage de surface par ultrasons consiste à fragmenter en fines particules la couche de poussière ou de vernis, sans aucune altération de surface. Les particules éjectées sont captées par un système d'aspiration. La faible puissance de mise en jeu évite tout effet thermique nocif.

Il est fréquent de découvrir des fragments de fuseaux collés sur le fuseau primitif. En effet, jusqu'à la fin du XVIIème siècle, les contours des continents, y compris de l'Europe, étaient encore flous et les longitudes fantaisistes. La création d'un nouveau globe étant trop onéreuse, on rajoutait des papillons rectificatifs sur les globes existants.

Des matériaux issus de la recherche médicale

La dépose des fuseaux et des deux calottes polaires est une opération très délicate car les couleurs sont fugaces. On peut recourir à la vapeur ou bien envelopper le globe de lamine de GoreTex. Une fois déposé, chaque fuseau est immédiatement nettoyé des particules de plâtre ou de colle ; il est collé sur un fond tendu de chanvre ou de japon. Pour une restauration parfaite, l'expérience montre qu'il est préférable de combler les manques directement sur la sphère quelques jours après la repose des fuseaux.

On procède ensuite à la restauration du plâtre et de la boule en carton. Le globe est libéré du plâtre effrité, les fentes sont agrandies et assainies. Les fissures sont restaurées à l'aide d'un pinceau enduit de colle synthétique. Le plâtre utilisé est de même nature que l'original, en général à base de colle de lapin, de Blanc de Meudon et de kaolin. On peut aussi utiliser du plâtre dentaire.

Pour la restauration de la boule en carton, Alain Roger s'est inspiré des matériaux utilisés pour les prothèses en orthopédie : les plaques Orthèse ORFIT "S" de 2 mm d'épaisseur. Plongée dans un bain de 55 °C et préalablement découpée aux dimensions souhaitées, la plaque devient

transparente et malléable pendant quelques minutes. Elle est ensuite posée sur la partie saine du globe et en épouse immédiatement la forme tout en retrouvant son opacité. Introduite dans le globe à l'endroit précis du manque de carton, cette prothèse est maintenue par simple pression et sert de support à la restauration. On reconstitue ensuite le carton avec des macules de papier ou de la pâte de carton encollée de méthylcellulose. La partie névralgique au niveau de l'équateur ainsi que les manques importants de plâtre sont renforcés avec une bande plâtrée.

Réintégration et repose des fuseaux

Pour combler les manques importants de fuseaux, on a recours à une table aspirante du type Vinector ou Geset. Toutefois le mélange de fibres utilisées ne permet pas de reproduire vergures ni pontuseaux. Cette technique suffit alors pour le simple colmatage des épidermures et éraflures de papier.

Il est très difficile de rapprocher Ethique et Esthétique en restauration de papier. D'après Emmanuel Kant, l'Ethique est passible de jugement de loi et l'Esthétique est d'abord plaisir de délectation, sensation, et échappe à toute législation. La réintégration des parties manquantes des fuseaux est pratiquée depuis une quinzaine d'années et fait à présent l'unanimité parmi les restaurateurs français, allemands et anglo-saxons. Le globe étant un objet décoratif, ce procédé joint l'esthétique à la rigueur scientifique.

Les grosses lacunes sont donc remplacées par des photocopies laser faites à partir de fuseaux originaux. Si ces derniers sont introuvables, on réalise une nouvelle gravure à partir des plaques de cuivre. Les globes étaient en effet produits en série et une recherche permet parfois de retrouver les fuseaux ou les plaques d'origine. Dans le cas contraire, les lacunes sont comblées manuellement par un simple papier de restauration.

Il convient de coller un papier intermédiaire entre la boule et les fuseaux. Après avoir calculé et tracé l'équateur et l'emplacement des fuseaux, on encolle la moitié du globe ainsi que les fuseaux auparavant humidifiés. L'ensemble des fuseaux est posé et massé avec un plioir en os à travers un papier boloré humidifé afin d'éviter les plis. Cette opération est renouvelée 72 h plus tard pour l'autre hémisphère.

Une fois tous les fuseaux remis en place, on les réencolle pour une meilleure imperméabilité du papier, une meilleure tenue des couleurs et pour empêcher le vernis d'imprégner le papier.

On applique ensuite une première couche de vernis, suivie par de petites retouches de mise au ton, puis une deuxième couche de vernis.
Pour certains globes rares et prestigieux, on réalise une protection en Altuglas. Deux cloches recouvrent alors le globe et le protègent de la poussière et des doigts indélicats.

Une méthode révolutionnaire : la numérisation des fuseaux

C'est en rencontrant deux ingénieurs de l'imagerie, Christophe Hubert et Laurent Lucot, qu'Alain Roger eut l'idée d'utiliser les logiciels créant des images sphériques pour reproduire, à partir d'un exemplaire en bon état, les fuseaux à plat. Le principe repose sur les travaux de cartographie réalisés à partir des satellites d'observation. La photogrammétrie1 consiste à "reproduire un globe dans une représentation plane", à partir de laquelle "tous types de projection peuvent être tirés, y compris les fuseaux." Ces procédés sont des perfectionnements techniques issus d'un brevet

déposé par l'Atelier Holographique de Paris. La photographie est une analyse non destructive et rapide : il faut environ deux jours pour mettre en place la séance et la prise de vue.

Trois étapes sont essentielles : en premier lieu, on fait des photographies numériques du globe, "de pôle à pôle, selon la direction des fuseaux" grâce à un appareil couleur de très haute qualité garantissant une résolution de 1500 par 1000 pixels en couleurs 24 bits. On obtient une résolution de 300 DPI sur un globe de 50 cm de diamètre et un parfait rendu des couleurs.

Le transfert des images vers l'ordinateur n'implique aucune perte de qualité. Les clichés sont positionnés sur un globe virtuel selon la géométrie de prise de vue (voir photo n° 5) puis la projection de l'image sphérique est calculée. Les plus petits caractères peuvent être numérisés avec 10 pixels de hauteur et restent tout à fait lisibles.

Il faut néanmoins retravailler l'éclairage général de l'image, car il existe des différences de luminosité entre le haut et le bas du globe qui se traduisent par un effet d'écaille qui n'appartient pas à l'objet original. En troisième lieu, les projections calculées sont reproduites sur papier, par flashage.

C'est au cours de la deuxième étape, lors du traitement des images, qu'intervient le restaurateur. Quitte à lui désormais de faire dispara"tre une tâche marron due au phénomène de "foxing" ou de remplacer une lettre manquante en cherchant sa réplique ailleurs dans le mot.

Les avantages offerts par la numérisation sont multiples

La numérisation à partir d'un objet en trois dimensions, le globe, vient au secours de la restauration lorsque le fuseau du globe à restaurer est trop lacunaire ou trop endommagé ou bien, lorsqu'il n'existe plus les tirages d'origine.

Les difficultés liées à la restauration et repose des fuseaux disparaissent. Plus de problème de dilatation de papier ni de repose délicate sur la forme convexe. Il faut néanmoins pour cela que le double du globe à restaurer existe et soit lui-même en bon état.

Les différentes étapes de la cartographie d'un globe (superposition de papillons correctifs par exemple) peuvent être révélées.

La numérisation permet de restaurer à l'écran les parties détériorées, comme cela se pratique déjà sur les peintures et monuments anciens.

Cette méthode concilie l'antinomie propre à la conservation, à savoir la préservation et l'accès. C'est pourquoi il serait à terme souhaitable que les images numérisées des fuseaux soient archivées et disponibles en salle de lecture ou pour la consultation à distance.

La consultation électronique peut se faire par fuseaux photographiques (de pôle nord à pôle sud), par projection demandée (cylindrique déployée, conique ou gno-mique 2) ce qui rend possible la comparaison des globes et des cartes, par survol virtuel du globe, l'oeil du lecteur jouant alors le rôle d'un avion ou d'un satellite d'observation.

Le chercheur peut recourir à diverses fonctions d'analyse dont celle du zoom court ou long sur les documents, la fusion de plusieurs couches topographiques (pour la comparaison d'un globe avec une autre représentation de la surface terrestre), l'accès aux toponymes par une base

thématique.

Cette technique permet aussi de trans-former la projection d'une carte plane en une autre et de créer un globe à partir d'une mappemonde.

La consultation par le réseau Internet est en revanche plus difficile en raison du principe même de transmission : le "télélecteur" demande la visualisation d'une portion de l'image sphérique que le serveur WEB doit calculer pour lui transmettre. Or il est presque impossible, car beaucoup trop long, de télécharger l'image sphérique d'un globe avec les débits "grand public" actuels.

Le chercheur peut aussi étudier un globe sous forme de fuseaux imprimés et cela dans des dimensions supérieures à l'original s'il le désire, ce qui permet un plus grand confort de lecture du fait combiné de la grandeur des fuseaux et de la consultation à plat. Les grandes largeurs qui existent actuellement sont parfaitement adéquates et peu onéreuses.

Le globe restauré est soustrait de la communication, il peut alors être conservé dans des conditions adéquates de conservation.

Enfin, l'aspect décoratif propre aux globes anciens retrouve tout son sens. Grâce à une restauration utilisant les techniques les plus récentes, on dispose ainsi d'une oeuvre esthétique, lisible et consultable, telle qu'elle existait au moment de sa création.

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Digitisation Completes The Preservation Of Globes

Alain Roger has been a conservator of large documents since 1973 at the Bibliotheque nationale de France where he has gradually specialized in the conservation of globes and developed his own methods thanks to the assistance of his staff. Globes first appeared in Chinese and Arabic civilizations and were gradually made in Europe from the XVth century onwards. Wrong handling and adverse environmental conditions have damaged them seriously. A bibliographical research is the prerequisite to any treatment. Following this, scientific analysis helps identify

materials and detect previous treatments. To restore globes Alain Roger uses materials developed by medical research. Missing parts of printed gores can be filled in with xeroxed copies of originals, new engravings from original copper plates, or sometimes with simply leafcasted pulp. However, pasting down the gores over repaired spheres is intricate as the paper has dilated with humidity. To counteract this, Roger had the idea of using copies from digitised globes. Meeting with engineers in photogrammetry (photography in three dimensions) helped him carry out his project. The advantages are numerous to the conservator, the curator and the researcher: no more leafcasting or filling in with bits and pieces as complete gores are strictly measured and then printed, in order to be pasted down over the repaired spheres, and resulting in a perfect fit. Spots such as foxing can be virtually erased. Researchers can access copies in a larger format than the original and can study them on a desk making reading easier. This method unites preservation and access requirements: original globes are prevented from being consulted and can be preserved in adequate environmental conditions.

La Digitalizaciàn Permite Completar La Restauraciàn De Globos TerráQueos

Alain Roger ha sido conservador de documentos de gran formato desde 1973 en la Bibliothèque nationale de France donde gradualmente se ha especializado en la conservaciàn de globos terráqueos y ha desarrollado sus propios métodos gracias a la colaboraciàn de su equipe de trabajo. Los globos terráqueos aparecieron por primera vez en las civilizaciones china y árabe y han venido fabricándose gradualmente en Europa desde el siglo XV hasta el presente. La manipulaciàn inadecuada y las condiciones ambientales adverses los han da-ado considerablemente. Para realizar cualquier tratamiento es indispensable efectuar primero una investigaciàn bibliográica. Luego el análisis cient'fico ayuda a identificar los materiales y detectar los tratamientos que hayan sido realizados previamente. Para la restaurac'on de globos terráqueos, Alain Roger emplea materiales dise-ados por la investigaciàn médica. Las partes impresas faltantes pueden ser completadas con fotocopias de los originales o mediante reimpresiones de las planchas de cobre originales, o algunas veces simplemente con pulpa de papel. Sin embargo, el pegado de los trozos faltantes sobre las esferas reparadas resulta una tarea dif'cil ya que el papel se ha expandido debido a la humedad. Por ello, a Roger se le ocurrià la idea de emplear copias a partir de globos digitalizados. El reunirse con ingenieros en fotogrametr'a (fotograf'a en tres dimensiones) le permitià llevar a cabo su proyecto. Las ventajas son numerosas para el conservador, el curador y el investigador: ya no es necesario hacer más reimpresiones mecánicas ni rellenar con trocitos y piezas, ya que los faltantes son medidos con precisiàn y luego impresos a fin de pegarlos sobre las esferas reparadas, calzando perfectamente. Las manchas producidas por la picada de herrubre pueden virtualmente borrarse. Los investigadores pueden tener acceso a las copias en un formato más grande que el original y pueden estudiarlas en el escritorio, lo cual facilta la lectura. Este método concilia los requisitos de preservaciàn y acceso: los globos terráqueos originales pueden ser retirados del servicio al pœblico y preservados en condiciones ambientales adecuadas.

1. Photogrammétrie : technique permettant d'associer une couleur à un point de l'espace, à partir d'une photographie. La photogrammétrie aérienne est une technique permettant de créer des cartes "photographiques" à partir de prises de vue aériennes du sol.

2. Type de projection usuellement utilisée dans l'histoire de la cartographie.

The Digital Dark Ages ? Challenges In The Preservation Of Electronic

Information

'Who controls the past controls the future.
Who controls the present controls the past'.
George Orwell, Nineteen Eighty-Four, 1949.

Monks and monasteries played a vital role in the Middle Ages in preserving and distributing books. It was their work which provided much of our present knowledge of the ancient past and of the rich heritage of Greek, Roman and Arabic traditions. With the advent of the printing press, this monastic tradition disappeared. However, the reverence for the historical record of text has been carried by librarians and archivists within private and public libraries to this very day.

The tenor of our time appears to regard history as having ended, with pronoun-cements from many techno-pundits claiming that the Internet is revolutionary and changes everything. We seem at times, to be living in what Umberto Eco has called an 'epoch of forgetting.' Within this hyperbolic environment of technology euphoria, there is a constant, albeit weaker, call among information professionals for a more sustained thinking about the impacts of the new technologies on society. One of these impacts is how we are to preserve the historic record in an electronic era where change and speed is valued more highly than conservation and longevity.

The digital Dark Ages

As we move into the electronic era of digital objects (1) it is important to know that there are new barbarians at the gate and that we are moving into an era where much of what we know today, much of what is coded and written electronically, will be lost forever. We are, to my mind, living in the midst of digital Dark Ages; consequently, much as monks of times past, it falls to librarians and archivists to hold to the tradition which reveres history and the published heritage of our times.

Enormous amounts of digital information are already lost forever. Digital history cannot be recreated by individuals, and organisations cannot recreate a digital history because it was not archived or managed properly or it resides in formats that cannot be accessed because the information is on out-dated word-processor files, old database formats, or saved on unreadable media. Many large data-sets in governments and universities world-wide have been made obsolete by changing technologies (think of punch cards and 12" floppy disks) and will either be lost or subject to expensive 'rescue' operations to save the information. Unsurprisingly, the Report of the Task Force On Archiving of Digital Information has identified in its recommendations, the development of 'effective fail-safe mechanisms to support the aggressive rescue of endangered digital information.'(2)

There will be a demographic bulge of electronic materials coming into libraries and archives as the Baby Boom generation of authors and academics begin to wind down their careers and begin off-loading their materials to various libraries and archives. These materials will come to libraries on a wide variety of storage devices, perhaps even in entire computer systems, and will probably have equally significant paper collections associated with them. To assist the archivist of 2015, we need to find methods for helping organise this infor-mation today.

Information technologies are essentially obsolete every 18 months. This dynamic creates an unstable and unpredictable environment for the continuance of hardware and software over a

long period of time and represents a greater challenge than the deterioration of the physical medium. Many technologies and devices disappear as the companies that provide them move on to new product lines, often without backwards compatibility and ability to handle older technologies, or the companies themselves disappear.

Anachronistic libraries versus trendy Internet

There is a proliferation of document and media formats, each one potentially carrying their own hardware and software dependencies. Copying these formats from one storage device to another is simple. However, merely copying bits is not suffi-cient for preservation purposes: if the soft-ware for making sense of the bits (that is for retrieving, displaying, or printing) is not available, then the information will be, for all practical purposes, lost. Libraries will have to contend with this wide variety of digital formats. Many digital library collections will not have originated in digital form but come from materials that were digitised for particular purposes. Those digital resources which come to libraries from creators or other content providers will be wildly heterogeneous in their storage media, retrieval technologies and data formats. Libraries which seek out materials on the Internet will quickly discover the complexity of maintaining the integrity of links and dealing with dynamic documents that have multimedia contents, back-end script support, and embedded objects and programming.

Financial resources available for libraries and archives continue to decrease and will likely do so for the near future. The argument for preserving digital information has not effectively made it into public policy. There is little enthusiasm for spending resources on preservation at the best of times and without a concerted effort to bring the issues into the public eye, the preservation of digital information will remain a cloistered issue. The importance of libraries has been diminished in the popular press as the pressures from industry encourage consumers to see libraries as anachronistic while the Internet and electronic products such as Microsoft Encarta are promoted as inevitable replacements. Until this situation changes, libraries and archives will continue to be asked to do more with lessÑboth in terms of providing traditional library services, as well as new digital library services: preservation will have to encompass both kinds of collections.

Increasingly restrictive intellectual property and licensing regimes will ensure that many materials never make it into library collections for preservation. These will be corporate assets and will not be deposited into public collections without substantive financial and licensing arrangements that few libraries will be able to afford. From a positive perspective, this fact will allow libraries to essentially ignore the preservation question for many kinds of key information resources (examples will include newspapers, electronic serials, directories) as these may be preserved by their corporate owners. The flip-side of this argument is whether corporate owners will develop a public-spirited interest in providing this archival role for future generations and whether the resources will be accessible to the public.

The challenge is a sociological one

The archiving and preservation functions within a digital environment will become increasingly privatized as information continues to be commodified. Companies will be the place where the most valuable information is retained and preserved, and this will be done only insofar as there is a corporate recognition of the information as an asset. But companies have no binding commitment to making information available over a long term. Those librarians who suggest that

legal deposit is the means for addressing this issue are not likely to be successful. As a full discussion of this topic is beyond the scope of this paper, let it suffice to state that libraries would have a very limited ability to cope with the volume and variety of digital resources that publishers could potentially dump on them. Still more problematic are the rights management and access control issues that content providers will require_demands which strongly argue that legal deposit in a digital era will have limited effectiveness. Libraries will be the archive of last resort and will be repositories of ephemera and 'public domain' information_those materials considered as largely without commercial value.

The Commission on Preservation and Access suggests that the first line of defense against the loss of valuable digital information rests with the creators, providers and owners of digital information. (3) This fact is a critical one for preservation purposes as it strongly suggests that the role that librarians and archivists must play will be an increasingly public one. Preservation is a desktop issue, not merely an institutional one.

The role of preservationists must be to interact with users and to address preser-vation and information management issues on their desktops, not the archivists' desktop.

Standards will not emerge to solve fundamental issues with respect to digital information. The challenge in preserving electronic information is not primarily a technological one, it is a sociological one. The dynamism of the market for information technologies and products ensures the fundamental instability of hardware and software primarily because product obsolescence is often key to corporate survival in a competitive capitalist demo-cracy. Product differentiation manifests itself at the very level of the document standard. Proprietary systems provide commercial enterprises with profitable products whereas static (i. e. preservable) formats do not create a continuing need for upgrading which software and hardware companies depend upon. This situation conspires against standards that create a stable nexus of hardware, software, and administration.

Libraries and archives will be required to continue their existing archival and preservation practices as the current paper publishing boom continues. Clearly, digital collections are not going to be a substitute for existing and future library collections and plans must be made to accommodate both. A significant concern of libraries and archives is that the financial resources necessary to address expensive IT upgrades, embark on data rescue operations, and undertake digital preservation will have detrimental impacts on other aspects of library and archival operations such as building collections and providing services for the public.

The preservation nexus

Let us be absolutely clear from the outset: no one understands how to archive digital documents. Microfilm remains the long-term medium of choice for projects seeking to preserve large numbers of documents.
Sustainable solutions to digital preservation problems are not available. The research programme for digital preservation is still being established. For example, the Preservation of Electronic Materials: a Programme of Studies funded by the U. K. Joint Information Systems Committee of the Higher Education Funding Councils has recently put forward a research agenda which illustrates the situation. This programme includes:

- Developing a topology of major data types and formats and identifying issues affecting

preservation of each category of material.
- Investigating the attitudes of originators and rights owners to the responsibilities of digital preservation.
- Examining costing models for long-term preservation of digital materials.
- Examining the three main methods of digital preservation: technology preservation; technology emulation; information migration.
- Investigating the digital preservation needs of universities and research funders.
- Investigating progress towards permissive guidelines for digital preservation.
- Reporting on sampling methods and techniques for collecting materials, on the nature and extent of institutional electronic archives, and or the relevance of current archival practice to digital preservation .
- Investigating post hoc rescue, or data archaeology, of high value digital material which cannot be accessed because the required IT environment is no longer available. (4)

Other organisations such as the National Digital Library Federation and Research Libraries Group are at a similar point in their conclusions.

How to preserve on a cost-effective basis ?

In an abstract sense, the preservation of digital materials is not complex. As long as the relationship between hardware, software and humanware (organisations and people) is maintained, a kind of'preservation nexus' exists and a digital object can be preserved forever. The problem is the centrifugal forces such as time and money that pull each of these elements away from each other _software and hardware become outdated, migrating information may require expensive recoding, and organisations lack resources to address the problems. This creates an environment where the object is basically left in a digital limbo_trapped in an obsolete format or captured on an unreadable medium, or lacking the administrative capacity, resources, or willingness to refresh the data.

The archiving of digital information is not a conservation problem. To quote a conclusion of the Technology Assessment Advisory Committee to the Commission on Preservation and Access, 'Preservation means copying.'(5) It is the 'contents' that must be preserved not conserved. Unlike conservation practices where an item can often be treated, stored and essentially forgotten for some period of time, digital objects will require frequent refreshing and recopying to new storage media. Keeping the 'original' digital artifact is not important.

Further, refreshing or 'copying' of digital information will not be confined to merely moving from one storage medium to another but will also entail translation into new formats or structures. It is also likely that this translation will be an imperfect copy, as well as a costly and ongoing expense that must be budgeted for accordingly. Some types of digital objects will not be transferable to either new media or to new formats, for example: software executable files; self-extracting archives coded for particular operating systems; and formats unique to a software implementation. Even maintaining materials on a particular storage media like CD-ROM will not be easy. Multimedia materials that require particular hardware and software platforms to access the contents will disappear and will not be easily migrated to any new system. It is quite possible that a significant portion of multimedia CD-ROM titles presently in-print today will not be accessible to the next generation operating systems.

The handling of the physical storage of the digital object is the least of our worries. However, as

a profession, librarians and archivists know how to do this wellÑhow to have climate controlled environments, how to conserve and store materials of various types, how to ensure that disaster recovery practices are in place, and so on.(6) What is lacking in our knowledge base, and in that of technologists, is how to preserve over time, and on a cost-effective basis, the relationship between the storage, retrieval and display hardware and software Ña relationship which is required to make 'being digital' also being understandable.

What is to be done?

Preserving digital objects over time and in a cost-effective manner, requires technologies and formats to be stabilized to a greater degree than we have presently. But market forces drive the introduction of newer, faster, bigger, 'better' technologies for the production, distribution and storage of electronic information. No standards process can keep up with the dynamic changes which have occurred in the past 20 years. Documents are becoming complex, dynamic creations made of multiple objects, embedded programming and hypertext links. This is a significant departure from the solitary book or artifact with which preservationists traditionally work. Organisations are being asked to make fiscal commitments to creating complex technical infrastructures that change every 3-5 years and which require increasingly expensive technical expertise to keep functioning.

What must libraries do to address the challenges of digital preservation? There are a number of key areas in which concerned institutions and professionals can contribute:

1. Knowledge creation: contribute to Research and Development

There is an urgent need to augment research in the area of digital preservation. Projects which further our knowledge in the challenges of preserving various types of materialsÑmaps, archival materials, color documents, bound volumes, data-sets, music, and electronic formats like SGML, PDF, ASCII, HTML_must be undertaken. The research needs to include a careful accounting of the actual costs of preserving these materials. If projects do not provide cost-effective preservation solutions or have only marginal benefits, we need to be informed of this. If some techniques or strategies work better than others, we need this information clearly stated.(7)

2. Digital triage: developing guidelines for what can and should be saved

There should be informed skepticism about the claims of organisations that say they will archive the Internet.(8) The library and archival communities already know that not everything can and should be saved. What is key is selecting which digital resources to preserve and which ones not to preserve.

Librarians and archivists must develop digital collection development and evaluation guidelines to assist in deciding what can be saved and what should be saved, and what can't be, on a case-by-case basis. The Research Libraries Group's Preservation Working Group on Digital Archiving, as well as that of the JISC in the UK, have identified the development of guidelines for appraisal, selection, and priority setting for preserving digital information as being a key task for future work. (9)

3. Rescue operations: ensure vital electronic documents are preserved now

Digitally produced images of documents are not a substitute for microfilm preservation. Digital copying will not necessarily ensure the preservation of a digital document. The fact is that digital information may be outputted to microfilm for preservation purposes and it may even be appropriate to print an electronic document on acid-free paper and handle it according to established archival practices. These hybrid methods may be an effective transition step until stable guidelines and technologies evolve for long-term digital preservation.

Librarians and archivists need to work with industry to develop simple and cost-effective print-to-microfilm systems; this will enable archives to preserve documentary collections that are provided in proprietary formats such as word-processors in a cost-effective fashion to be effectively preserved.

By transferring electronic information into non-electronic form there will be a loss of functionality for some kinds of information. Paper or microfilm documents may no longer have active hypertext links or be searchable by keyword and there will be some cases where it is not reasonable to migrate the information to non-electronic forms as it would render the information useless, e.g. software or large data-sets. Re-coding information of this type will be sharply constrained by the resources and in many cases will not be feasible.

4. Document formats: so many to choose from

Mixed media and multiple document formats will continue to remain the fly-in-the-ointment of digital collections. Multiple formats may require maintaining multiple hardware/software platforms and will confound simple migration to new storage media.

Whether possible or even preferred, requiring that data be stored in a common format is unlikely for the foreseeable future. Similarly, existing translation software available for the migration and translation of document formats illustrates that the problems are significant and the results are often less than satisfactory. The simple case of conversion between the most popular document formats, MS-Word and WordPerfect, provide ample illustration of the challenges that are faced and argue for skepticism about claims for future systems which will make this task easier.

There will probably be no effective solution to this problem. If a library will be receiving electronic objects from content providers such as authors or publishers, they may want to specify a limited range of acceptable document formats. Working with creators to bring these problems to their attention and providing guidance on how to organise files and which formats to use for purposes of archiving will help. Once again, more research and effective communications with content and technology providers are required to address the issue of multiple formats.

5. Being legal: rights management and access control

The management of rights and access controls for electronic objects is an increasingly complex area of concern for libraries and archives. A library may have the rights to access and use electronic materials, but the right to preserve the materials may not be the same thing. Restrictions on access placed by rights-holders or by licensing arrangements for particular resources need to be addressed when questioning whether the information can be preserved. A simple example is the case of whether a library can retain old versions of a CD-ROM database to which it may subscribe or whether the CD-ROM must be discarded after the subscription is finished or destroyed when a new version is issued. More complex legal issues arise with the automated collection of Internet information for preservation purposes in efforts such as the Internet Archive, where it seems that intellectual property rights are being ignored. Similar intellectual property concerns about the legality of unauthorized and automated indexing of Internet WWW sites are also being raised.

Licensing will be one of the most important things that a library will be required to do in the electronic realm. The management of diverse licensing arrangements promises to be a significant administrative and technical challenge for preservation purposes. For example, the University of California Digital Library framework is quite explicit about the need to ensure that where digital materials are printable, the licenses and contracts associated with them allow you to print a copy on acid-free paper for preservation purposes. (10)

Librarians need to work on contractual issues. There must be a concerted effort on the part of all libraries to work together to get the best contractual arrangements possible and to be more aware of the contractual issues associated with the licensing of electronic resources. The Council on Library Resources, Commission on Preservation and Access and Yale University's initiative with the LibLicense Project is an important starting point for this work. (11)

Technical advances such as those in the EC COPEARMS (Coordinating Project for Electronic Authors' Right Management Systems) (12) and IMPRIMATUR (Intellectual Multimedia Property Rights Model And Terminology for Universal Reference) (13) projects will assist significantly in rights management. However, these technologies remain in the prototype stage and formidable challenges exist in the formalization and intellectual description of rights and in developing common contractual languages. The efforts to provide these descriptions are only beginning and are key to effective rights management. As a result, rights management systems are probably 5-10 years from commercial deployment.

6. Wave the flag: promoting the importance of preservation

Librarians and archivists must engage in a concerted effort to raise the profile of preservation. (14) The Commission on Preservation and Access (15) and Research Libraries Group (RLG) (I6) in the United States, the Joint Information Systems Committee (JISC) (17) in the UK and PADI Working Group (18) and National Library (19) in Australia, among others, have all been active in framing the problems of digital preservation within their constituencies. This work needs to be supported, expanded and brought to greater public attention.

As a profession, librarians and archivists need to encourage critical thinking and be highly pragmatic about the nature of the new medium and the challenges of digital preservation. Although there are positive benefits to digitisation, particularly in providing remote and enhanced access to information, as Klaus-Dieter Lehmann, Director General of Die Deutsche Bibliothek warns, there is a danger here as well. The problem is that 'digitisation may come to be regarded as a panacea for all of the real and imagined problems libraries now face in connection with the preservation of physical collections: the growing need for storage space, the deterioration of books due to acid paper, and the rising costs of library operation.' (20) Only by increasing public support and understanding of the issues of preservation, both digital and analog (i. e. physical collections) can we hope to address the shortfall in fiscal and human resources that continue to hinder preservation efforts and impact upon library services.

7. All for one, one for all: working together

Archiving decisions for materials which are common to many libraries will be made in consultation with other libraries to deter-mine the appropriate forms and sharing-mechanisms. Few libraries will be positioned to effectively archive large quantities of electronic information. Any given library will necessarily be required to select re-sources that they can archive and preserve according to their particular mandates and user requirements. In many cases, it will not make sense to duplicate efforts. Digital pre-servation efforts will need to be coordinated. In other situations, it may make perfect sense to duplicate archival efforts, particularly if the information is too valuable for historic purposes to be entrusted to only one institution. Efforts such as the U. S. National Digital Library Federation and the Canadian Initiative on Digital Libraries are examples of important first steps.

8. Digital preservation as a public good

Librarians and archivists protect the public interest by making information available to the community and by asserting the importance of maintaining a record of our collective intellectual heritage. This task will be a continuing challenge because libraries and archives are too often considered to be competitors to publishers, document delivery services, and other private sector content providers. It is unlikely, unless a substantive ground-swell of public support is generated, that libraries will win in the battle against commodification of infor-mation resources or be able to generate the public support (and fiscal resources) necessary to meet the challenges.

Despite the present lack of public interest in digital preservation, it is necessary to believe, perhaps as an article of faith, that the efforts of librarians and archivists will be appreciated in the future. The traces of information that we are able to save from our digital vellum will be valuable sources of information to the future. Even if the task of digital preservation remains thankless, it is a vital one and must still be undertaken. The objective is a noble and necessary one even as the many problems appear insurmountable.

Digital collections facilitate access, but do not facilitate preservation. Being digital means being ephemeral. Digital places greater emphasis on the here-and-now rather than the long term, just-in-time information rather than just-in-case. The research programme for digital preservation has only recently been initiated to develop strategies, guidelines, and standards. Although tremendous work has been undertaken in defining the problems and challenges, much more remains to be done, and the tough task of actually doing digital preservation (and digital rescue) remains ahead.

A critical appraisal of where we are vis-a-vis our digital culture, and what we want for the future something which may not be defined in technical terms at allÑis required both inside and outside of the library and archival professions. If history and cultural heritage are to be important, then it will likely fall to librarians and archivists, the monastic orders of the future, to ensure that something of the heady days of our 'digital revolution' remains for future generations. The challenges to digital preservation are considerable and will require a concerted effort on the part of librarians and archivists to rise up to these challenges and assert in public forums the importance of protecting a fragile digital heritage.

'Those who cannot remember the past are condemned to repeat it'.
George Santayana,
The Life of Reason, 1906.

The author would like to thank his colleagues, Michael Williamson and Fay Turner, for their comments and sharp pencils, and accepts all responsibility and is unrepentant for hyperbolic outbursts.

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Comment Sortir Du Moyen Âge Numérique?

Contrairement à la tradition monastique qui a su préserver les textes anciens, avec l'édition électronique nous entrons dans l'ère de l'oubli. Nous sommes au Moyen âge du monde numérique. Des quantités importantes de documents ont déjà disparu en raison d'un mauvais archivage, de logiciels ou lecteurs obsolètes. Il faut s'attendre à un baby boom des archives numériques venant d'auteurs ou d'universitaires.

Les bibliothèques doivent aussi préserver des documents numérisés existant déjà sous d'autres supports. Toutefois les droits de propriété industrielle toujours plus restreints inciteront les auteurs et sociétés à conserver leurs propres archives mais dans quelles conditions et avec quelle garantie de service public? Les spécialistes de la préservation ont ici un rôle important à jouer mais ne peuvent compter sur la normalisation pour simplifier le problème, le marché étant trop lucratif pour les fabricants qui sortent régulièrement de nouvelles générations de produits.

Personne ne sait comment archiver l'information numérique même si sa préservation n'est pas difficile en théorie. Il ne s'agit pas seulement de recopier mais de transférer sur de nouveaux supports et structures. Pour sortir du Moyen âge numérique, diverses démarches doivent être entreprises dès à présent, en poursuivant les programmes de recherche et développement concernant la préservation des différents supports à des cožts raisonnables, en identifiant les techniques et stratégies les plus performantes.

Il faut aussi opérer une sélection et établir des principes directeurs sur ce qui peut et doit être sauvegardé ; transférer les documents actuels d'importance sur des supports non numériques tels que microfilm ou papier non acide, même si cette solution intermédiaire implique la perte des facilités de connexion telles que liens hypertextes ; inviter les auteurs à travailler sur des supports compatibles.

Les bibliothèques doivent mettre au point des contrats d'exploitation et de préservation (deux choses différentes du point du vue légal), promouvoir auprès du grand public l'importance de la préservation et travailler de concert pour se répartir les tâches entre institutions.

À Càmo Salir De La Edad Media Digital ?

Contrariamente a la tradiciàn monástica que ha sabido perservar los textos antiguos, con la ediciàn electrànica entramos en le era del olvido. Nos encontramos en la Edad Media del mundo digital. Cantidades importantes de documentos ya han desaparecido debido a técnicas de archivo inadecuadas, programas o lectores obsoletos. Es necesario esperar el auge de los archivos digitales producidos por autores o académicos.

Las bibliotecas deben también perservar los documentos digitalizados que ya existen en otros soportes. Sin embargo, los derechos de la propriedad industrial cada vez más restringidos incitan a los autores y a las empresas a conservar sus propios archivos, perà À en qué condiciones, y con qué garant'a de un servicio pœblico? Los especialistas de las preservaciàn desempe-an aqu' un papel important, pero no pueden contar con la normalizaciàn para simplificar el problema, ya que el mercado es demasiado lucrativo para los fabricantes que sacan regularmente nuevas generaciones de productos.

Nadie sabe càmo archivar la informaciàn digital aun cuando su preservaciàn teàricamente no es dif'cil. No se trata solamente de recopiar sino de transferir a nuevos soportes y estructuras. Para salir de la Edad Media digital, se deben emprender varias acciones desde el presente, continuando los programas de investigaciàn y desarrollo relativos a la preservaciàn en distintos

soportes a costos razonables, identificando las técnicas y estrateg'as más productivas.

Es necesario también hacer una selecciàn y establecer los principios rectores sobre lo que se puede y se debe salvar. A pesar de que la transferencia de los documentos actuales relevantes a soportes no digitales, tales como el microfilm o el papel libre de ácido, constituye una soluciàn intermedia, implica la pérdida de posibilidades de conexiàn tales como los enlaces de hipertextos. Hay que invitar a los autores a trabajar en soportes compatibles.

Las bibliotecas deben definir los contratos de comercializaciàn y de preservac'on (dos cosas diferentes desde el punto de vista legal), promover en el pœblico en general la importancia de la preservaciàn y trabajar de comœn acuerdo para repartir las tareas entre diversas instituciones.

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   http:/cweb.loc.gov/preserv/preserve.html
   Conservation OnLine: http://palimpsest.stanford.edu/

   A useful overview of imaging and storage technologies is the 'Long-Term Access Strategies for Federal Agencies: Digital-lmaging and Optical Digital Data Disk Storage Systems' (Technical Paper No.12, July 1994) published by the U. S. National Archives and Records Administration.

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8. The work of Brewster Kahle's Internet Archive is a notable effort here. An important caveat is that the 'archive' is, at best, a fuzzy snapshot of the electronic materials which are most easily available. The vast majority of Internet resources are not amenable to the kind of 'sweep' that Kahle's Archive is attempting to undertake as the resources reside in databases which cannot be traversed by automated systems. There is also an interesting legal question about whether the Internet Archive has the right to copy entire websites into its database. This question will likely be the most significant one for the success of such operations in the future. For details, see
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A Cd-Rom For Safeguarding Latin American And Caribbean Photographs

During the second half of the XIXth century and the first decades of the XXth century, photographers, artists and writers who travelled through and visited our Region, shared a common interest in adventure and the discovery of what they considered secrets of the new world. They all documented scientifically the materials that they produced at the very time when photography was enriched by scientific progress. Thanks to their reliable testimonies that world has not totally disappeared.

XIXth century Latin American photography has gained increased importance thanks to systematic activities that have been undertaken to locate, define, safeguard and preserve photographs.

These concerns have been translated into the idea of producing a CD-ROM with photographic pictures of Latin America and the Caribbean from the late XIXth and the early XXth century.

The methodology went as follows: Marie-Thérèse Varlamoff, Director of the IFLA-PAC, wrote a first draft report gathering information about the condition of conservation of photographic collections in Latin America. In order to crystallize this idea, a questionnaire was sent to all national libraries of the Region, which in turn, was sent to other interested institutions in their countries. This questionnaire was intended to obtain further information on the types of collections preserved and their condition. Even though not all the libraries responded it, this first step allowed us to make a preliminary assessment.

In 1996, thanks to PAC and support by the National Library of Brazil and Unesco, a round table was organised in Rio de Janeiro, in order to discuss preservation and to set the criteria to access these collections. One outcome of this meeting was the need to disseminate information throughout the Region about the importance and fragility of this photographic heritage and the need to preserve it in our institutions.

The third step was the submission of a proposal to Unesco to include this heritage in the 'Memory of the World' programme and produce a CD-ROM. Coordination was assigned to the National Library of Venezuela as it is headquarters of the IFLA-PAC Regional Centre for Latin America and the Caribbean.

The main objective of this project was to organise, register and digitise 3,000 Latin American and Caribbean photographic images dating from late XIXth and early XXth centuries. The aim of this was to understand the photographers, their work and printing techniques, and as a consequence, make access easier to their pictures at international level.

The project was divided into three main phases

Phase one:

- photographs dealing with XIXth and XXth century Latin America and the Caribbean were collected;
- each photograph was described technically and physically and introduced with a brief historical summary and a biographic description of the photographer;
- invitations to nineteen national libraries and photographic archives in twelve

countries of the Region were sent out;
- a database for entering the material was designed;
- initial responses were analysed;
- selection and reproduction of the photographic material was initiated;
- a sample was sent for evaluation to the University of Colima, Mexico, which would be responsible for the production of the CD-ROM.

Phase two:

the creation of the database was continued. The National Library in Venezuela analysed the data and designed the structure of the CD-ROM. The prototype prepared by the University of Colima was compared to the sample previously sent.

Phase three:

the CD-ROM was edited and distributed to institutions in the Region.
On completion of the project, 1,000 copies of the CD-ROM are expected to be released. They will be distributed among participating institutions and on request. The CD-ROM will be an excellent reference tool that will be available in the information market. In addition it will allow the retrieval of historic images contained in such fragile documents.

Coordination of the project

The coordination of a regional project of this magnitude involves overcoming many hurdles in order to achieve the expected results.

First and foremost, photographic images from ten countries in the Region had to be compiled with their corresponding technical description. Not all the institutions invited to participate could be involved because of time or funding limitations. This prevented us from looking for other images from other institutions and compelled us to complete the committed number of images with a selection from the Audiovisual Archives of the National Library of Venezuela. Thus most countries in the Region could be represented in the CD-ROM. This meant that additional effort was contributed by the Audiovisual Archives of Venezuela for evaluating the pictures, within the deadline established.

Selection procedure comprised the following steps:

1. A review of Latin American collections dating from the XIXth century (approximately 8,000 images).

2. Selection, according to the importance of the photographer, the historical event, and the quality of the picture.

3. Identification of the material. In the case of Venezuelan images, a historian was appointed to place every image in its historical context (approximately 300 images).

4. Reproduction of the material: the images were reproduced in 3x3 cm color slides, to make this process easier for the majority of institutions.

5. Linking the slides with their technical description: upon reception of a copy, each slide

was linked with its original and assigned an identification number.

6. Database input: all the information included on the data gathering form (both from Venezuela and other countries) was entered into the database, and a final identification number assigned to the slides in order to link both image and text for the digitisation process.

7. Sending of the information to the University of Colima where technical data was transmitted.
   The production of the 1,000 copies of the CD-ROM relies on the experience of the University of Colima. Once the CD-ROM is completed, information will be accessed through various headings: photographer, title, country, key word, etc.

Our CD-ROM will include an introduction, academic references about the evolution of the Region, the creation of its republics, their industrial and urban development, their peoples and customs. All this information will be based on the previously unknown and unique selection of photographs and their technical description, drafted by the historian El'as Pino Iturrieta, Director of the Ràmulo Gallegos Centre for Latin American Studies.

We would like to express our deepest gratitude to all the institutions involved in this wonderful project, who worked so hard to process their images in such a short time. Also, we sincerely thank Marie-Thérèse Varlamoff for her encouragement and commitment to the preservation of this valuable photographic material which is of such importance for the Latin American and Caribbean cultures.

Contribution of the countries to the CD-ROM: 3,008 pictures

7 countries, including:

Brazil	331
Colombia	425
Cuba	112
Chile	056
Mexico	029
Peru	416
Puerto Rico	122
Total:	1,461

Countries represented as a result of the contribution of the Audiovisual Archives of Venezuela:

Central America	134
Caribbean	436
Venezuela	308
South America	639
Total:	1,517

Ramàn Sánchez Chapell'n

Director of the IFLA-PAC Regional Centre
for Latin America and the Caribbean
National Library of Venezuela

Un Cd-Rom Para La Fotograf'as En Am?Rica Latina Y El Caribe

Durante la segunda mitad del siglo XIX y las primeras décadas de nuestro siglo, fotàgrafos, artistas y escritores viajeros que visitaban nuestra Regiàn compartieron la atracciàn por la aventura y la avidez por descubrir lo que veran como secretos de mundos nuevos, compartieron la misiàn de documentar cient'ficamente mediante testimonios confiables del estado de esos materiales. Estos fotàgrafos viajeros realizaron su trabajo en momentos cuando la fotograf'a se enriquec'a con los avances de la ciencia. Gracias a ellos aquel mundo no desapareciá totalmente.

D'a a d'a la fotograf'a latinoamericana del siglo XIX ha adquirido mayor importancia, lo cual se evidencia a través de acciones sistemáticas que se realizan para localizar, rescatar, preservar y difundir estos documentos.

Como consecuencia de estas inquietudes surge la idea de realizar un CD-ROM con imágenes fotográicas de América Latina y Caribe en el siglo XIX y comienzos del XX producto de la preocupaciàn por la preservaciàn de dicho material. La se-ora Marie-Thérèse Varlamoff, Directora del Programa de Preservaciàn y Conservaciàn IFLA-PAC, tuvo la iniciativa de la creaciàn de un reporte que reuniera informaciàn sobre el estado de conservaciàn de las colecciones fotográicas de América Latina. Con el fin de cristalizar esta idea se envià un cuestionario a las bibliotecas nacionales de la Regiàn y éstas a su vez lo remitieron a otras instituciones de su pa's que poseyeran colecciones fotográicas de este per'odo; dicho cuestionario persegu'a conocer las condiciones de conservaciàn y la descripciàn de estas colecciones, y aun cuando no todas las instituciones contestaron el llamado, este primer paso nos premià con la informaciàn que necesitábamos para un diagnàstico preliminar. Posteriormente en 1996 a través del programa PAC, con el apoyo de la Biblioteca Nacional de Brasil y con el financiamiento de la Unesco, se organisà una mesa redonda en R'o de Janeiro, para discutir la preservaciàn y acceso unificado de estas colecciones. Como resultado de esta reuniàn surge la necesidad de divulgar tan importante acervo fotográico de la Regiàn, as' como también la preservaciàn y concientizaciàn de nuestras instituciones de la importancia y fragilidad de dichas colecciones. Continuando con esta preocupaciàn surge un tercer paso que fue la propuesta de desarrollar, dentro del marco de Memoria del Mundo y con el financiamiento de la Unesco, un proyecto para la creaciàn de este CD-ROM; designándole la coordinaciàn del mismo a la Biblioteca Nacional de Venezuela en su carácter de sede del Centro Regional IFLA-PAC para América Latina y el Caribe.

El objetivo principal de este proyecto es organisar, registrar y digitalizar tres mil imágenes fotográicas sobre América Latina y el Caribe correspondientes al siglo XIX y comienzos del siglo XX para editar un CD-ROM, a fin de crear conciencia sobre la importancia de estas colecciones, conocer a los fotàgrafos y sus técnicas de registro e impresiàn y en consecuencia facilitar el acceso a nivel internacional de la memoria fotográica de la Regiàn del siglo XIX y las primeras décadas del XX.

Etapas del proyecto

Primera etapa:

- consistià en la recolecciàn del material fotográico que reproduzca lo que fue América Latina y el Caribe en el siglo XIX y comienzos del XX,

- dise-o de la ficha técnica con la informaciàn necesaria para la descripciàn f'sica de cada fotograf'a, breve resumen histàrico y rese-a biográica del fotàgrafo,
- env'o de las invitaciones a participar en el mencionado proyecto a diecinueve bibliotecas nacionales y archivos fotográicos de doce pa'ses de la Regiàn,
- dise-o de una base de datos para el ingreso del material,
- análisis de la respuesta inicial enviada por las bibliotecas y archivos,
- inicio de la selecciàn y reproducciàn del material fotográico y env'o al Centro coordinador,
- env'o de una muestra a la Universidad de Colima para su evaluaciàn, quienes son los responsables de la producciàn del CD-ROM.

Segunda etapa :
en esta etapa se continuà con el enriquecimiento de la base de datos. Análisis de los datos y dise-o en Venezuela de la estructura del CD-ROM.

Evaluaciàn del prototipo elaborado por la Universidad de Colima con la muestra remitida.

Tercera etapa :
ediciàn y distribuciàn del CD-ROM a las instituciones de la Regiàn.

Al finalizar el proyecto se espera obtener 1000 copias del CD-ROM y enviarlas a las instituciones participantes y a otras solicitantes, para as' disponer de una herramienta referencial de primer orden en el mercado de la informaciàn, que permita la investigaciàn de los procesos histàricos a través de estos documentos tan frágiles.

Coordinaciàn del proyecto

La coordinaciàn de un proyecto regional de esta naturaleza, implica solventar las limitaciones que se van presentando en la ejecuciàn del mismo, a fin de obtener al final los resultados esperados.

El compromiso era recopilar tres mil imágenes fotográicas con sus respectivas fichas técnicas, las cuales provendr'an de diez pa'ses de la Regiàn que hab'an revelado poseer este tipo de colecciones, sin embargo no todas las instituciones convocadas participaron por limitaciones de tiempo y disponibilidad de recursos.

Por falta de tiempo no se pudo insistir en la bœsqueda de imágenes con otras instituciones de la Regiàn, por lo que fue necesario completar la cantidad de imágenes con la que nos hab'amos comprometido, con la selecciàn del Archivo Audiovisual de Venezuela de la Biblioteca Nacional, y as' estar'an representados la mayor'a de los pa'ses de la Regiàn.

La seleccià n de las imágenes faltantes para el proyecto significà un inmenso esfuerzo en el Archivo Audiovisual de Venezuela, dentro del l'mite de tiempo requerido. Esta selecciàn tuvo los siguientes pasos:

1. Revisiàn de la colecciàn latinoamericana del siglo XIX (aprox. 8000 imágenes)

2. La selecciàn se realizà tomando en cuenta: a) la importancia del autor; b) del momento histàrico representado en la imagen, y c) la calidad de la imagen.

3. Identificaciàn: una vez seleccionado el material se procedià a su identificaciàn (ficha técnica). En el caso de las imágenes de Venezuela, se contratà un historiador para la contextualizaciàn de cada imagen dentro de la historia (300 imágenes aproximadamente).

4. Reproducciàn del material. Las imágenes se reprodujeron en diapositivas en color, de 3x3 cm, lo cual facilitar'a este proceso a la mayor'a de las Instituciones.

5. Enlace de la diapositiva con la ficha técnica: Una vez recibida la reproducciàn, se procedià a cotejarla con el original y a asignarle su nœmero de identificaciàn.

6. Ingreso a la base de datos: se procedià a ingresar toda la informaciàn contenida en el formato de acopio (tanto las de Venezuela como las provenientes de otros pa'ses) a la base de datos dise-ada para este fin y a asignarle el nœmero definitivo de identificaciàn a las diapositivas, para enlazar imagen y texto, en el proceso de digitalizaciàn.

7. Env'o de la informaciàn a la Universidad de Colima.Para la elaboraciàn de las mil copias de este CD-ROM contamos con la gran experiencia que posee la Universidad de Colima, México.

Una vez confeccionado el CD-ROM, se tendrá acceso a la informaciàn a través de mœltiples entradas: fotàgrafo, t'tulo, pa's, palabra clave, etc.

Nuestro CD-ROM contará con la presentaciàn; un marco teàrico que tratará sobre la evoluciàn del territorio, la formaciàn de las Repœblicas, el desarrollo industrial, urbano, la gente y sus costumbres basado en las hermosas imágenes que integran el CD-ROM, escrito por el destacado historiador venezolano El'as Pino Iturrieta, director del Centro de Estudios Latinoamericanos Ràmulo Gallegos; y con tres mil maravillosas y desconocidas imágenes de las colecciones de nuestra Regiàn, acompa-adas de su descripciàn técnica.

Queremos agradecer profundamente a todas las instituciones participantes en este bello proyecto por el gran esfuerzo que, estamos seguros, representà para ellos procesar sus imágenes en tan corto tiempo. Igualmente agradecemos a Marie-Thérèse Varlamoff por su empuje y su compromiso con la preservaciàn de este valioso material.

Participaciàn de los Pa'ses en la composiciàn del CD-ROM: 3.008 imágenes

7 pa'ses:

Brazil	331
Colombia	425
Cuba	112
Chile	056
Mexico	029
Perœ	416
Puerto Rico	122
Total:	1,461 imágenes

25 pa'ses representados grac'as a la Participaciàn del

Archivo Audiovisual de Venezuela:

Centro América	134
Antillas	436
Venezuela	308
Sur América	639
Total:	1,517 imágenes

Ramàn Sánchez Chapell'n

Director del Programa Regional IFLA-PAC
para América Latina y el Caribe
Biblioteca Nacional de Venezuela

The Photographic Archives Of The City Hall In Lisbon

The 'Arquivo Fotográico da Câmara Municipal de Lisboa' (AFCML) is the photography collection of the City of Lisbon, Portugal. It was created in 1942, to assemble the many photographs scattered through several departments of the City Hall. The acquisition of several new collections of photographs in the 1940s and 1950s, some of them important to the study of the history of Lisbon and of Portuguese photography, attracted the attention of the public to this institution. It was opened to the public in the late 1970s.

It was only in 1990 that the City Hall decided to renovate the 'Arquivo Fotográico' . The long tradition of use by the public was an important factor in this decision. The AFCML was given new facilities in a building devoted to this very institution. It includes a storage room with isolation and environmental control, an exhibition room, darkrooms and a reading room. It was the wish of those responsible to achieve the best conditions possible for the preservation of photography collections, to make access to images as easy and as fast as possible, and to start a programme of exhibitions and catalogue production to publicize the photography collections. The new facility was opened in 1994.

The Collection

The images are mostly scenes of the City of Lisbon. They show several aspects of the City, such as architecture, urbanization, social and political events, and cityscapes. Portuguese culture is another featured subject. Recently the 'Arquivo' has also acquired artist prints.
The AFCML holds about 350,000 images, dating from the 1870s to today. The main periods represented are 1900-1920 and 1940-1950. The collection is made up mostly of black and white negatives, on glass and on film, and black and white prints. There are many fewer color images than black and white.

The collection grew significantly during the renovation and after the new facilities were opened in 1994. Since 1990, about 100,000 new images have been added to the existing collection, including private donations and purchases. This enormous growth is a challenge to our capacity for treating, cataloguing and digitising a great number of new images, considering the limited resources and staff (seven conservation technicians and six cataloguing and digitising technicians.) In order to address the needs of this increasing number of images, the conservation treatment of new collections was simplified. We want to reduce the time a collection must

undergo treatment before it is made available to the public.

Use of the collection

The collection is intensively used, both by the public and by the various City Hall departments. The number of visitors averages two thousand per year. One thousand of them are first time visitors. The number of print requests per year is about six hundred photographic prints and transparencies, and eight thousand computer prints. We can assert that public interest, as mirrored by the number of requests, is beyond all the expectations we could have had before the renovation. Readers are mostly students, teachers, photographers, journalists, retired people, architects and art historians. Images are mainly viewed on computer screens. Copy prints are available in the reading room from images that have not been digitised yet. The reading room provides fourteen computer terminals for the use of readers using our database.

Computer images are stored on the computer hard disk in PCX format. The computer catalogue format includes the following fields: captions, image locales and dates, authors, collections, bibliographies, exhibitions, and copyright restrictions. Image and Boolean research is possible via the computer. The part of the collection available through the computer is the most searched and used.

Conservation strategies

The main focus of the conservation procedure is preservation. The collection storage room is kept at a temperature of 18 °C (75 °F) (+/- 1 °C) and 40% - 45 % relative humidity. The excellent isolation of the walls and ceiling allows us to maintain these conditions throughout the year, quite independently from the exterior weather. Great attention is paid to the regular servicing of the air conditioning equipment. Photograph enclosures were also chosen to fit the most demanding of preservation requirements. Metal enameled cabinets, neutral cardboard conservation boxes and binders and acid free conservation paper (Portuguese made), were selected to store the negatives and prints in the main storage room. The above conditions are the guarantee of the stability of most photographic artifacts.

Another aspect of our conservation activity is our concern to reduce the handling of originals as much as possible. The viewing of photographs on the computer screen is a key aspect of this protection. The use of computer- generated-prints for research, instead of photographic prints, is another important element. The use of cotton gloves to handle prints and negatives is the golden rule at AFCML and is respected by all the technicians including darkroom printers.

A negative duplication programme was established in 1996 in order to replace unstable nitrate base negatives and also some acetate and glass negatives in bad or deteriorated condition. These were duplicated onto a polyester base, a very stable, modern negative base. Duplication work is carried out in our darkrooms.

The activity of photography restoration is reduced to its most basic aspects. It is viewed as a process of stabilization in cases of broken glass negatives, emulsion lifting stabilization, and torn print stabilization. We do not go beyond basic treatment and no risks are taken in this field.

Working procedures

We have established two rules that are followed as much as possible:

1. Compatibility should exist between the project and the resources available.

2. Every conservation project should be followed by its presentation in an exhibition or catalogue. These two aspects of our work should always go hand in hand.

Let us examine a few practical aspects of this:

a. In order to make the treatment of new collections more sound and more consistent we have created a standard procedure. According to this standard, the first step is observation and pre-inventory of the new collection. This is done in order to assess the extent of the collection, identify the processes needed in view of their present physical condition and the main problems, if any. We also need to ascertain what the necessary housing materials will be, whether duplication is required or not, the number of technicians responsible, and the prediction of time and costs. Steps for treatment are then defined and a calendar drawn up for the conservation process. A decision is then taken on the creation of a catalogue or an exhibition of the collection. Treatment generally consists of procedures for general description, cleaning, ordering, numbering, storing, digitising, cataloguing and duplication (or copy). Afterwards the collection is made available to the public. Sometimes it is exhibited and a catalogue is published.

b. The images that we digitise are the result of selection. Low quality images and images that are very faded or heavily deteriorated are rejected, as well as those images that do not meet the purposes of our organisation. However, these are described in another database that is available for consultation. Avoiding identical images in the computer is also necessary and a survey is done so that only one, in a group of similar images, is digitised. This selection allows us to significantly speed up the treatment of the collections.

c. The help of interns has been very useful in activities such as compiling archive inventories, cleaning negatives, organising, digitising, and cataloguing. This work is particularly significant in the treatment of the small collections recently acquired. We have interns from Portuguese schools and from institutions that own photographic collections, some of them are from Spain and Brazil.

d. We hold many negatives that have no prints. Digitised negative images are converted to positives by computer software so that we can show and supply these images to readers. This also saves photographic paper and a lot of darkroom work.

Accomplishments

After six years of hard work we have digitised and computer-catalogued about 60,000 images (20% of our collection). We have held six major exhibitions of our collection (including catalogues), and several exhibitions of individual photographers. The 'Arquivo' has an important role in the conservation of photography in Portugal and is often asked for advice and help. In December 1997, we organised the 'Encontros de Conservaç‹o de Fotografia', with participants from Portugal, Spain, France, Mexico, Argentina and Brazil.

Luis Pavao

Photography Curator
City Hall of Lisbon
Portugal

Arquivo Fotográico Da Câmara Municipal De Lisboa

O Arquivo Fotográico da Câmara Municipal de Lisboa (AFCML) constitui a colecç‹o de fotografia da cidade de Lisboa, Portugal. Foi fundado em 1942, inicialmente apenas com o intuito de reunir as muitas fotografias da Autarquia que se encontravam dispersas por vários organismos. A importância das colecç›es adquiridas nas décadas de 1940 e 1950 despertou o interesse do pœblico e os muitos pedidos de consulta ent‹o surgidos culminaram com a abertura á consulta pœblica no final da década de 1970.

Em 1990 a Câmara Municipal decidiu proceder à remodelaç‹o e modernizaç‹o do Arquivo Fotográico, até ent‹o instalado em situaç‹o precária. Foi-lhe atribuido um edificio pràprio, especialmente remodelado e equipado para cumprir esta funç‹o da melhor forma; criaram-se depàsitos climatizados e isolados, salas de exposiç›es, câmaras escuras e uma sala de leitura. Os objectivos ent‹o definidos visavam assegurar a preservaç‹o das colecç›es nas melhores condiç›es, facilitar a consulta das imagens e a pesquisa, permitir a sua utilizaç‹o por um nœmero maior de leitores em boas condiç›es e ainda desenvolver uma acç‹o constante de divulgaç‹o da colecç‹o e da fotografia em geral. As novas instalaç›es abriram ao pœblico em 1994.

Que tipo de colecç‹o temos?

A maior parte das nossas imagens foram adquiridas por grosso, provenientes de estudios de fotàgrafos ou coleccionadores. A temática central da colecç‹o é obviamente a cidade de Lisboa nos seus vários aspectos, arquitectura, urbanismo, acontecimentos sociais e pol'ticos, panoramas, etc. A cultura portuguesa em geral é também um tema muito representado. Possuímos ainda alguns trabalhos de autor, de aquisiç‹o recente. Actualmente o AFCML possui um acervo, com cerca de 350 000 espécies fotográicas, datadas de 1870 até aos nossos dias. Os per'odos predominantes s‹o 1900~1920 e 1940~1950. A colecç‹o é composta essencialmente por negativos a preto e branco, em vidro e em pel'cula. Possui também um grande numero de provas a preto e branco, sendo a componente a cor reduzida.

A colecç‹o cresceu com a remodelaç‹o: desde 1990 entraram no AFCML cerca de 100 000 novas imagens, em vários conjuntos, resultantes de compras ou doaç›es. Este crescimento é um desafio sério à nossa capacidade de tratar, catalogar e digitalizar, dadas as limitaç›es da equipa que aqui trabalha: 7 técnicos na conservaç‹o e 6 técnicos na digitalizaç‹o e base de dados. Foi necessário simplificar os tratamentos e desenvolver métodos de trabalho que acelerassem o processamento das novas colecç›es. Pretendemos evitar que decorram anos desde que uma colecç‹o entra até que possa ser posta à disposiç‹o do pœblico.

Que tipo de utilizaç‹o tem a colecç‹o?

A nossa colecç‹o é utilizada intensamente. Com uma média de dois mil leitores por ano (dos quais cerca de mil s‹o novos leitores) e pedidos de imagens anuais da ordem das seiscentos fotografias e oito mil impress›es de computador, podemos afirmar que a utilizaç‹o ultrapassou todas as expectativas anteriores à remodelaç‹o. Entre os utilizadores mais frequentes contam-se estudantes, historiadores, jornalistas, professores, fotàgrafos e reformados.

A consulta é geralmente realizada em computador. Recorre-se ás provas fotográicas para imagens que n‹o se encontram informatizadas. A sala de leitura está equipada com 14 postos de consulta em simultâneo, que utilizam a base de dados LISI, uma parametrizaç‹o do programa Mini-Micro CDS / ISIS.

As imagens, no formato PCX, estando armazenadas em disco r'gido. A ficha de catálogo, descritiva de cada imagem, inclui legenda, local, autor, data, descritores, colecç‹o, bibliografia, exposiç›es e eventuais restriç›es de utilizaç‹o, sendo poss'vel a pesquisa boleana. A parte da colecç‹o mais estudada é sem dœvida a que está informatizada e digitalizada.

Quais as estratégias de conservaç‹o?

A equipa de conservaçao estabeleceu que o aspecto essencial da conservaç‹o é a preservaç‹o, tendo-se investido na construç‹o de um depàsito climatizado, isolado do exterior, que se destina exclusivamente a guardar as fotografias. A colecç‹o é mantida à temperatura de 18 °C, com flutuaç›es inferiores a 1 °C e humidade relativa entre 40 e 45 %, condià›es que s‹o constantes ao longo do ano e independentes das condic›es atmosféricas exteriores. E dada particular atenç‹o à manutenç‹o do equipamento de climatizaç‹o. A escolha das embalagens de conservaç‹o foi também criteriosa: armários em metal lacado, caixas de cart‹o e envelopes de papel neutro asseguram um ambiente neutro e protecç‹o eficaz. Usamos um excelente papel de conservaç‹o fabricado em Portugal, o papel Acid Free do fabricante Porto de Cavaleiros.

Outro aspecto da importante da politica de preservaç‹o é a reduç‹o ao m'nimo do manuseamento dos originais. A consulta da colecç‹o em computador tem, neste sentido, uma importância fundamental. Muitos dos pedidos de imagens s‹o realizados em impressora de computador, evitando-se, mais uma vez, manusear excessivamente os originais. Uma regra de ouro (que seguimos escrupulosamente) é o uso obrigatàrio de luvas em todas as etapas do tratamento e consulta dos originais; esta regra estende-se aos técnicos das câmaras escuras e da digitalizaç‹o.

Em 1996 foi estabelecido um programa de duplicaç‹o dos negativos instáveis (nitrato de celulose), ou negativos em pelicula ou vidro deteriorados e fragilizados, que é realizado pela equipa do Arquivo. Estes s‹o duplicados em pel'cula de poliester, estável, sendo a qualidade dos duplicados identica à dos originais fragilizados.

O restauro é reduzido aos seus aspectos mais elementares e encarado com uma forma de estabilizaç‹o. E praticado em negativos de vidro quebrados ou com a emuls‹o a descolar e em provas rasgadas ou frágeis, n‹o indo para além dos tratamentos básicos, que n‹o apresentam riscos de maior.

Quais s‹o os nossos métodos de trabalho?

Seguimos dois princ'pios básicos em todos os aspectos do nosso trabalho:

1. Adequar os nossos projectos aos meios de que dispomos.
2. Manter sempre em simultâneo o trabalho de conservaç‹o e o trabalho de disponibilizaç‹o das colecç›es.

Vejamos alguns aspectos práticos da nossa forma de trabalhar:

a. Para simplificar o tratamento de novas colecç›es e o tornar mais consistente e homogéneo, foi criada uma norma de tratamento. Este começa por uma observaç‹o e pré-inventário, onde s‹o avaliadas as dimens›es da colecç‹o, o tipos de espécies presentes e seu estado de conservaç‹o e as principais carências. S‹o contabilizados os materiais necessários, as necessidade de duplicaç‹o, os técnicos e o numero de dias de trabalho necessários e os custos. Estabelece-se assim um calendário, etapas no tratamento e as formas de apresentaç‹o ao pœblico. Seguem-se as operaç›es de descriç‹o, limpeza, ordenaç‹o, numeraç‹o, instalaç‹o em embalagens, digitalizaç‹o, catalogaç‹o e duplicaç‹o. Depois de tratada a colecç‹o é posta à consulta do publico e por vezes, é alvo de uma exposiç‹o e catálogo.

b. As imagens a apresentar ao pœblico s‹o alvo de uma selecç‹o criteriosa. N‹o s‹o digitalizadas as imagens de fraca qualidade técnica, repetidas ou cuja temática n‹o tem interesse para o tipo de consulta que os nossos leitores fazem. Desta forma reduzimos de forma significativa o nœmero de imagens a digitalizar e catalogar e aceleramos a conclus‹o do tratamento das colecç›es.

c. A ajuda de estagiários tem-se revelado muito proveitosa na realizaç‹o das tarefas de inventariaç‹o, limpeza, arrumaç‹o, organisaç‹o, digitalizaç‹o e catalogaç‹o. O trabalho dos estagiários tem contribuido de forma significativa para o avanço dos tratamentos, sobretudo de pequenas colecç›es recentemente adquiridas. Temos recebido estagiários provenientes de escolas de conservaç‹o em Portugal e de instituiç›es com colecç›es de fotografia, alguns deles oriundos de Espanha e Brasil.

d. Muitas das nossas imagens s‹o negativos em pelicula ou vidro, de que n‹o temos provas. A digitalizaç‹o permite-nos obter imagens positivas sem recorrer à impress‹o fotográica, já que a passagem de negativo para positivo é feita em computador. Desta forma podemos apresentar ao pœblico imagens de negativos sem ter que os imprimir, poupando-se papel fotográico e muito trabalho de camara escura.

O que é que já realizámos?

Neste momento, apàs 6 anos de trabalho, temos cerca de 60 000 imagens digitalizadas e catalogadas, à disposiç‹o dos leitores. Desde que o Arquivo foi aberto ao pœblico já realizamos 6 grandes exposiç›es sobre colecç›es nossas, com ediç‹o de catálogos e muitas outras exposiç›es de fotàgrafos e colecç›es exteriores ao Arquivo. O Arquivo Fotográico tem tido um papel pioneiro no tratamento de colecç›es de fotografia e é procurado com frequência por visitantes de outras instituiç›es que pretendem estudar a nossa experiência. Em Dezembro de 1997 realizámos os Encontros de Conservaç‹o de Fotografia que reuniram especialistas de vários pa'ses em conservaç‹o de fotografia e que apresentaram comunicaç›es sobre as suas experiências.

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The Exhibitions Of Photographs

I PREAMBULES

1. Objectives

The establishment of conditions to be observed for loan to temporary exhibitions obeys three commands:

- to remind each of those who are involved in the loan process that photographs are the most fragile of graphic works;
- to reduce at each step of this process the risks of deterioration, immediate or for a term of years, brought about by the handling and exhibition of a photograph;
- to permit each establishment to give a better basis to the decisions it will have to take, and which arise from a delicate balance between the obligations of communication and those of long-term conservation.

The following recommendations, which draw inspiration from the procedures and standards regularly in force in museums and libraries, apply to all types of institution.

2. The stakes

What is at stake is preserving to the maximum the historic, artistic and documentary potential of pictures which their support and their texture make very vulnerable: a priori the sensitive layer of each of them is liable to deteriorate within a short or long time; in other words, each document finds itself at various stages of an evolution which leads from the picture in good condition to the deteriorated picture.
Strict respect for the sometimes cons-training rules considerably increases the chances of chemical and mechanical survival of these prints, and their conservation in a form as near as possible to their initial condition.

3. Limits

The rules stated concern temporary exhibitions and apply to heritage photography. Knowledge of the risks incurred through a print leaving the environment in which it is usually conserved leads to reducing the length and the frequency of the loan. A permanent exhibition or an excessive duration is not contemplated.

To be included in the category of heri-tage photography is any print having a cultural value by reason of its manu-facture and its representation (or of one or the other of these elements) and whe-re a copy, in case of loss or deterioration, would not be able to replace it in the collection.

II. GENERAL CLAUSES

1. Programme planning

What happens at an exhibition in respect of conservation must be taken into account through a programme which permits the definition of the objectives to be achieved and the resources of the various partners. The tasks of each of them must be clearly defined for all phases of the exhibition.

a) Organisation

It defines the limits of responsibility of everybody involved_designer, techni-cians, architect, restorer, etc._all must see to it that the chosen photographs will not be damaged either in the preliminary of final periods (removal, handling, mounting, framing, transportation, etc.) or during the entire time of the exhibition and during receptions and the shooting of films and videos.

A specific budget for conservation is sometimes necessary (examination, treatment of unstable works, protection, control measures, etc.).

b) Place

The study of the place reserved for the exhibition must permit the appraisal of possible risks incurred by the works in order to remedy them.

These risks can be of a physico-chemical order, concern security, maintenance, possible parallel activities or the method of utilization of the premises.

c) Length

This must take into account the total time of removal of the works from the place of conservation, including preparation and return. Defining a possible length of exhibit demands a preliminary individual examination in each case, taking into account the study of the parameters relating to the place and the photographs concerned.

The demands in respect of the technical conditions for the exhibition will be likewise adjusted in terms of the anticipated time of the exhibition.

d) Selection

The choice of the works is always justified by a purpose, but their integrity takes precedence over any other imperative. In the case where a requested piece cannot be loaned, replacement solutions are possible: substitution of an equivalent print or an excellent copy. Likewise, one can limit the length of the display of certain works by proposing a rotation.

2. Preparation of the works

a) Loan protocol

The conditions required for borrowing must be specified through a text with contractual worth, giving the general rules issued by the lending institution and pledging the responsibility of the borrowers. Acceptance of the loan request must be subordinated to the scrutiny of a technical questionnaire bearing on the exhibition conditions (cf. Exhibition conditions, p. 27-29).

b) Condition reports

A visual inspection must be carried out before and after each move of the works and the notes recorded in a file.

The condition report has a twofold objective:

- to determine if a picture can be exhibited and transported;
- to allow checking of the possible effects of the exhitions at the time.

It must involve information on the identity of the photograph, its descriptive techniques, its degree of fragility and its state of conservation (physical, chemical or biological surface changes, as also possible previous restoration). The nature of its mounting or of the framing must be described. Location by areas of the alterations is facilitated by a diagram and a photograph of the work.

c) Control measures

The eye is a good instrument for comparing works, but it is not very reliable for estimating the change over time of the optical density or the colour of the pictures.

To complete the visual control of the changes, the ability to follow the evolution of the density of photographs which are fragile or at risk, before and after the exhibition, with a densitometer, is recommended.

d) Duplication

It is important that loaned items not yet copied photographically be copied before their departure. The quality of the duplicate must be optimal as much for the standard of the reproduction as for the stages of development.

e) Protection before the exhibition

This consists above all in stabilizing the pictures on the physical plane and in limiting the handling and the environmental attacks, thanks to mounting systems, framing and ade-quate presentation. The materials must be of good quality and the design of the systems of protection must procure effective isolation from sources of alteration of the photographic materials. The framing work must be framed in the lending institution or under its control. The absence of any competent service at the place of exhibition must be taken into account in the loan decision and organisation. Once framed, the loaned works should never be dismantled except with the consent

of the lending institution.

3. Transportation and handling

All the conditions concerning the storage, packing and transportation of the items are to be observed going as well as returning.

a) Storage areas

The items borrowed will not form the subject of any handling capable of modifying the condition in any manner; only qualified persons will be able to effect the necessary handling. Any incident or accident arising in the course of the packing or transportation ope-rations, resulting in damage to a loaned item, will immediately be drawn to the attention of the lending body. Any inter-vention having as its object the repair of the damage will not take place without the authorization of the lender. The borrower will meanwhile take any use-ful conservation steps.

The storage of the items, before packing or after unpacking, in the period preceding or following the exhibition, must be done in locations chosen solely for this use (at least during the length of the loan), protected against important variations in humidity and temperature, and offering all the guarantees of security against regular risks (burglar-proof device, no water leaks, no smoking, drinking or eating, etc.).

Those items whose fragility or rarity dis-tinguishes them from the others should be placed in a box under lock and key. The inspection of the loaned items must be done by the borrower, at the time of unpacking, 24 hours after their arrival on the premises (acclimatization time) and in the 24 hours which follow this delay.

b) Packing

The loaned pieces must be the subject of packing which preserves from bumping, from dust and from inclement weather. The glasses of the frames will be covered with adhesive tape in order to avoid a fragment damaging the print, in case of breakage. The frames should be arranged in a box equipped with grooves or separated by polyethylene foam or bubble plastic. In case of transport over long distances, the boxes should be air-tight and contain a product which will control the humidity. Powdery materials, disintegrating or emitting noxious vapours, will be banned. The lending establishment will initiate checking of the items at the moment of closing the boxes and will oppose their departure if the packaging seems inadequate.

The re-packing must be done with the same materials and in the same way as the packing. Only qualified persons from the borrowing establishment (or an approved shipper, specializing in works of art) will be able to carry out this operation. In the case of a removal guaranteed by the borrower itself the latter will provide for appropriate packing (boxes, foam, wrappings, straps).

c) Taking charge

The loaned items cannot leave the establishment more than 15 days before the inauguration of the exhibition. They should return there within 15 days following the closing of the exhibition. Taking charge of the items by the borrower cannot take place without the previous presentation of the certificate of insurance against all risks from the lender's premises to the borrower's (the policy taking effect on the date the items leave the lending establishment up to the date of their return).

d) Transportation

Transportation must take the most direct and the most rapid route possible. The method chosen is that which offers the maximum guarantee in respect of security, loading and transshipment of the works. In the case of transportation by road, the use of a vehicle specially equipped for this kind of moving is required as well as the presence of an escort; a fire extinguisher will be placed on board.

On stopping, whatever may be the length of parking, the vehicle must be the subject of continuous supervision.

Recourse to a specialized company will be the rule for all exhibitions presented in countries where admission is subject to customs formalities: in addition to packing and transportation, the company will undertake these formalities. The same will hold true for exhibitions taking place elsewhere than in these countries, if the nature and value of the loaned items necessitate. The lending establishment reserves the right not to accept the shipper proposed by the borrower and to recommend another. Items of an exceptional nature will be separated from the set and made the subject of separate consignments, for reasons of security.

e) Escorting

If the nature or the importance of the loan necessitates, the lending establishment can require that one or more persons of its choice accompany the consignment and watch over the setting-up of the particularly fragile or precious items at the place of exhibition. At the time of the outward conveyance, these escorts will be authorized to take back the items if the conditions of security and conservation seem inadequate to them.

4. Place of exhibition

a) Materials

Paints are often the source of change in works. The complete drying of paints will be awaited, and the ventilation of the rooms ensured, before bringing in the works. It will be necessary to rule out glycerophtalic paints and prefer acrylic. It will also be necessary to pay attention to the nature of the organic solvents present in the maintenance products, the adhesives, and the varnishes, for some of them are injurious.

b) Furniture

It is preferable to avoid the presence of wood (solid, chipboard, plywood) in direct contact with or close to the prints. Stainless steel, aluminium, metal covered by a thermosetting paint, glass, plexiglass, archival boxes, are approved materials.

c) Security of the works

The place of exhibition will comply with the security standards and instructions intended to ensure the protection of personnel, visitors, and of the works and include in particular protection devices against theft, vandalism, assaults and fire.

5. Exhibition conditions

a) Systems of presentation

Framed photographs should never be unframed or manipulated without agreement of the responsible person. Any cleaning product encouraging the entrance of moisture in frame must not be used. Their placement on the walls or panels must be remote from sources of heat or cold.

In the case of a presentation in a glass case, tightness must be assured, the climate controlled and, if necessary, guaranteed by the use of materials stabilizing the relative humidity and trapping injurious emanations.

b) Climate

A relative humidity round about 40% and a temperature not exceeding 21 °C (70 °F) are recommended. These condi-tions must be as stable as possible, fluctuations not going beyond 10% RH and 4 ° C. (40 °F).

c) Lighting

The lighting of exhibitions must be under control, also artificial lighting is often preferable to natural lighting too prone to variations.

Three parameters are to be checked:

- the quantity of ultraviolet radiation must be less than 75 microwatts per

lumen;

- the intensity of the lighting must be adjusted to the fragility of the works (50 to 150 lux);
- the length of exposure must be limited in time.

One can adjust the length of exposure and the instensity of lighting by monitoring the total amount of lighting. This total amount of lighting (TAL) is obtained by multiplying the value of the lighting (lux) by the length of exposure (hours), it is expressed in lux.hours (lx.h). The TALs according to the processes are reported in the following table.

For example, 12,000 lux hours represent 240 hours of exposure under lighting of 50 lux, supposing a month (one day equivalent to ten hours of exposure and a week equivalent to six days). The question of lighting in all the phases of mounting and dismantling the exhibition will be kept in mind, taking care to systematically protect the works from light rays.

d) Equipment

The state of ambient thermohygrometric conditions will be monitored by regularly checking the hygrometric level and the temperature at places representative of the general conditions, by means of a recording thermo-hygrometer, regularly calibrated.

Lighting is measured with the aid of a luxmeter and the quantity of ultraviolet rays with the aid of a UV monitor.

e) Exhibition continuity and maintenance

This consists of a regular inspection of the works, a control and a reading of the measuring apparatus as well as the limitation of possible sources of change owing to media (video, television or film) or to the presence of the public.

f) Return of the works

The works will be conveyed following the direction previously enumerated. (Transportation and handling, p. 24 -26) On their receipt, one will ascertain the condition by a visual inspection and measures of control (Control measures and Condition reports, p. 22-23).

III. SPECIAL CLAUSES

1. Preliminary restoration

It is useful to class photographs in three categories corresponding to their intrinsic fragility, as well as their conservation condition, good, average or bad. These evaluations permit measuring the risks connected with the exhibition. Thus, a photograph in bad condition should not be exhibited without preliminary restoration.

2. Request for specific protection

a) Albums

The loan of albums can only be granted as an exception. One understands by album a whole lot of photographs, with or without text pages, mounted in such a way that one cannot separate a sheet without detaching the plate from its guard, or without breaking the binding. The possibility of detachment is to be absolutely rejected (weakness of the album, risk of non re-insertion of an extracted item).

In the event of the loan being unavoidable, the album, open at the desired picture, must be presented by means of a device which ensures visibility without injuring the integrity of the material (glass case and support or special casing guaranteeing the stability as well as the thermohygrometric conditions and avoiding wear-and-tear on the binding). Change of page in the course of the exhibition must be the subject of an explicit agreement in the loan protocol.

b) Large formats

When the printings of large sizes do not have surface protection, installing them in a place permitting the insertion of a safe space around the work must be contemplated, in order to ensure physical protection. Specific conditions will be considered at the time of handling and of hanging up.

c) Negatives

Negatives are not originally intended for display. They are by nature very diverse, often fragile physically (glass plates) or chemically unstable (flexible supports). It is advisable then to study each particular case in order to suggest an adequate system of presentation of the pictures.

d) Daguerreotypes and cased objects

The presentation of cased pictures entails special attention with respect to the mechanical stabilization of these objects made up of various materials. In all cases, it will be necessary to ensure that frames or cases which are not tight are remounted in a sealed way before the exhibition in order to fully ensure their protective function. In this group, the daguerreotypes are the most fragile and those whose optical properties limit the conditions of viewing the most. A correct source of lighting should permit a good view of a positive picture and not give out heat, the latter damaging the silver-mercury amalgam. When the plates are coloured, it is necessary to rank them in the category of works particularly sensitive to light (cf. table).

e) Colour photographs

The majority of colour photographs are fragile, both under light and when they are kept in darkness. Thus, they acquire in course of time a predominating colour. All

the processes do not however present the same capacity for degradation, some are more resistant to exposure to light and when in storage (Ilfochrome Classic, Ultrastable, etc.).

Autochrome plates, the first colour photographs on glass plates, are equally fragile.

f) Mixed exhibitions

When photographs are exhibited among other types of works, it is ne-cessary to make certain that the re-quired conditions are satisfactory for the photographic images, these being classed among the most fragile mate-rials. In the contrary case, and when the nature of the exhibition permits, displaying copies will be suggested.

Conclusion

The application of the rules set out, as well as the observance of the precau-tions to be taken, will appear legitimate to those who have heritage under-standing and know that intelligent placing of value always accomodates conservation requirements. Judicious instruction of the public through various interventions (public or private) will make it understand the need and accept the constraints.

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Translated into English by Jean Whiffin, IFLA Standing Committee on Preservation and Conservation.

" Photographs: Reproduction Atelier de Restauration des Photographies.

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Les Expositions De Photographies

I. PRƒAMBULE

1. Objectifs

L'établissement des conditions à observer pour le prêt à des expositions temporaires obéit à trois impératifs :

- rappeler à chacun de ceux qui interviennent dans le processus du prêt, que les photographies sont les plus fragiles des Ïuvres graphiques ;
- réduire à chaque étape de ce processus les risques de dégradation immédiate ou à terme, entra''nés par la manipulation et l'exposition d'une photographie ;
- permettre à chaque établissement de mieux asseoir les décisions qu'il aura à prendre, et qui résultent d'un équilibre délicat entre les obligations de la communication et celles de la conservation à long terme.

Les recommandations suivantes qui s'inspirent des procédures et des normes habituellement en vigueur dans les musées et les bibliothèques s'adressent à tous les types d'institution.

2. Enjeu

Il s'agit de préserver au maximum le potentiel historique, artistique et documentaire d'images que leur support et leur texture rendent très vulnérables : à priori la couche sensible de chacune d'entre elles est altérable dans un délai plus ou moins long ; autrement dit, chaque document se trouve à des stades divers d'une évolution qui conduit de l'image en bon état à l'image détériorée.

Le respect rigoureux de règles parfois contraignantes augmente de façon considérable les chances de survie chimique et mécanique de ces épreuves, et leur conservation dans une forme aussi proche que possible de leur condition initiale.

3.Limites

Les règles énoncées concernent les ex-positions temporaires et s'appliquent à la photographie patrimoniale.
La connaissance des risques encourus par une épreuve sortant du milieu dans lequel elle est habituellement conservée, conduit à réduire la durée et la fréquence du prêt. Une exposition permanente ou d'une durée excessive n'est pas envisageable. Entre dans la catégorie de la photographie patrimoniale toute épreuve ayant une valeur culturelle en raison de sa facture et de sa représentation (ou de l'un ou l'autre de ces éléments), et qu'une copie, en cas de perte ou de détérioration ne saurait remplacer dans la collection.

II. CLAUSES GƒNƒRALES

1. La programmation

Les incidences de l'exposition sur la conservation doivent être prises en compte par un programme qui permet de définir les objectifs à atteindre et les moyens des divers partenaires. Les tâches de chacun d'entre eux doivent être clairement définies pour toutes

les phases de l'exposition.

a) L'organisation

Elle définit les limites de responsabilité de tous les intervenants : concepteur, techniciens, architecte, restaurateur, etc. Tous doivent veiller à ce que les photographies sélectionnées ne seront endommagées ni dans les phases préliminaires ou finales (déplacement, manipulation, montage, encadrement, transport, etc.) ni lors de toute la durée de l'exposition et pendant les réceptions et les tournages de films et de vidéos.

Un budget spécifique pour la conser-vation est parfois nécessaire (examen, traitement des Ïuvres instables, protection, mesures de contrôle, etc.)

b) Le lieu

L'étude du lieu retenu pour l'exposition doit permettre d'évaluer les risques éventuels encourus par les Ïuvres afin d'y remédier. Ces risques peuvent être d'ordre physico-chimique, toucher à la sécu-rité, à la maintenance, aux activités parallèles éventuelles ou au mode d'utilisation des locaux.

c) La durée

Elle doit prendre en compte le temps total de déplacement des Ïuvres hors du lieu de conservation, préparation et retour compris. Définir une durée possible d'expo-sition exige un examen préalable individuel de chaque cas, prenant en compte l'étude des paramètres relatifs au lieu et aux photographies concer-nées.

Les exigences quant aux conditions techniques de l'exposition seront également modulées en fonction du temps d'exposition prévu.

d) La sélection

Le choix des oeuvres est toujours justifié par un propos, mais l'intégrité de celles-là prime sur tout autre impératif. Au cas où une pièce demandée ne peut être prêtée, des solutions de rechange sont envisageables : substitution d'une épreuve équivalente ou d'une excellente copie. On peut de même limiter la durée de l'exposition de certaines oeuvres en proposant une rotation.

2. La préparation des Ïuvres

a) Le protocole de prêt

Les conditions requises pour l'emprunt doivent être spécifiées par un texte à valeur contractuelle, donnant les règles générales émanant de l'institution prêteuse et engageant la responsabilité des emprunteurs. L'acceptation de la demande de prêt doit être subordonnée à l'examen d'un questionnaire technique portant sur les conditions d'exposition (voir Les conditions d'exposition, p. 27-29).

b) Les constats d'état

Une inspection visuelle doit être effectuée avant et après chaque mouvement des Ïuvres et les annotations consignées dans un dossier.

Le constat d'état a un double objectif :

- déterminer si une image est exposable et transportable ;
- permettre de contrôler les effets éven-tuels de l'exposition dans le temps.

Il doit comporter des indications sur l'identité de la photographie, son descriptif technique, son degré de fragilité et son état de conservation (altérations de surface, physiques, chimiques ou biologiques ainsi que sur les restaurations antérieures éven-tuelles). La nature de son montage ou de l'encadrement doit être décrite. Une localisation par zones des altérations est facilitée par un schéma et une photographie de l'Ïuvre.

c) Les mesures de contrôle

L'Ïil est un bon instrument pour comparer des Ïuvres mais il s'avère peu fiable pour estimer l'évolution dans le temps de la densité optique ou de la couleur des images.

En complément du contrôle visuel des altérations, il est recommandé de pouvoir suivre l'évolution de la densité des photographies fragiles ou à risque, avant et après l'exposition, avec un densitomètre.

d) La reproduction

Il est important que les pièces prêtées non encore reproduites photogra-phiquement le soient avant leur départ. La qualité du duplicata doit être optimale tant au niveau de la reproduction que dans les étapes du développement.

e) La protection avant l'exposition

Elle consiste surtout à stabiliser les images sur le plan physique et à limi-ter les manipulations et les agressions de l'environnement, grâce à des sys-tèmes de montage, d'encadrement et de présentation adéquats. Les maté-riaux doivent être de bonne qualité et la conception des systèmes de protec-tion doit procurer une isolation efficace contre les sources d'altération des matériaux photographiques. Les tra-vaux d'encadrement doivent être effectués dans des conditions thermo-hygrométriques voisines de celles de l'exposition. Les oeuvres doivent être encadrées dans l'institution prêteuse ou sous son contrôle.

L'absence de service compétent sur le lieu d'expo-sition doit être prise en compte dans la décision et l'organisation du prêt. Une fois encadrées, les oeuvres prêtées ne devront jamais être démontées sauf avec le consentement de l'institution prêteuse.

3. Le transport et les manipulations

Toutes les conditions concernant le stockage, l'emballage et le transport des pièces sont à observer aussi bien à l'aller qu'au retour.

a) Les aires de stockage

Les pièces empruntées ne feront l'objet d'aucune manipulation susceptible d'en modifier l'état de quelque manière que ce soit ; seules des personnes qualifiées pourront effectuer les mani-pulations nécessaires.

Tout incident ou accident survenu au cours des opérations d'emballage ou de transport, ayant eu pour résultat d'endommager une pièce prêtée, sera signalé immédiatement à l'organisme prêteur. Aucune intervention ayant pour objet de réparer le dégât ne pourra avoir lieu sans l'autorisation du prêteur. L'emprunteur prendra en attendant toute disposition conser-vatoire utile.

Le stockage des pièces, avant emballage ou après déballage, dans la période précédant ou suivant l'exposition, doit être fait dans des locaux dévolus à ce seul usage (au moins pendant la durée du prêt), protégés contre les écarts importants d'humidité et de température, et offrant toutes les garanties de sécurité contre les risques habituels (dispositif anti-effraction, absence d'arrivée d'eau, défense de fumer, boire et manger, etc.)

Les pièces que leur fragilité ou leur rareté distinguent des autres devront être mises sous clé dans un coffre. L'inspection des pièces prêtées doit être faite par l'emprunteur, lors du déballage, 24 heures après leur arrivée sur les lieux (temps d'acclimatation) et dans les 24 heures qui suivent ce délai.

b) L'emballage

Les pièces prêtées doivent faire l'objet d'un emballage qui les préserve des chocs, de la poussière et des intem-péries. Les vitres des cadres seront couvertes d'un ruban adhésif de façon à éviter qu'un morceau de verre, en cas de bris, n'endommage l'épreuve. Les cadres seront rangés dans des caisses à glissière ou isolés par des mousses en polyéthylène ou des plastiques à bulle. En cas de transport sur de longues distances, les caisses devront être hermétiques et contenir un produit qui régulera l'humidité. Les matériaux pulvérulents, se désagrégeant ou émet-tant des vapeurs nocives, seront bannis.

L'établissement prêteur procédera au pointage des pièces au moment de la fermeture des caisses et s'opposera à leur départ si l'emballage lui semble inadéquat.

Le réemballage devra se faire avec les mêmes matériaux et de la même façon que l'emballage. Seules des personnes qualifiées de l'établissement emprun-teur (ou un transporteur agréé, spécia-lisé dans les Ïuvres d'art) pourront procéder à cette opération.

Dans le cas d'un déplacement assuré par l'emprunteur lui-même, ce dernier devra prévoir un emballage approprié (cartonnage, mousse, couvertures, sangles).

c) La prise en charge

Les pièces prêtées ne peuvent quitter l'établissement plus de 15 jours avant l'inauguration de l'exposition. Elles devront y revenir dans les 15 jours suivant la fermeture de l'exposition.

La prise en charge des pièces par l'emprunteur ne peut avoir lieu sans la présentation préalable du certificat d'assurance contre tout risque de clou à clou (la police prenant effet à la date de sortie des pièces de l'établissement prêteur jusqu'à la date de leur retour).

d) Le transport

Le transport doit emprunter l'itinéraire le plus direct et le plus rapide possible. Le mode retenu est celui qui offre le maximum de sžreté quant à la sécurité, au chargement et au transbordement des Ïuvres. En cas de transport par la route, l'emploi d'un véhicule équipé spécialement pour ce genre de dépla-cement est exigé ainsi que la présence d'un convoyeur ; un extincteur sera placé à bord.
Ë l'arrêt, quelle que soit la durée du stationnement, le véhicule doit faire l'objet d'une surveillance permanente.

Le recours à une entreprise spécialisée sera de règle pour toutes les expositions présentées dans des pays dont l'accès est soumis à des formalités douanières : outre l'emballage et le transport, l'entreprise se chargera de ces formalités. Il en sera de même pour les expositions ayant lieu ailleurs que dans ces pays, y compris en France, si la nature et la valeur des pièces prêtées le nécessitent. L'établissement prêteur se réserve le droit de ne pas accepter le transporteur proposé par l'emprun-teur et d'en conseiller un autre.

Les pièces de caractère exceptionnel pourront être distraites de l'ensemble et faire l'objet d'envois séparés pour des raisons de sécurité.

e) Le convoiement

Si la nature ou l'importance du prêt l'exige, l'établissement prêteur pourra demander qu'une ou plusieurs personnes de son choix accompagnent l'envoi et veillent à la mise en place sur le lieu d'exposition des pièces particulièrement fragiles ou précieu-ses. Lors du convoiement aller, ces convoyeurs seront autorisés à repren-dre les pièces si les conditions de sécurité et de conservation leur semblent insuffisantes.

4. Le lieu d'exposition

a) Les matériaux

Les peintures sont souvent à l'origine des altérations des Ïuvres. On attendra donc le séchage complet des peintures, et on assurera la ventilation des salles avant d'y introduire les Ïuvres. Il faudra écarter les peintures glycérophtaliques et leur préférer les peintures acryliques. Il faudra aussi se préoccuper de la nature des solvants

organiques présents dans les produits d'entretien, les colles et les vernis car certains d'entre eux sont nocifs.

b) Le mobilier

Il est préférable d'éviter la présence de bois (massif, aggloméré, contreplaqué) en contact direct ou à proximité des épreuves. L'acier inoxydable, l'aluminium, le métal recouvert d'une peinture thermodurcissable, le verre, le plexiglass, le carton permanent sont des matériaux éprouvés.

c) La sécurité des Ïuvres

Le lieu d'exposition devra répondre aux normes et consignes de sécurité destinées à assurer la protection du personnel, des visiteurs et des oeuvres et comprendre en particulier des dispositifs de protection contre le vol, le vandalisme, les attentats et l'incendie.

5) Les conditions d'exposition

a) Les systèmes de présentation

Les photographies encadrées ne doi-vent jamais être désencadrées ni mani-pulées sans accord du responsable. Aucun produit de nettoyage favori-sant la pénétration d'humidité dans le cadre ne doit être utilisé. Leur em-placement sur les murs ou les pan-neaux doit être éloigné des sources de chaleur ou de froid.

Dans le cas d'une présentation en vitrine, l'étanchéité doit être assurée, le climat contrôlé et, au besoin, garanti par l'emploi de matériaux stabilisant l'humidité relative et piégeant les émanations nocives.

b) Le climat

Une humidité relative aux environs de 40% et une température n'excédant pas 21 °C sont recommandées. Ces conditions doivent être aussi stables que possible, les fluctuations ne devant pas dépasser 10% HR et 4 °C.

c) La lumière

L'éclairage des expositions doit être ma''trisé, aussi préfère-t-on souvent les éclairages artificiels aux éclairages naturels trop sujets à des variations. Trois paramètres sont à contrôler :

- la quantité de radiations ultra-violettes doit être inférieure à 75 microWatts par lumen ;
- l'intensité de l'éclairage doit être adaptée à la fragilité des Ïuvres (50 à 150 lux) ;
- la durée d'exposition doit être limitée dans le temps.

On peut moduler la durée d'expostion et l'intensité d'éclairement en veillant à respecter une dose totale d'éclai-rement. Cette dose totale d'éclai-rement (DTE) est obtenue en multi-pliant la valeur de l'éclairement (lux) par la durée d'exposition (heures), elle s'exprime en lux.heures (lx.h). Les DTE selon les procédés sont reportées dans le tableau suivant.

Par exemple 12000 lux.heures représentent 240 heures d'exposition sous un éclairement de 50 lux, soit environ un mois (une journée équivalant à dix heures d'exposition et une semaine équivalant à 6 jours).

On gardera présente à l'esprit la question de l'éclairement dans toutes les phases du montage et du démon-tage de l'exposition en prenant soin de protéger systématiquement les Ïu-vres des rayons lumineux.

d) Les équipements

On devra veiller à l'état des conditions thermohygrométriques ambiantes en relevant régulièrement le niveau hygrométrique et la température à des endroits représentatifs des conditions générales au moyen d'un thermohy-gromètre enregistreur, régulièrement étalonné.

L'éclairement est mesuré à l'aide d'un luxmètre et la quantité de rayons ultraviolets à l'aide d'un UVmètre.

e) Le suivi et la maintenance de l'exposition

Ils consistent en une inspection régulière des Ïuvres, un contrôle et un relevé des appareils de mesure ainsi que la limitation des sources éventuelles d'altération dues à la communication (vidéo, télévision ou film) ou à la présence du public.

f) Le retour des Ïuvres

Les oeuvres sont convoyées en suivant les prescriptions énumérées précé-demment (Le transport et les manipulations, p. 24 -26). Ë leur réception, on s'assurera de leur état par une inspection visuelle et des mesures de contrôle (Les mesures de contrôle et Les constats d'état, p. 22 -23).

III. CLAUSES PARTICULIERES

1. Restauration préalable

Il est utile de classer les photographies en trois catégories correspondant à leur fragilité intrinsèque ainsi qu'à leur état de conservation : bon, moyen ou mauvais. Ces évaluations permettent de mesurer les risques liés à l'exposition. Ainsi, une photographie en mauvais état ne devrait pas être exposée sans une restauration préalable.

2. La demande de protection spécifique

a) Les albums

Le prêt d'albums ne peut être consenti qu'exceptionnellement.

On entend par album tout ensemble de photographies, avec ou sans pages de texte, monté en sorte qu'on ne puisse en distraire une feuille sans détacher la planche de son onglet ou sans casser la reliure. L'éventualité d'un détachement est à rejeter absolument (fragilisation de l'album, risque de non réinsertion de la pièce extraite).

Au cas où le prêt s'impose, l'album, ouvert à l'image désirée, doit être présenté au moyen d'un dispositif qui assure une visibilité sans porter atteinte à l'intégrité du document (vitrine et support ou embo"tage spécial garantissant la stabilité ainsi que les conditions thermo-hygrométriques et évitant une fatigue de la reliure). Le changement de page en cours d'exposition doit faire l'objet d'un accord explicite dans le protocole de prêt.

b) Les grands formats

Lorsque les tirages de grands formats ne possèdent pas de protection de surface, il doit être envisagé de les installer dans un lieu permettant l'implantation d'un espace de sécurité autour de l'Ïuvre afin d'assurer sa protection physique. Des conditions spécifiques seront prises lors des manipulations et de l'accrochage.

c) Les négatifs

Les négatifs ne sont pas à l'origine destinés à être exposés. Ils sont de nature très diverse, souvent fragiles physiquement (cas des plaques de verre) ou instables chimiquement (cas des supports souples). Il convient donc d'étudier chaque cas particulier pour proposer un système adéquat de présentation des images.

d) Les daguerréotypes et les objets sous écrins

La présentation des images sous écrins nécessite une attention particulière quant à la stabilisation mécanique de ces objets assemblées avec des matériaux divers. Dans tous les cas, il faudra s'assurer que les cadres ou les écrins non étanches soient remontés de façon hermétique avant l'expo-sition pour assurer pleinement leur fonction de protection. Dans ce groupe, les daguerréotypes sont les plus fragiles et ceux dont les propriétés optiques limitent le plus les conditions d'observation. Une source correcte d'illumination doit permettre une bonne vision de l'image en positif et ne pas dégager de chaleur, cette dernière endommageant l'amalgame argent-mercure. Lorsque les plaques sont coloriées, il faut les ranger dans la catégorie des oeuvres particu-lièrement sensibles à la lumière (cf. tableau).

e) Les photographies en couleurs

La majorité des photographies en couleurs sont fragiles, aussi bien à la lumière que lorsqu'elles sont conservées dans l'obscurité. Ainsi, elles acquièrent avec le temps une dominante colorée. Tous les procédés ne présentent cependant pas la même

aptitude à se dégrader, certains sont plus résistants à des expositions à la lumière et lors du stockage (Ilfochrome Classic, Ultrastable, etc.)

Les plaques autochromes, premières photographies en couleurs sur plaques de verre, sont également fragiles.

f) Les expositions mixtes

Lorsque des photographies sont exposées parmis d'autre types d'Ïuvres, il faut s'assurer que les conditions requises sont satisfaisantes pour les images photographiques, celles-ci étant classées parmis les matériaux les plus fragiles. Dans le cas contraire, et lorsque la nature de l'exposition le permet, on proposera d'exposer des copies.

Conclusion

L'application des règles énoncées ainsi que l'observation des précautions à prendre, para"tront légitimes à ceux qui ont le sens du patrimoine et savent qu'une mise en valeur intelligente s'accommode toujours des exigences de la conservation. Une information judicieuse du public par les divers intervenants (publics ou privés) en fera comprendre la nécessité et admettre les contraintes.

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" Photographies : Reproduction Atelier de Restauration des Photographies.

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Las Exposiciones De Fotograf'as

I. PREçMBULO

1. Objetivos

El establecimiento de las condiciones que se deben cumplir para el préstamo de obras para exposiciones temporales debe obedecer tres lineamientos:

- recordar a cada uno de los que intervienen en el proceso del préstamo que de todas las obras gráicas, las fotograf'as son las más frágiles;
- reducir en cada una de las etapas del proceso los riesgos de degradaciàn inmediata o posterior que implican la manipulaciàn y la exposiciàn de una fotograf'a;
- permitir a cada instituciàn fundamentar mejor las decisiones que tendrá que tomar y que serán el resultado de un delicado equilibrio entre las obligaciones de los medios de comunicaciàn y las de la conservaciàn a largo plazo.

Las siguientes recomendaciones, inspiradas en los procedimientos y las normas vigentes en los museos y bibliotecas están dirigidas a instituciones de todo tipo.

2. Intenciàn

Se trata de preservar al máximo el potencial histàrico, art'stico y documental de imágenes cuyo soporte y textura las hacen muy vulnerables: a priori, la capa sensible de cada una de ellas puede ser alterada dentro de un plazo más o menos largo; es decir, cada documento se encuentra en diversos estadios de una evoluciàn que transforma una imagen en buen estado en una imagen deteriorada.

El riguroso cumplimiento de reglas, algunas veces obligantes, aumenta considerablemente las posibilidades de prolongar la vida tanto desde un punto de vista qu'mico como mecánico de estas fotograf'cas, y de su conservaciàn en la forma más parecida posible a su condiciàn inicial.

3. Limitaciones

Las reglas enunciadas se refieren a las exposiciones temporales y se aplican a la fotograf'a patrimonial. El conocimiento de los riesgos a los que se expone una fotograf'a que es retirada del medio en que habitualmente se conserva, conlleva una reducciàn de la duraciàn y la frecuencia del préstamo. No se puede considerar una exposiciàn permanente o de una duraciàn excesiva.

Toda fotograf'a que tenga un valor cultural debido a su ejecuciàn y a su representaciàn se ubica dentro de la categor'a de la fotograf'ca patrimonial (o de uno u otro de estos elementos), y no podr'a ser reemplazada por una copia dentro de la colecciàn en caso de pérdida o de deterioro.

II. CLçUSULAS GENERALES

1. Programaciàn

Se debe considerar los efectos de la exposiciàn sobre la conservaciàn dentro de un programa que permita definir los objetivos a alcanzar y los medios de las diversas partes involucradas. Las tareas de cada una de ellas deben estar claramente definidas para cada

una de las fases de la exposiciàn.

a) Organisaciàn

La misma define los l'mites de responsabilidad de todos los involucrados: creador, técnicos, arquitecto, conservador, etc. Todos deben velar por que las fotograf'as seleccionadas no resulten da-adas ni durante las fases preliminares o finales (desplazamiento, manipulaciàn, montura, enmarcado, transporte, etc.) ni en el transcurso de la duraciàn total de la exposiciàn o durante las recepciones y las proyecciones de las pel'culas y los videos.

Algunas veces es necesario un presupuesto espec'fico para la conservaciàn (examen, tratamiento de las obras inestables, protecciàn, medidas de control, etc.).

b) Lugar

El estudio del lugar destinado para la realizaciàn de la exposiciàn debe per-mitir la evaluaciàn de los eventuales riesgos a los que las obras quedan expuestas a fin de remediarlos.

Estos riesgos pueden ser de carácter f'sico-qu'mico, de seguridad, de mantenimiento, de las actividades paralelas eventuales o de la forma de uso de los locales.

c) Duraciàn

La misma debe tomar en cuenta el tiempo total del desplazamiento de las obras fuera del sitio de conservaciàn, incluidas la preparaciàn y la devoluciàn de las mismas.

La definiciàn de una posible duraciàn de la exposiciàn exige un examen previo individual de cada caso, tomando en cuenta el estudio de los parámetros relativos al lugar y a las fotograf'as de interés.

Las exigencias en cuanto a las condiciones técnicas de la exposiciàn serán igualmente adaptadas en funciàn del tiempo de exposiciàn previsto.

d) Selecciàn

La selecciàn de las obras deberá estar siempre justificada por una finalidad, aun cuando la integridad de las mismas prevalece sobre cualquier otro imperativo. En el caso de que un 'tem solicitado no pueda ser prestado, se podrán considerar algunas soluciones para reemplazarlo: sustituciàn por una prueba equivalente o por una copia de excelente calidad. Se pue-de incluso limitar la duraciàn de la expo-siciàn a ciertas obras proponiendo una rotaciàn.

2. Preparaciàn de las obras

a) Protocolo de préstamo

Las condiciones exigidas para el préstamo deben ser especificadas por un texto con valor contractual, que establezca las reglas generales emanadas de la institución que hace el préstamo, las cuales comprometen la responsabilidad de los prestatarios.

La aceptación de la solicitud de préstamo estará subordinada al examen de un cuestionario técnico sobre las condiciones de la exposición: (Ver. Condiciones de la exposición p. 27-29).

b) Acta de verificación del estado de las obras

Deberá efectuarse una inspección visual antes y después de cada movimiento de las obras y deberán consignarse las anotaciones correspondientes en un expediente.

El acta de verificación tiene dos objetivos:

- determinar si una imagen puede ser expuesta y transportada;
- permitir controlar los eventuales efectos de la exposición en el tiempo.

Esta acta deberá incluir las indicaciones sobre la identidad de la fotograf'a, su des-criptor técnico, grado de fragilidad y estado de conservación (alteraciones de la superfi-cie, y alteraciones f'sicas, qu'micas y bio-lógicas, as' como las eventuales restaura-ciones anteriores). Se deberá describir la naturaleza del montaje o del marco utilizado. La localización por zonas de las altera-ciones puede facilitarse mediante un esque-ma y una fotograf'a de la obra.

c) Medidas de control

La vista es un buen instrumento para comparar las obras aunque resulta poco confiable para estimar la evolución en el tiempo de la densidad óptica o del color de las imágenes.

Como complemento del control visual de las alteraciones, es conveniente seguir la evolución de la densidad de las fotograf'as frágiles o en peligro, antes y después de la exposición, con un densitómetro.

d) Reproducción

Es importante que las piezas prestadas que aœn no hayan sido reproducidas fotográi-camente, sean sometidas a este proceso antes de su partida. La calidad del duplicado deberá ser óptima tanto durante la reproducción como durante las etapas del revelado.

e) Protección antes de la exposición

La protección consiste principalmente en estabilizar las imágenes sobre el plano f'sico y en limitar las manipulaciones y las agresiones del ambiente, gracias a sistemas de montaje, de enmarcado y de presen-tación adecuados. Los materiales

deben ser de buena calidad y el dise-o de los sistemas de protecciàn debe proveer un aislamiento eficaz de las fuentes de alteraciones de los materiales fotográicos. Los trabajos de en-marcado deberán ser efectuados bajo condiciones termohigrométricas similares a las de la exposiciàn. Las obras deben ser enmarcadas dentro de la instituciàn que hace el préstamo o bajo su supervisiàn. En la decisiàn y la organisaciàn del préstamo, deberá tomarse en cuenta la ausencia de servicio competente en el lugar de la exposiciàn. Una vez enmarcadas, las obras prestadas jamás deberán ser desmontadas, salvo que la instituciàn que hace el préstamo dé su aprobaciàn.

3. Transporte y manipulaciàn

Todas las condiciones relativas al almacenamiento, el embalaje y el transporte de las piezas deberán observarse tanto du-rante la ida como el regreso de las mismas.

a) Ireas de almacenamiento

Las piezas prestadas no serán objeto de ninguna manipulaciàn capaz de modificar su estado: œnicamente las personas califi-cadas podrán efectuar las manipulaciones necesarias.

Todo incidente o accidente que tenga lugar en el transcurso de las operaciones de embalaje o de transporte, el cual haya teni-do por resultado el da-o de una pieza prestada, será se-alado inmediatamente a la organisaciàn que hace el préstamo. Ninguna intervenciàn que tenga por objeto la reparaciàn del desgaste podrá ser realizada sin la autorizaciàn de la institu-ciàn que hace el préstamo. El prestatario deberá cumplir toda disposiciàn sobre conservaciàn que pueda ser de utilidad.

El almacenamiento de las piezas, antes del embalaje o después del mismo, y durante el per'odo previo o posterior a la exposiciàn, deberá hacerse en locales destinados a ese fin exclusivamente (al menos durante el préstamo). Dichos locales deberán estar protegidos de fluctuaciones importantes de temperatura y humedad, y deberán ofrecer todas las garant'as de seguridad contra los riesgos más comunes (dispositivo anti-fractura, ausencia de inundaciones, prohibiciàn de fumar e ingerir bebidas o alimentos, etc.).

Las piezas cuya fragilidad o su carácter œnico las distingan de otras piezas, deberán ser colocadas bajo llave dentro de un cofre. La inspecciàn de las piezas prestadas debe ser realizada por el prestatario, durante el desembalaje, 24 horas después de la llegada a las áreas de almacenamiento (dentro de un ambiente climatizado) y dentro de las 24 horas posteriores a ese plazo.

b) Embalaje

Las piezas prestadas deberán ser objeto de un embalaje que las preserve de golpes, del polvo y de la intemperie. Los cristales de los cuadros deberán cubrirse con una goma adhesiva a fin de evitar que un trozo de vidrio, en caso de ruptura, da-e la prueba. Los cuadros deberán colocarse dentro de estuches con canales o aislados por espumas de polietileno o por plásticos de burbujas. En caso de un transporte a

lugares distantes, los estuches deberán ser herméticos y contener un producto que regule la humedad. Los materiales pulverulentos, disgregantes o que emanan vapores nocivos, quedan prohibidos. La institución que hace el préstamo procederá al control de las piezas al momento de cerrar los estuches y no aprobará su despacho si el embalaje le parece inadecuado.

El reembalaje deberá ser realizado con los mismos materiales y de la misma manera que el embalaje original. Solamente personas calificadas de la institución que recibe el préstamo (o un transportista comercial, especializado en obras de arte) podrán proceder a esta operación.

En el caso de un desplazamiento asegurado directamente por el prestatario, éste deberá prever un embalaje adecuado (cartones, espumas, forros, cinchas).

c) Aceptación de la responsabilidad

La piezas prestadas no podrán abandonar la institución más de 15 d'as antes de la inauguración de la exposición, y deberán ser devueltas dentro de los 15 d'as siguientes a la clausura de la misma. La aceptación de la responsabilidad de las piezas por parte del prestatario no podrá realizarse sin la previa presentación del certificado del seguro contra todo riesgo de punto a punto (la pàliza tendrá vigencia desde la fecha de salida de las piezas de la institución que hace el préstamo hasta la fecha de su regreso a la misma).

d) Transporte

El transporte deberá realizarse siguiendo el itinerario más directo y más rápido posible. El modo escogido será aquel que ofrezca la mayor garant'a en cuanto a seguridad, a la carga y al transbordo de las obras. En caso de transporte v'a terrestre, se exige el empleo de un veh'culo equipado especialmente para el tipo de desplazamiento, al igual que la presencia de una escolta. Igualmente, deberá colocarse un extintor de incendios en el interior del veh'culo.

Durante los per'odos que el veh'culo permanezca detenido, cualquiera que sea la duración de los mismos, éste deberá mantenerse bajo vigilancia en forma permanente.

Por norma, es necesario recurrir a una empresa especializada para todas las exposiciones que se presenten en pa'ses donde el acceso esté sometido a formalidades aduanales: aparte del embalaje y el transporte, la empresa se encargará de dichas formalidades. Esta misma regla se aplica a las exposiciones que tengan lugar en otros pa'ses, siempre que la naturaleza y el valor de las piezas prestadas as' lo requieran. La institución que realiza el préstamo se reserva el derecho de no aceptar la empresa transportista propuesta por el prestatario y de recomendar otra.

Las piezas de carácter excepcional podrán ser apartadas del conjunto y ser objeto de env'os separados por razones de seguridad.

e) Escolta

Si la naturaleza o la importancia del préstamo lo exige, la instituciàn que hace el préstamo podrá solicitar que una o varias personas de su elecciàn acompanen el env'o y vigilen la colocaciàn en el sitio de la exposiciàn de las piezas particularmente frágiles o valiosas. Desde el momento en que parte la escolta, sus miembros estarán autorizados para retirar las obras si las condiciones de seguridad y de conser-vaciàn les parecen insuficientes.

4. Lugar de la exposiciàn

a) Materiales

Frecuentemente, la pintura de las salas contribuye con las alteraciones de las obras. Por lo tanto, deberá esperarse el secado completo de las pinturas y se asegurará la ventilaciàn de las salas antes de introducir las obras. Se deberán descartar las pinturas gliceroftálicas y dar preferencia a las pin-turas acr'licas. Deberá también tomarse en cuenta la naturaleza de los solventes orgá-nicos presentes en los productos de mante-nimiento, las colas y los barnices, dado que algunos de ellos son nocivos.

b) Mobiliario

Es preferible evitar que la madera (maciza, aglomerada, contrachapada) entre en contacto directo o están cerca de las fotograf'as. El acero inoxidable, el aluminio, el metal recubierto de una pintura termoestable, el vidrio, el plexiglás, el cartàn permanente son algunos de los materiales cuya inocuidad ha sido verificada.

c) Seguridad de las obras

El lugar de la exposiciàn deberá responder a las normas y consignas de seguridad destinadas a asegurar la protecciàn del personal, de los visitantes y de las obras, e incluir, en particular, dispositivos de protecciàn contra robo, vandalismo, atentados e incendios.

5) Condiciones de la exposiciàn

a) Sistemas de presentaciàn

Las fotograf'as enmarcadas no deberán jamás ser desmontadas de sus marcos ni manipuladas sin la aprobaciàn del res-ponsable. No deberá utilizarse ningœn pro-ducto de limpieza que permita la pene-traciàn de humedad dentro del marco. Su colocaciàn sobre las paredes o sobre los pa-neles deberá hacerse de tal manera que que-den alejadas de las fuentes de calor o de fr'o.

En el caso de una presentaciàn en vitrina, la impermeabilidad deberá estar ase-gurada, el clima controlado y, de ser nece-sario, deberá estar garantizado el uso de materiales que estabilicen la humedad relativa y absorban las emanaciones nocivas.

b) Clima

Los valores recomendables para la humedad relativa y la temperatura son 40% y 21° C, respectivamente. Estas condiciones deben ser tan estables como sea posible, siendo admisibles fluctua-ciones máximas de un 10% HR y 4° C.

c) Luz

La iluminaciàn de las exposiciones debe ser controlada, razàn por la cual generalmente se prefiere la iluminaciàn artificial a la iluminaciàn natural debido a que esta œltima está demasiado sujeta a variaciones.

Se deben controlar tres parámetros:

- la cantidad de radiaciàn ultravioleta debe ser inferior de 75 microWatts por lumen;
- la intensidad de la iluminaciàn debe estar adaptada a la fragilidad de las obras (50 a 150 lux);
- la duraciàn de la exposiciàn deberá ser limitada.

Se puede modular la duraciàn de la exposiciàn y la intensidad de la iluminaciàn respetando una dosis total de iluminaciàn. Esta dosis total de iluminaciàn (DTI) se obtiene multiplicando el valor de la iluminaciàn (lux) por la duraciàn de la exposiciàn (horas), y se expresa en lux.horas (lx.h). Las DTI segœn los procedimientos aparecen en la tabla siguiente.

Por ejemplo 12000 lux.horas representan 240 horas de exposiciàn bajo una iluminaciàn de 50 lux, es decir, cerca de un mes (un d'a equivale a diez horas de exposiciàn y una semana equivale a 6 d'as). Deberá tomarse en cuenta el aspecto de la iluminaciàn en todas las fases de montaje y de desmontaje de la exposiciàn teniendo cuidado de proteger sistemá-ticamente las obras de los rayos de luz.

d) Equipos

Se deberá velar por el mantenimiento de las condiciones termohigrométricas del ambiente monitoreando regularmente el nivel higrométrico y de la temperatura en sitios representativos de las condiciones generales mediante un termohigràmetro de registro. La iluminaciàn se mide mediante un luxàmetro y la cantidad de rayos ultravioletas mediante un UVmetro.

e) Seguimiento y mantenimiento de la exposiciàn

Estas actividades consisten en una inspecciàn regular de las obras, un control y un monitoreo de los aparatos de mediciàn, as' como la limitaciàn de las eventuales fuentes de alteraciàn producidas por los medios de comunicaciàn (video, televisiàn, pel'cula) o por la presencia del pœblico.

f) Devoluciàn de las obras

Las obras deben ser devueltas siguiendo las indicaciones antes mencionadas (Transporte y manipulaciàn, p. 24 -26). Al momento de recibirlas, se deberá proceder a una inspecciàn visual y de las medidas de control (Medidas de control y Actas de verificaciàn del estado de las obras, p. 22-23).

III. CLçUSULAS PARTICULARES

1. Restauraciàn previa

Es recomendable clasificar las fotograf'as en tres categor'as segœn su fragilidad intr'nseca y a su estado de conservaciàn: bueno, regular o deficiente. Estas evaluaciones permiten medir los riesgos vinculados con la exposiciàn. En consecuencia, una fotograf'a en mal estado no deberá ser expuesta sin una restauraciàn previa.

2. Solicitud de Protecciàn espec'fica

a) Albumes

El préstamo de álbumes sàlo se puede permitir en casos excepcionales.

Entendemos por álbum todo conjunto de fotograf'as, con o sin páginas de texto, montado de tal manera que no se puede extraer una hoja sin separar la lámina de su cartivana o sin romper esta œltima. Queda, por tanto, absolutamente descartada la posibilidad de despegar el álbum (fragilizaciàn del álbum, riesgo de que la pieza extra'da no sea reinsertada).

En el caso en que el préstamo sea inevitable, el álbum, abierto en la imagen deseada, deberá ser presentado mediante un dispositivo que asegure su visibilidad sin poner en peligro la integridad del documento (vitrina y soporte o colocaciàn dentro de una caja que garantice tanto la estabilidad como las condiciones termohigrométricas y que eviten la fatiga de la cartivana). El cambio de página durante la exposiciàn deberá estar expl'citamente acordado en el protocolo de préstamo.

b) Formatos de gran tama-o

Dado que los tirajes de grandes formatos no poseen ninguna protecciàn de superficie, se debe procurar instalarlos en un lugar que permita la disposiciàn de un espacio de seguridad alrededor de la obra a fin de asegurar su protecciàn f'sica. Se aplicarán además consideraciones espec'ficas en cuanto a la manipulaciàn y el colgado de este tipo de obras.

c) Negativos

Originalmente los negativos no están destinados a ser expuestos. Su naturaleza es muy diversa, siendo con frecuencia f'sicamente frágiles (como las placas de vidrio) o qu'micamente inestables (como los soportes blandos). Conviene por tanto estudiar cada caso en particular para proponer un sistema adecuado de presentaciàn de imágenes.

d) Daguerrotipos y objetos dentro de estuches

La presentaciàn de imágenes dentro de estuches requiere una atenciàn particular en cuanto a la estabilizaciàn mecánica de dichos estuches, ya que los mismos son objetos que están construidos con materiales diversos. En todos los casos, será necesario cerciorarse de que los marcos o los estuches no herméticos sean reemsamblados de manera hermética antes de la exposiciàn para asegurar plenamente su funciàn protectora. Dentro de este grupo, los daguerrotipos son los más frágiles, y sus propiedades àpticas son las que más limi-tan las condiciones del observador. Una fuente correcta de iluminaciàn debe permitir una buena visiàn de la imagen en positivo y no liberar calor, ya que el mismo podr'a da-ar la amalgama plata-mercurio. Cuando las placas son coloreadas, es necesario incluirlas dentro de la categor'a de las obras particularmente sensibles a la luz (ver tabla).

e) Fotograf'as en colores

La mayor'a de las fotograf'as en colores son frágiles, tanto a la luz como a la oscuridad. Por tanto, con el tiempo, estas fotograf'as adquieren un color predominante. Sin embargo, todos los procedimientos no presentan la misma tendencia a degradarse, ya que algunos son más resistentes a las exposiciones a la luz y por tanto al almacenamiento (Ilfochrome Classic, Ultrastable, etc.).

f) Exposiciones mixtas

En los casos en que las fotograf'as son expuestas junto con otros tipos de obras, es necesario asegurarse de que se satisfagan las condiciones requeridas para las imágenes fotográicas, las cuales se clasifican entre los soportes más frágiles. De lo contrario. y siempre que la naturaleza de la exposiciàn as' lo permita, se propondrá exponer duplicados en lugar de originales.

Conclusiàn

La aplicaciàn de las reglas anteriormente enunciadas, as' como el cumplimiento de las precauciones recomendadas, son justificadas para todos aquellos que tienen el sentido de patrimonio y saben que una valoraciàn inteligente siempre se ajusta a las exigencias de la conservaciàn. Una informaciàn acertada del pœblico por parte de los diversos entes que intervienen en la exposiciàn (pœblicos o privados) le permitirá al mismo comprender la necesidad y aceptar las restricciones.

Agradecimientos a Sibylle Monod por la ayuda prestada para la redacciàn de este documento, as' como a Giulia Cucinella y a los miembros del grupo de trabajo de la SFIIC por sus sugerencias.

Traducciàn de:
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Biblioteca Nacional de Venezuela

" Fotograf'as: Reproduction Atelier de Restauration des Photographies.

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BERNARD MARBOT

CONSERVADOR DEL DéPARTEMENT DES
ESTAMPES ET DE LA PHOTOGRAPHIE
BIBLIOTHEQUE NATIONALE DE FRANCE

Category Catégorie categor'a	Type of print type d'image tipo de im‡genes	Recommended lighting éclairement conseillé luminaciàn recomendada	TAL annual limit DTE limite annuelle DTI maxima anual
category 1: particularly sensitive materials	historical silver processes chromogenic colour development dye-transfer print	50 lux	12,000 lx.h
catégorie 1 : documents particulièrement sensibles	procédés argentiques historiques couleurs à développement chromogène épreuves dye-transfer	50 lux	12000 lx.h
categor'a 1: documentos particularmente sensibles	procesos historicos a base de plata colores por revelado cromogenico prueba dye-transfer	50 lux	12000 lx.h
category 2: fairly sensitive materials	Ilfochrome classic black and white print on RC paper	75 lux	42,000 lx.h
catégorie 2 : documents assez sensibles	Ilfochrome classic épreuves noir et blanc sur papier RC	75 lux	42000 lx.h
categor'a 2: documentos bastante sensibles	Ilfocromo cl‡sico prueba en blanco y negro sobre papel RC	75 lux	42000 lx.h
category 3: sensitive materials	black and white on baryta paper pigmentary printing (colour or black and white) uncoloured daguerreotypes photomechanical processes	150 lux	84,000 lx.h
catégorie 3 : documents sensibles	épreuves noir et blanc sur papier baryté tirage pigmentaire (couleurs ou noir ou blanc) daguerréotypes non colorés procédés photomécaniques	150 lux	84000 lx.h
categor'a 3: documentos sensibles	prueba en blanco y negro sobre papel de barita tiraje pigmentado (colores o blanco y negro) daguerrotipos no coloreados procedimientos fotomecanicos	150	lux 84000 lx.h

ARCHIVE STORAGE: PAPERBOARD OR POLYPROPYLENE ?

Progress has been made in Australia during the last four years in the quality, variety and availability of archive storage boxes and enclosures. Australian Archives have used considerable initiative, and their purchasing power, to influence an improved availability of better quality paperboard, made in Australia. Albox Australia Pty Ltd has also developed a range of box designs and archival storage systems in polypropylene.

Chemical Aspects

Many archivists have been trained in paper practices, not in plastics. Plastics is a relatively new science which involves quite different questions. To some archivists choosing a plastic has meant taking risks. In many cases this has however resulted in decisions being made in favour of the known bad characteristics of paperboard because it is cheap rather than use the unproven virtues of the more costly polypropylene.

This quandary has now been resolved by Albox Australia arranging for tests on Australian polypropylene by the Image Permanence Institute in Rochester, New York. Megara (Australia) Pty Ltd, who produces the 'Promeg' polypropylene used by Albox, submitted their archive grade sheet to the Institute for testing. The Institute reported that the samples met all of the requirements of the internationally recognised 'Photographic Activity Test'. No paperboard box, acid free or otherwise, could be expected to perform so well.

Physical Aspects

The physical and mechanical properties of paperboard and polypropylene are quite different. It is not usually possible or desirable to simply make a paperboard box design out of polypropylene.

Polypropylene is however a superior material. It will not rot, support mould growth or absorb moisture. It is not eaten by rats or vermin as it has no food or value attraction. Polyprop box designs feature outfitting lids, built-in closure clasps and greater strength, particularly along creases and folds without any increase in weight. Independent tests performed on both paperboard and polyprop boxes have shown that after repeated flexing and rugged handling, no reduction at all in the strength of the creases and folds was evident in the polyprop boxes but cardboard boxes showed considerable wear and breakage. Warehouse space requirements are normally 50% less for unassembled polyprop boxes. Both paperboard and polyprop boxes can be delivered flat and assembled at time of use. Ease of assembly is about the same. Paperboard is of course flammable and so is polypropylene but polypropylene requires a temperature of some 600 °C to ignite.

The softening point lies between 145 and 150 °C and the melting point is around 165 °C. The low thermal conductivity of polyprop (about one hundredth that of brass) gives some protection against external temperature changes.

The most common real life fire risk situation in archives is not fire itself but when the sprinklers are activated or the fire brigade arrives. The fire is quenched but the paperboard boxes get soaked. Polypropylene boxes with outfitting lids will protect their enclosures, unless submerged, and the boxes themselves are not damaged by the water. Weight increase on exposure to water at room temperature is less than 0,2%. Furthermore solid polypropylene can be completely immersed in water without loss of mechanical strength or function.

In areas of high relative humidity, paperboard boxes will absorb moisture resulting in a marked decrease in the performance of the box.

Polypropylene as a material has an extremely low, virtually zero, rate of water absorption and will not become 'soggy' as a result of use in humid climates.

Price

Paperboard is usually cheaper than polypropylene to produce. The price difference has however closed in recent years. Large contract buyers can get very competitive paperboard prices. However, polypropylene can be produced economically in smaller quantities and as a result, can often offer better prices for small and medium volume orders. If boxes of different colours are needed for archive coding, the shorter production quantities can usually be handied by polyprop without penalty.

Albox has a policy of stocking its more popular polyprop product lines to assist the smaller archivists needing smaller quantities. The ability to buy a few at a time can save a lot of funds being tied up in warehouse stocks. If whole of life value is more important than intitial cost then polypropylene must be considered. Conservators responsible for relocating very old paperboard boxes know the high labour costs involved and the time taken in re-boxing.

Wider Choice of Option

Because of the need to strictly control the production chemistry it is unlikely that quality acid-free archive boxes will ever be made from recycled materials. Both paper-board and polypropylene are however recyclable. Polypropylene can be re-used indefinitely thus reducing the 'trash factor' and no trees are cut down to produce it.

As a direct result of Australian Archives product development efforts and the innovative design and distribution activities of Albox Australia Pty Ltd, archivists and conservators are getting a much wider choice of options when seeking storage materials. There is no single answer to whether paperboard or polypropylene is the best and most cost effective solution to any situation. The good news is that there are now quality options.

Thanks largely to these initiatives Australia is becoming, or has become, a world leader in archival practice and innovation. Australia is not the first to use polypropylene, it is in use by the Library of Congress in the U.S.A., but the Australian range of design options is believed to be now well in advance of anything overseas.

Quality Control Tests

Independent tests by the Image Permanence Institute at Rochester Institute of Technology New York, have been undertaken on all Albox boxes and enclosures.

Tests by E.T.R.S. Pty Ltd, an inter-nationally recognised independent testing authority, were also undertaken. They compared the acid response and chemical stability of the Albox polypropylene boxes and the recently introduced Australian acid free paperboard boxes. During the acetone digestion, no significant degradation was observed of any of the polypropylene or cardboard samples. During the boiling water leach process, the polypropylene samples maintained their integrity. During the same processs the cardboard corrugations separated and sufficient fibres were released to slow subsequent filtration. An intense blue dye was also released. None of the samples gave a detectable acid response when titrated. The detection limit corresponds to 0.1% by weight sulphuric acid in the original sample.

No detectable metals were released from the polypropylene which gave the same results as a

control blank. Sodium and calcium were leached from the cardboard together with some potassium, magnesium and sulphur (probably as sulphate) and a small quantity of copper and aluminium.

Pac News

Mass deacidification at the Library of Congress (LC)

In November 1997, the Library awarded a contract to Preservation Technologies, L.P. of Pittsburgh to provide book preservation services to the Library of Congress for the next four years. The company will treat about a quarter of a million books using its patented Bookkeeper process to neutralize the acids in book paper. This contract is an expension of a limited production contract that has enabled the Library to deacidify about 100,000 books over the past eighteen months and to work out many details concerning the selection, shipping, and quality control of the deacidification programme.

Books have been treated from the general and special collections and the Law Library. Additional collections have been prioritized to receive deacidification treatment under the new contract.

An innovative feature of the new contract is that the Library has also employed Preservation Technologies to provide on-site services in LC buildings, based on guidelines and training provided by the Library, to select, take out, pack, ship, and refile books that are treated with the Bookkeeper process. Library staff is also developing procedures to ensure that information about each deacidified book will be recorded in the bibliographic database.

Accelerated ageing test for binding adhesives

While accelerated ageing tests have been used for paper for several decades, there has been no systematic study to see if a similar test at elevated temperatures and a controlled relative humidity level can be used to predict the life of adhesives used in bookbinding.

A study conducted by the Preservation Directorate of the Library of Congress will determine if a scientific basis exists for developing an accelerated ageing test for polyvinyl acetate adhesives (PVA). Arrhenius plots, determined over a range of ageing conditions, will establish if the degradative reactions that occur at a higher speed at elevated temperatures, are the same as the ones that prevail at lower temperatures.

Significant progress has been made in this project. A series of test samples, constructed from buckram and crash (both fabrics used in book structure) joined by two different PVA adhesives, are being aged under a wide range of ageing conditions. The effect of the ageing process upon the adhesive joint will be measured by a peel test. Conformance of these data to an Arrhenius relationship will demonstrate the validity of the accelerated ageing process. These experiments will also determine if the adhesive benefits from a deacidification treatment. Samples with and without Bookkeeper deacidification treatment are being tested.

American standard on permanent paper: controversy

Over the past three years, intense debate has surrounded the ANSI/NISO Z39.48-1992 standard

on permanent paper, which is mainly based on the composition of paper rather than on the performance of paper. Objections to this standard have been mainly from the high-yield pulp industry, which objects to the arbitrary exclusion of ligneous pulps as a pre-condition for permanence. As a result of this debate, the Institute for Standards Research (ISR) of the American Institute for Testing and Materials (ASTM) has initiated a three-year research effort to develop performance-related laboratory tests that will measure permanence of paper against rate of ageing, photochemical stability and interaction with atmospheric pollutants. The first standard test, which evaluates the rate of ageing of paper under long-term storage, is being developed by the Library of Congress Preservation Research and Testing Division.

Permanent paper: progress in Australia

The PAC Regional Centre in Australia has been working with Australian Paper, the sole large producer of office and fine paper in the country, to promote the 1996 Australian standards for permanent paper. Papers have been tested for compliance with the standard and all those which comply will soon be labelled as such. A list of Australian made permanent paper is being compiled and will be disseminated in the next few months.

pH survey at the National Diet Library

The pH survey of current Japanese monographs and periodicals was conducted by the Regional Centre in Tokyo last August. Acid-free papers were found to be used in 50.2 % of official publications, which is 14.8 % higher than the preceding year.

Russia involved in EROMM

The PAC Regional Centre in Moscow has contributed the EROMM basis with 77 records on Russian microform masters. Import and export procedures are under discussion. Searching ways of storing microform masters filmed by and for Russian libraries is another issue that the Centre has started addressing.

Second level for annual course in Caracas

Thanks to funds from Unesco, the PAC Regional Centre in Caracas has been able to resume its annual course on paper conservation and set up a second level. Ten students from Colombia, Cuba, Uruguay, Nicaragua and Venezuela have begun the 1997 September session.

Staff change at the PAC Regional Centre in Australia

As Jan Lyall has been appointed to another assignment at the National Library of Australia, Cliff Law, the new Director of the National Initiatives and Collaboration Branch, is acting as PAC Regional Centre's Director.

Technical assistance to the National Library of Papua

The National Library of Australia has provided technical assistance by introducing Internet facilities to the National Library of Papua, New Guinea. This has increased the opportunities of staff to gain preservation information enormously.

APACA group meetings cancelled

The Australian Preservation and Conservation Abroad group, which was established to provide a forum for information exchange on Australian preservation and conservation activities in the Asia Pacific region, has decided to stop meeting regularly because of low attendance. There seem to be two reasons: the need for many organisations to change for preservation services has created a competitive environment in which there is less willingness to share information. The second reason is due to the ease of communication via the Internet. Meetings will be held on a needs basis and communication established electronically.

JICPA stresses education and training

A workshop on preservation for Arab-speaking African archivists and librarians was organised last May in Tunis and Kairouan, and another similar workshop took place in Durban for English-speaking professionals. A third workshop for Portuguese-speaking Africans will take place next October (location to be confirmed). Before that, members of the JICPA met in Kenya to discuss the best way of educating educators. All meetings and workshops were funded by Danida and Unesco. (Report in the next issue).

Food For Thought

Emergency Response and Salvage Wheel

The wheel is an interactive slide chart which provides quick access to information on salvaging cultural collections damaged by natural disasters.

On one side, procedures before, during and after disasters are described, on the other side, general salvage techniques for every type of museum and library artefacts are listed. This is the most remarkable aspect of the wheel: being so comprehensive makes it useful to both libraries, archives and museums. Libraries can hold valuable artefacts and historical pieces of furniture and like libraries, museums often hold photographs, prints and other paper documents.

It is a very useful tool: clearly designed, no pages to turn, and at a glance the basic procedure for damaged electronic records, textiles, furniture, cera-mics/stone/metals, organic materials, natural history specimens, framed artwork, photographs, books and papers, is accessible.

The aim is to make the wheel available to as many staff as possible. It is supplied in its resealable plastic bag to stay dry in case of disasters and for han-ging in any type of storage area. Unfor-tunately it is only printed in English as most of the information dealing with disasters. This may explain why disaster plans are so scarce in institutions in Europe and other parts of the world.

The wheel is a joint initiative between the Federal Emergency Management Agency, The National Endowment for the Humanities, The Getty Conservation Institute and the National Institute for the Conservation of Cultural Property in the USA.

Since its release on June 11, 1997, it has been sent to some 45,000 cultural institutions nationwide. It is now available for purchase at $9.95 or at a non-profit price of $5.95, including postage and handling. (These prices do not include overseas shipments). Reductions are available for orders of 10 or more. Call toll-free + 1 888 979 22 33 or write to the National Task

Force on Emergency Response, 3299 K Street, NW, Washington, DC 200007, USA.

Roue des procédures d'intervention et de sauvetage en cas d'urgence

Cette roue est un outil interactif qui permet en un coup d'oeil d'accéder à la liste des mesures de sauvetage des collections endommagées lors de sinistres.

Sur une face, les démarches à entreprendre avant, pendant et après le sinistre sont présentées ; sur l'autre face sont décrites les techniques générales de sauvetage propres aux diverses collections des musées et bibliothèques. Outre son aspect pratique, l'intérêt majeur et nouveau de la roue réside dans la réunion de tous les supports et objets disponibles en bibliothèques et dans les musées car souvent les unes commes les autres renferment des objets et supports non traditionnels.

Cette roue est d'un concept clair, facile à utiliser et énumère toutes les mesures d'intervention pour le sauvetage des documents électroniques, textiles, meu-bles, céramiques, lapidaires, métaux, matériaux organiques, spécimens d'his-toire naturelle, oeuvres encadrées, pho-tographies, livres et papiers.

L'objectif des concepteurs est qu'elle soit distribuée le plus largement possible auprès des personnels. Elle est présentée dans une pochette plastique afin d'être accrochée et protégée en cas de sinsitre.

Malheureusement, elle n'existe qu'en version anglaise comme la plupart des textes relatifs aux sinistres. Cela expliquerait-il la rareté des plans de prévention en Europe?

Le mérite de cette initiative revient à la Federal Emergency Management Agency, au National Endowment for the Humanities, au Getty Conservation Institute and au National Institute for the Conservation of Cultural Property aux USA.

Depuis juin 1997, quelque 45000 institutions culturelles dans le monde en ont reçu un exemplaire. On peut désormais l'acheter pour 9.95 $ (frais de ports non compris pour l'Europe). Réduction possible pour une commande égale ou supérieure à 10 exemplaires. Appelez gratuitement le + 1 888 979 22 33 ou écrivez à The National Task Force on Emergency Response, 3299 K Street, NW, Washington, DC 200007, USA.

Preservation manage-ment course

During 1998 the School of Information, Library and Archive Studies at the University of New South Wales will again be offering its subject Preservation Management for Libraries and Archives (formerly Preservation Administration) via the Internet. There will be two offerings in 1998: the first between March and June and the second from August to November.

This subject is an introduction to aspects of preservation management for libraries and archives, and the role of preservation within the broader context of collections management. It covers the basic technology, properties and deterioration of the materials of libraries and archives and considers methods for improving their long-term preservation. It looks at the interdependence of librarians, archivists and conservators in preservation planning and considers the basic elements of a library or archives preservation plan.

Since last year the subject has been expanded from 11 to 14 modules and it is now the equivalent of 42 class contact hours. The subject modules and the order in which they will be taught is as follows:

Preservation programmes in libraries and archives
Planning and policies for preservation
Preservation of paper-based materials--the paper
Preservation of paper-based materials--the text and image
Preservation of photographic materials
Preservation of machine readable materials
Preventive preservation
Preservation surveys
Disaster preparedness and response
Preservation procedures -materials and resources
Preservation procedures -storage and housing
Preservation procedures -treatments
Reformatting and information transfer
The role of preservation in libraries and archives

Information about the content of each module can be found at
URL:http://www.silas.unsw.edu.au/silas/cesched.htm#PresAdmin

The Internet is the primary delivery mechanism for this course.
Therefore all participants must have access to the Internet, use of Netscape 3.0, and a personal email address.

The cost for continuing education enrolment is $A1000. As a point of comparison the Australian dollar is currently worth approximately 66 cents to the $US. The subject is also available for academic credit but at a higher fee.

For enrolment details contact
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Directory of Libraries and Archives in the Pacific Islands

The Directory was produced by the Asia and Pacific Special Interest Group (APSIG) of the Australian Library and Information Association (ALIA), com-piled by Adrian Cunningham of the Na-tional Library of Australia, with funding from AusAID.

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Book Reviews

Conservaç‹o de colecç›es de fotografia

Luis Pav‹o. Lisboa: Dinalivro, 1997, 356 p.
ISBN 972-576-130-6
5,000 Escudos (25 US$ approx.)

Many Portuguese and Brazilian conservators spe-cialize in photographic mate-rials, but there are few books dealing with the preservation of photographs. Even fewer, if any, are those written in Portuguese. To fill this gap, Luis Pav‹o, a curator at the Municipal Archives in Lisbon has written a book based on his experience. After graduating in electronics, Luis Pav‹o turned to photography. He spent three years at the George Eastman House and the Rochester Institute of Technology to study the conservation of photographs, before taking responsibility for the preservation of some 360,000 photographs stored by the City Archives in Lisbon. He also gives regular courses to professionals from museums, archives and city halls in Portugal. The book focuses on preservation principaly, with one of the seven chapters dealing with proper conservation treatments. It covers historical background; identification of the materials; materials and their constituents; deterioration; pre-servation; organisation and inventory; making enclosures. It is lively with pictures from the author's own collection. A translation into Spanish would be welcome.

Muitos conservadores portugueses e brasileiros est‹o a especializar-se na conservaç‹o de fotografias. Contudo existem pouco livros dedicados a este assunto e em lingua portuguesa existem ainda menos, se é que existem alguns. Para preencher esta lacuna Luis Pav‹o, conservador no Arquivo Municipal de Lisboa, publicou um livro baseado na sua experiência. Licenciado em Engenharia Electrotécnica, Luis Pav‹o virou-se para a fotografia. Durante três anos estudou conservaç‹o de fotografia na George Eastman House e no Rochester Institute of Technology, para depois dedicar os seus cuidados às 360 000 fotografias guardadas pelo Arquivo da Cidade de Lisboa. Periodicamente lecciona cursos de conservaç‹o de fotografia para profissionais de museus, arquivos e câmaras municipais em Portugal.

O livro destaca principalmente o trabalho de preservaç‹o, com um capitulo, em sete, dedicado a tratamentos de conservaç‹o. O livro abre com uma Histària das Técnicas (Capitulo 1), seguindo-se Identificaçç‹o de Espécies Fotográicas (Capitulo 2), Materiais (Capitulo 3), Deterioraç‹o (Capitulo 4), Preservaç‹o (Capitulo 5), Organizaç‹o (Capitulo 6) e Trata-mentos e Construç‹o de Embalagens (Capitulo 7). O livro é ilustrado com fotografias da colecç‹o do autor. A sua traduç‹o em espamnhol seria muito interessante e necessária.

Dinalivro
Travessa do Convento de Jesus, 15
1200 Lisboa, Portugal
Tel: + 351 (0) 1 395 23 48
Fax: + 351 (0) 1 390 84 89

Virginie Kremp

Guidelines for Preservation Microfilming in Australia & New Zealand.

Canberra: National Library of Australia, 1998, 128 p. ISBN 0 642 10691 6 $A30.

Published by the Information Preservation Section these guidelines have been developed in response to a resolution of the 1994 National Preservation Office (Adelaide) Confe-rence 'Preservation Microfilming: Does it Have a Future?'. At this conference, it was apparent that there was a need for an authoritative Australian document providing guidance in preservation microfilming matters. The information included is based on authoritative sources from overseas and practical experience from all sectors of the microfilming industry in Australia.

The publication has been written in simple language and contains infor-mation relevant to those with any involvement in preservation micro-filming projects. Useful topics covered include: establishing a preservation microfilming project; selecting and preparing material for microfilming; preparation of target sequences; selec-ting microformats; preparation of technical specifications; quality ins-pections; bibliographic control; and storage.

The publication also includes a number of appendices containing sample forms and useful lists of information.

Sales and Distribution
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Canberra ACT 2600
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Fax +61 (2) 62731084
E-mail: nlasales@nla.gov.au

Andrew Gosling

Konserviranje Knjig in Papirja

Zbornik razprav, Ljubljana 1997.
Book and Paper Conservation Proceedings; Ljubljana 1997

Ljubljana: The Archives of the Republic of Slovenia, 1997, 364 p. 60 US$.

Edited by Jedert Vodopivec and Natasa Golob, the proceedings of the Inter-national Symposium held in July 1996 are available in both Slovene and English. This symposium was held to celebrate the 40th anniversary of the Slovene Conservation Workshop and was organised along with an exhibition of precious items from the Archives of the Republic of Slovenia's collections. Various conservation issues are addressed in thirty papers from European professionals for the most part, and much Central and South Eastern Europe orientated.

Medieval documents are still at the top of conservators' priorities, either be-cause their preservation weighs heavy on national collections (how to survey them, store them at low cost, exhibit them?) or because of all the treasures they still hold in terms of conservation techniques and scientific research. Experiences on unusual materials are introduced too, such as the conser-vation of marbled paper by Matija Strlic or transparent papers by Kons-tanze Bachmann.

In all cases reversibility is the key word of this symposium. Drastic conclusions on the safety of

such an such treatment are not expressed anylonger (one example is a re-evaluation of past bleaching treatments and a study of the effects of sodium borohydride on 19th century pigments). In this respect there is a very honest and interesting text by Gabriella Albrecht-Kunszeri dealing with the recovery of a wet and mould-damaged microfilm collection where it is stated that all disinfection treatments were discarded because of their adverse or inadequate consequences on either people or items.

A catalogue of the exhibition has been produced and relates the history of the workshop (see picture). The exhibition was intended to raise public awareness of preservation issues and showed items deteriorated through adverse storage and wrong handling. The catalogue is lively with beautiful pictures and factual explanations. It costs 25 US$.

Virginie Kremp

Events

6-17 July 1998 - Budapest

Summer Course on Management Issues in Archival Preservation

The course is intended for pro-fessional archivists in Central and Eastern Europe with 2 to 4 years experience, particularly those who are in middle mana-gement expecting to develop strategies and programmes. Archivists from other countries are also welcomed. The course is not designed for conservators. Tuition is in English.

Summer University Office
Nador u. 9
1051 Budapest, Hungary
Tel: + 36 (1)327 3811
Fax: + 36 (1) 327 3124
sunappl@ceu.hu

20-24 July 1998 - York (UK)

Care of Photographic Moving Image & Sound Collections

The conference is organised by the Institute of Paper Conservation with the support of the Society of Archivists. It is intended for all those with responsibility for the welfare of photographic collections.

Institute of Paper Conservation
Leigh Lodge
Worcester WR6 5lB, England
Fax: + 44 (1886) 83 36 88
clare@ipc.org.uk

10-12 August 1998 - Moscow

Preservation and Access

An international conference organised jointly by the Russian State Library, The Russian Library Association and the Library Assembly of Eurasia. Many topics of interest include conservation, standardization, training, security and disasters.

Russian State Library
3, Vozdvizhenka Street
10 100 Moscow, Russia
Fax: + 7 (0) 95 913 69 33
irgb@glas.apc.arg

23-29 August 1998 - Florence (Italy)
XXII Congresso Internazionale di Papirologia

Thematic conference, including workshops and posters sessions.

XXII Congresso Internazionale di Papirologia
Studio Oliva Scaramuzzi
Viale Milton 81
50 129 Firenze, Italy
Tel. + 39 (55) 47 63 77
Fax: + 39 (55) 47 63 96
os@mediahouse.it

24 August - 12 September 1998 - Lestans (Italy)
The Culture of Photography

A post graduate course of 144 hours that will specialize in preservation, conservation and cataloguing techniques. The programme will be taught in English by internationally recognized experts. Lessons will take place at the CRAF Centre where accomodation for students is available.

C.R.A.F
Villa Ciani
33090 Lestans (PN), Italy
Tel/Fax: + 39 (4) 27 91 453
craf@agemont.it
http://www.agemont.it/CRAF

4-6 September 1998 - Bristol (UK)
Disaster and After

An international conference on the practicalities of information provision in times of war and other catastrophes. The aim is to bring together experience of running and reinstating information services in war-torn areas and the scenes of disasters such as fire, flood and earthquake. Proceedings to be published.

Venue: Badock Hall
University of Bristol
Stoke Park Road
Bristol BS9 1JG, UK

November 98 - Paris
L'album photographique: histoire et conservation d'un objet

Objet complexe et multiforme qui suscite les questionnements des conservateurs,

restaurateurs et historiens, l'album photo-graphique implique une approche interdisciplinaire qui répond à la volonté du groupe photographique de la SFIIC de favoriser les échanges entre les différents acteurs de la photographie. Seront étudiés les usages et formes de l'album, le statut de l'image, la conser-vation, le stockage, le démon-tage et l'exposition.

Photographic albums are often complex objects which can take many different forms. They have always been the subject of debate amongst museums curators, conservators and historians. Their study is a multidisciplinary exercice which lends itself ideally to the SFIIC's wish to bring together experts from the different fields of photography. Lectures will examine the uses and forms of albums, the status of image, preservation, storage, dis-mantling and exhibition.

SFIIC - Groupe photographie
29, rue de Paris
77420 Champs-sur-Marne France
Tel: + 00 33 (0) 1 64 11 32 21
Fax: + 00 33 (0) 1 64 11 46 87
Cux@club-internet.fr

13-16 May 1999 - Toronto

Looking at Paper: Evidence and Interpretation

A four-day conference and workshop featuring recent art historical and bibliographical research focusing on the examination of paper. Topics will include the production, usage and significance of particular papers and the methodology of paper analysis. Proceedings to be published.

Looking at Paper
Box 956
Station F
Toronto, Ontario
Canada M4Y 2N9
Fax: +1 (416) 204 2692
John_O'Neill@ago.net

August 1999 - Bangkok

IFLA Pre-Session Seminar on Oral Tradition

Before the annual General Conference of IFLA, in Bangkok in August 1999, a five-day seminar will be held on the theme of Collecting and Safeguarding the Oral Tradition. This is the next in the series of biennal Pre-session Seminars for developing countries, held under the auspices of the IFLA Professional Board. Working languages at the Seminar will be English, French and Spanish.

The Seminar will deal with various aspects of collecting and safeguarding oral heritage, including the socio-cultural context; collection methodologies and selection criteria; care, handling, storage and preser-vation issues and technical questions.

Candidates will be selected from the developing world and funded to attend both the

Pre-session and the 1999 General Conference of IFLA. Preference will be given to individuals who would gain the most from the session and who would be in a position to pass on the benefits of attendance to colleagues in their home countries.

Additional information may be obtained from IFLA Headquarters or from the Chairperson of the Pre-session Planning Committee.

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P.O. Box 95312
2509 CH The Hague
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Tel.: + 31 (70) 31 40 884
Fax: + 31 (70) 38 34 827
email: IFLA@ifla.org

Ralph W. Manning

National Library of Canada
Ottawa K1A ON4, Canada
Tel.: + 1 (613) 943 85 70
Fax: + 1 (613) 947 29 16
email: ralph.manning@nlc-bnc.ca

CONFERENCE ANNOUNCEMENT

Preservation Management: Between Policy and Practice

European conference organised by the Koninklijke Bibliotheek (KB, National Library of the Netherlands), the IFLA Core Programme on Preservation and Conservation (IFLA-PAC) and the European Commission on Preservation and Access (ECPA).

The Hague, 19-21 April 1999

Long-term access

In recent years increasing awareness has shown that in order to guarantee continued access to their collections, archives and libraries have to develop overall preservation policies that match general principles of collection management. Access to a mass of accumulated knowledge may be lost as a result of deterioration of information media, resulting not only from bad-quality paper from the 19th and 20th centuries which is slowly turning to dust through acidification and embrittlement, but also from films, magnetic tapes and disks which are sometimes even more vulnerable than paper. The decay of information media is accelerated by the exponential increase in use over the last decades and by unfavourable storage conditions. In addition, outdated formats and obsolescence of hard- and software may bar access to information stored on modern media.

Managing preservation

In the face of these dangers to collections, the approach has shifted from traditional conservation

of single items to preventive measures and substitution programmes. Preservation now covers a wide range of activities, from storage and handling to microfilming and digitisation. The challenge for libraries and archives is to define preservation policies in which each of these methods has its place, depending on the condition of materials, user requirements, costs, and the tasks and means of the institution. They must develop programmes that aim at implementing these policies step by step.

Sharing experience in a pioneering field

Preservation management, encompassing such tasks as damage assessment, planning and priorities setting, selection, budgeting, disaster management, training of staff and users, and fund raising has now become of central importance in the struggle of archival institutions to ensure long-term access to the intellectual heritage. However, as formal training in preservation management does not exist and it is still in many ways being pioneered, exchange of expertise and experience between professionals involved in preservation activities, is vital. Therefore, the Koninklijke Bibliotheek, the IFLA-PAC and the ECPA are jointly organising a three-day conference on preservation management.

Aims and scope of the conference

The conference 'Preservation management:

between policy and practice', will focus on organisational, financial and managerial aspects of preservation. The central theme of the conference will be the interaction between theory and practice. In many archives and libraries some form of agreement on a theoretical level has been reached about preservation requirements in general and abstract terms. However, the transition from theory to practice is often fraught with difficulties, and relatively few institutions in Europe have experience in the realization of concrete projects. At this conference, case studies will be presented that are illustrative of efforts at institutions in various European countries and should shed light on such questions as how a large preservation project is planned and costed, and how it can be realized step by step. Technical aspects of preservation will only be dealt with in so far as they have a bearing on the general theme: the focus of the conference will be firmly on preservation as a management issue, in the context of planning, costing, staff management and organisation.

Topics for discussion

- The interaction between preservation policy and practice: which comes first?
- What constitutes a sound preservation policy?
- The role of national policies: how necessary are they?
- Selection and priorities: assessments, planning.
- Choice of methods: prevention or cure? Their effects for user groups and the organisation.
- Organisational structures: who is responsible and who should be involved?
- Monitoring quality and progress.
- Staff management and training: schools and courses, in-house training, training at the right level.
- Economic factors: investments, outsourcing, costing & budgeting.
- Public relations: awareness campaigns and funding.

Speakers and audience

Speakers will be professionals from the European library and archive world with experience in preservation management. The intended audience of the conference is: directors, administrators and government officials responsible for preservation and cultural heritage issues; preservation managers in libraries and archives; librarians, archivists and conservators with preservation tasks; and representatives from training institutions for librarians and archivists. The conference language will be English.

Costs and registration

The conference fee will be ECU 150, including coffees, teas, and lunches; in addition, it is planned to send all participants a copy of the proceedings of the conference. Participants will be expected to make their own hotel arrangements. A detailed programme and registration form will be available from the ECPA as from July 1998. Information and registration forms will also be posted on the internet at (to be launched in June 1998). For further information, please contact the ECPA, P.O.Box 19121, 1000 GC Amsterdam, The Netherlands, fax + 31 (20) 620 4941, ecpa@bureau.knaw.nl.

ANNONCE DE CONFÉRENCE

Comment gérer la conservation: de la théorie à la pratique

Conférence européenne organisée par la Bibliothèque Royale des Pays-Bas (KB, Koninklijke Bibliotheek), le Programme de l'IFLA sur la Préservation et la Conservation (IFLA-PAC) et la Commission Européenne sur la Conservation et l'Accès (ECPA).

La Haye, 19-21 avril 1999

L'accès à long terme

Au cours des dernières années les archives et les bibliothèques ont compris que pour continuer à garantir l'accès à leur collections elles devaient mettre au point des politiques globales de conservation qui correspondent aux principes généraux de gestion des collections.

Il est à craindre que l'accès au savoir soit menacé du fait de la détérioration des supports : non seulement le papier acide des 19e et 20e siècles qui se fragilise et tombe lentement en poussière mais aussi les films, les bandes magnétiques et les disques, souvent encore plus vulnérables.

La dégradation des supports est encore accélérée par l'augmentation exponentielle de la communication des documents au cours des 50 dernières années et par de mauvaises conditions de stockage. De plus, certains supports ne sont plus utilisés et l'obsolescence des logiciels et des équipements empêche parfois l'accès à l'infor-mation archivée sur des supports modernes.

Gérer la conservation

Face à ces multiples dangers on est passé de la restauration traditionnelle à la pièce à des mesures de prévention et à des programmes de substitution. La conservation recouvre main-tenant un vaste éventail d'activités comprenant aussi bien le stockage et la manutention des

documents que le microfilmage et la numé-risation. Bibliothèques et archives se doivent de définir des politiques de conservation au sein desquelles chacune de ces méthodes trouve sa place, selon les documents et leur état de conservation, selon les besoins et les demandes des usagers, les cožts, les missions et les moyens de l'institution. Elles doivent aussi développer des programmes visant à mettre en Ïuvre point par point ces politiques .

Partager l'expérience dans un domaine inexploré

La gestion de la conservation qui recouvre des activités aussi diverses que l'évaluation des dégâts, la définition des priorités, la sélection, l'établissement du budget, la gestion des sinis-tres, la formation du personnel et des usagers et la recherche de financements est devenue d'une importance capitale pour les institutions patri-moniales qui luttent afin d'assurer l'accès à long terme à leur patrimoine intellectuel.

Toutefois, comme la gestion de la conservation ne fait pas partie des programmes d'enseignement et qu'elle en est encore à ses débuts, il est vital que les professionnels partagent expériences et expertises.

C'est pourquoi la Bibliothèque Royale des Pays-Bas (KB, Koninklijke Bibliotheek), le programme de l'IFLA sur la Préservation et la Conservation (IFLA-PAC) et la Commission Européenne sur la Conservation et l'Accès (ECPA) organisent conjointement une conférence de trois jours sur la gestion de la conservation.

Buts et champs d'application de la conférence

La conférence "Comment gérer la conservation :

de la théorie à la pratique" s'intéressera aux as-pects organisationnels, financiers et gestion-naires de la conservation. Le thème s'articulera autour de l'interaction entre théorie et pratique. Dans nombre d'archives et de bibliothèques, il semble que l'on se soit mis d'accord sur les exigences théoriques et générales de la conservation.

Toutefois, le passage de la théorie à la pratique est souvent pavé de difficultés et il existe assez peu d'institutions en Europe qui aient réalisé des projets concrets. Au cours de cette conférence, des études de cas seront présentées pour illustrer les efforts faits par les institutions de différents pays européens : elles devraient éclaircir des questions comme la planification et le cožt d'un grand projet de conservation, ou bien comme la réalisation point par point d'un programme de conservation. Les aspects techniques de la conservation ne seront traités que s'ils sont en rapport avec le thème général : l'axe de la conférence sera donc la conservation en terme de gestion, de planification, de budget, de gestion du personnel et d'organisation.

Thèmes à débattre

- Interaction entre politiques et pratiques de conservation : par où commencer ? Qu'est-ce qui constitue une solide politique de conservation?
- Rôle des politiques nationales : sont-elles nécessaires ?
- Sélection et priorités : évaluation et planification.
- Choix des méthodes : prévenir ou guérir ? Effets sur les usagers et sur l'organisation.

- Structures organisationnelles : qui est responsable et qui doit s' impliquer? Contrôle de la qualité et évaluation des progrès.
- Gestion et formation du personnel : écoles et cours, formation interne, formation par niveaux.
- Facteurs économiques : investissement, ressources extérieures, cožts et budget.
- Relations publiques : campagnes de sensibi-lisation et recherche de financement.

Intervenants et public visés

Les intervenants seront majoritairement européens, ils possèderont une expérience de la gestion de la conservation en bibliothèques ou archives. Le public visé se compose de directeurs, d'administrateurs, de responsables gouver-nementaux responsables de la conservation et du patrimoine culturel ; des gestionnaires de la conservation travaillant dans les bibliothèques ou les archives ; des bibliothécaires, des archivistes ou des restaurateurs responsables de conser-vation et des représentants d'écoles de biblio-thècaires ou d'archivistes. La conférence se déroulera en anglais.

Inscriptions

Les frais d'inscription s'élèvent à 150 Ecus et comprennent les déjeuners, cafés et thés. Il est prévu également que tous les participants reçoivent un exemplaire des actes de la confé-rence. Chaque participant devra faire sa propre réservation d'hôtel.

Un programme détaillé et un formulaire d'inscription seront disponibles auprès de l'ECPA à partir de juillet 1998. Des informations et formulaires d'inscriptions figureront également sur le site internet de la Bibliothèque Royale des Pays-Bas à partir de juin 1998. Pour tout renseignement complémentaire, prière de contacter l'ECPA, P.O. Box 19121, 100 GC Amsterdam, Pays-Bas, fax + 31 (20) 620 4941, ecpa@bureau.knaw.nl **Latest Revision:** *August 7, 1998*