



INTERNATIONAL PRESERVATION

A Newsletter of the IFLA Core Programme on Preservation and Conservation

NEWS

N° 18 - MARCH 1999

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INTERNATIONAL PRESERVATION NEWS

n° 18 March 1999

ISSN 0890 - 4960

International Preservation News is a publication of the International Federation of Library Associations and Institutions (IFLA) Core Programme 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.

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Printing: Bibliothèque nationale de France, Paris

PAC Newsletter is published three times a year. Orders, address changes and all other inquiries should be sent to the Regional Centre that covers your area, see map on page 32.



ISO 9706

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editorial

The past months have been a period of bustling activity for IFLA PAC and many changes occurred in a number of Regional Centres. In Tokyo, Ryuji Yonemura replaced Takao Shimamura. In Canberra, at the National Library of Australia Cliff Law succeeded Jan Lyall who had been in charge of the PAC centre for almost ten years and whose commitment, knowledge and experience have been a great asset for us all. We will certainly miss her competency and sage advice a lot.

The PAC focal point in Paris was not spared by changes either: Virginie Kremp, the Programme Officer, who had been in charge of "International Preservation News" since 1993 decided to resign from PAC to become a full time mother. Her position remained open for more than seven months, which partly explains why only two issues of IPN could be published last year. Ania Zalenskaia, the new Programme Officer, joined PAC in January of this year so we hope to be in a position to publish IPN more regularly from now on.

Among the activities that kept us busy was the publication in June 98 of "IFLA Principles on the Care and Handling of Library Material". The long-awaited new version of the IFLA Principles seems to have met the expectations of our colleagues and more than ten translations are already underway. Let us also mention the CD ROM of XIXth and early XXth century photographs from Latin America, which became available in August, and was presented during the IFLA Conference in Amsterdam.

In Africa PAC participated in several activities within the framework of JICPA (Joint IFLA/ICA Committee for Preservation in Africa). Preservation workshops were organised in Durban (South Africa), Kairouan (Tunisia), Cabo Verde and Harare (Zimbabwe). Two meetings related to JICPA and training activities were also scheduled in Nairobi and Tunis.

Projects were also undertaken with UNESCO: one in conjunction with UAP (Universal Availability of Publications) consists of a worldwide survey on existing digital collections and the preservation methods and measures taken to ensure long-term access to them. The other project, directly linked with the UNESCO Memory of the World Programme, is a CD ROM which explains the causes of deterioration menacing different carriers and the measures to be taken to prevent or minimise them as advised by the MOW Sub-Committee on Technology. The French Ministry of Culture is partner on the project.

PAC has also been busy planning and organising several conferences, both alone or jointly with other organizations. Some conferences to date: the Conference on Preservation Management with the Koninklijke Bibliotheek and ECPA (The Hague, April 99), the Satellite Meeting on the Safeguard of Oral Tradition in Khon Kaen (Thailand, August 99) and Symposium 2000 on Serial Publications (Paris, August 2000). The PAC Regional Centres in Tokyo and Moscow also took an active part in organising conferences and meetings.

In addition during the past few months, PAC has been more and more involved in the International Committee of the Blue Shield for the safeguard of cultural heritage in case of armed conflict or natural disaster. A seminar in Radenci, Slovenia, brought participants from ICA, ICOM, ICOMOS, and IFLA together with colleagues from the neighbouring countries and also included representatives from the Army. The seminar proved the necessity of creating national committees of the Blue Shield. It stressed the importance of preventive measures and the need for cooperation at the 1954 Hague Convention for the protection of cultural heritage in case of armed conflict is presently under revision and PAC has been present at the several conferences organised for this purpose.

Although there is not much that can be done at the moment (due to the instability of the government and a lack of the information on the inventories involved) UNESCO has nonetheless drawn attention to the difficult situation of cultural heritage in Afghanistan. Unfortunately Afghanistan is not the only country where libraries are at a loss. Guinea Bissao, Central America have recently had to face disasters - either man-made or natural - and the list of lost or damaged libraries becomes longer each day. Being aware of the threat, from now on PAC intends to focus its efforts on the Blue Shield, particularly on preventive activities. ■



Marie-Thérèse VARLAMOFF
PAC Director

éditorial

Le PAC a connu ces derniers mois une grande activité malgré les nombreux changements survenus dans les divers centres. A Tokyo, Ryuji Yonemura a succédé à Takao Shimamura et à Canberra Cliff Law a remplacé Jan Lyall qui dirigeait le centre régional PAC à la Bibliothèque Nationale d'Australie depuis presque dix ans. Son savoir, son expérience et son dévouement nous ont été précieux. Sa compétence et ses conseils judicieux vont très certainement nous manquer.

Le Centre International PAC à Paris n'a guère été épargné par les changements : Virginie Kremp, le "Programme Officer" qui était responsable de la revue "International Preservation News" depuis 1993 a souhaité se consacrer à l'éducation de ses enfants. Son poste est donc resté vacant pendant plus de sept mois, ce qui explique en partie que seuls deux numéros d'IPN ont pu être publiés l'an dernier. Ania Zalenkaia, le nouveau "Programme Officer" a rejoint le PAC en janvier et nous pensons pouvoir dorénavant publier IPN plus régulièrement.

Parmi les activités qui nous ont occupés récemment, mentionnons la publication en juin 98 des "Principes de l'IFLA pour la conservation des documents de bibliothèque". Attendue depuis longtemps, cette nouvelle version des Principes semble combler les souhaits de nos collègues : plus d'une dizaine de traductions sont déjà en cours de réalisation. N'oublions pas de signaler la parution en août du CD ROM sur les photographies du XIXe siècle d'Amérique Latine, qui fut présenté lors du Congrès de l'IFLA à Amsterdam et y reçut un excellent accueil.

En Afrique les activités du PAC se sont déroulées dans le cadre du JICPA. Des ateliers de conservation ont eu lieu à Durban (Afrique du Sud), Kairouan (Tunisie), Cap Vert et Harare (Zimbabwe). Deux réunions se sont déroulées à Nairobi et Tunis, principalement axées sur les programmes de formation à la conservation-préservation et les activités du JICPA.

Des projets ont été entrepris avec l'UNESCO, l'un en partenariat avec UAP (Universal Availability of Publications) concerne une étude mondiale sur les collections numérisées et les méthodes de préservation pour leur accès à long terme. L'autre projet, directement lié au programme "Mémoire du Monde", est un CD ROM sur les mesures préventives de conservation telles que préconisées par le sous-comité technique de Mémoire du Monde. La Mission de la Recherche et de la Technologie du Ministère français de la Culture participe au projet.

Le PAC a également programmé et organisé plusieurs conférences, soit seul ou en coopération. La conférence sur la gestion de la conservation avec la Bibliothèque Royale des Pays-Bas et l'ECPA (European Commission on Preservation and Access - La Haye, avril 99), la conférence sur la sauvegarde de la tradition orale à Khon Kaen (Thaïlande, août 99) et le Symposium 2000 sur les publications en série (Paris, août 2000). Les centres régionaux de Tokyo et de Moscou ont également organisé rencontres et conférences.

A côté de ces importantes et multiples activités le PAC a, au cours des derniers mois, continué à s'investir davantage encore au sein du Comité International du Bouclier Bleu. Un séminaire a eu lieu en Slovénie, réunissant des participants de l'ICOM, de l'ICOMOS, du CIA et de l'IFLA ainsi que des représentants des forces armées et des collègues des pays limitrophes. La création de comités nationaux du Bouclier Bleu s'est avérée une évidente nécessité de même qu'a été soulignée l'importance de la prévention et de la coopération. La Convention de La Haye (1954) pour la protection des biens culturels en cas de conflit armé étant actuellement en cours de révision, le PAC a participé à diverses réunions internationales préparatoires au nouveau texte.

L'UNESCO a alerté le Bouclier Bleu sur la situation particulièrement dramatique des biens culturels en Afghanistan. Cependant, aucune action concrète ne peut être entreprise en l'absence d'inventaires ou de catalogues et compte tenu de l'instabilité politique actuelle. Malheureusement, l'Afghanistan n'est pas le seul pays où des bibliothèques sont en danger. La Guinée Bissao et l'Amérique Centrale ont eu à faire face ces derniers mois à des catastrophes soit naturelles soit générées par l'homme et la liste des bibliothèques détruites ou partiellement endommagées ne cesse de s'allonger. C'est pourquoi, conscient de cette menace permanente, le PAC entend, pour les années à venir, concentrer ses efforts sur les activités du Bouclier Bleu et plus particulièrement sur la prévention et la formation de comités nationaux. ■



Ania ZALENSKAIA
PAC Programme Officer

Protéger les biens culturels lors de conflits armés ou de catastrophes naturelles

Séminaire de Radenci, Slovénie, 12-16 novembre 1998

I Le Comité International du Bouclier Bleu (CIBB)

En 1996 les quatre organisations non gouvernementales suivantes, CIA (Conseil International des Archives), ICOM (Conseil International des Musées), ICOMOS (Conseil International des Monuments et des Sites) et IFLA (Fédération Internationale des Associations de Bibliothécaires et des Bibliothèques) se sont unies pour former le CIBB (Comité International du Bouclier Bleu) avec pour mission de rassembler et fédérer les informations et de coordonner les actions répondant aux situations d'urgence, la protection et la sauvegarde des biens culturels, telles que définies par la Convention de La Haye en 1954, étant son objectif.

Des actions de sensibilisation ont été menées (conférences, dépliants) et le CIBB a participé aux réunions organisées avec les Etats Parties de la Convention pour sa révision (Paris, Vienne). En octobre 1998, une réunion s'est tenue à l'UNESCO pour étudier la situation des biens culturels en Afghanistan et inventorier les mesures d'urgence à prendre.

Le séminaire de Radenci est la première tentative du CIBB pour fédérer les forces des différentes organisations professionnelles en vue d'établir une stratégie commune.

II Un séminaire en Slovénie

Organisé conjointement par le CIBB, l'IIAS (Institut International des Sciences Archivistiques de Maribor, Slovénie) et les Archives Régionales de Maribor avec le support de l'UNESCO, le séminaire a rassemblé 31 participants de dix pays (Belgique, Bosnie Herzégovine, Croatie, France, Hongrie, Italie, Pays-Bas, Pologne, Slovénie et Suède). Le séminaire s'est déroulé à Radenci, Slovénie du 12 au 16 novembre 1998.

Présentation de plans d'urgence, études de cas, ateliers par petits groupes et exercices de simulation se sont répartis sur quatre jours. Une visite des archives de Karlovac (Croatie) et Maribor (Slovénie) ainsi que des zones sinistrées de Croatie a été organisée le cinquième jour. Le séminaire s'est terminé par la rédaction et l'adoption de la déclaration de Radenci.

C'est la première fois que les quatre organisations (Musées, Archives, Bibliothèques et Monuments et Sites) se réunissent en séminaire pour étudier en commun les risques de catastrophes et les moyens à mettre en oeuvre pour y faire face et en minimiser l'impact. La position géographique de Radenci et l'origine de la majorité des participants (Croatie, Bosnie, Italie) a souligné, si l'en était encore besoin, la nécessité pour tout établissement culturel de prendre des mesures préventives afin de pouvoir réagir efficacement en cas d'urgence. Nous avons pu

constater que la plupart du temps aucun plan d'urgence écrit n'était en vigueur et que peu ou pas de contacts avaient été pris avec les divers organismes publics, privés ou commerciaux ou avec la protection civile.

III Plans d'urgence

A la lumière de certains cas exposés nous n'avons pu que constater les problèmes qui se juxtaposent aux catastrophes lorsque la réplique laisse libre court à l'improvisation. Tout plan d'urgence se décompose comme suit : prévention, préparation, intervention et réhabilitation. Chacune de ces phases met en oeuvre des compétences diverses.

- La phase de *prévention* doit prendre en compte l'état du bâtiment, des équipements ainsi que la valeur respective des différents éléments des collections. Tous les membres du personnel et/ou du public sont concernés, du directeur au personnel de nettoyage. Une vigilance particulière est requise lors de travaux de rénovation et pendant la fermeture au public de l'établissement. Certains aménagements pour améliorer la sécurité peuvent de prime abord sembler onéreux mais ne sauraient en aucun cas être écartés, le coût d'un sinistre s'avérant beaucoup plus coûteux.

- La phase de *préparation* inclut l'élaboration et la mise à jour régulière d'un plan d'urgence. Elaboré en collaboration avec la direction, l'architecte, les conservateurs et le personnel de sécurité de l'établissement, il doit être largement diffusé et testé lors d'exercices. Les zones ainsi que les collections les plus précieuses à évacuer en priorité doivent être formellement indiquées. Le matériel d'intervention d'urgence doit être disposé aux endroits stratégiques et vérifié régulièrement. Il importe de prendre tout contact et accord avec les instances de la protection civile (pompiers, police, armée) ainsi qu'avec les autres institutions culturelles proches susceptibles d'apporter leur aide en cas de nécessité. Le plan d'urgence devra également comporter la liste des fournisseurs ou des sociétés commerciales auxquelles on pourrait avoir recours (pour la congélation des documents inondés par exemple).

- La phase d'*intervention* est plus délicate à gérer car des facteurs psychologiques entrent en jeu. Le personnel, souvent très affecté par la catastrophe, peut s'avérer incapable de réagir. Il importe de prendre le temps de réfléchir avant de prendre toute décision. Le responsable des opérations doit avant toute chose réunir son équipe au plus vite, répartir les responsabilités selon les compétences et organiser le sauvetage. En cas de catastrophe majeure, il sera amené à être l'interlocuteur du responsable de la protection civile qui dirigera les opérations. Le rôle important et souvent indispensable des volontaires, en par-

ticulier en cas de catastrophe nationale ou de conflit armé, a été largement souligné. Ces volontaires, que l'on aura eu ou pas la possibilité de répertorier en aval, n'ont dans la plupart des cas reçu aucune formation préalable. Il convient donc de leur donner des directives simples et compréhensibles et surtout de les encadrer. Veiller aussi à assurer l'intendance (bottes, masques, casques, gants, couvertures et nourriture) et prévoir des temps de repos.

- La phase de *réhabilitation* implique plus largement les spécialistes, restaurateurs en particulier. Cette phase de réhabilitation se déroule en plusieurs phases : sécurisation et réhabilitation du bâtiment, tri et traitement par phase des documents endommagés, réintégration des documents traités, modification et amélioration du plan d'urgence d'après les leçons tirées du sinistre. Une attention particulière doit être portée à cette phase, l'expérience ayant montré qu'elle pouvait s'avérer plus dange-reuse que le sinistre lui-même.

Tout au long de ce séminaire l'accent a été mis sur la pré-vention. Si la plupart des établissements n'ont pas à craindre de catastrophes majeures ou de conflits armés ils doivent néanmoins être prêts à réagir face aux sinistres mineurs et récurrents (incendies, inondations etc...) ou aux situations inattendues. La menace d'actions terroristes ou de simple malveillance est mal-heureusement toujours présente. Si les catastrophes, de quelque nature qu'elles soient, ne peuvent pas toujours être évitées, on peut et l'on doit essayer de minimiser leur impact. Il importe donc de répertorier au préalable les risques éventuels.

Facteur essentiel de la prévention, la coopération doit être planifiée et effective à tous les niveaux :

- entre institutions soeurs, musées, bibliothèques, archives,
- entre institutions culturelles, protection civile et armée,
- entre services à l'intérieur d'une même institution,
- ainsi qu'avec la société civile et en particulier les entre-prises susceptibles de fournir très rapidement matériels ou équipements d'urgence.

Faire de la prévention et coopérer sont des stratégies qui ne peuvent se mettre réellement en place que lorsque la sensibilisation aux risques a été suffisante. D'où l'importance de collec-ter le maximum d'informations lorsqu'un sinistre a lieu et de les diffuser. Les photos, vidéos et constats sont d'une grande utilité. La sensibilisation se fera également par la formation : dans le programme des écoles de professionnels du patrimoine, auprès de la protection civile et des armées, au sein des institutions elles-mêmes et si possible auprès des volontaires.

IV La Convention de La Haye

La *Convention de La Haye* de 1954 pour la protection des biens culturels en cas de conflit armé a fait l'objet d'une inter-vention importante au cours de laquelle certains points ont été explicités :

- La notion de respect du patrimoine culturel implique que les établissements culturels ne doivent pas être utilisés à des fins militaires et ne doivent pas en conséquence constituer des cibles militaires.
- La notion de nécessité militaire exclut le pillage, le vol et le vandalisme.
- La notion de protection spéciale concerne à la fois les biens meubles et immeubles. La protection spéciale (500 m neutralisés tout autour du bâtiment à protéger) n'a

Blue Shield Seminar on the Protection of Cultural Heritage in Emergencies and Exceptional Situations

Radenci, Slovenia, November 12-16, 1998

The ICBS (International Committee of the Blue Shield) was created in 1996 by the following non-governmental organisations, ICA (International Council on Archives), ICOM (International Council of Museums), ICOMOS (International Council on Monuments and Sites), IFLA (International Federation of Library Associations and Institutions) to collect and disseminate information and to co-ordinate action in emergency situations, its missions being to protect and safeguard cultural heritage according to The Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict.

ICBS has participated to various conferences for the revision of The Hague Convention (Paris, Vienne, The Hague) and has organised a meeting on the situation of Afghan cultural heritage.

The Radenci Seminar was the first attempt of ICBS to join efforts for the establishment of a common strategy.

The seminar organised jointly by ICBS, IIAS (International Institute of Archival Sciences in Maribor, Slovenia) and the Regional Archives of Maribor, with the support of UNESCO, gathered thirty-one participants from ten countries (Belgium, Bosnia Herzegovina, Croatia, France, Hungary, The Netherlands, Poland, Slovenia and Sweden) and took place in Radenci, Slove-nia, November 12-16, 1998.

All through the seminar the necessity of taking preventive measures and of having a written disaster plan was underlined, together with the need of a strong cooperation between the dif-ferent actors of the response and recovery team (including the Army and the Civil Defence).

Some aspects of The Hague Convention like military neces-sity and the special protection were discussed and the mark up of monuments with the Blue Shield emblem was diversely appreciated by participants.

A declaration on the protection of cultural heritage was approved by the participants at the end of the seminar.

The participants in the seminar resolved to:

- adopt the Radenci declaration on the protection of cultural heritage in natural and human made situations;
- take all steps in their power to publicise the declaration and to implement its recommendations in their own coun-tries and institutions;
- further take all necessary steps to raise awareness of the 1954 Hague Convention for the Protection of Cultural Prop-erty in the Event of Armed Conflict and other internatio-nal conventions for the protection, safeguard and respect of cultural heritage adopted under the auspices of UNESCO;
- request the four non-governmental organisations: ICA, ICOM, ICOMOS and IFLA to communicate the declaration to the Director General of UNESCO and to ensure its wide dissemination.

The Radenci Declaration on the Protection of Cultural Heritage in Emergencies and Exceptional Situations

On the initiative of the International Committee of the Blue Shield (ICBS) with the participation and support of UNESCO, a seminar was held in Radenci, Slovenia, 12-16 November 1998. Representatives of UNESCO, and of the four non-governmental organisations that constitute the ICBS: the International Council on Archives (ICA), the International Council of Museums (ICOM), the International Council of Monuments and Sites (ICO-MOS) and the International Federation of Library Associations and Institutions (IFLA) took part, together with delegates from



The Radenci Seminar Organizing Committee

left to right: Patrick Boylan ICOM, George Mackenzie ICA, Miroslav Novak Archives of Maribor, Marie-Thérèse Varlamoff IFLA, Zdenka Semlic Archives of Maribor, General Lars Wahlgren Sweden, Dinu Bumbaru ICOMOS

été jusqu'ici accordée qu'à 6 sites dans 4 pays (Autriche, Allemagne, Pays-Bas, OAC).

Parmi les points faibles de la convention :

- l'absence d'instrument institutionnel pour superviser l'application de la convention ;
- l'impossibilité d'appliquer la convention au cours des conflits non internationaux ;
- l'impossibilité de sanctionner les contrevenants.

La révision de la convention a commencé en 1992. Le nouvel instrument propose :

- une meilleure diffusion de la notion de nécessité militaire,
- la création d'un comité intergouvernemental pour l'application de la convention

V L'emblème du CIBB sur les monuments à protéger?



Il y a les pour et les contre, chacun se prévalant d'arguments convaincants. L'UNESCO est pour mais les militaires s'en méfient beaucoup et le considèrent comme excessivement dangereux s'il n'y a pas d'accord préalable entre les parties en conflit et en particulier lors de conflits ethniques.

VI Le rôle du CIBB

A l'issue du séminaire les participants ont décidé :

- d'adopter la déclaration de Radenci sur la protection du patrimoine culturel en cas de désastres naturels ou provoqués par l'homme ;
- de prendre toutes les mesures nécessaires pour faire connaître la Convention de La Haye de 1954 sur la protection du patrimoine culturel en cas de conflit armé ainsi que les autres conventions internationales pour la protection, la sauvegarde et le respect du patrimoine culturel adoptés sous les auspices de l'UNESCO ;

- de demander aux quatre organisations non-gouvernementales CIA, ICOM, ICOMOS et IFLA de communiquer la déclaration au Directeur général de l'UNESCO et d'en assurer largement la diffusion ;

Les actions suivantes ont été soulignées comme prioritaires:

- établir des comités nationaux du Bouclier Bleu
- constituer des équipes d'experts et de spécialistes
- documenter les catastrophes et constituer des bases de données
- faire appliquer la Convention de La Haye grâce à la constitution de comités nationaux du CIBB.

VII La Déclaration de Radenci sur la protection du patrimoine culturel en cas d'urgence et dans les situations exceptionnelles

A l'initiative du Comité International du Bouclier Bleu (CIBB), avec le concours de l'UNESCO, un séminaire s'est tenu à Radenci, Slovénie, du 12 au 16 novembre 1998. Des représentants de l'UNESCO et des quatre organisations non-gouvernementales constitutives du CIBB : le Conseil International des Archives (CIA), le Conseil International des Musées (ICOM), le Conseil International des Monuments et des Sites (ICOMOS), la Fédération Internationale des Associations de Bibliothécaires et des Bibliothèques (IFLA) y ont participé ainsi que des délégués d'institutions culturelles des pays suivants : Belgique, Bosnie Herzégovine, Croatie, France, Hongrie, Italie, Pays-Bas, Pologne, Slovénie et Suède.

Les participants ayant pris note des lourdes pertes subies ces dernières années par le patrimoine culturel lors de conflits armés et de catastrophes naturelles ainsi que des efforts entrepris au niveau international pour prévenir de telles pertes ont examiné les expériences menées dans des pays et contextes différents pour réduire ces pertes et réagir contre les catastrophes.

Ils se sont mis d'accord sur les principes suivants :

1. Le patrimoine culturel comprend à la fois des biens meubles et immeubles : sa perte nous concerne tous et sa protection, sa sauvegarde et son respect – en temps normal comme lors de situations exceptionnelles – doivent s'inscrire dans les politiques et programmes au niveau international, national, régional et local.
2. Toute institution ayant en charge le patrimoine culturel et toutes les autorités qui en sont responsables devraient intégrer la gestion et la prévention des désastres dans les opérations visant à éviter sa perte ou sa détérioration en temps normal comme en situation exceptionnelle.
3. Le but est d'éviter la perte ou la dégradation du patrimoine culturel en situation d'urgence en améliorant les mesures préventives, le plan d'urgence, l'intervention et la remise en état. Pour y parvenir, il convient de développer, de mettre en oeuvre et d'assurer le suivi de stratégies qui :
 - évaluent et réduisent les risques,
 - améliorent la capacité d'intervention,
 - assurent la coopération de toutes les parties concernées par la gestion des situations d'urgence au niveau local, national et international.

De telles stratégies peuvent être appliquées en utilisant des tactiques ayant pour forme des politiques et des programmes généraux visant à :

- réunir les parties pour former des réseaux durables,
- établir et mettre à jour des plans d'urgence indiquant clairement les besoins et les priorités,
- élaborer des programmes pour disséminer l'information au grand public et aux décideurs,
- former le personnel et développer son savoir-faire.

Plus spécifiquement, afin de parvenir au but principal et d'appliquer les principales stratégies on peut adapter et mettre en oeuvre les actions suivantes :

- s'assurer des financements nécessaires ainsi que des autres ressources ;
 - établir avec les institutions soeurs des accords de coopération concernant le personnel, les équipements spécifiques et les zones de repli temporaires ;
 - développer de bonnes relations de travail avec les services d'urgence ;
 - maintenir le personnel informé par exemple par le biais de manuels de procédures d'urgence et d'inventaires des ressources internes et extérieures ;
 - organiser en association avec ses partenaires des séances de formation régulières comportant des exercices et des simulations de procédures d'urgence ;
 - mettre sur pied entre partenaires des comités de liaison mixtes ;
 - faire un inventaire détaillé et précis des fonds de l'institution, de leur valeur et de leur localisation sans oublier de stocker ailleurs les exemplaires de sécurité ;
 - rassembler les équipements et les ressources spécifiques pour assurer la sécurité en cas d'urgence ;
 - promouvoir l'adoption et la mise en oeuvre des conventions internationales concernant le patrimoine culturel ;
 - développer à l'aide de manuels et d'outils de formation le savoir-faire des personnes intervenant en cas de catastrophes ;
 - développer un réseau de volontaires en faisant appel à la diversité de leurs qualifications.
4. Considérant le cas particulier des conflits armés, les participants ont reconnu la valeur des principes de base de sauvegarde et de respect du patrimoine culturel tels qu'ils est formulé dans la Convention de La Haye et dans des autres conventions pour la protection du patrimoine culturel adoptées sous les auspices de l'UNESCO ainsi que la valeur des mesures de prévention telles que la préparation d'inventaires, le développement et la mise en oeuvre des mesures techniques appropriées et l'adoption de législations et de politiques nationales.
- Les participants encouragés par l'exemple de pays participants et d'autres pays comme le Sri Lanka se sont en outre mis d'accord pour continuer à partager leurs expériences et à coopérer dans le contexte du Comité International du Bouclier Bleu pour développer des initiatives à l'échelon national, régional et local visant à éviter la perte du patrimoine culturel.

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cultural heritage organisations in the following countries: Belgium, Bosnia and Herzegovina, Croatia, France, Hungary, Italy, Netherlands, Poland, Slovenia and Sweden.

The participants, noting the great loss of cultural heritage in recent years due to armed conflicts and natural disasters and international efforts made to prevent such losses, examined experiences of mitigation and response in different countries and contexts, agreed on the following principles:

1. Cultural heritage embraces both moveable and immovable property. Its loss is a concern to all and its protection, safeguard and respect –in normal and exceptional situations– must be included in policies and programmes at international, national, regional and local levels.

2. All institutions caring for the cultural heritage, and all authorities responsible for it, should integrate risk preparedness and management within their operations to avoid loss or damage in both normal and exceptional times.

3. The goal is to avoid loss or damage to cultural heritage in the event of emergencies by improving prevention, preparedness, response and recovery measures. It is achieved by developing, implementing and monitoring strategies which:

- assess and reduce risk
- improve response capacity
- ensure co-operation of all relevant parties in local, national and international emergency management.

Such strategies can be achieved by tactics in the form of general policies and programmes aiming at:

- linking parties to form durable networks ;
- establishing and updating emergency plans with clear needs and priorities ;
- drawing up programmes for dissemination of information to the general public and to decision makers ;
- training personnel and developing their skills.

Specifically, means such as the following can be adapted and implemented to achieve the main goal and realise the main strategies:

- ensuring appropriate funding and other resources ;
- establishing collaborative agreements with related institutions covering such areas as personnel, specialised equipment, temporary refuges ;
- developing good working relationships with emergency services;
- producing information, such as manuals of emergency procedures and inventories of internal and external resources ;
- carrying out regular training sessions including exercises and drills of emergency procedures in association with partners ;
- setting up joint liaison committees with partners ;
- ensuring adequate inventories and documentation of the institution's holdings, including remote back up copies ;
- providing adequate safety and specialised emergency equipment and supplies ;
- promoting the adoption and implementation of international conventions on cultural heritage ;
- developing the skills of people intervening in response to disasters by producing training materials and tools ;
- developing voluntary support networks, drawing upon diverse competencies.

4. With regard to the particular case of armed conflicts, the participants recognised the value of the basic principles of safeguard and respect for cultural heritage as embodied in The Hague Convention of 1954 and other conventions for the protection of cultural heritage adopted under the auspices of UNESCO, including precautionary measures such as the preparation of inventories, development and implementation of appropriate technical measures, and the adoption of national legislation and policies.

The participants, encouraged by the examples of participating countries and others such as Sri Lanka further agreed to continue to share experiences and to co-operate in the context of the International Committee of the Blue Shield to develop national, regional and local initiatives to avoid loss of cultural heritage.

Adopted in Radenci, Slovenia, on 16 November, 1998

9th Symposium on Preservation at the National Diet Library

Tokyo, November 24, 1998

On a fine day in late autumn 1998, the National Diet Library of Japan hosted the Ninth Symposium on Preservation, organised by the Preservation Planning Office which is also the IFLA PAC Regional Centre for Asia.

The theme of the conference was "Preservation of electronic information: what should we be thinking about now?" An audience of approximately 135 delegates, including the Librarian of the National Diet Library, **Mr M. Tobari** and the Deputy Librarian, **Mr M. Miyawaki**, heard seven speakers discuss electronic library developments and the preservation of digital information.

Speakers came from faculty, library science and information technology areas of three Japanese universities, from a major Japanese publishing house, and from the National Diet Library. The keynote address was presented by **Colin Webb**, Manager of Information Preservation at the National Library of Australia.

Mr Webb talked about the approach to digital preservation in Australia, focusing mainly on online publications and those issued on physical media such as CD-ROM and floppy disk. Over a period of about 10 years there had been considerable progress but many issues still had to be resolved. (See the article)

Following the keynote address, **Professor K. Oyama** of the National Center for Science Information Systems (NACSIS) Inter-university Research Institute, discussed the work of the Institute, their experience in creating and providing access to digital information, and the useful role of standardised formats in prolonging accessibility. He pointed to the need to think about preserving the tools of access, such as indexing software, as well as the data itself.

Ms A. Mori of the Library Information University spoke of a wide range of electronic library projects in Japanese universities, and of the need for cooperative arrangements that would provide a backup should one institution's archiving role fail.

Mr K. Maeda, President of the Sanshusha Publishing Company, raised the issue of copyright as of crucial importance to publishers. He also noted the potential by passing of libraries when users and publishers can deal with each other directly. His presentation surveyed the rapid progress of technology changes since the 1930s.

Professor Ueda of the Literature Department of the Keio University, questioned whether there is really a case for preserving the huge volumes of electronic information in existence and spoke of a number of government initiatives in Japan attempting to define criteria for data which would make them preservable if they could be achieved.

Ms K. Nakajima, Planning Coordinator of the National Diet Library's Kansai-kan Project, spoke of the work of a committee set up in May 1998 at the National Diet Library to look at preservation of digital publications. The committee set priorities for consideration, looking first at the questions of what should be preserved and at what level, at what is workable today, and at mechanisms for managing copyright and for exploring migration and metadata needs. Longer term, the NDL would seek to promote research and development projects, develop policy and preservation strategies, and establish cooperative arrangements with other partners. The Kansai-kan, which will be a focus for electronic library functions, will open in 2002.

Finally, **Mr R. Yonemura**, Director of the Preservation Planning Office of the National Diet Library, summed up what had been a most interesting and enjoyable conference on an important subject, by saying that we must not stop now, but continue to move forward step by step, and called for continued cooperation and support from all interested parties.

Preservation what we

Colin Webb, delivered the following keynote speech at the 9th Symposium on Preservation at the National Diet Library.

What I want to do is to talk about the way we have approached the preservation of digital information in Australia, particularly at our National Library where I work. I will also refer to some developments in Europe and North America. During the course of my visit I will be very interested to hear how other participants are approaching similar problems.

I will start by being specific about how I use the terms "electronic information" and "digital information". It is necessary to make this distinction because I am really going to focus on the latter, and I need to warn you in case some people are disappointed when I do not mention things like analogue sound and video recordings. These are legitimately considered to be electronic information, but they are not digital. While there is overlap in the preservation of digital information and electronic information in general, I believe they are best treated as separate fields that can learn from each other. At the National Library of Australia I am responsible for both areas, but today I want to talk only about digital information and how we preserve it.

I also want to distinguish between three types of digital information of interest to libraries: firstly, online publications generally made available over the Internet; secondly, what we might call physical format digital publications issued on tangible media such as CD-ROM and floppy disk; and thirdly, other digital collections such as the files resulting from digital imaging programs, digital sound files, computer-based record-keeping systems, datasets, and so on. I will be mainly talking about the first two kinds – online and physical format digital publications, because I think that is where the real preservation problems lie for us.

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Preservation - the next challenge

Almost 10 years ago I was working for another national institution in Australia, the National Archives, and I was speaking at a workshop on managing electronic records. The highlight of a rather dull workshop turned out to be a dispute between our IT manager and myself. As the preservation manager, I said the best we could do was to print out the record onto paper or microfilm, while our IT specialist said, in effect: "Don't be stupid! We will manage this like any other computer-based data." I spent the next five years trying to work out which one of us was right. I eventually decided that we were both wrong, but that I was more wrong than he was. Preservation for digital information will require more than normal IT procedures, but it will have to be built around the technology itself. In most cases, a piece of paper just won't do the job!

In some ways we are still caught up in the same kind of debate. We have made great progress over 10 years, and the steps we are taking now will make preservation possible in the future. What we have done so far has been somewhat like building a whole new library system, so it shouldn't dismay us if there are some frustrations. But the next great challenge will be to ensure the digital information we are archiving now remains accessible in the long term. That is a challenge that still contains many uncertainties.

I take it as a sign of genuine progress that we have moved from a general, rather blurred focus on the difficulties to a much sharper focus on how we might deal with quite specific problems. The simple facts are these: we are still trying to deal with many of the problems we already know about, and we are trying to recognise the critical problems ahead of us.

This experience has been reflected in Australia, where many librarians and preservation professionals said even just three or four years ago that digital resources were not worth preserving, and that the task was impossible anyway: where could we even begin? From this we have moved through a range of small beginnings - sometimes deciding to try something even if we couldn't see how to do everything - to a more systematic program of building infrastructure that could support long term preservation as well as current access.

Most of the rest of my talk will be about the various kinds of infrastructure we have been building, and the issues still to be resolved before we can be confident that we will meet our preservation responsibilities.

Infrastructure at the National Library of Australia - PANDORA Project

In 1995 the National Library of Australia set up a small committee to establish guidelines for selecting online publications we would seek to preserve. In 1996, the Library took the next logical step, embarking on a pilot which was later to become known as the PANDORA project. In PANDORA, (which stands

for Preserving and Accessing Networked DOcumentary Resources in Australia), we try to archive the online publications chosen using our selection guidelines.

It is important that I clarify another terminology issue at this point. At the start of PANDORA we talked about preservation, and of course preservation is still part of the PANDORA name, but we have come to recognise that PANDORA is archiving these titles. It is a series of early steps in the preservation process, but it is similar to putting a book in a library building - it is not the end of the preservation story, and there is much more to be done.

PANDORA has been through a number of phases, growing from a small internal team looking at possibilities, to a proof of concept project, and then to a national archiving model that we are now implementing. The project has been widely reported, and there is only time here to give a brief overview. A much more detailed description, and the PANDORA archive itself can be found on the NLA web site.

Pandora's Boxes in the Digital World

Why did the Library get involved with this kind of material? We believed - and still believe - that Australian digital publications should be seen as another information source to be integrated with existing sources. But they are at great risk of being lost if action is not taken. So we believe that we have to provide the pathways for long term access. We also believe libraries are well placed to be the main crystallisation points for digital archiving.

We do not aim to capture all of our nation's digital publications, online or otherwise, unlike some other archiving projects. We believe we can do a better job by being selective, although we respect the views of others who do try to archive a nation's entire online publishing output, such as the National Library of Sweden's Kulturarw project, or the entire global output, such as the Internet Archive.

There are many lessons to be learnt in such an exercise. One lesson we have learned is that things are both easier and harder than they first appear.

At every stage we have had to find concepts and models that simplify what looks like an immensely complex landscape. In PANDORA we have recognised many useful models familiar to us from the print world: models which don't explain everything but do provide us with some help. Collection development policies; classifying and describing information resources; providing access that takes account of copyright; managing risks of loss - these are everyday working concepts from a non-digital context for most of us. In all of these areas, we have been able to say: "What we know from the print world is a good starting point". On a journey of a thousand miles, formulating basic principles has helped us to see where we need to go, and given us the will and the courage to go through the front door and to head out towards the horizon.

But PANDORA is made up of many boxes, each one full of decisions and dilemmas that have been with us every step of the way. The bright side of this is that every difficulty addressed is a lesson learnt, helping us to build a workable digital archive based on sound and understandable principles which deal well with the required level of complexity.

In establishing the required concepts and in working with the details, we have relied heavily on modelling - trying to map all the relationships between the processes, the data, database structures, and metadata. For most of 1997 this was our main focus, trying to get it right in a way that would work for a larger archive than the 30 titles that had been taken in already.

In 1998, while continuing to build the archive (which now holds almost 100 titles), we have focused most of our management attention on two areas that will take PANDORA forward, and will strengthen our ability to handle digital information generally. We want to build a better framework in which we can manage our archive effectively and efficiently; and we want to identify the issues where we need to take action and enlist partners who might be interested in taking action with us.

Our technical framework for PANDORA has consisted of a mixture of proprietary software and hardware, open standard tools, and purpose built applications we have developed ourselves. The basic components include:

- a digital object gatherer called Harvest, which only partly meets our needs;
- a Web server ;
- our National Library catalogue using metadata to describe archived objects at title level. Our Web-based OPAC is also the Web interface to the archive;
- we store the archived objects as a hierarchical set of files on an IBM RISC 6000 computer;
- and we use some purpose built programs that give us limited management of the archive.

It has been obvious for some time that we need to improve some of this to cope with the expected size of the archive. We also recognise that digital libraries and archives cannot afford to have unintegrated systems and pockets of storage when their core business is increasingly to provide linked, rapid, and secure access and retrieval. The need to improve the technical infrastructure of PANDORA itself, and the need to improve the way we manage it and our other collections, have both forced us in the direction of a major systems integration project. We call this our Digital Services Project, and we will use it to collect, store, manage, and deliver all kinds of digital objects the Library holds, including sound recordings, pictorial images and text files, as well as the archived online publications. We also want to use it to help us manage physical collections of traditional library materials, as well as the physical format digital publications such as CD-ROMs that we are unable to store within the PANDORA project. Our Digital Services Project will not provide storage for everything, but we hope it can give us management systems for most of our library collections, both digital and non-digital.

We will be taking our documentation for this project to the market place in the next few weeks, looking for proposals that address our needs. We are very committed to sharing information on what we are doing, so our documentation will be made available on our Web site once the Request for Tender has been released.

Information sharing

This provides a good link to our second main preoccupation over the past year. We see information sharing as critically important - we cannot afford to waste effort, so we invest some of our limited time and energy in trying to establish mutually beneficial relationships with other people involved in digital archiving. We have established links with many other libraries and projects overseas. To date we have mainly looked to partners in Europe and North America, which may reflect our poorly developed knowledge of what is happening elsewhere.

What are the issues we should be thinking about now? I want to look at this from two perspectives: the issues involved in building national archives of digital publications, and the issues specifically involved in long term preservation.

Issues in building national archives of digital publications

We have been discussing issues with a number of other national libraries and key projects that we identified as particularly relevant. The issues we have been discussing fall into six areas: collection building, description and control, managing the collection, metadata, organisation and cooperation, and preservation

I want to reflect briefly on each of these, from a preservation perspective.

• Collection Building

Under collection building, there are some important issues about how best to get publications into the archive. But there is an even more fundamental question: what is the archive? In an online environment, do we have to move bits and bytes to a particular location, or can we simply leave things where they are and point to them?

While we believe there is potential to have de-centralised archives - a model we are in fact exploring in Australia, as I will describe shortly - we are convinced that most digital objects will have to be moved to archiving sites offering greater ongoing security than the publisher's Web site can usually offer.

So "collecting" online publications becomes a process of discovering what is being published, registering it in some way, and moving a copy to where it can be preserved. This raises a number of technical, organisational and legal or ethical questions.

What technology can we use to capture online publications residing on remote servers? We are using indexing software as a robot to search the Web and make copies in accordance with specific instructions. It is a difficult process with imperfect tools, and we would like to improve the tools we use for it.

• Description and Control

Of course, another approach would be to make arrangements with publishers to "push" their publications to the archive, rather than us having to "pull" the publication from their site. This approach is gaining favour in Europe, with agreements between various libraries and major academic publishers, such as in the NEDLIB project - the Networked European Deposit Library, a consortium of nine European national libraries, a national archive, and three large publishers,

all coordinated by the Royal Library of the Netherlands. That approach may or may not work with the myriad of smaller publishers populating the Web, although it is conceivable that legal deposit legislation could require publishers of all kinds and sizes to at least register their publications. In Australia we are hoping to have deposit arrangements for digital publications sorted out soon.

At the organisational level, there is a major question about what one should try to collect and preserve. As I have already mentioned, in Australia we have decided to be selective, while some other national libraries, especially in Scandinavia, are trying to archive everything. It requires some hard thinking about what one is trying to achieve, and whether it is achievable.

Of course, copying someone else's publication from their site does raise legal and ethical issues. We have to negotiate the right to do what we have to do; we also have to ensure that the rights of creators, publishers, and so on are not jeopardised by our archiving and access activities.

However the publications become part of the archive, they have to be described and controlled. From a National Library perspective, this raises important issues about the level of control we should apply. Is it good enough to simply make the archive content available to external search engines? We have concluded that we need to include digital publications in our national bibliography, integrated as research resources with the rest of our collections.

Describing digital objects now presents few problems within our cataloguing processes. Cataloguing rules and widely used cataloguing structures such as MARC have evolved, sometimes a little slowly, in response to new requirements.

For online publications we have a pressing need for a reliable system of permanent naming in place of the notoriously unreliable URL. Without a more persistent naming system we will continue to lose hypertext access whenever file locations change. In Australia we have been using a PURL Resolver Service to give permanent names to our own archived copies, but we need a solution that has wider acceptance. That might well be the URN (or Universal Resource Names) being developed and promoted by the Finnish National Library.

• Managing Digital Collection

I must say it is easier to talk about managing a collection of digital publications than it is to actually do it!

For national libraries seeking to maintain an accurate record of a nation's documentary heritage there are issues of version control and authentication. Because techniques such as encryption, time stamping, watermarking and digital signatures are also of vital concern to business interests, it may be that solutions for digital archives will emerge from the commercial sector.

As I have already indicated, we give a high priority to getting the technical framework in place to manage our archive in support our business objectives.

When we seek to manage distributed archives there are further complications. We need to think hard about the trade-offs involved. The task of building and maintaining national collections of digital publications may well be more than single institutions can sustain; on the other hand, cooperative models introduce another layer of complexity and costs. This is an

important practical issue that we are exploring in Australia. Whatever one's view on the advantages and disadvantages of decentralising archiving responsibilities, we have to build something we can manage. Good intentions and fine theories are not enough: preservation will depend on something that works, not on something that should have worked but didn't.

• Metadata

Metadata becomes a vital part of managing digital collections. We have to be able to manage them actively. Somehow we will have to integrate the information we need to preserve these publications with the metadata used to streamline other processes of management and access.

There has been much work on metadata for digital publications, most prominently through the Dublin Core series of meetings, which has been developing a set of core metadata elements principally aimed at facilitating resource discovery - connecting users with useful digital resources.

• Organization and Cooperation

In the preservation community we have different metadata needs, which have been partially addressed by a Research Libraries Group working party on Preservation Issues of Metadata. Earlier this year the working party recommended a set of 16 preservation data elements, which we really need to test over time.

Finally in this broad sweep of national digital archiving issues, there are questions about relationships in whom do we need to bring together? How do we build on the work that is going on in various countries and various sectors?

I have already referred to our decentralised national archiving model in Australia, and I would like to expand on it a little more now. We have decided that someone needs to take a lead, and as the National Library we have taken that role. We also want other players in Australia to take on archiving roles. They will probably include some, although not necessarily all, of the state libraries, some of the university libraries, other collecting institutions, and a few publishers. We don't expect everyone to take the same role, and we don't expect everyone's role to stay the same. There are certain to be changes over time, and some of our partners will only be able to commit themselves to archiving small amounts of information for a few years, not forever. But we still need them to do it, and to do it well. We also need to negotiate agreements with them regarding what happens to their archive when they can maintain it no longer. Despite some early concerns, we are now comfortable with this as a working model, because we think it will reflect reality. Our current national model could be described as a centrally led, but distributed, network of carefully managed but dynamic archiving relationships.

Of course many other models exist for national and transnational action, including the Digital Library Federation of the US, the Canadian Initiative on Digital Libraries (CIDL), the EVA project in Finland, and the NEDLIB project I have already mentioned. There are also some outstanding models for cooperative action within specific sectors, such as the framework for creating and preserving digital archives of the Arts and Humanities Data Service of the higher education sector in the UK.

Libraries particularly need to develop relationships with digital publishers. This relationship can help in promoting intel-

ligent publishing conventions that might make preservation easier, through the use of standard supportable formats, or the transfer of expertise in how the publications are put together. Ultimately, we will also rely on publishers accepting the work we do, because we cannot preserve without copying, which tends to worry publishers.

In digital preservation one can easily get the feeling that development is so rapid one can hardly keep track of it - it was described a few years ago as similar to drinking from a fire hose. And yet at the same time many of the most important issues remain unresolved. This is partly because the material we are trying to deal with keeps changing, so our partially conceived solutions are overtaken before we even get the chance to test them. But it also reflects our failure to learn from each other.

The preservation community has had to step out into a wider research community. In Australia, we had come to think that we knew where to look for answers to our preservation difficulties. In this field of digital preservation it is harder to know who has the expertise to help us. It calls for teams of expertise, good communications, a willingness to try things and a willingness to share honest information about the results. It probably also requires a readiness to look in unlikely places for ideas that might work. A good example of this is the work of the Consultative Committee for Space Data Systems, which has developed a reference model for an Open Archival Information System, which has informed our approach to our Digital Services Project and PANDORA.

An especially important relationship could be one with higher education. Whenever we have asked, we have found a deep level of interest among Australian universities, and on a recent visit to the UK I found a very active research effort under way in many areas relevant to digital preservation. In Australia, if not elsewhere, we have a problem finding the time to establish and maintain relationships with the people doing the kind of research we need.

This is especially so in the area I want to separate out, perhaps artificially, as "preservation".

- **Preservation and pathways for access**

As I have already suggested, the steps involved in identifying, capturing, controlling and managing digital publications all play a critical role in making preservation possible, but of themselves they are insufficient to ensure long term accessibility. There will be a range of threats to digital archives, needing to be addressed routinely and at recurring intervals. If we are going to maintain access we will need to develop and commit to realistic pathways that address the threats.

Many preservation measures will be included in standard IT practice such as the use of secure backups and the development of counter-disaster plans. However, the certainty of future changes in technology demands other responses that we still need to develop and test.

I want to finish this presentation by focusing on the specific preservation issues we are trying to explore. The emphasis here is on physical format publications. We have given them some priority because they are less amenable to the normal IT management processes that will help us with online publications. However, many of the needs I am going to mention here apply to archived online resources as well.

In an ideal world deposit libraries might preserve everything, but operating in an environment of technical and resource constraints means that priorities must be set. Already there are enough indications of difficulty for us to recognise that it may not be possible to preserve access to everything, and that some options will be costly or ineffective for some materials. Libraries in Australia and elsewhere need more information on costs and options to help them decide what is feasible to preserve and how best to do it.

Research agenda

We are currently developing a research agenda in Australia to help us answer those questions. For many issues our main task is to find the people with the answers and listen to them. On the other hand, we also expect that even when we know what is possible we will still have to decide what works best in our own operating environment.

Our agenda is framed around three steps:

Identifying what we already know or believe

Identifying the issues needing to be resolved before we can formulate strategies for preservation, and

Using the research in formulating a national preservation approach.

What do we know already?

I have tried to list the options people turn to when confronted with the digital preservation challenge. We don't have time here to go through the full list of what we know and believe.

If we are going to preserve a physical-format digital publication, what seem to be our options?

Documenting the item and storing it with the hope that some "rescue" technology will make it accessible in the future - this doesn't look very hopeful!

"Refreshing" the item by transferring it to another copy of the same kind of carrier - this can only be a short term answer.

"Transferring" the item to a more stable carrier such as a CD-R or a more highly maintained system such as a backed-up tape archive - this is also only an interim solution.

"Freezing" the item by transferring it to a very stable, probably human readable, form such as print, microfilm, or something like the HD-Rosetta being developed by the Norsam Technologies people at Los Alamos in USA - this will only work for non-interactive items.

"Migrating" the item by copying the data and its supporting software to a currently accessible computer format, (with or without trying to maintain the "look and feel" of the original).

Finding software that will "emulate" the original operating software and make data accessible in a different operating environment.

Migrating the item to a current operating environment, but maintaining a preservation master copy of the data in its original format so it can be emulated when losses through migration become unacceptable.

How to achieve these, how to choose the most cost effective and appropriate combination of them, and whether there are other viable options, are the basic tasks before us.

What we need is issues to research before we can formulate strategies

We need agreed arrangements for recording metadata that will help us preserve publications.

We need cost effective ways of predicting and measuring deterioration rates across collections.

We have to find cost effective ways to predict when changes in technology are likely to make collection material inaccessible.

We need more information on the feasibility of "rescuing" currently inaccessible materials.

Most particularly we need more information on ways of keeping materials accessible:

I) Either by keeping their original access pathways available and operational (what we might call "technology preservation")

In the long-term there is very little merit in a proposition to maintain an archive of hardware and software, but it could be the only strategy available - a bridge, pending the development of more sustainable preservation pathways.

II) Or, by finding or developing software that will emulate the original operating software.

This is known to be a major research focus within Europe and North America. The main difficulties with emulation are likely to be the costs, which may mean that some less widely used formats are judged too expensive to emulate, and the need to develop emulators for the emulators. It is an approach that could be adopted to shift part of the cost burden to the user, which might be a good or bad thing.

III) Or, by migrating publications and their supporting software to each new generation of an operating platform.

This is the strategy the NLA intends to focus its own research efforts on in the near future. There is still much work to be done to test reliable, cost-effective migration procedures. We are particularly interested in liaising closely with the CEDARS project in the UK. CEDARS, running out of the Universities of Leeds, Oxford and Cambridge, aims to test emulation, migration and other approaches. The US-based Council on Library and Information Resources is also playing a very important role. They have commissioned comparative studies on digital preservation strategies by Jeff Rothenberg of the Rand Corporation, and by Cornell University Library. We will be watching with keen interest.

Finally, we need more information on issues in managing preservation. In addition to the questions already posed in this paper, we need to know:

- How can we identify the essential elements of an item that must remain accessible?
- How do we decide the most appropriate preservation path for a particular item - what indicators can we use to guide our decisions?
- How can we test our ability to preserve?

Conclusion

As I said at the start, I believe we have made great progress, but that we are still presented with some unresolved issues. We have solved the short term hardware obsolescence problem by keeping a track of the hardware we need to keep for a time after it has passed out of general use, and by "in-time transfer"

La Conservation des Documents Electroniques : à quoi devrions-nous penser maintenant ?

L'auteur, Colin Webb est responsable de la conservation des documents électroniques à la Bibliothèque Nationale d'Australie.

Bien que des progrès considérables ont été faits concernant la conservation des supports électroniques tels que CD-ROMs et disquettes, beaucoup de difficultés demeurent encore sans solution.

Le projet PANDORA entrepris par la Bibliothèque Nationale d'Australie illustre ce principe clef, à savoir : les documents numérisés doivent être intégrés aux autres sources d'information et non pas être considérés à part. Les bibliothèques qui adopteront une telle politique doivent donc équiper en conséquence afin de pouvoir traiter les documents électroniques sous leurs diverses formes ainsi que les documents traditionnels lorsque c'est moins coûteux. Selon la Bibliothèque Nationale d'Australie, la constitution des collections, la description et le contrôle, la gestion des collections électroniques, les metadata, les questions d'organisation et de coopération et la conservation sont les six domaines où l'information numérique doit être traitée.

La Bibliothèque Nationale d'Australie tâche de rassembler ce qui existe déjà en matière de conservation de l'information numérique et d'identifier les questions restant à résoudre. Ce travail va se développer autour de divers modes de conservation : la migration, l'émulation, l'utilisation de formats stables restant lisibles en dépit des progrès technologiques. Il faut trouver des solutions pour la conservation à long terme.

of data to currently supported hardware. We have largely solved the media instability problem by transferring data to more stable carriers, which we can do without affecting the data content at all. We have solved the problem of Internet instability by archiving publications in projects such as PANDORA. I believe we have also solved a lot of the organisational commitment problem by strongly asserting the role of libraries, especially deposit libraries which should have a much better chance of maintaining commitment and resources than would other players. And we are even coming to grips with the requirements for handling "upgradable" formats, where we can create homogenous bodies of data that can be migrated in bulk, or efficiently accessed by emulation programs. I am not saying that all the problems have been solved on those issues - as I have described in this paper, we have some way to go in proving we can manage all of them - but at least the basic concepts are in place.

What we are still grappling with is the issue of software dependency, especially where publications use customised version of software, or software that may be less widespread. For this we need good solid research that will show us what is possible.

But I am hopeful. At least we no longer believe we can leave it to someone else, saying it's not our business, or hoping it will just happen.

Colin WEBB

Manager of Information Preservation, The National Library of Australia

Preservation at the National Library of Chile



The National Library of Chile.

Although some prior preservation work led to the formation of a specialised department, the Conservation Department of the National Library of Chile was officially created in 1995 thanks to the initiative of the conservator, María Antonieta Palma.

First Steps

An important step in the development of conservation practices at the Library was the visit of the head of Conservation from the National Library of Paris, Jean Marie Arnoult, in 1988, financed by the French Government. Based on his visit, Mr. Arnoult recommended the formation of a specialised Conservation Department. Thus, in 1991 selected staff members were trained in Chile, USA and Venezuela, and ever since a general conservation training course has been also offered to the staff at the National Library.

In 1993, the Japanese Government donated microfilming equipment to the Library allowing it to institute its first microfilming programme, microfilming of periodicals was the top priority due both to their poor state of conservation and the urgent need to provide copies for the readers' use. The microfilming unit became a part of the Department of Conservation in 1995.

In order to speed up the microfilming process, the workload was shared with private companies, who under the supervision of the National Library staff, helped complete the project.

The infrastructure and equipment in the conservation laboratory was gradually increased and improved until eventually it could be used for the first "Conservation of Paper in Archives" course, organised by ICCROM and the National Centre for Restoration and Conservation of Chile, which took place in October – November, 1994.

Sala Medina Project

In 1995, we started the preparations for an important project aiming to conserve and place on-line the most valuable collection at the National Library, the Sala Medina Collection. This collection contains the most important bibliographic material from the colonial period in Hispanic America, including first prints of the region and other works that deal with the American continent. This collection was created by the illustrious bibliophile José Toribio Medina who donated it to the National Library in 1929. Preparations for this project included training staff to execute the conservation work.

The Medina project started in 1996 with financing from the National Directorate of Libraries, Archives and Museums (DIBAM) as well as other private foundations and enterprises. It had the following conservation objectives:

1. Design and implement a programme on preservation and conservation for the collections to ensure their continuous existence;
2. Facilitate the copying or transferring of prints to other mediums without damaging the originals;
3. Train technicians and teams of professionals to work on that project and other collections at the National Library.

The work undertaken was devised in a number of different programmes.

Conservation and Restoration

Conservation and restoration of books, documents, geographic maps and other plans. Conservation treatment on all the books in the Bibliographic Museum (representing the most valuable books at the Library), re-housing of these books in a reconditioned vault, similar work on the most valuable books in the Medina Collection including cleaning prophylactics and an extensive diagnostic report. The most valuable geographic maps were selected for restoration; the remaining maps received general conservation treatments and were re-housed. Similar treatments were carried out on historic proclamations and the first American prints.

I. Microfilming:

In 1998 the microfilming of the manuscripts of the Sala Medina Collection was completed in the microfilming workshop of the National Library.

II. Conservation of Photographs:

The photographic collections of the Sala Medina and the National Library were catalogued and stored in special containers.

III. Air-conditioning and security systems were installed for the rooms that house the Sala Medina Collection.

IV. Digitisation:

Digitisation of the geographic maps and charts is a part of a pilot project to reproduce 146 works in colour with a back up in CD form.



Sala Medina.

The first stage of the Sala Medina Project was finished at the end of 1998. With assistance from The Andrew W. Mellon Foundation, continued conservation of the documents in manuscript form will be carried on through 1999.

In 1991, further training at the National Library was received thanks to a visit by a restorer from the National Library of France. Financed jointly by the French Government and the European Economic Community, this visitor offered staffers a specialised course in restoring bindings.

The Sala Medina Project signifies an important first step towards conserving the collections at the National Library. It has had a positive impact on the staff, who has now started to design their own projects in collaboration with the Department of Conservation. These projects are aimed at providing better environmental, preservation and restoration conditions for bibliographic material and other documents of cultural significance.

There is a need to work with other organisations so as to maximise resources in terms of equipment, finances and manpower, therefore, the Library has initiated talks with a number of companies who currently produce periodicals with a view towards carrying out co-operative microfilming. The need to continue this work was made abundantly clear at the First Seminar on the Relative Advantages of Microfilming as opposed to those of Digitisation, which took place in August 1997. Representatives from both public and private institutions, that are actually involved in carrying out these processes attended this seminar.

MARIA ANTONIETA PALMA

Chief of Preservation, Conservation and Microfilming

Préservation à la Bibliothèque Nationale du Chili

A l'initiative de la restauratrice Maria Antonieta Palma, le Département de la Conservation de la Bibliothèque Nationale du Chili a été créé en 1995. Après la visite en 1988 de Jean-Marie Arnoult, conservateur en chef à la Bibliothèque Nationale, il a été décidé d'organiser la formation de spécialistes pour le Département de la Conservation.

En 1993, le gouvernement du Japon a offert à la Bibliothèque un équipement permettant d'entreprendre un programme de microfilmage, avec pour priorité le microfilmage des périodiques.

L'unité de microfilmage devint un service du Département de la Conservation en 1995.

La plus précieuse des collections du Chili, la Sala Medina, comportant des données bibliographiques et d'autres documents rares de l'époque coloniale, avait besoin d'être restaurée. Le projet Medina a démarré en 1996, d'où la nécessité de former le personnel à la conservation. Les objectifs étaient les suivants : création et mise en oeuvre d'un programme de conservation; élaboration d'un système de transfert des imprimés sur un autre support sans les endommager; formation d'une équipe de professionnels qui puissent travailler sur les divers projets de conservation.

La plupart des livres du Musée Bibliographique et les livres rares de la Collection Medina ont été traités et un rapport d'état a été établi.

Le microfilmage de la Collection Medina s'est terminé en 1998. Les photographies de cette collection ont été placées dans des boîtes spéciales, un système d'alarme et l'air conditionné ont été installés. Un des projets est de numériser 146 ouvrages.

En 1997 un restaurateur de la Bibliothèque Nationale de France est venu enseigner un cours sur la reliure.

Le projet Medina a été un premier pas en faveur de la conservation des collections de la Bibliothèque Nationale et a permis au personnel d'entreprendre d'autres programmes de conservation.

Lors du premier séminaire sur les avantages du microfilmage par rapport à la numérisation, la Bibliothèque a négocié avec des éditeurs de périodiques la possibilité de collaborer en matière de microfilmage.



Preservation, Conservation and Microfilming Department.

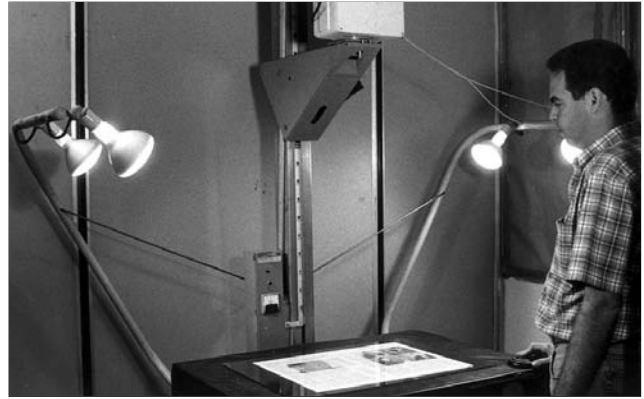
Microfilming at the National Library of Venezuela as an Element for a Document

In 1977, the National Library of Venezuela became, after several years of intense efforts in assessing the country's needs in the fields of information, collections and services, the first major library in South America to achieve the administrative control of its programmes and budget. This was after the enactment of the law that gave it the status of an autonomous governmental institution. This Act also assigned it the mandates of preserving the documentary and audiovisual memory of the country and of issuing and endorsing the standards for the National Library System.

At the time, the National Library planned a conservation center and purchased its first restoration and microfilming equipment. That same year, the specialist in conservation A. E. Werner, during UNESCO mission, while in charge of studying the possibilities of creating a Cultural Patrimony Conservation Center (with the joint efforts of Simon Bolivar University and the National Council for Culture), identified the plans and the conservation services of the National Library as being the most advanced of all.

Preliminary steps in microfilming

The National Library has always valued its collection of official publications (i.e. governmental publications, monographs or serials), unique in the country, and the relevance of its serial holdings as an immediate source of information and testimony of ideas that influenced the socioeconomic processes and, in many cases, as the sole chronological registry of important historical events. These publications, given the brittleness of their support caused by the lack of adequate environmental and storage conditions, were subject to high deterioration risks. That is why in 1977, aware of the insufficient operating capacity at the moment, the Library ordered the Computer Output Microfilm company (COM) to microfilm the *Gaceta Oficial de Venezuela*, the *Yearly Reports of Ministers* (1834-1950) and the newspaper *El Universal* (Caracas). The product did not comply with the quality control demanded and was rejected, but in 1978-79, the library bought two new cameras from COM, which reinforced its potential capacities. In 1980, the personnel of the Micrography Department upgraded their professional skills, and the conservation of Venezuelan newspapers from the 19th century by microfilming had started. Simultaneously, the most consulted contemporary newspapers were microfilmed so as to preserve their content before their natural deterioration would begin. So far, preservation microfilming has developed at an average rate of 400,000 microfilmed pages per year (archival quality master-negatives masters) and 800,000 duplicated pages.



Strategies for Development

The achievement of this plan has not been easy, but the National Library has always kept a policy of strategic alliances in order to attain its objectives by obtaining or sharing resources with the following institutions:

1. **Public institutions:** In order to microfilm its own collections, the National Academy of History installed a camera in the National Library premises. In 1988 an agreement was reached with the Library of Congress, Washington D.C., by which L.C. provided the National Library with film in exchange for positive film copy of the newspaper *El Diario de Caracas*; the microfilming is realized by the National Library.
2. **Newspaper editing companies:** a camera was installed in the premises of the *El Empulso* newspaper (Barquisimeto), so as to microfilm it up to the 1952. Recently, the Central Public Library of the state of Carabobo purchased a camera and installed it in *El Carabobeno* (Valencia) for microfilming this and other state newspapers by the photographers from both institutions, trained by the National Library.
3. **International organizations:** after the presentation of a new project, which included information on spatial, staff and budgetary resources, in 1997 the Japanese Government donated among other equipment, three new cameras, two automatic printing machines to the National Library to improve and expand the operating infrastructure of the Micrography Division. With this contribution, production will increase by 50%.

al Library of Venezuela ntary Preservation Policy



Operational Decentralization

In 1987, implementing the Rescue Project of the Venezuelan Regional Newspapers, the National Library and the Public Library Network Coordinations in every state, started an exhaustive inventory and diagnosis of the holdings of Venezuelan newspapers from the 19th century to the first half of the 20th century that exist in other institutions and private collections in Caracas and other cities. This new phase was based on a wide view of the purposes of microfilming:

1. Microfilming as a means of acquisition would allow adding to the National Periodicals and Journals Library titles of which printed originals were missing at the National Library.
2. Transfer of technical know-how to the staff of the Public Library Network.
3. Every region was provided with microfilms of all the newspapers printed in its area since the 19th century, thus enriching the local documentary heritage.

Because of the insufficiency of the equipment, the National Library from the beginning adopted the modality of itinerant cameras: there are two cameras temporary installed in a State Public Library which, once the local newspapers are microfilmed are moved to another city. Nevertheless, the wealth of the documentary legacy of the 19th century, safeguarded in newspapers, books and in other formats (e.g. photographs) of the Tulio Cordero Library in the city of Merida, has required the installation of a permanent camera since 1987. Up to now, 3,994 titles have been microfilmed, 73% of the 5,448 inventoried in Caracas and this in twelve states out of 23. Nine of the state central public libraries have been provided with positive film copies of local newspapers. The value of the recovery of this information for local researches can hardly be estimated; for example, the Central Public Library of the State of Lara had only

3 printed local titles in hard copy, and now holds 334 microfilmed titles of its local newspapers.

This year the National Library will create the first Regional Microfilming Center by providing the Febres Cordero Library with laboratory equipment for the production of master-negatives. Later, it will be provided with a microfilm reel developing and printing machine, so that it could produce both duplicates and negatives copies. This center will cover the west of the country: the regions of the Andes, the Lanos and the State of Zulia.

Centralization of Information at the National Level

Initially, the records were kept manually using a card index. But since 1991 we have adopted the MARC format for the cataloging of this type of material; the Microform database was created by NOTIS (Northwestern - On Line - Information System) software.

The growth of this database went on slowly, since there was only one person for processing and recording. The content of the database referred at the first stage to the holdings of the National Library. Then, the records from other Venezuelan institutions, such as the National Academy of History, Andres Bello Catholic University, John Boulton Foundation and the National Central Archives were included.

Integration and Dissemination of Information at the International Level

In 1994, Mr. Hans Rutimann, on behalf of the Commission on Preservation and Access, Washington D.C., and the National Library of Venezuela submitted a proposal for the development of a Latin America Microfilms database within the framework of the Association of Ibero-American National Libraries (ABINIA). This initiative was approved. On June the 7th 1995, the Commission and the National Library signed the contract.

From 1995, besides continuing with the microfilming and developing of the database of its holdings, the National Library initiated the collection and recording of the microfilm registers by other Latin American countries. The response has been slow and the cataloging level of records uneven, but the project has been arising awareness in the Latin American institutions about the advantages of producing their holdings in microfilms and broadening the access of the researchers to this material.

The database presently includes 22,518 records from the five Venezuelan institutions mentioned above, and from the National Libraries of Chile, Peru, Colombia, Costa Rica, Brazil, the Hispanic Library of Spain and the Simon Bolivar Inter-American University of Panama.

Finally, this information has been included in the European Registry of Microform Masters (EROMM), as a tool for European researches. Eventually, it will be assessed through the Research

Libraries Information Network (RLIN). At present, the microform records from Brazil and Costa Rica are being incorporated to the database in Caracas.

National and International Training

From 1988, the National Library with the founding of the Perez Guerrero Fiduciary Fund, the Embassy of Norway and UNESCO, has given at the premises of the National Conservation Center, yearly courses on conservation, which include the subject "Microfilming: Processing and Control of Visual Quality". The staff of the National Library and other Venezuelan institutions (e.g. the National Art Gallery, the National Academy of History, the Military Historic Museum, Miniseries, State Networks of Public Libraries Coordinations, universities and public companies) as well as of all the countries of Central and South America and the Spanish-speaking Caribbean have participated in these courses. In addition, the National Library gave microfilming workshops in Trinidad-Tobago and Jamaica (1989), Uruguay and Argentina (1991). In 1991 the "Guide for Microfilming Books and Printed Material with Historic Value" was prepared, and is used by several national institutions.

Broadening the Access: From Microfilm to Digital Image

The National Library of Venezuela does not only seek to make it easier for researchers to find the required material, but also to make the information more accessible. Thus, in 1992 a project designed with the help of UNESCO funding, other participating countries and the Andrew W. Mellon Foundation (USA) was submitted to the III General Assembly of ABINIA (Madrid). The project included the following three stages:

- 1) the design of a database for the 19th century Ibero-American newspapers;
- 2) training the countries of the region that may find the microfilming process useful
- 3) digitizing newspapers in order to make them widely known, to aid and stimulate academic research on the birth of Republics in Ibero-America.

In 1997 the National Library purchased the necessary equipment for image digitizing of microfilm and for producing CD-ROMs. So far 12 titles of Venezuelan newspapers have been digitized, and the material sent by Peru and Colombia is being processed. The final product will be a CD-ROM containing the most representative newspapers from Venezuela, Colombia, Ecuador, Peru and Bolivia, which formed the Gran Colombia from 1822 through to 1830.

Microfilming process has thus allowed not only the preservation of the National Library's own holdings, but also the acquisition of new titles and the application of new technologies which widen the access of international researchers to information sources that until recently were available only locally.



Aurelio ALVAREZ
Head Technical Services

Microfilmage à la Bibliothèque Nationale du Venezuela - un élément de la politique de conservation des documents

Devenue en 1977 la plus grande bibliothèque d'Amérique Latine, la Bibliothèque Nationale du Venezuela décide de créer un centre de conservation et achète l'équipement nécessaire à la restauration et au microfilmage.

Les collections de périodiques et de documents officiels étaient menacées de détérioration. La Bibliothèque Nationale commanda à une compagnie privée le microfilmage de la *Gaceta Oficial de Venezuela*, du journal *El Universal* et des rapports annuels des ministres. Puis la bibliothèque acheta à cette compagnie deux caméras. Le personnel du Département de Micrographie améliora ses qualifications professionnelles et commença à microfilmer les journaux du XIX^{ème} siècle. Le rythme de microfilmage est maintenant d'environ 400 000 pages par an.

Pour poursuivre son programme de microfilmage, la Bibliothèque Nationale a eu recours à diverses collaborations : avec des institutions publiques (la Bibliothèque du Congrès fournit la pellicule et reçoit en échange une copie papier des quotidiens).

Afin de pouvoir accroître ses collections de microfilms, la Bibliothèque étendit son action aux périodiques des XIX^{ème} et XX^{ème} siècles existant dans d'autres collections privées et publiques et transmit son expérience au personnel d'autres établissements qui purent ainsi enrichir leurs collections locales (chaque région a reçu des microfilms des journaux locaux depuis le XIX^{ème} siècle).

La participation n'a pas été freinée par le manque d'équipement photographique, car un système d'appareil itinérant fut rapidement adopté.

Cette année, le premier centre régional de microfilmage entièrement équipé sera créé à la Bibliothèque Febres Cordero.

Depuis 1991, une base de données des microfilms a été mise en place incluant des données de la Bibliothèque Nationale du Venezuela, ainsi que d'autres institutions, telles que l'Académie Nationale d'Histoire, les Archives Nationales, etc.

En 1995 on décida de créer une base de données regroupant des microfilms de toute l'Amérique Latine. Elle comporte à présent 22 518 titres, figurant maintenant dans le Registre Européen des Notices de Microformes Mères (EROMM).

La Bibliothèque avec la participation de l'UNESCO, de l'Ambassade de Norvège et de la Fondation Perez Guerrero Fiduciary, organise des ateliers sur le microfilmage et le contrôle qualité ; un guide des ouvrages microfilmés a été publié.

Pour faciliter l'accès à l'information, la Bibliothèque Nationale avec aide de l'UNESCO et de la Fondation Andrew W. Mellon a conclu un projet dont les buts sont les suivants:

- créer une base des données des journaux ibéro-américains du XIX^{ème} siècle ;
- enseigner les techniques de microfilmage aux organismes intéressés ;
- numériser les journaux et stimuler les recherches académiques.

A ce jour, douze journaux vénézuéliens ont déjà été numérisés. Le produit final de ce projet sera un CD-ROM regroupant les journaux les plus représentatifs d'Amérique Latine.

Description of Microfilming Efforts of Public Libraries in China

China National Microfilming Center for Library Resources

During the thousands of years of the existence of the Chinese civilization, a large number of cultural documents have been created. These cultural documents have recorded the evolution of China's history as well as the honours, disgraces, the rise and decline of the Chinese nation. Not only do they represent the precious cultural heritage of China, but also the valuable heritage of the whole world. Most of these cultural codes and records, including precious documents of modern times, are stored in libraries. With the passage of time and the impact of paper deterioration, mould, pests, or human factors, a large number of the documents stored in libraries could no longer be used because of their poor condition and sometimes their very existence is being questioned.

Thus some valuable documents had to be sealed up on shelves. The librarians of the newspaper reading room in the National Library of China collected a full dustpan of crumbled paper per day, which testifies the dilapidation of the old materials. The rescue of priceless documents in jeopardy has become an extremely urgent task.

In 1982, Hu Qiaomu, the state leader in charge of cultural affairs at the time, made a comment on "How to Preserve Properly and Make Full Use of the Archives of Confucian Mansion" reported by Ren Jiyu, director of the National Library of China, in which we can read: "The preservation of archives by means of micrographic processes concerns the preservation of the cultural heritage of our country and is of great significance. The Library Department of the Ministry of Culture, the State Bureau of Relics and the State Bureau of Archives shall make joint efforts to initiate those processes as soon as possible." At the beginning of 1985, the Ministry of Culture approved the report of the Library Department and resolved to set up the Chinese National Microfilming Center for Library Resources and begin the rescue of old documents stored in public libraries.

In 1986, under the unified planning and leadership of the Microfilming Center, 11 public libraries from different provinces and cities, including the National Library of China, Shanghai Library and Nanjing Library, began to microfilm old newspapers, and soon afterwards - rare books and ancient publications. In 1989, old periodicals were included in the microfilming project. At the same time the number of libraries taking part in the project went up to 40 and that of the libraries equipped with microfilming facilities increased to 21. At the end of 1996,

the first phase of the rescue project consisting of microfilming old newspapers and periodicals published before 1949 was basically completed and, after ten years of effort, the rescue task to microfilm rare books and ancient publications saw some success.

"Ten years of effort, hard work and fruitful results, should be highly cherished", such were the praising words of a leading official concerning the microfilming project. This article would give a brief description of our achievements for the past decade.

Achievements of the Rescue Programme

The Rescue Program has saved a huge number of precious documents which were in imminent danger. By the end of 1997, the first phase of the Rescue Program to microfilm three kinds of main documentation was basically achieved, excluding a few libraries, which contributed to the preservation of cultural heritage of the Chinese nation.

Thus we have filmed 3 227 titles of comparatively intact newspapers selected from 7 800 titles of "The Union Catalog of Chinese Newspapers 1833-1949" as well as 13 649 titles selected from 29 000 titles of "The Union Catalog of Chinese Periodicals 1833-1949".

At present, the "Chinese Catalog of Rare Books and Ancient Publications" contains nearly 60 000 titles, 40 000 of which need to be preserved. We have already filmed 27 850 titles.

Having passed the inspection of the China National Microfilming Center for Library Resources, the master negatives of the above-mentioned precious documents conform to the unified standard fixed by the Center. Now, 18 454 films of newspapers, 17 558 films (with additional 4 000 sheets microfiches) of periodicals and 26 798 films of rare books have been put into the National Stacks of Master Negatives, managed by the Center, for permanent storage.

The Rescue Program supplemented the seriously depleted modern serials, which enriched the library collections. Old newspapers and periodicals stored in libraries are very important resources to our country, but many of them are missing. Not only does the incompleteness of these materials signify the loss of information, but also makes permanent preservation impossible. In view of this situation, the Microfilming Center stipulates that all kinds of materials must be sorted and collated; all missing parts must be replenished as far as possible before microfilming, so as to ensure the completeness and continuity

of filmed serials. Although such a stipulation greatly increased the workload and made document collation much more difficult, the missing documents have been complemented.

Shanghai Library has obtained 700 000 pages for its 275 titles of newspapers through document supplementation from public libraries. Some valuable newspapers such as *the News*, the *Divine Land Daily* and the *China Times* have been complemented, the collection now is ten times bigger than the original one.

The National Library has acquired 430 000 pages for its 293 titles of newspapers from other libraries. According to our statistics, the libraries taking part in the Rescue Program have dispatched hundreds of their staff members to the hundreds of document collecting institutions and thus, they have obtained 2 244 000 pages of newspapers and 20 000 editions of periodicals. Nearly 1 200 titles of newspapers and 1 000 titles of periodicals have been complemented to a varying degree during the microfilming of modern serials. It has been proven that the supplementation of the missing documents is of practical and immediate significance to an individual library: the increase of the old documents collection, enrichment of its selection and improvement of their quality. This effort by the public libraries has made a historic contribution to the construction of document resources and the preservation of the precious cultural heritage of our country.

Microfilming as a way of slowing down the aging process

The Rescue Program has provided an effective solution for the safeguarding of information and documents. Preservation of these documents has allowed us to keep records of almost all the unfolding history of human civilization, which has been committed to paper since the invention of papermaking in China by the Western Han Dynasty (B.C.206--A.D.24). With the passage of time, the impact of hydrolysis and oxidization, plus the man-made contributory factors, most of the ancient documents and almost all the modern documents deteriorate and thus, eventually, become unavailable for readers.

How to stop and slow down the deterioration of documents in order to preserve the heritage of human civilization for ever, is a difficult problem faced by libraries all over the world. People usually adopt two kinds of protective measures.

The first one is to improve the storage conditions of documents by vacuum packing, keeping constant temperature and humidity, removing dust and eliminating pests, so as to prolong the life of documents. Some libraries also use the deacidification to avoid the brittling of documents and it is said that the results are satisfactory. But the deacidification can hardly restore the original physical strength of paper and therefore the problem has not been solved. The chemical method of deacidification is harmful to some documents and at present, it is too expensive to be used by our libraries.

The second type of protective measure is the conversion of the information into another medium, for instance, transforming the information from paper onto other media by means of

micrographics and digitization. Original documents could still be preserved continuously, the information transformed onto a new medium remains preserved and could also be used by the readers.

Nowadays micrographics is the most widespread application of regenerative preservation, certainly due to the better stability of microfilm (the polyester base film can be preserved for over 500 years). Duplicated repeatedly, the information on a film can be handed down from one generation to the next, thus achieving the aim of permanent preservation of information. The film produced according to the standards of the China National Microfilming Center for Library Resources can be duplicated for at least four generations and the information on it could be used for more than 2 000 years. Ruling out the archival value of documents, micrographics must be the most effective and economic solution, because besides its lasting value, its production and maintenance is relatively cheap, which saves us endless worries about the upgrade of hardware and software.

With the progress of the Rescue Program, the micrographics has been broadly adopted by public libraries and the gap between our country and the developed countries has been narrowed. Micrographics has been used abroad for over 100 years, but only a few Chinese libraries began to use it in 1930s; it was not until the mid 1980s that the Rescue Program was applied in public libraries and the micrographics was widely accepted as one of the library professions. With the unceasing intensification of reforms and the rapid growth of economic and cultural construction of our country, the need to require new technology for library construction became greater every day. The need for preservation was especially acute in the case of the old Chinese documents - the "cream" of the cultural heritage of our country; these documents were stored under poor conditions for a very long time and most of them were worn and seriously damaged. This situation alarmed the public and drew great attention from the state leaders. The instruction to rescue these priceless documents by means of micrographics opened the new possibilities for microfilming technology, such as their use in the libraries.

Countrywide progress of the Rescue Program

In order to initiate the Rescue Program, in which the government put great financial investment, the China National Microfilming Center for Library Resources established 21 microfilming sites throughout the areas of north-eastern, northern, southern, eastern, middle southern, north-western and south-western China and provided provincial and municipal libraries, who had the intention and ability to join the Program with microfilming equipment. The Center helped ten old libraries to build up microfilm reading rooms and provided them with hundreds of microfilm readers and thousands of reels of microfilm free of charge. The situation when only few privileged libraries could use the micrographics came to an end. Applying micrographics has advanced the collective capacity of Chinese public libraries and narrowed the gap between our country and the developed countries. It is unprecedented in China that so

many libraries on such a large scale, are engaged in the Rescue Program, giving full play to the superiority of micrographics. Facts have proved that without this Rescue Program the development of micrographics in public libraries would not have the scale and speed of today, which would slow down the modernization of public libraries

In the process of microfilming preservation, the China National Microfilming Center for Library Resources and some provincial and municipal libraries jointly published ancient documents with priceless historical value in the form of photolithography. The purpose of this work was to help public libraries to rescue and excavate the rare documents and to provide scholars with valuable materials. It played an important role in preserving and expanding the traditional culture of the Chinese nation and expands cultural exchanges between China and other countries.

At present, the Center is compiling the Collections of Rare Books and Ancient Materials of Chinese Public Libraries and has already published 27 titles of ancient books. In addition, the Center has also published some ancient books on a special subject. The Center's publications of photolithography have drawn great attention and favorable comments from the parties concerned and among academic circles at home and abroad. The State Panel of Publishing Ancient Books has also highly praised this work, which was introduced in a special edition of the Bulletin of Collating and Publishing of Ancient Books released by the Panel in July 1996.

In 1996, the Library Department of the Ministry of Culture held the Annual Conference of the Microfilming Center on the topic of the continuous rescue of the documents and approved the National Microfilming Program of Documentation in Public Libraries 1997-2010. The Program stipulates that in the 13 coming years the Center shall eventually begin to film ordinary ancient books (as opposed to rare books), local annals, revolutionary documents, old documents in minority languages, old documents in foreign languages, rare materials copied from epigraphic inscriptions on ancient bronzes and stone tablets, old maps, old paperbacks as well as newspapers and periodicals published after 1949. According to the requirements of the Program, the Center is planning to devote its major effort to improve access to its microforms, by building up a computerized Bibliographic Database of Master Negatives from the Public Libraries, thus allowing on-line microfilm retrieval. It also plans to create some text databases on special topics and will strive to realize the sharing of library resources at last. Before the year 2010, a number of libraries in possession of microfilm collections with varying characteristics will spread all over the country and will be able to supply the microfilms with substantial contents for their readers. Moreover, the National Stacks of Master Negatives, storing basically integrate collection of precious materials under well controlled conditions will be completed, so as to build a new great wall which saves and preserves the cultural heritage of China.

LI JIAN

Director of the China National Microfilming Center

Lancement du Processus de Microfilmage dans les Bibliothèques Publiques en Chine

La Chine possède d'innombrables collections de documents anciens et modernes dont les conditions de préservation et de conservation ne sont pas toujours adéquates. Une partie des ouvrages précieux est actuellement en péril.

En 1982, une directive pour la préservation des archives préconisant le microfilmage a été lancée.

Créé en 1985, le Centre National Chinois de Microfilmage rassemblant onze bibliothèques publiques commença à microfilmer les vieux journaux, les livres rares et d'autres publications anciennes ; en 1989, les périodiques anciens étaient inclus dans ce projet. La première phase de l'opération consistant à microfilmer les journaux et les périodiques publiés avant 1949 est terminée. Le nombre des bibliothèques impliquées dans le projet a augmenté depuis. Plus de 16 000 titres de journaux et périodiques ont été microfilmés. Sur 60 000 titres au catalogue des livres rares, 40 000 attendent encore leur tour. Les microfiches-mères ont été envoyées dans les Dépôts Nationaux de Négatifs.

Ce Programme de Sauvetage a permis de combler les manques dans les collections de journaux, périodiques, etc., et d'enrichir les collections des bibliothèques. Ainsi 430 000 pages ont été microfilmées pour la Bibliothèque Nationale et 700 000 pour la bibliothèque de Shanghai.

Pour préserver l'héritage culturel d'un pays, deux types de mesures préventives sont souvent adoptées : amélioration des conditions de stockage et désacidification (une méthode coûteuse, qui ne convient pas à tous les documents) ou transfert d'information d'un support à l'autre (microfilmage, numérisation).

La longévité des microfilms explique leur succès dans le domaine de la préservation et de la conservation, car ils peuvent être préservés plus de 500 ans. Le Centre a aidé de nombreuses bibliothèques provinciales et municipales à construire des salles de lecture de microfilms, à s'équiper avec le nécessaire. Avec l'aide de certaines de ces bibliothèques, le Centre Chinois de Microfilmage a édité sous la forme de photogravure (photolithographie) des documents anciens de grande valeur.

En 1996, le Programme de microfilmage des Bibliothèques Publiques pour 1997-2010 a été approuvé : il consiste principalement à microfilmer les livres anciens courants, les annales, les documents anciens en langues étrangères, les cartes, les journaux et périodiques publiés après 1949. Le Centre va concentrer ses efforts sur l'amélioration de l'accès du public aux microfilms en élaborant la base des données des microfiches-mères des bibliothèques publiques. Avant l'an 2010 nombreuses seront les bibliothèques possédant des collections des microfilms.

Preservation - a Challenge for the National Library of Romania

In this article two examples selected among the most critical ones at the National Library of Romania will be illustrated. Adverse conditions will have the worst outcomes for the next 5-10 years since thousands of publications are in the process of severe deterioration, among which there are some unique and outstanding ones.

The National Library of Romania was founded on October 15, 1836 as the first National Library in the history of the Romanian culture. Nowadays, thanks to the magnitude, value and diversity of its collections it is one of the representative institutions of this kind worldwide. At present the collections amount to over 8,950,000 documents and possess an encyclopedic quality - they are composed of different categories of documents: rare materials, newspapers, maps, photographs, slides, microfilms, microfiches, audio and video materials, incunabula, magazines, books, letters, and so on. Thus, users have at their disposal a wide source of information that has been preserved over the centuries in the special collections of Romania's written cultural heritage.

Preservation of the national heritage is a fundamental goal of the National Library of Romania. In 1993 a distinct post for a preservation specialist (today - a General Preservation Supervisor for the whole library's collection) was created, which contributed to the increase in the information and documentation activity in the preservation field.

Unsuitable storage

At present the National Library of Romania (NLR) is suffering the most complex problems in its history. Its collections are spread over 14 storehouses in Bucharest and countrywide. A large part of these stacks is totally unsuitable for book preservation as they have the following drawbacks: collections are placed in old buildings, that have never been renovated or repaired and which have been through at least three major earthquakes since 1940.

Storage buildings have unstable or even broken roofs, rotten plumbing and water supplies, old and unreliable electrical wiring. The space is insufficient and inadequate and does not allow the storage of various collections. For instance, the repositories in Bucharest have a storage capacity of 18,221.3 sq. meters where over 8.9 million documents are housed.

There is no possibility whatsoever of ensuring acceptable environmental conditions: temperature (t) and relative humidity (RH) variations in summer and winter are extremely important: between 0 °C and 27 °C, and 25%-100% RH. The buildings would not be safe in case of earthquake, fire, flood, theft or act of vandalism. They are also infested with mould, microorganisms, insects, and so on. Suitable repositories exist only in the central building of the National Library (except for the basement area) and in the special collections building (again, except for the basement area).

As a direct consequence of the storage crisis, hundreds of cubic meters of publications are doomed to deterioration and permanent damage. The access to periodicals has therefore been limited for the last two or three years, the older collections of serials are stored in floor-to-ceiling heaps in non-operational repositories. The operational ones are overfilled, which causes deterioration of the collection's during re-shelving. In the specially designed rooms, there is no possibility of separating the old books, coming from improper storage areas, so as to put them back in circulation. The working conditions of the personnel in most of these repositories are extremely hard and even represent health hazards.

The main cause of paper damage is due to increased acidity: about 95% of the paper is already highly acidic. Both the central building and the special collections building are located in the center of Bucharest, where the air is saturated with car exhaust gases. Neither of the buildings has air conditioning or filters. Variations in temperature and RH, together with pollution, accelerate the embrittlement process in the already acidic paper.

Collections with a high risk factor

Around three million publications are housed in the largest repository that was hastily set up in 1990. They are stored in the naked-concrete-walled basement of a stadium located behind the "People's House". Unfortunately, the "temporary" character of this repository grew permanent and has lasted up to this date. However, there seems to be some hope for a better change in 1998, so let us hope!

The storage conditions are incredibly unsuitable: the room where collections are stored is in the basement and it is demarcated by wire netting. There are no walls to protect the inner area from weather changes. The ceiling is not air-tight nor water-tight, which increases the risk of heavy flood in rainy weather. Thousands of books are already ruined. RH is over 80% permanently. The air in these catacombs is continuously chemically and physically polluted (by exhaust gases and dust) from the neighboring garages and buildings. In the absence of any shelving, documents are string-bound in packages (some of these are also paper-wrapped, while others are not) that are stored in huge pyramids, increasing the risk of damage in case of flood. Flood damaged books are dried in the same area because there is no adequate space for this operation and due to the lack of ventilation, a high level of humidity is maintained in the whole repository. The initial state of the documents brought in was good or excellent, but adverse environmental conditions ruined them in a very short space of time. The personnel permanently face health hazards and suffer from the low levels of temperature.

The Collection of Romanian and Foreign Manuscripts contains 33,688 documents. It includes old valuable Oriental



The National Library of Romania - the central building.

documents (the Koran in Turkish and Arabic) and Romanian items in Cyrillic such as "Pomelnicul de la Cozia" (The Cozia Diptych), as well as Latin, French, German, Hungarian, Greek and Italian documents. There are also modern manuscript texts of many Romanian writers, among which - Titu Maiorescu, Al. Odobescu, Mircea Eliade, etc., along with foreign writers, such as Maupassant, Heinrich Mann and others. All these treasures are crammed into a 47,25 sq. meter room; the room is not damp or water-infiltrated, but it is a subject to great temperature and RH variations: between 10 and 21 °C and 30%-65% RH within a year. These variations endanger old and modern papers equally and the risk of destruction is hovering over the entire collection. The room is full of furniture, nevertheless this furniture is insufficient for the whole amount of materials and undersized for most of the documents. Stacks are not of appropriate quality nor are they adjustable, hence they cannot be re-dimensioned as required.

During the months of February and March 1997, I personally worked there and attempted to improve the shelving conditions, to clean and dust. I also assessed the state of preservation of the documents and selected the extremely deteriorated ones. I learned that the paper in more than 95% of cases is acidic, 70% of bound manuscripts need complete or partial restoration of their bindings and adequate treatment of the leather or parchment components. Simple measures to increase the RH level have been taken (trays with water on heaters and buckets with water in room corners), unfortunately, the budget does not allow us to buy modern humidifiers.

Solutions for recovery

The only solution for our library collections recovery and preservation is the completion of the new building that has been designed according to current preservation standards and has sufficient room to house all the publications.

Work began in 1986 and continued up to 1989, at that point it was completed by 50%. Only interior work remained to be done and the equipment to be installed. In 1997 special funding was obtained to complete the work in the basement area which has been designed like an air-raid shelter, where a temporary storage facility for the collections mentioned above will be installed.

Although funds from the State are meager, the Library authorities have put considerable effort into improving storage and preservation conditions. Since 1994 the following achievements have been made: repairs in the buildings that house collections (roofs, ceilings, walls, water and electric supplies, etc.); installation of theft-prevention equipment and fire alarms in the special collections building and in the Bathyaneum branch in Alba Iulia; repairs and modernization of the fire-alarm system in the National Library building; acquisition of termohygrographs for repositories and of a mini vacuum cleaner for dusting the books and the furniture; cleaning and re-shelving of the manuscript collection; re-arrangement of the historical archives in customary made boxes for better maintenance; selection and re-binding of currently heavily used books with damaged covers or spines; selection of currently heavily used books in single copy for photocopying in order to repair the original; selection from non-operational repositories of valuable information sources in good preservation condition for their cleaning and reintegration into circulation; protection against light damage thanks to wooden window-protectors, cardboard shutters or cloth drapes; composition and dissemination of specific memos containing conservation guidelines for the personnel working in the reading rooms and repositories, and setting up the training courses; translation of some materials on preservation training from the ECPA and their dissemination among libraries country-wide by means of the National Library publications; sending twice yearly written reports to the highest authorities regarding the state of the collections and the repositories with all the recommended necessary measures to be taken in different cases - completed by the general preservation supervisor.

Recommended actions

Taking into account the overall critical condition of the collections, it is imperative in 1998 to organized preservation activities on new modern basis. With this in view the following steps are suggested:

- 1) the creation of a permanent Preservation Office under the responsibility of a general preservation supervisor;
- 2) the conception of a consistent conservation programme for the collections, based on the expertise of other countries' libraries;
- 3) description of a plan for cleaning, disinfecting, packing and transporting the collections to the new building;
- 4) definition of a prevention disaster programme;



Unsuitable storage.



Shelving conditions improved.

- 5) evaluation of possible application of certain mass techniques, such as mass-deacidification, fumigation, a.s.o;
- 6) implementation of modern techniques, such as digitisation, photocopying, etc.;
- 7) development of fund raising strategies;
- 8) implementation of a training programme in preservation for all library staff, coordinated by the general preservation supervisor;
- 9) preparation and dissemination among the staff of the essential documentation on preservation based on up-to-date European level materials.



Mariana Lucia NESFANTU
General Preservation Supervisor
National Library of Romania

La conservation: un vrai défi pour la Bibliothèque Nationale de Roumanie

Mariana Nesfântu, responsable de la conservation à la Bibliothèque Nationale de Roumanie, illustre ici l'état de détérioration catastrophique dans lequel se trouve la majeure partie des riches collections de la Bibliothèque de Roumanie, qui compte aujourd'hui plus de 8.950.000 exemplaires. La cause principale de cette situation désastreuse est le mauvais état des lieux de stockage. Parmi les 14 magasins de la bibliothèque, la plupart sont totalement inadaptés à la conservation des livres : vieux bâtiments, superficie insuffisante, toitures endommagées, plomberie et électricité vétustes augmentent les risques d'incendie et d'inondation. En outre, il n'existe aucun système de contrôle des conditions climatiques: la température oscille entre 0°C et 27°C et l'humidité entre 25% et 100%. Les documents sont également infestés par la moisissure. Exposés à la pollution, ils souffrent d'un taux d'acidité élevé. Faute d'espace suffisant, les ouvrages sont entassés les uns sur les autres et sont difficiles d'accès.

Face à ces conditions extrêmes, les conservateurs et le personnel de la Bibliothèque Nationale de Roumanie ont uni leur efforts. Depuis 1994 et en attendant l'ouverture du nouveau bâtiment, spécialement conçu pour la conservation des ouvrages, les mesures suivantes en matière de préservation ont été prises :

- réparation des bâtiments anciens hébergeant les collections
- installation d'alarmes (antivol et incendie)
- acquisition de mini-aspirateurs et de termohydrographes
- nettoyage et réorganisation des collections de manuscrits
- restauration et duplication des ouvrages les plus couramment utilisés
- acquisition de volets pour protéger les documents de la lumière
- élaboration et dissémination de notices spécifiques sur les principes de préservation.

Néanmoins, vu l'état critique des collections de la Bibliothèque Nationale de Roumanie, les conservateurs se proposent d'adopter quelques résolutions :

- création d'un Bureau de la Conservation
- élaboration d'un programme de conservation; établissement d'un plan d'évacuation et de transfert des collections dans le nouveau bâtiment
- mise en place de nouvelles techniques, telle la numérisation
- mise au point de programmes de formation sur la conservation pour l'ensemble du personnel
- préparation et dissémination de la documentation sur la conservation tirée des dernières publications européennes.

Directory of digitised collections:

IFLA PAC/UAP project to compile a comprehensive listing of digitised documents held by libraries worldwide

The IFLA Core Programmes for Preservation and Conservation (PAC) and Universal Availability of Publications (UAP) are working together, on behalf of UNESCO, to undertake a survey of digitisation programmes in major cultural institutions, in order to establish a virtual library of digitised collections worldwide.

Many national libraries are now undertaking or planning digitisation programmes for some or all of their major cultural collections, whether this be for preservation purposes or to increase access to the documents. This work is also being carried out by universities and other institutions, since they also hold many important collections and documents. The need to create a worldwide register of important cultural heritage has already been recognised by UNESCO in its Memory of the World programme, which aims to assist countries in digitising documentary heritage which meets the selection criteria for world significance. The two principles of the Memory of the World programme are the preservation of documents and collections, and the improvement in access to them.

In order for UNESCO to fulfil its role as co-ordinator of this Programme, three inventories in the form of regularly updated databases are already being created. These are:

- Lost memory: inventory of library collections and archive holdings which have suffered irreparable destruction since 1900;
- Endangered memory: World list of endangered library collections and archive holdings;
- Inventory of ongoing operations to protect documentary heritage.

Aside from UNESCO's Memory of the World programme, there have been several attempts to record the work being done in the area of digitisation or reformatting of library materials in some countries or in some subject areas. EROMM, the European Register of Microform Masters is an international database containing information about all works which have been reformatted according to agreed technical standards. EROMM prevents duplication of effort by providing information on the existence of a reformatted item and the availability of a service copy. Until recently, EROMM listed only microforms, but there are now plans to extend this to digital documents too. The EU-funded DIEPER project will produce a virtual collection of digitised European periodicals, with similar aims to EROMM. Digitised periodicals will be registered in order to prevent duplication of work, and to facilitate searching via one web site instead of many. There are plans to link the register with JSTOR. Biblioteca Universalis has as its aim the provision of access to the world cultural heritage digitised by libraries. However this project is limited to the G7 countries plus five others, and does not consider the preservation issues surrounding digitised documents.

It is therefore clear that there does not exist a comprehensive worldwide listing of digitised library collections. More and more collections are being digitised in this rapidly growing area, and it is the task of this IFLA project to identify and to list digitised collections of national importance worldwide. The project is being funded by UNESCO and has links to its Memory of the World programme since it will also attempt to identify collections which are of world significance and therefore suitable for inclusion in the Memory of the World register. The dual aims of Memory of the World - the preservation of documents and collections, and the improvement in access to them - coincide with the aims of the two core programmes of IFLA which are jointly undertaking the project: Preservation and Conservation (PAC) and Universal Availability of Publications (UAP).

The Directory of digitised documents will take the form of a freely accessible database on the UNESCO and/or the IFLA websites. It will aim to list digitised library and archive collections of national importance. This means that while national libraries will be targeted in the first instance, the database will be expanded to include collections in university libraries and other institutions, such as archives and museums, since they are also often holders of major national cultural documents.

The project began in 1998 with the distribution of questionnaires to national libraries to gather information on their digitisation programmes. The database will consist of a searchable listing of all the collections, together with clickable links to take the user directly to the website of the digitised collection. Individual items within a collection will not be listed, but it is assumed that detailed information about the contents of each collection will be available from the collection website.

Information is also being collected on the preservation issues surrounding the digitisation of materials. Digital preservation is perhaps one of the most neglected areas in the electronic library arena, with large volumes of data already lost because of lack of knowledge about long-term digital preservation issues. The project will aim to offer some information on how the issue of preservation is being handled by each of the libraries listed.

Further information can be found on the web pages of the IFLA PAC and UAP Core Programmes
at <http://www.ifla.org/VI/4/pac.htm>
or <http://www.ifla.org/VI/2/uap.htm>.

Information about UNESCO's Memory of the World programme can be found
at <http://www.unesco.org/webworld/mdm/index.html>.

For details of how to ensure that your digitisation project is included in the Directory, please send an e-mail to Richard Ebdon at IFLA UAP, richard.ebdon@bl.uk

Expert Meeting of Educators from Library and Archives Schools

Nairobi, Kenya, March 23-25, 1998



Expert Meeting in Nairobi

Front row left to right: Mohamed Idsalah-Morocco, El-Khansa Mkada Zghidi - Tunisia, Nathan Mnjama-Uganda, Marie-Thérèse Varlamoff IFLA-PAC (France), Harry Akussah-Ghana, Dale Peters-South Africa
back row: Bjorn Lindh-ICA (Sweden), Syed Abidi-Uganda, Antoine Tendeng-Senegal, Bunmi Alegbeleye-Nigeria, Henry Kemoni-Kenya, Mary Cocceo-Kenya, Musila Musembi-Kenya

An Expert Meeting of Educators from Library and Archives Schools was organised in Nairobi, Kenya, March 23-25, 1998. The aims of the meeting were to get better acquainted with national specificities, to develop manuals, to make training programmes meet the real needs and to promote publications and exchanges. All through the meeting a constant preoccupation was to develop a realistic programme that could be implemented by developing countries.

The meeting was organised, thanks to a grant from DANIDA and the support of IFLA ALP, by JICPA Secretary General, Musila Musembi, Director of the National Archives of Kenya. Besides IFLA and ICA, nine African countries had sent representatives: Botswana, Ghana, Kenya, Morocco, Nigeria, Uganda, Senegal, South Africa and Tunisia.

All participants were extremely motivated and concerned. Case studies illustrating the situation of preservation and conservation in the library and archives schools curriculum of each country were presented. Despite the existing differences they all agreed that preservation was under represented in all curricula. As long as the situation stays the same it will be difficult if not impossible to raise awareness among professionals (librarians or archivists) and government authorities on the necessity to implement preventive measures. Africa, as a whole, suffers from a lack of staff which impedes each library or archives to have its own preservation specialist or team of

conservators. Consequently all staff members have to take over and need minimum training in the field.

Dale Peters from the University of Natal proposed a working document which was discussed, amended, enriched and finally approved. The final version of this model curriculum represents a good basic programme for persons without any special qualification. Complete and diversified, it is divided in different modules which can be taken and taught separately or together within a university cursus. Module 3, the more practical, is devoted to technicians and should be taught by a conservator.

This model curriculum (including all modules) has been designed for BA students in information sciences, but also suits for constant training and technicians. It should be considered as a compulsory part of a general curriculum. Of course, it can be adapted according to the specificities of each country.

Marie-Thérèse Varlamoff

Preservation and conservation of library and archival materials in Africa: a JICPA model curriculum with a strong component of preventive conservation

Aim: To raise the awareness of librarians, archivists and other information professionals about issues and problems of preservation and conservation, and to prepare them to meet these challenges.

OBJECTIVES

At the end of the course the students should be able to:

1. Appreciate the value of documentary heritage.
2. Understand the nature of documentary materials.
3. Identify the agents of deterioration.
4. Know the application of appropriate methods of storage, handling and preservation of different media.
5. Become familiar with the techniques of protection, reformatting, repair and maintenance of different media.
6. Identify the preservation needs of the institution and the management of an effective preservation programme.

1. INTRODUCTION

Aim: To advance the perceived relevance of preservation of library and archival collections.

- 1.1 The protection and transmission of cultural heritage via orality and documentary evidence.
- 1.2 Definitions and terminology. The history of preservation and conservation. Anecdote and evidence in Africa.
- 1.3 Relevance to library and archive institutions.

The role of preservation in library and archive management.

- 1.4 National and international preservation organisations.

2. NATURE AND DETERIORATION OF DOCUMENTARY MATERIALS

Aim: To relate permanence of materials to curatorial responsibility.

- 2.1 The history of writing and recording media. The nature and quality of materials; concepts of permanence and durability.
- 2.2 Characteristics of paper and other materials used in books and other media: photographic, moving image and sound collections. Book structures. The role of library binding.
- 2.3 The agents of deterioration - physical, mechanical, biological, chemical. Damage from the environment - the effect of acid migration, temperature and relative humidity, light, atmospheric pollutants and gaseous particulates.

3. COLLECTIONS CARE

Aim: The introduction to practical skills for everyday care and simple repair to materials.

- 3.1 Environmental monitoring and control. Technology and equipment: calibration, accuracy and application, passive control in storage and microclimates. Building design for environmental control. Good housekeeping, the monitoring of building condition.
- 3.2 Stack management: methods of handling and transporting of materials
- 3.3 Integrated pest management. The identification of common insect pests. Integrated pest management programmes, including insect trapping, attractants; fumigation, freezing and the use of anaerobic atmospheres. Combatting mould.

- 3.4 Evidence of damage to various materials: cleaning methods and reversible repair techniques. The making of paste and simple repair of books, maps, manuscripts and related objects.

- 3.5 Acid hydrolysis and simple tests for fold endurance and pH. Aqueous, non-aqueous, and mass deacidification processes.

- 3.6 Construction of protective enclosures: phase boxes, encapsulation, conservation framing. Exhibition and display techniques: support cradles.

4. DISASTER CONTROL AND MANAGEMENT

Aim: To identify potential disasters and plan for disaster preparedness, response and recovery.

- 4.1 Identification of potential disasters - human and natural.
- 4.2 Formulation of a disaster plan - objectives, assignment of responsibility, hazard survey, scope and collection assessment.
- 4.3 Preventive measures. Salvage equipment, materials and supplies required for a salvage equipment, materials and supplies required for a salvage team. Updating supplies and list of suppliers.
- 4.4 Response issues - establishment of priorities and treatment options. Health and safety aspects for salvage operation team members. Handling and packing of wet materials. Drying, freezing and other options. Regional assistance.
- 4.5 Recovery. Cleaning and rehabilitation of disaster area. Monitoring of recovered materials. Damage assessment. Review of the disaster plan.

5. PRESERVATION PLANNING PROGRAMMES

Aim: The development of appropriate preservation strategies

- 5.1 The design of condition surveys in the assessment of needs and priorities. Examination and documentation of condition. Preparation of survey report.

- 5.2 Preservation policy formulation and publicity. The organisation of institution -wide programmes of preventive conservation, including environmental control, staff and user awareness programmes, establishment of high standards of housekeeping, with attention to cleaning, handling and storage.

- 5.3 Managing preservation strategies. Selection for preservation in relation to collection development and archival appraisal, arrangement and description. Access restrictions. The selection of treatment options: repair, reformatting, enclosure, library binding and other conservation treatment procedures.

- 5.4 Reformatting of materials. The role of microform and digital technology for preservation and access. Conversion quality standards, choice of storage media, compression, format and metadata access.

- 5.5 Electronic records management. Systems compatibility and data migration strategies for future access.

- 5.6 Contracting for materials and services, budgeting and tracking of treatment programmes. The allocation of resources and staff.

- 5.7 Co-operative project. The identification and monitoring of vital records and those of national importance. Reformatting, including microfilming of newspapers and brittle books. National digital preservation projects. Shared responsibility in collection development issues involved in reformatting decisions. Etc.

- 5.8 Preservation ethics - the observance of international standards, passive and active measures of minimal intervention, preserving the intellectual content of deteriorated materials, preserving the conceptual integrity of objects of cultural significance.

La Formation en Afrique :

Réunion d'experts à Nairobi, 23-25 mars 1998

Une réunion d'experts sur la place dévolue à l'enseignement de la conservation dans les écoles de bibliothécaires et d'archivistes en Afrique s'est tenue à Nairobi, Kenya, du 23 au 25 mars 1998. Les objectifs de cette réunion étaient d'acquérir une meilleure connaissance des contextes nationaux, de concevoir et d'élaborer des outils didactiques et des manuels adaptés, de faire correspondre les programmes de formation aux besoins réels, de favoriser publications et échanges. Une constante tout au long de la réunion : déboucher sur des programmes d'action concrets et réalisables dans les pays du Sud. Un programme minimum type a été établi au cours de la réunion (voir ci-après).

Cette réunion a été organisée, grâce à des fonds provenant de DANIDA et de l'ALP, par le secrétaire général du JICPA (Joint IFLA/ ICA Committee for preservation in Africa), Musila Musembi, Directeur des Archives Nationales du Kenya. Outre l'IFLA et le CIA neuf pays africains y étaient représentés : Afrique du Sud, Botswana, Ghana, Kenya, Maroc, Nigéria, Ouganda, Sénégal, Tunisie.

Les participants à cette réunion étaient extrêmement motivés et très compétents dans leur domaine. Chacun a d'abord présenté la situation de l'enseignement dans les écoles de bibliothéconomie et d'archivistique de son pays. La situation est très différente d'un pays à l'autre mais une constante demeure : l'enseignement de la conservation tient une place encore beaucoup trop faible dans les programmes. Tant que durera cette situation il sera difficile de sensibiliser l'ensemble de la profession (qu'il s'agisse de bibliothécaires ou d'archivistes) et des autorités gou-

vernementales à la nécessité de faire de la conservation préventive. L'Afrique dans son ensemble n'a pas les moyens en personnel suffisants pour que chaque bibliothèque ou fonds d'archives ait son spécialiste en conservation et son équipe de restaurateurs. Il faut donc que les membres du personnel prennent le relais et pour ce faire qu'ils aient reçu un minimum de formation en ce domaine.

Dale Peters de l'Université du Natal a présenté et proposé un document de base pouvant servir à élaborer un programme minimum. Ce document a été discuté, amendé, enrichi, et finalement approuvé. La version définitive du programme établi représente un bon programme de base pour des généralistes,

complet et diversifié, réparti en différents modules qui peuvent être enseignés séparément ou à la suite dans un cursus universitaire. Le module 3, plus pratique, est réservé aux techniciens et doit être enseigné par un spécialiste de la conservation (ou un restaurateur).

Ce programme (tous modules confondus) est destiné aux étudiants en sciences de l'information, niveau licence, mais aussi à la formation continue et aux techniciens. Il devrait s'insérer obligatoirement dans le programme général. Bien sûr une adaptation suivant les pays est toujours possible.

Marie-Thérèse Varlamoff

La préservation et la conservation des documents de bibliothèques et d'archives en Afrique : proposition du JICPA pour un programme de formation axé sur la conservation

But : Sensibiliser les bibliothécaires, archivistes et autres professionnels de l'information aux problèmes de la préservation et de la conservation et les préparer à y faire face.

OBJECTIFS

A l'issue du cours les étudiants devraient pouvoir:

1. Apprécier la valeur du patrimoine.
2. Connaître la nature des documents.
3. Identifier les agents de détérioration.
4. Connaître les principales méthodes de stockage, le maniement et la conservation des différents supports.
5. Se familiariser avec les techniques de protection, de transfert de supports, de réparation et d'entretien des différents supports.
6. Identifier les besoins en conservation de l'institution et la gestion d'un véritable programme de conservation.

1. INTRODUCTION

But : Démontrer l'intérêt et la nécessité de conserver les collections de bibliothèques et d'archives.

- 1.1 Protection et transmission du patrimoine culturel, oral et écrit.
- 1.2 Définitions et terminologie: historique de la conservation et de la préservation. La situation en Afrique. Etude de cas.
- 1.3 Le rôle de la conservation dans la gestion globale des bibliothèques ou des archives.
- 1.4 Les organismes de conservation nationaux et internationaux.

2. NATURE ET DETERIORATION DES DOCUMENTS

But : Prendre en compte le rôle du bibliothécaire ou de l'archiviste dans la préservation à long terme des documents.

- 2.1 Histoire des documents écrits et des documents audiovisuels. Nature et composition des documents: concepts de permanence et de durabilité.
- 2.2 Caractéristiques du papier et des divers matériaux utilisés dans les livres ainsi que des autres médias photographiques et audiovisuels. Structure du livre. Le rôle de la reliure courante.
- 2.3 Les agents de détérioration : physiques, mécaniques, biologiques, chimiques. Dégats causés par l'environnement. Les effets de la migration acide, la température et l'humidité relative, la lumière, les polluants atmosphériques et les particules gazeuses.

3. ENTRETIEN DES COLLECTIONS

But : Introduction aux pratiques d'entretien des collections et aux petites réparations de documents.

- 3.1 Contrôle et surveillance de l'environnement. Technologie et équipement : étalonnage, précision et fonctionnement. Contrôle passif des zones de stockage et microclimats. Structure du bâtiment en fonction du contrôle de l'environnement. Entretien, surveillance de l'état du bâtiment.
- 3.2 Gestion des magasins : méthodes de maintenance et de déplacement des documents.
- 3.3 Plan de lutte contre les nuisibles. Identification des nuisibles les plus connus. Programmes de lutte contre les nuisibles comprenant les pièges, les souricières, la fumigation, la congélation et l'utilisation d'atmosphères anaérobiques. Lutte contre les moisissures.
- 3.4 Dommages divers causés aux différents supports : méthodes de nettoyage et techniques de réparation réversibles. Fabrication de la pâte à papier et réparations simples des livres, des grands formats, des manuscrits et autres documents.
- 3.5 Acidification par hydrolyse et tests pour contrôler la résistance à la pliure et le pH. Procédés de désacidification de masse, aqueux et non aqueux.
- 3.6 Fabrication d'emballages de protection : boîtes de conservation d'attente, encapsulation, cadres, supports pour présenter les documents dans les expositions.

4. CONTROLE ET GESTION DES SINISTRES

But : Identifier les sinistres potentiels et établir un plan pour la prévention, l'intervention et la remise en état.

- 4.1 Identification des désastres potentiels: naturels ou causés par l'homme.
- 4.2 Comment établir un plan de prévention des sinistres. Objectifs, désignation de responsables, évaluation des risques, évaluation des collections.
- 4.3 Mesures préventives. Equipement de secours, matériaux et fournitures nécessaires à l'équipe de sauvetage. Contrôle régulier des fournitures nécessaires et mise à jour de la liste des fournisseurs.
- 4.4 Intervention : établissement des priorités et des choix de traitement. Aspects santé et sécurité des membres de l'équipe de sauvetage.

ge. Manutention et emballage de documents atteints par l'eau, séchage, congélation et autres options. Assistance au sein de la région.

- 4.5 Remise en état. Nettoyage et réhabilitation de la zone sinistrée. Contrôle des documents rescapés. Evaluation des dégats. Révision du plan de prévention des sinistres.

5. PROGRAMMES DE PLANIFICATION DE LA CONSERVATION

But : Développer des stratégies de conservation appropriées.

- 5.1 Etablissement d'enquêtes sur l'état des documents en vue d'établir besoins et priorités. Examen et description de l'état des documents. Préparation du rapport d'enquête.
- 5.2 Comment formuler une politique de conservation et la faire connaître. Comment organiser, à l'échelle de toute l'institution, des programmes de conservation préventive qui incluent le contrôle de l'environnement, des programmes de sensibilisation du personnel et des usagers, l'établissement de normes strictes d'entretien en mettant l'accent sur le nettoyage, la manutention et le stockage.
- 5.3 Gestion des stratégies de conservation. Relation entre la sélection, le développement et la gestion de collections. Restrictions d'accès. Choix des traitements : réparation, transfert de support, mise sous boîte, reliure courante et autres traitements.
- 5.4 Transfert de supports. Le rôle des microformes et de la numérisation en matière de conservation et d'accès. Normes de conversion, choix du support de formats de compression et accès par les metadata.
- 5.5 Gestion des supports électroniques. Compatibilité des systèmes et stratégies de migration des données pour l'accès à long terme.
- 5.6 Identification des traitements de conservation, établissement des budgets : commandes de matériel et contrats de service. Allocation de ressources et de personnel.
- 5.7 Projets de coopération. Identification et suivi des documents essentiels et de ceux d'intérêt national. Transfert de supports, microfilmage des périodiques et des livres fragilisés. Programmes nationaux de numérisation en vue de la conservation. Développement des collections et transferts de supports : partage des responsabilités.
- 5.8 Ethique de la conservation. Respect des normes internationales. Mesures passives et actives d'intervention minimale. Conservation du contenu intellectuel des documents endommagés. Conservation de l'intégralité conceptuelle des documents culturels.

Traduction : Marie-Thérèse Varlamoff
Directeur du PAC-IFLA

a n n o u n c e m e n t s

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fax + 33 (0)4 90 49 66 11
e-mail: cicl@avignon.pacwan.net

FORMATION 1999

- ▶ *Réalisation d'une reliure traditionnelle en parchemin (course in English/traduction Française)*
3 au 7 mai 99
prix du stage: 3 500 FF (fournitures comprises)
- ▶ *Préparation des feuillets pour la reliure: plaçure normale et soignée*
7 au 21 mai 99
prix du stage: 3 300 FF (fournitures comprises)
- ▶ *Restauration des affiches moyen et grand format*
2 au 4 juin 99
prix du stage: 2 600 FF (fournitures comprises)
- ▶ *Restauration de cartonnages d'éditeur et B.D. anciennes*
7 au 11 juin 99
prix du stage: 3 300 FF (fournitures comprises)
- ▶ *Restauration des ais en bois des reliures anciennes*
14 au 18 juin 99
prix du stage: 3 500 FF (fournitures comprises)
- ▶ *Restauration des fermoirs des reliures anciennes (course in English/traduction française)*
21 au 25 juin 99
prix du stage: 3 500 FF (fournitures comprises)
- ▶ *Papier marbré: techniques et motifs anciens (course in English/traduction française)*
28 au 30 juin
prix du stage: 3 300 FF (fournitures comprises)
- ▶ *Papier décoré*
1er juillet (journée complète) et 2 juillet (matin) 99
prix du stage: 1 800 FF (fournitures comprises)
- ▶ *Conservación preventiva en Bibliotecas y archivos (curso en español)*
del 12 al 16 de julio 99 /
12 au 16 juillet 99
Precio del curso/ 3 000 FF (fournitures comprises)

The Broad Spectrum The Art and Science of Conserving Colored Media on Paper

- ▶ **Dates: October 5-9, 1999**
An international conference sponsored and hosted by the Art Institute of Chicago, with the cooperation of the American Institute for Conservation, the International Institute for Conservation and the Institute of Paper Conservation

Color on paper presents significant treatment challenges and research opportunities for paper conservators and conservation scientists. This conference will address recent advances in the understanding of a broad array of colored media, including chalk, pastel watercolor, gouache, and ink, applied to paper. Presentation on the history and development of these materials, their uses by various artists, their physical properties, and criteria for their identification will be featured, as will conservation case studies and the ethical issues that surround them.

For further details please contact Elizabeth Sobczynski at Voitek Conservation, 9 Whitehorse Mews, Westminster Bridge Road, London SE1 7QD, UK
tel. + 44 (0) 171 928 9920,
fax + 44 (0) 171 928 6094
e-mail: voitekcwa@BTinternet.com, or Harriet Stratis at the above address
tel. + 44 312 857 7662
fax + 44 312 443 0085
e-mail hstratis@artic.edu

Crimea 99 Sixth International Conference Crimea 99

- ▶ *"Libraries and Associations in the Transient World: New Technologies and New Forms of Cooperation":*

Sudak (Feodosia, Koktebel, Sary Krym),
Autonomous Republic of Crimea, Ukraine

Dates: June 5-13, 1999 (Professional Programme: June 7 - 11)

The Sixth International Conference will be held under the aegis of IFLA. It has become a dominant forum for professional interaction, network and communication between librarians and information professionals throughout Eastern Europe.

Sudak is one of the most beautiful places on the Crimean Black Sea coast.

For more information see College and Research Libraries News, September, 1998, pp.596-603 for a brief report on Crimea 98
hvdwalt@statelib.pwv.gov.za

Collecting and Safeguarding Oral Traditions:

An International Conference
Organized as a Satellite Meeting of
the General Conference of the
International Federation of Library
Associations and Institutions (IFLA)

- ▶ **Dates: August 16-19, 1999**
Khon Kaen, Thailand
This Conference is open to all with an interest in the preservation of oral traditions.

Within the context of the UNESCO "Memory of the World" Program, the Conference 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 preservation issues; and technical matters. Included in the Conference will be an excursion to the Research Institute of Northeastern Arts and Culture and the Sirindhorn Isan Information Center (Mahasarakham University, Thailand), an academic resource centre with comprehensive information related to all aspects of northeastern Thai cultures and traditions. Participants attending this Conference may wish to attend the 65th IFLA Council and General Conference in Bangkok from 20-28 August, 1999.

The Seminar venue will be the Khon Kaen Sofitel Hotel (US\$45 per night). There are frequent flights between Khon Kaen and Bangkok. Registration fees have been set at US\$220 which include the cost of all meals not provided by the hotel, the excursion and all other conference expenses. Early registration is recommended. After June 1, 1999, the registration fee will increase to US\$270.

To register, please access the REGISTRATION FORM which can be found in Adobe Acrobat PDF format (13KB) on the IFLANET WWW site. The specific URL is: <http://www.ifla.org/IV/ifla65/sat-a.pdf>

Additional information may be obtained from IFLA Headquarters or from the Chairperson of the Satellite Meeting Planning Committee.

IFLA Headquarters
P.O. Box 95312 2509 CH The Hague
The Netherlands
tel. +31 70 3140884
fax. +31 70 3834827 email: ifla@ifla.org

Ralph W. MANNING
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395 Wellington Street, Ottawa K1A 0N4
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email: ralph.manning@nlc-bnc.ca

announcements

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London SE23 1HU
tel: +44(0)181-690 3678
fax: +44(0)181-314 1940
email: xfa59@dial.pipex.com

- ◆ *Rediscovering Historic Photographic Processes.*
Ref: Prog 99/7
May 3-7, 1999
- ◆ *The Preservation and Conservation of Photographic Materials.* Ref: Prog 99/1
May 3-June 18, 1999
- ◆ *The Preservation and Conservation of Photographic Materials (Theory).* Ref: Prog 99/2
May 10-12, 1999
- ◆ *Preservation of Colour Photographic Material.*
Ref: Prog 99/10
May 13-14, 1999
- ◆ *The Identification of Photographic Processes.*
Ref: Prog 99/4
May 17-19, 1999
- ◆ *Preservation of Photographic Negatives: Glass, Nitrate, Acetate and other sheet and roll film systems.* Ref: Prog 99/11
May 20-21, 1999
- ◆ *Conserving Photographs 2. Intensive four weeks workshop*
June 21-July 16, 1999

For further information, course outlines, fees and application forms, please visit our web site at: dSPACE.dial.pipex.com/cpc.moor/ or contact Angela Moor at the above address, fax, e-mail

book review

Protection et mise en valeur du patrimoine des bibliothèques de France : recommandations techniques



La direction du livre et de la lecture vient de rassembler en un seul volume les notes techniques patrimoniales qu'elle avait éditées depuis 1984. Nul doute que ce livre tant attendu répondra à nombre de questions que se posent les professionnels des bibliothèques, patrimoniales en particulier, qu'ils soient gestionnaires, responsables de la conservation ou restaurateurs.

Quinze chapitres composent cet ouvrage qui s'intéresse tour à tour aux documents sur différents supports (du manuscrit au CD) conservés dans les bibliothèques. Sont examinés également aussi bien les conditions générales de conservation et d'entretien que les techniques plus spécifiques tels l'estampillage ou la reliure. Sont abordés les problèmes liés à la communication des documents, aux expositions et à la reproduction. Enfin un chapitre important concerne la prévention, les interventions d'urgence et les traitements curatifs.

Les recommandations insistent sur la complémentarité entre le travail du gestionnaire et celui du restaurateur et la nécessité pour tous les acteurs de la conservation d'une collaboration efficace qui doit devenir la règle absolue. Chaque cas est étudié sous les trois angles du diagnostic, de la décision et de l'exécution. De nombreux tableaux permettent de synthétiser les recommandations spécifiques à chaque support ou situation. A la fin du volume des photographies commentées illustrent les dégradations les plus fréquentes et la façon de les réparer.

Chaque chapitre est rédigé par un ou plusieurs spécialistes dont un grand nombre travaille à la Bibliothèque nationale de France. Plusieurs annexes comprenant certains textes officiels souvent difficiles à trouver, un modèle de dossier de restauration ainsi que des listes d'adresses utiles complètent cet ouvrage qui comporte également une bibliographie thématique, dont on regrettera peut-être qu'elle ne soit pas annotée. Coordonné par Jean-Marie Arnould, cet excellent ouvrage, à la présentation claire et agréable, renferme l'essentiel de ce que doit connaître en matière de conservation tout bibliothécaire ayant la responsabilité d'un fonds.

Cet ouvrage, destiné en priorité aux bibliothèques patrimoniales françaises, sera néanmoins très utile à l'ensemble de la communauté bibliothéconomique francophone.

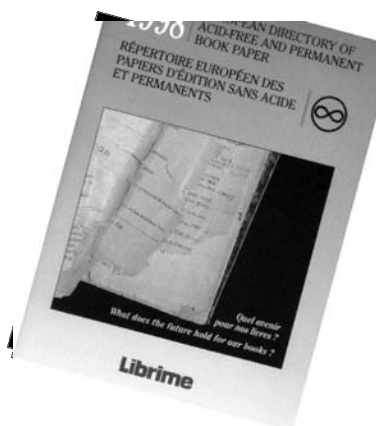
Il est également accessible sur le site : <http://www.culture.fr/culture/conservation/fr/index.htm>

Paris : Direction du livre et de la lecture, 1998.- 174 p., 30cm.

Marie-Thérèse VARLAMOFF

book review

New edition of the European Directory of Acid-Free and Permanent Book Paper



Nouvelle édition du Répertoire Européen des Papiers d'Édition sans acide et permanents

The European Directory of Acid-free and Permanent Book paper, fully revised and updated has been published by LIBRIME in Brussels. As with previous editions, this one is currently being distributed to thousands of publishers, printers and other professionals of the book sector throughout Europe in order to promote "permanent" paper among European publishers and ensure the permanence of new books in Europe.

Although the larger libraries in Europe are already cutting their shrinking budgets to save at high cost a small part of about one billion books that have been printed on acid paper since 150 years and became brittle, most of the new books published in Europe continue to be printed on acid paper destined to disintegration.

This new edition of the European Directory presents 75 types of permanent book paper (conforming to ISO 9706 and ANSI Z3948 standards) produced by 18 manufacturers in 9 European countries. These papers, which guarantee the durability of the printed matter for centuries to come, are described with their technical specifications and aimed at publishers and other professionals in the book sector in Europe.

Furthermore, this Directory explains the process of self-destruction of acid-containing paper, the problems of the conservation of brittle publications in libraries and the ISO 9706 and ANSI Z3948 standards for "permanent paper". Finally, it provides the full text of the resolutions for the use of permanent paper as adopted in 1989 by the International Publishers Association and in 1997 by UNESCO.

The 1998 edition of the European Directory of Acid-free and Permanent Book Paper will therefore be of utmost use to publishers, printers and other European professionals of the book sector caring about the long-term preservation of the books and other publications for which they are responsible.

One copy of European Directory of Acid-free and Permanent Book Paper will be sent free on written request to:

LIBRIME, Bld L. Schmidt, 119 (box 3)
B-1040 BRUSSELS, Belgium
Fax 32-2-736-82-51

Le Répertoire Européen des Papiers d'Édition sans acide et permanents vient d'être complètement revu, remis à jour et réédité par LIBRIME (Library and Information Management in Europe) à Bruxelles. Comme lors des éditions précédentes, il est distribué à des milliers d'éditeurs, imprimeurs et autres professionnels du secteur du livre dans toute l'Europe pour promouvoir le papier "permanent" parmi les éditeurs européens et assurer la durabilité des nouveaux livres publiés en Europe.

Alors que les grandes bibliothèques des pays européens amputent leurs budgets déjà insuffisants pour sauvegarder à grands frais une petite part de près d'un milliard de livres imprimés sur papier acide depuis 150 ans et fragilisés, la plupart des nouveaux livres publiés en Europe continuent à être imprimés sur papier acide voué à la désintégration.

Cette nouvelle édition du Répertoire européen signale 75 types de papiers d'édition "permanents" (suivant les normes ISO 9706 et ANSI Z3948) produits par 18 fabricants de 9 pays européens. Ces papiers garantissant la durabilité des imprimés pour les siècles à venir sont décrits avec leurs caractéristiques techniques à l'intention des éditeurs et des autres professionnels du secteur du livre en Europe.

En outre, ce Répertoire explique le phénomène d'auto-destruction du papier acide, la problématique de la conservation des publications acidifiées dans les bibliothèques et les normes ISO 9706 et ANSI Z3948 du "papier permanent". Enfin, il fournit les textes complets des résolutions pour l'utilisation du papier "permanent" adoptées en 1989 par l'Union internationale des éditeurs et en 1997 par l'UNESCO.

L'édition 1998 du Répertoire Européen des Papiers d'Édition sans acide et permanents sera donc de la plus grande utilité aux éditeurs, imprimeurs et autres professionnels européens du secteur du livre soucieux de la préservation à long terme des livres et des autres publications dont ils sont responsables.

Un exemplaire gratuit du Répertoire européen des Papiers d'Édition sans acide et permanents sera envoyé sur demande écrite adressée à :

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Director: Ramón SÁNCHEZ
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