

**PROCEEDINGS OF**  
**THE INTERNATIONAL MEETING ON MICROFORM**  
**PRESERVATION AND CONSERVATION PRACTICES**  
**IN SOUTHEAST ASIA : ASSESSING CURRENT NEEDS**  
**AND EVALUATING PAST PROJECTS**

**FEBRUARY 21-24, 2000**

**CHIANG MAI UNIVERSITY**  
**CHIANG MAI, THAILAND**

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***Proceedings of the International Meeting on Microform  
Preservation and Conservation Practices in Southeast Asia :  
Assessing Current Needs and Evaluating Past Projects***

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## PREFACE

In recent years many efforts have been made to safeguard the written materials of Southeast Asia that are found both in various libraries and archives, as well as in private and religious institutions. Although many national as well as international projects have made important advances in the preservation and conservation of some materials, it is clear that much more needs to be done in order to protect the region's cultural and intellectual heritage. Preservation and conservation in the region is made even more challenging by the wide diversity of materials in the region, which include early written and printed texts in traditional scripts, printed and hand written administrative archives of the monarchical states, colonial archival records, and contemporary printed materials. The challenge of conserving and providing access to the varied and rich documentary heritage of the people, cultures, and states of Southeast Asia is indeed a daunting one. Any advancement in the studies of Southeast Asian society, culture, and history also calls for the availability of various types of sources of knowledge that could lead to a better understanding of the region's present problems and to the provision of appropriate solutions.

As part of this effort, an international conference was held in 1993 at Chiang Mai University to discuss the library and archive preservation needs of Southeast Asia. With the help and support of The Chiang Mai University Library, the Southeast Asia Microform Project of the Center for Research Libraries, Chicago, USA, The SPAFA Library, Bangkok, the Japan Foundation Asia Center, and the Ford Foundation, the International Meeting on Microform Preservation and Conservation Practices in Southeast Asia: Assessing Current Needs and Evaluating Past Projects, was held in Chiang Mai in February 2000 as a follow up to that meeting. International scholars, preservation experts, archivists, librarians, representatives from funding agencies, government officials, and policy makers came together to discuss many of the issues facing the region today. For example, among the many concerns affecting preservation and conservation professionals in this region are the ability of various local and national projects to share information in order to avoid duplication of efforts, provision of adequate bibliographic access, and appropriate storage facilities. Indeed, questions of various cultural environments and attitudes and their relation to preservation and conservation have also been raised. In addition, political and economic changes in most countries of the region have not always been beneficial to the region's libraries and archives.

It is hoped that the proceedings of this conference will be useful to those concerned with the preservation and conservation of Southeast Asia's documentary heritage, including professionals in the field, scholars and academics, the governments of the region, and perhaps most importantly, the people of Southeast Asia. Far from providing simple answers, it is hoped that these proceedings would help to both guide the future of preservation and conservation in the region and encourage further debate and discussion of the critical issues facing the region now and in the future.

The editors of these proceedings wish to acknowledge and thank the Japan Foundation Asia Center and the Ford Foundation for sponsoring this event. Special thanks are due to Alan Feinstein and Judith Henchy for coordinating such a diverse group of people and topics into the successful meeting hopefully represented by this volume. Chiang Mai University, and especially the dedicated staff of the Library, deserve much of the credit for the success of the meeting, and for making the participant's stay enjoyable. Finally, innumerable thanks must go to all the participants involved. Whether by presenting papers, asking questions, giving comments, offering critiques, or even through the coffee break chats, these are the people who contributed whatever is useful and valuable in this volume. It is hoped that the publication of these proceedings will make the efforts of everyone mentioned above available to a wider audience of those with a stake in the preservation of Southeast Asia's heritage.

M.R. Rujaya Abhakorn  
Chiang Mai University

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**REPORT BY THE CHAIRPERSON  
OF THE INTERNATIONAL MEETING,  
ASSISTANT PROFESSOR PRASIT MALUMPONG  
DIRECTOR OF CHIANG MAI UNIVERSITY LIBRARY**

The Vice President of Chiang Mai University

Allow me to express my sincerest gratitude for your willingness to accept the participants of the International Meeting on Microform Preservation and Conservation and it is my special honour also to welcome all of participants.

An international meeting of preservation practitioners and conservation experts in library and archival materials is to be held at the Chiang Mai Orchid Hotel, Chiang Mai, Thailand from February 21-24, 2000, as a cooperative venture and at the initiative of the Chiang Mai University Library, the Southeast Asia Microform Project of the Center for Research Libraries, Chicago, USA, SPAFA Library, Bangkok, the Japan Foundation Asia Center and the Ford Foundation. The meeting will follow up on a previous meeting held at Chiang Mai University Library in December 1993 at which a regional consortium for preservation and conservation was first proposed. Scholars, preservation experts, archivists, librarians, funding agencies, government officials and decision makers will discuss the effectiveness of preservation filming practice and develop guidelines for future practices that will take advantage of the experiences of past projects.

The meeting will bring together 70 scholars and administrators from 18 countries who have been actively involved in preservation efforts in the region, including representatives and managers from the major projects, and from the funding agencies who have been responsible for underwriting some of these efforts. Representatives from the region, or consultants with knowledge of regional issues, will present position papers suggesting ways in which problems which currently hinder efficient preservation management might be solved.

The objective of the meeting is to examine preservation needs and practices in Southeast Asia and to evaluate the effectiveness of international cooperative projects. Discussion will focus on all aspects of preservation management: needs assessment and collections surveys, scholarly priorities, funding opportunities, conservation and micrographics technologies, and bibliographic access. It is hoped that the meeting will result in guidelines which will make future projects more effective by establishing international conventions.

The first two days of the meeting will consist of discussions relating to technical operations and management issues raised in position papers, with the intention of establishing feasible solutions which are compatible with international standards, regional conditions and cultural expectations. On the third and fourth day regional officials with policy making responsibilities will be invited to participate in the discussions on the resolutions of the meeting and offer recommendations that would be in line with governmental and state policies and receive immediate official and national support.

Herewith, we look forward you to giving us guidance for this meeting. May we also have the honour of having your favour to open officially the International Meeting Microform Preservation and Conservation Practices in Southeast Asia: Assessing Current Needs and Evaluating Past Projects.

**OPENING ADDRESS**  
**BY ASSOCIATE PROFESSOR DR. WICHIT SRISUPHAN**  
VICE PRESIDENT, CHIANG MAI UNIVERSITY

**Director of Chiang Mai University Library**

Representatives from the Japan Foundation Asia Center  
Representatives from the Ford Foundation  
Representatives from the Southeast Asia Microform Project at the Center for  
Research Libraries  
Representatives from SPAFA Library  
Distinguished Participants  
Ladies and Gentlemen

**On behalf of Chiang Mai University, it is a great honour and privilege for me to be presiding over the opening ceremony of this important International Meeting on Microform Preservation and Conservation Practices in Southeast Asia: Assessing Current Needs and Evaluating Past Projects. I would like to extend my warmest welcome to all participants.**

**As a major provincial university in Thailand, we are situated in an area that is rich with cultural heritage of all kinds, especially the written records that are testaments to a great civilization. For this reason, we do our best to support the preservation and conservation efforts of scholars, librarian and archivists within our limited resources. I am honoured to be among the world's experts in the preservation field and I am certain that the discussions during this meeting will produce outstanding results. Chiang Mai University is always grateful to the support given by international funding agencies, especially the Ford Foundation and the Japan Foundation, whose presence here is not for the first time and I am sure they will continue to recognize our efforts in the future.**

**I would like to wish the meeting every success. I sincerely hope that you will enjoy your stay in Chiang Mai and there will be other opportunities in the future for Chiang Mai University to play some role in the preservation works on Southeast Asian heritage.**

**Ladies and gentlemen, I hereby declare the International Meeting on "Microform Preservation and Conservation Practices in Southeast Asia: Assessing Current Needs and Evaluating Past Projects" officially open. Thank you.**

# NATIONAL AND REGIONAL PRESERVATION PLANNING BACKGROUND TO THE ESTABLISHMENT OF COOPERATIVE PROGRAMS

John F. Dean  
Director of the Department of Conservation and Preservation  
Olin Library, Cornell University  
Ithaca, NY, USA

## *Introduction*

In his definitive report to the American Research Libraries in 1971, Warren Haas described the nature of the preservation problem in the following way :

The process of growing bald and the deterioration of library materials have much in common. It is easy to ignore the loss of one strand of hair at a time, so long as there is overall growth. So it is with book collections. Individual volumes, by virtue of the fragility of the paper on which they are printed and in some cases the manner in which they are stored, deteriorate and become useless. Their loss is regretted, but feelings of concern are muted by the security generated by annual collection growth figures. However, a time comes when even long hair cannot conceal a shining [bald head], any more than current acquisitions can mask the physical shabbiness and the prominent gaps caused by the disappearance of thousands of volumes made useless by paper deterioration. And somehow, neither wigs nor reprints are fully adequate substitutes for the original (1).

Unfortunately, Warren Haas and I share this unfortunate habit of losing hair, which makes his remarks especially poignant and meaningful to me. All libraries have a responsibility to preserve what we call “the sum total of human knowledge.” We know that this is impossible for any one library and, in our hearts, we know that it may not even be a totally realistic task that can be accomplished by all the libraries in the world working collectively, if this utopian concept could ever be possible. However, the problems of deteriorating library materials are being slowly faced up to all over the world, and some progress has been made in, at least, slowing the tide of deterioration that is threatening to engulf the world’s research collections. For many countries, the most important evidence of progress is the actual realization that there is indeed a preservation crisis that must be addressed if future scholars are to be spared the lobotomy of lost and incomplete memory. In the United States, the period of the greatest activism to try to raise consciousness on library and archives preservation issues was probably from the late 1960s to the early 1970s. During this

period, a seemingly endless number of meetings and conferences were held to discuss the crisis in America's libraries and entire truckloads of reports were produced, most of them to languish unread and certainly largely disregarded. The area of greatest concern was then--- and is now--- the rate at which paper is deteriorating.

### ***The Brittle Book Crisis and the Tools at Our Disposal***

The cause of paper deterioration is largely two-fold: one cause is the poor quality of paper production, especially for paper produced using acidic processes and unrefined raw materials; and a second cause is the environment in which books are stored. High levels of temperature and relative humidity speed up the process of deterioration in quite a dramatic fashion, activating chemical degradation and rapidly making books, for all practical purposes, unusable. In the West, laws designed to protect the environment have brought about a dramatic improvement in the quality of paper being produced, as acid paper manufacture is recognized as a serious pollutant, and a recent study has shown that more than ninety-percent of new book paper produced in the West is now alkaline rather than acidic. Clearly, we can work towards persuading the printers of books in our countries---in many cases, the government--- to use paper that is alkaline rather than acidic and we can develop long-term goals for improvements to the storage environments of our libraries. However, all libraries have large numbers of books that are already brittle and the only practical way we have to save their textual content is by reformatting.

The reformatting tools at our disposal are photocopy, digital imaging, and microfilm. Photocopy can be a useful strategy for the creation of a single surrogate copy of an important manuscript or printed book, but the process does not lend itself to large-scale duplication and distributed access. Digital imaging is an exciting new technology that offers vastly improved access to library materials, but cannot, at the present time, be considered a preservation strategy to safe-guard books for the distant future. Microfilm is a stable technology which, if properly processed and stored, can last for hundreds of years. Thus at the present time, the only process that we can rely on to preserve the textual content of deteriorating books for the long-term and which offers the benefits of unlimited duplication and distribution is microfilm. However, a number of vitally important contextual events need to occur if microfilm is to be used effectively as part of concerted program for library preservation.

### ***National Preservation Planning***

At the beginning of this talk, I mentioned Warren Haas and his defining report for the American Association of Research Libraries in 1971. This report changed the face of national and, eventually, international preservation planning. Prior to the Haas report, a national preservation plan was regarded as something that individual

libraries seemed to feel was the sole responsibility of some central body, the library-land equivalent of the Hand of God. There was a vague feeling that somewhere in the world would be a giant warehouse wherein all important books would be saved for the benefit of future humankind. Haas pointed out that this concept of a central preservation storage library was not only impractical but would, of necessity, have to be based on books taken from existing research libraries, and he pointed out that this assumes “an institutional altruism that seems overly optimistic.” The most important point of the Haas report was the concept of shared and distributed responsibility for preservation within broadly accepted standards, with all libraries dealing with the consequences of deterioration, and cooperating with one another to provide mutual support and cooperation in gradually capturing deteriorated materials before they finally disappear. Some mechanisms need to be set into place before such collective action can be fully effective, including:

- a common bibliographic control system capable of identifying books that have been microfilmed or in the process of being microfilmed to avoid duplicate work,
- centralized cold storage facilities for the long-term preservation of archival master microfilm negatives,
- training and education to ensure that knowledgeable librarians and conservators are produced in sufficient numbers to develop, manage, and execute preservation and conservation programs,
- continuing research into preservation issues to remedy particular problems peculiar to the various regions of the world,
- preventative preservation programs designed to provide the necessary stabilization to research collections and reduce damage and deterioration.

Over the next three days, all of these vital elements will be fully discussed.

### ***Collective Planning and the Responsibilities of Individual Libraries.***

I think an important point that needs to be made at the outset is that every library should have a preservation program if it is to take responsibility for the availability of its own collections. This requires an understanding that institutional administrative commitments must be made to absorb preservation management into the mainstream of library organizational systems. The five elements noted above help to provide a broad framework for preservation management development, but libraries cannot wait until every syllable has been put into place in a master plan before taking individual action. It is common to excuse lack of movement to shortage of money, and indeed money will be needed if we are to advance fully effective preservation programs. But in the almost fifteen years there are many serious problems that can

be addressed by libraries and archives with very little expenditure. I listed a five of the main ones in a paper I presented at the Bangkok IFLA Conference in August, but it may be useful for me to list them again here, and I know that, for many of you, they will strike a familiar chord.

1. The building fabric of many structures is often very deficient, with un-insulated walls, windows that are sometimes without glass and almost always without insect screening, poorly maintained roofing that leaks during heavy rain, with down-spouts that pour rainwater over external walls, and often non-existent air movement. These conditions allow birds and insects free rein within the structure and the periodic growth of mold on interior walls and shelves. Walls, roofs and floors that are not maintained encourage a variety of pests to find homes, including rats, mice, and insects. Security is often lax, placing collections at risk from theft or deliberate mutilation, and buildings are often vulnerable to fire because of faulty and outdated electrical wiring and uncontrolled smoking in virtually every part of the building.

2. Shelving systems are often deficient, constructed from wood that provides homes for wood-eating insects, inflexible with un-adjustable shelves, precarious because of uneven book distribution and insufficient anchoring, and badly oriented. The insects generally most responsible for eating books in libraries are the larvae of several different types of wood-eating beetles, thus wooden shelving is to be avoided if possible. (One important research library in Vietnam that I have worked with for a number of years actually transferred all its wooden shelves from an old insect-infested building to a new building, with predictable results. The library has since replaced these with aluminium shelves which has much improved the situation.) A great deal of damage results from book structure distortion caused by trying to cram books onto too small, un-adjustable shelves, and often the shelf ranges are poorly oriented, blocking the circulation of air and allowing light damage from direct sunlight. Loose unsupported books are damaged by lack of compression which allows book structure distortion especially in conditions of high humidity, as the slumping books settle almost permanently into curved shapes.

3. Housekeeping is lacking in most libraries, in that the books are carelessly shelved, the floors are frequently dirty and covered in debris, and food is cooked and eaten in the library. Many of the most important libraries are in large polluted cities, with increasingly heavy traffic producing large amounts of harmful particulates in the form of fine dust, grit, and soot. Because of the open windows, this is regularly deposited on books and shelves, which is in turn transferred to inner texts when the books are used, and which form nutrients for mold and insects in conditions of high humidity

4. Handling is especially hazardous for library materials, as many have lain untouched for several years but in just a few minutes can become soiled, smudged,

torn, and disfigured with only one careless use. Texts are often soiled because of unwashed hands and dirty work surfaces, and even vulnerable formats, such as valuable photographs, are handled carelessly and without protective gloves.

Storage of non-paper materials, such as photographic negatives, motion picture film, and microfilm is sadly deficient in most libraries in the region. This is especially troubling for the archival negatives of microfilm, which should be stored with consistently maintained low levels of temperature and relative humidity and in a separate location from the other generations of film. While the temperature should be as low as possible, preferably no higher than 20 degrees Celsius, it is more important that the relative humidity not be higher than 30 percent.

Although the standard Western approach to some of these problems would be to install air-conditioning, embark on building renovation projects, and construct new storage facilities, these options are rarely available to librarians in countries lacking in resources. Many of the problems anifest in libraries in Southeast Asia do require substantial investment to be fully resolved, but they can be significantly ameliorated by a more systematic approach to environmental control and housing, which can be achieved at modest cost. Wooden shelving can gradually be replaced with metal, windows can be covered with insect screening to prevent the ingress of insects, a higher standard of cleanliness can be established and maintained, the consumption of food and drink can be more tightly controlled, smoking banned in the library, more responsible handling procedures can be established, protective housing can be applied or improved, and the cooperative storage of film materials developed.

However, in order to set the wheels in motion, each library must have a preservation program fully supported by the highest administrative levels of the institution. Every library needs a preservation officer, a person to speak for the collections, to initiate the basic steps needed to protect the collection, and to be the main point of contact with the larger world of preservation. The requirements for such a person are not difficult to meet, and I am sure that every library and archive represented here has at least one existing staff member capable of fulfilling these essentially managerial responsibilities. It is the library administration's responsibility to encourage and support the preservation officer, provide her with the authority to effect the fundamental changes needed, to trust her to represent the library's interests at regional and international forums, and to work with her to intelligently articulate the library's needs to government agencies and foundations.

### ***The Role of Foundations***

Foundations can play a vitally essential role in the development of preservation programs designed to save the world's scholarly resources. Librarians must frequently contend with unsympathetic institutional and governmental administrators,

who not only do not see the scholarly investment value of libraries and archives, but more recently have resorted to the alibi that somehow, technology will save us all. However, a library's preservation officer, working with a knowledgeable officer of a foundation, can often secure the crucial funding support to begin the process of program development through the establishment of some vital component to the strategic plan, such as a conservation operation or a microfilming operation. When the value of the library's collections is demonstrated by this kind of outside recognition, administrators begin to pay attention, and the important step from project to sustained program can often be made. In a preservation and conservation educational and training program for staff of Southeast Asian libraries and archives conducted at Cornell University over the last three years (this is with the support of the Henry Luce Foundation, the Harvard-Yenching Institute, the Open Society Burma Project, and Cornell graduates), a great deal of attention is paid to strategic planning and needs assessment. Interns are encouraged to develop long-term preservation plans for their institutions, articulating where they expect their preservation program to be in five years time, and outlining the steps they know that must be taken to achieve it. This kind of intelligent and practical strategic planning process naturally identifies certain aspects of the program that can be advanced with outside funding support, and I know from experience that foundations are often encouraged to participate in this process. It is, however, important to ensure that institutional administrators not be made to feel that preservation is important only if someone else will pay for it, and the library's preservation officer must continue to educate them on the preservation needs of the collection.

### ***Conclusion***

In all countries, the movement towards meaningful national preservation programs is slow, often frustrating, but nevertheless real. International standards have been gradually established over a range of relevant preservation matters, and there is a dawning realization that we must all exchange information on our activities in order to avoid wasting our scarce resources on duplicative work. However, one size does not necessarily fit all, and the body of preservation knowledge and practice on which Western preservation systems is built is the

result of a long and torturous evolution from the wholly craft/trade-based bookbinding tradition, to the present level of quite sophisticated and highly technical programs. The libraries and archives of Southeast

Asia have operated to a very different time-frame, and set of cultural and historical circumstances. Solutions to preservation problems are not entirely the same in the East as the West, and sometimes the undifferentiated infliction of Western standards and practice, unaltered by locale, have been unsuccessful. For example, the stock response to high levels of temperature and relative humidity by Westerners is to call for air conditioning systems to be installed. Experience has shown that this can be a costly mistake in tropical regions, especially when books and manuscripts are removed from the library for study, or when untrustworthy electrical supplies fail, a regular event in some countries. In these circumstances, the drastic increase in temperature and relative humidity causes moisture condensation on the colder materials and interior walls and the consequent rapid development of mold. In Southeast Asia, it is important to recognize that preservation priorities are probably not the same as in the West, that short-term teaching and training alone will not result in viable programs without sustained financial support, preferably secured by librarians *in situ*, and that the Western response to deteriorating materials and adverse conditions must be learned from experience with the advice and support of the people of the region. As I have described, preservation projects should not be isolated events, but should build towards the achievement of some coherent strategic plan, and all projects originating in the West, whether for training or preservation production, should be seen as merely transitional to the time when the nations of Southeast Asia are able to mount and support their own preservation programs within the context of the greater international whole.

Before concluding, it is important to acknowledge the valuable efforts of Judith Henchy, Head of the Southeast Asia Section, University of Washington; Allen Feinstein now of the Toyota Foundation, and Dr M.R. Rujaya Abhakorn of Chiang Mai University. Ms Henchy is a valiant and tireless librarian and scholar who has not only helped bring about this important meeting, but a valued colleague in the field. Allen Feinstein through the Japan Foundation, has made the meeting possible, and his involvement in the planning has been significant. Dr M.R. Rujaya Abhakorn has been a leader and pioneer in library and archives preservation for the northern region of Southeast Asia for many years. In 1993, Dr Rujaya was awarded a grant from the government of the Netherlands to bring together librarians, archivists, and scholars from Burma, Cambodia, Laos, Thailand, and Vietnam, to initiate discussions on the founding of an international preservation centre for this region. Although progress in developing the centre into a functioning reality has been understandably slow, the planning process, stated objectives, and expressed needs of the consortium strongly influenced

Cornell University's preservation internship program through which twelve future preservation leaders from Burma, Cambodia, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam have passed in the last three years.

Lastly, I want to review the purpose of our gathering. We are all concerned and care passionately about the continued life, existence, and availability of our research collections. We care about our traditional manuscripts, our newspapers, photographs, motion picture films, periodicals, books, sound recordings, and archives. We care about our general collections that are heavily used, carelessly handled, and poorly stored, because they represent the teaching core of our libraries. We care about the cultural treasures that speak so eloquently of the glories and wisdom of our pasts and that we know must inform the future. We are all now embarked upon an enterprise that we trust will lead to some hope for these materials, and I know that you will all join together in the development of some coherent process towards the beginning of a solution.

## THE VIEW FROM DOI SUTHEP

Tun Aung Chain  
Myanmar

The air up on Doi Suthep is fresh and invigorating. The view too is magnificent. On a clear day, with bright sunshine, one can look back at the city from which one has come up and see the whole of the valley through which the Mae Ping flows laid out like an illuminated scroll map. If one lets one's fancy run free and ignore the modern constructions—Pang Suan Kaew, Chiang Mai Orchid and the rest—one can imagine King Mangrai with his two friends, King Ngam Muang of Phayao and King Ruang of Sukhothai, having their congratulations on the laying out of the new city of Chiang Mai.

Like going up Doi Suthep, the beginning of new century provides a fresh and invigorating atmosphere. Perhaps more so with a new millennium. The adrenaline starts to flow at the prospect of what is to come. We live in an increasingly technological world, in the reality of what at one time was only the construct of a science fiction writer's imagination. As reality catches up with fiction we look forward to the creation of new realities in which the technology which we create and fashion plays a role in the further transformation of our lives. Technology has, of course, its dark aspects. But if we retain a continuing concern with the preservation and enrichment of our humanity and our humanity informs all that we do so that we do not create any Franksteins with our technology, the possibilities of creating new realities with our technology cannot help but stir us to excitement.

With all our excitement at the possibilities of the future, we are also concerned with the realities of the past. Our concern with the past is perhaps part of our effort to understand our humanity, part of the process of creating our humanity.

Our view of the future, even with the best exercise of the intellect and the imagination, can never be clear because the future is still un-lived and continues to be affected and changed by our current decisions and actions. Perhaps our past is clearer because, unlike the future, it has been lived. Inert, the past lies open to our scrutiny and investigation. From the commanding height of the present we see the valley of the past laid out before us, just like the magnificent view from Doi Suthep.

But the valley is not a neat checkerboard of rice paddies, green and well tended. Rather, it is more like a giant jigsaw puzzle of irregular pieces big and small, sometimes with the pieces not quite fitting in together. More important, there are

also missing pieces, so that many places on the illuminated scroll map of the valley should be marked, "Here there be waste land."

We have been writing ever since we became literate because writing is very much a part of our becoming human, of our gathering into community, of our defining our ideas and our beliefs, of our establishing our traditions. But little of our earlier writings survive. Even the most durable of them, the dedicatory inscriptions on stone, have not all survived.

War is a great destroyer, not only debasing our humanity but also devastating our material achievements. Our histories are full of wars, of armies sweeping through the countryside, of the taking and pillage of cities. Wars destroy and our writings become part of that which is destroyed.

But it is not man alone which destroys. We have also been at the mercy of the elements; fires and floods have also destroyed much.

Wars and natural disasters are the great destroyers, the ones that make the chronicles of the past, the headlines and news spots of the present. But our neglect and negligence also destroys, not as spectacularly perhaps, but almost as surely. Most traditional writings concern the court and the religion and were therefore treated with reverence and respect and preserved in the best way possible. But changing times bring changing values and changing visions and the old traditional writings are not accorded the reverence that they once commanded although individual items may at times fetch a pretty price on the collector's market.

The onus of preservation of writings of all sorts--not just those relating to the court and to religion but also the trivia and minutiae related to our ordinary lives--now falls on librarians and archivists. They have done a good job--they are doing wonderful work--but perhaps they can do still more. The present is always the intersection of the past and the future. In the context of our times it is also the intersection of our heritage and our technology. How much then of our heritage goes toward the nourishment of our technology? How much of our technology goes toward the nourishment of our heritage?

Realities have been changing so that they now become virtual; the real world outside becomes condensed on our computer screens. Our lives as scholars have been a peripatetic one. We have backpacked from library to library, from archive to archive, made forays to monasteries with a manuscript collection, visited individuals with a good story to tell or a rare letter to show. It is an interesting life. We get to learn the culture of each individual library and archive and try to adjust that culture. We get to know the idiosyncracies of individual librarians and

archivists and try to humour them. We get to eat a variety of fast food lunches. But all this circulation of the libraries and archives also produces some wear and tear and, as we fray at the edges, we become more idiosyncratic and demanding. Perhaps our technology should help us out on this, make our lives of scholarship simpler and more comfortable.

Together with all the coming and going, our horizons have also been expanding. Once—it was ages ago—our horizon was the local community; we were the chroniclers of our local community, authors of the *Chiang Mai Chronicle*, the *Nan Chronicle*, the *Toungoo Chronicle*. Then, as our horizons expanded, we become national historians, taking part in the creation of our national identities. No more. Now our eyes lift beyond our national boundaries to embrace our neighbours and our region. We are no longer islands, no longer ourselves to achieve an overriding view of the life that we have in common, and, also within that, our own individual distinctivenesses. This new vision of ourselves is matched by the development of institutions which bring us together in this region on a wide range of problems, including the development of our learning and scholarship.

The present meeting has an ambitious agenda. Quoting from like prospectus, we are going to discuss “all aspects of preservation management, needs assessment, and collections surveys, scholarly priorities, funding opportunities, conservation and micrographic technologies and bibliographic access.” Yet there is a *déjà vu* air about this meeting. There was, at this very venue, the Chiang Mai Orchid Hotel, a meeting in December 1993 to discuss similar issues with regard to the preservation and conservation of manuscript and archival materials. Just as now, Acharn Rujaya Abhakorn was our genial host and generous of delectable local delights outside the meeting. Those of us who are veterans of that 1993 Meeting feel somewhat embarrassed and disquieted at our lack of achievement in the intervening period. Remembering the words, “Those who forget the past are condemned to reliving it,” we wonder whether we are condemned to a *samsara* of meetings.

But perhaps this time it is different. Being up on Doi Suthep is different from being in the valley. Being at the beginning of a new century perhaps gives us more *qi* or vital energy than being at the close of an old. The deliberation of King Mangrai and his two friends 700 years ago gave rise to a wonderful city whose delights we enjoy. Our deliberations in these four days should give rise to something of equal delight.

During the deliberation 700 years ago King Ruang of Sukhothai warned King Mangrai: "In the future wise men might look down on this and say that you did not fully consider the future and the past." Perhaps these words of caution might also spur us on in our efforts.

## KEYNOTE DISCUSSION, COMMENTS AND QUESTIONS

O.P. Agrawal

Thank you very much, John, for a very interesting and informative paper. You have very beautifully summed up the various problems that are faced in the libraries as far as preservation is concerned. I think you might add one more problem, and that is a question of the attitude. Apart from the physical sets of buildings not being maintained properly, or the stores not being maintained properly, and also the question of training and so on and so forth, I find that everything just goes to waste unless there is a different attitude. Why do I say this? I visit many libraries quite often. In the library itself, in India and outside India when I travel to various Asian countries, the roof is leaking. You have mentioned leaking roof, and things of that type. How is it that the librarian is unable to see the leaking roof? The roof is leaking, the mold is growing, the algae is growing ; it is so very apparent that the mold is there on the wall, the blackest spots, but the librarian is unable to see it. When I point it out, it is "oh well, it's because, you see, we don't have money". Now then I calculate how much money it costs—maybe 200 in terms of rupees. In dollars it will be 50 dollars, or something of that kind. But that money is not available because the attitude for preservation is not there. Attitude is something, but we cannot teach attitude. It has to be developed gradually. So, we have the question of awareness, the question of attitude on the part of the librarians, and also on the part of the higher authorities. I think that is extremely important. Thank you.

John F. Dean

Thank you Dr. Agrawal. I think one of the difficulties—and this is certainly true with most libraries—is that if you reflect on the way collections are managed, when books first come into the library through acquisitions and cataloguing, they are the responsibility of the people in technical services. When books are circulated or are used by reference librarians they are their responsibility. But most books actually just sit on the shelf, and unfortunately, the way that most libraries are organized, nobody speaks for the books. Librarians go about their tasks of cataloguing books, they go about their tasks of circulating books, but very few people speak for the books on the shelves. This is one of the reasons why I really try to speak to the point of developing some kind of preservation program in order to actually have someone speak for the books, so that the books on the shelf have some advocate. In between the purchase of a book and the use of a book, the time when materials are probably at their most vulnerable, there really needs to be someone to speak for them, and I really don't see that happening very much. This is not just in Southeast Asia incidentally. This is in many libraries throughout the world. As Dr. Agrawal said, it is almost as though it is somebody else's business, but not theirs. So, I think

we are moving now into a situation where there is much greater awareness than there used to be.

Maenmas Chavalit

Thank you very much for your paper which is very, very thought-provoking. Of course there are points that I agree with you, and I agree with Dr. Agrawal about the attitude, especially not only the librarians—the custodians—but also the people in general. In particular, regarding the old books. People say "Oh these books are old, let's discard.[them]" I have a lot of examples in our country with people, individuals, whose forefathers were the collectors of books. Then the younger generation thinks that "this is of no use, it is ancient, let's either sell it or throw it away". Or even in some institution I've been to, I have had this experience myself —Judith has said let us not hide the facts; this is true. You know, in some of the Buddhist scriptures, in some of the temples, in one of my surveys—well, I shouldn't let you know this because you may follow and pick up the things—I saw a basket-full of old palm leaf manuscripts. I asked the abbot about these, and he said "oh these are no good, we have made a new copy, these are old". So, I finally obtained these. The attitudes or the feelings towards the books which are old, in that they are outdated--as a matter of fact, we know that for some of the books, the older they are the more valuable, and they have a higher price--but these feelings are not always there. I think I discussed with you during the coffee break [now], we should also try collectively from the libraries having more or less a mass campaign using all kinds of mass-media to tell the people, you know even at the grass-roots level, about the value, because you never know-in some countries, they are the people who have in their own home these books which have been neglected. They should be aware of the value, and they should also be told that if they are very much tired of having these old things in the house, to please bring them to the library. It has been successful with some of the archaeological artifacts, but I think for books, manuscripts and other things, it's still very much behind. I recall going to some other countries and looking at the antiquity bookshops, and have seen so many of these valuable books there. I also sometimes advise that they should have taken it to the museum or to the libraries and things like that. Because I think that people, even the common people, can have a voice to say 'here is our treasure', and tell it to the government. In Thailand, for example (I'm sorry I have to mention my country), we have started towards this. In the current Constitution and the Education Act, one of the clauses mentions that it is the right and responsibility of every citizen to safeguard the cultural heritage, to look into what you have inherited and try to secure it. We can't see how this is going to be implemented. It is difficult but it can be done. By summing up, I think that it is the attitude and also the education for the people, at the school level, formal and non-formal, and many other things, because that is

one of the things that is lacking in our country and many countries that I have visited. We have not given enough education regarding the value of the books itself. Even [with] the books, we haven't had the reading culture even. So I think these things, from now on, if we have a collective effort, and the help in educating, and revising the curriculum to include here and there the value of the books and the necessity to preserve them, then this should be encouraged. Sometimes it doesn't cost much money. Thank you very much.

Tim Behrend

I would like to add my emphasis to both those earlier comments. But they are much more difficult and complex, this question of attitude. Looking at Indonesia- and my impression is that other states of Southeast Asia are in every way identical-the cultures that we are working, with modern technology and with concepts of preservation that really were born in Europe and brought here recently, we see that they really don't fit the history, the climate and the traditions of the areas. Within the context of Indonesia and Java, there never has been that antiquarian, preservationist sense that at all costs, it is necessary to preserve the physical thing from the past. In terms of texts, it is only the contents that were thought necessary to preserve. Under the tropical sun, with all the pests and insects and molds and rain and everything else that is present every day, it was always the case that a manuscript was considered to be a temporary vehicle, and within 50 years or a 100 years or whatever might be the case, a new copy would be made and the old one discarded. In the case of Java, it was discarded because not only was it beginning to get holes and the palm leaves were breaking and that sort of thing, but language conventions had changed, stylistics had changed a little bit, and it was renewed as a literary entity or as an ideological entity at the same time that it was made new materially. This is the cultural context that we have to work in. It is not only the case in terms of knowledge and writing and the preservation of those types of materials. If you look at the form of the house, for the great masses of the population, they might be thrown up in a day, and they might blow down or get holes in them within a few months, and they would replace this piece and that piece. So this idea of preserving a physical thing forever is simply alien to these cultures. While many here might have western education and have taken on this sense of the preciousness, this realization that it is only by preserving the physical thing that a moment in history is preserved, it is not the case for most people. If you look at the larger cultural context, what is happening to the cities of Southeast Asia? What is happening to Jakarta? Everything is being renewed, and to use the Indonesian word, made *canggih*, made sophisticated, made modern. And all the images that fill the media are images of the future of the world and -- what we are doing here -- in computer technology, in glass, in concrete, and in metal, and in big cities and in cars, and

now we have TVs and that sort of thing. And so, not only is the traditional culture not oriented deep within the individual and the culture towards the physical preservation of things old, but the contemporary modern cultures are also running as quickly as possible in the direction of the destruction of all that is embarrassing and all that is not modern--on the surface at least. So, there is this combination of forces at work that bear on this question of attitude, which I also think is a fundamental one. And of course, when it comes to caring for sweeping the floor, for dusting a book, or even scraping that mold off the wall, issues of extremely low salaries and of civil servants who are not constitutionally, or by training, librarians and preservationists and that sort of thing, but being put into those tasks, and having to work so much outside of office hours to make ends meet, and of having access to special funds where they do special tasks, like, clean one book and you get an extra penny at the end of a quarter or something, this also adds to it. And so, these issues are extremely complex, and one I can't begin to think of how to address them.

John F. Dean

I think your essential point that the idea of preserving an artifact is not within the culture is a very good one. In fact, a number of reports have actually commented upon that. The difficulty is that there are very few people able to achieve the copying necessary to ensure that the manuscripts are going to continue. This is especially true in Cambodia, where the ability to copy the original manuscripts is simply not there anymore. Mr. Smit, you have a question.

Wim J. Th. Smit

Thank you very much, Mr. Dean, for your very nice and valuable speech. For me, I was not familiar with some of these local situations; it was at some points an eye opener for me. I noticed some conflicting situations in your lecture. On one hand you have some recommendations for storage facilities, like temperature and relative humidity, especially for microfilms in low temperature, and especially under low relative humidity. On the other hand, you mentioned the local problems with electricity and so forth. What do you think people should do? Because you mentioned also if the electricity is failing, you get some condensation, and so on. If this happens very much, very often, then you have a large problem, even more, if this material is stored in average conditions. Can you point out what your advice is on this?

John F. Dean

As far as libraries that can afford it and can sustain a consistent energy supply, of course central air conditioning is clearly a viable prospect. One of the problems when you build a new building, and you plan to have that building heated and

cooled, with air conditioning is that you are creating a closed system. You are creating essentially a sealed box. Unless you can guarantee that the energy supply is consistent, you are going to suffer from all of the consequences of having a sealed box. Like in air circulation. If you look at many of the older libraries, particularly the old colonial libraries, you will see that first of all they have high windows. They are oriented to ensure that a prevailing breeze moves through the building. Clearly there is not a lot you can do in those buildings to reduce temperature or relative humidity, but you can at least reduce the incidence of mold growth by ensuring that there is some reasonable constant movement of air. One of the problems with the sealed system is that there is not. We have seen many instances in tropical countries where a western style sealed building is being constructed with really quite disastrous results. With air conditioning you cool all of the contents of the building. The object temperature and relative humidity goes right down. As soon as that system shuts off, the ambient temperature and relative humidity increases, and condensation results. It is like taking a frozen object out of a freezer. And there are real, frequently disastrous results. All I am saying—I am not speaking against air conditioning—is that this is an example, sometimes of unthinking application of something that works well in one kind of environment, and not in others.

Blasius Sudarsono

I think I have to give a comment about what Tim said about Indonesia. I agree with professor Behrend in terms of attitudes and part of the culture in terms of preserving and conservation of the historic. Our recent finding of *lontar* in Bali, a few years ago, we found actually there was a culture [of preservation], and if I can inform you that most of the old historical old artifacts from Majapahit, are actually kept by Balinese, because of the culture. I agree about the education. I think that right now we just always teach technical things to the graduates in the library school. We never thought about the spirit, the inner feeling of appreciation of the historical [artifacts]. I suggest that maybe we can make a kind of movement to change the curriculum, and then we introduce to revive the traditions or maybe local techniques or local ways in preserving this information. Thank you.

Helen Jarvis

I just wanted to pick up on a couple of the points that were made. One was I think in your paper, John, you suggested strongly the idea of a centralized storage facility. Maybe in a country where each individual library could not anticipate a fully sustained air conditioning system, but perhaps it's possible to have some central location at least for the storage of the masters, perhaps collectively that can be done. So I don't know that there is necessarily a contradiction in what you were saying, but two different ways of approaching it.

And I also wanted to come in on this question of cultural attitudes. I was a little bit uneasy about this idea that in Asia people don't revere the object. This is not my experience at all. I think the notion of *pusaka* and relics and things are highly entrenched in Asia. So, what is it? We know indeed what Khunying Maenmas said earlier of discarded manuscripts sometimes in baskets. But perhaps that is more the notion that that was the way that this particular item was sustained—copied. I mean that pattern of copying was its publication. I do not know that you can jump from that to say necessarily that there is a lack of reverence and that somehow the Europeans have a better reverence for the object than the Asian situation. I am uneasy with that.

John F. Dean

I agree. I think that the idea of copying is essentially no different than the scriptorium. The idea of writing was not necessarily in creating an artifact; it was in distributing and disseminating information. It was a more practical approach.

Let me just speak very briefly to the idea of central cold storage. One of the things that I think we will be addressing later in this meeting is the idea of providing a stable environment for materials that are extremely vulnerable, such as camera negatives, motion picture film—things that I see really virtually disappearing before our very eyes in many libraries here. I think the only practical way to deal with this is in, maybe, central cold storage—either nationally or regionally. Certainly, libraries in the United States have been using central cold storage for a long, long time. In fact, this might sound sort of contra-intuitive, but in the United States, most of the camera negatives produced certainly through the big grant funding projects are stored in caves. That sounds sort of difficult to get a mental grip of, in a technologically advanced society, but again, this is what we do. We do it for a number of reasons. First of all, it separates the camera negative from the original materials and the other generations of the film. Secondly, it makes sure that we have the benefit of volume, and that we can afford to spend time and effort on preserving large numbers of vulnerable materials. I think we have pretty much come to the end.

Rujaya Abhakorn

Yes, we have to come to the end. I would like to point out to Tim that in Thailand, and in Laos and maybe in Cambodia too, we have this tradition of keeping the manuscripts in libraries or repositories that are built in the middle of water, in a pond. This is an ancient way of keeping insects, especially termites, away from the manuscripts. I don't know about Java--maybe there is none of that

culture--but in Buddhist Thailand and Laos at least, we can find many. In fact, in Wat Chiang Man, the manuscript repository used to be in the pond, which we will see, but it was taken out and built on land, now. So that was an attempt to keep the manuscripts perpetually. I think Tim's point is well taken that there is this attitude towards the transitoriness of things, and we also practice re-copying of the manuscripts of course, but it doesn't mean we ignore the original manuscripts. There are also attempts in many parts of especially central Thailand, and also northern Thailand, to keep them forever. Whether we have succeeded is another matter.

John F. Dean

Let me just comment fairly briefly before we conclude. Preservation professionals and many librarians get involved frequently in quite polarized discussions about their sort of favorite mode of preservation. We talk about conservation treatment as though it is the only thing that exists. We know that traditional manuscripts, for the most part, tend to be held with reverence; they do tend to be, if anything, protected a little more than the rest of the collections. We know that microfilm is good. We know that digital imaging is good. We know that all of the modes, all of the strategies we use for preservation are good. We tend, as I said, to get involved in extremely polarized discussions as to which of these technologies should prevail. All of them—we need to use all of these. They are all, to mix a number of metaphors, tools in the arsenal or weapons in the toolbox. It seems to me that we really cannot afford to be disdainful of any particular method we have of preserving our collections. The big challenge today in most libraries, particularly in technologically advanced libraries, is how to do the old stuff at the same time as you are doing the new stuff. How are you going to continue to allocate funds to preserve the standing collection while you are scrambling to find money to buy new computers? So there are really serious challenges that we are being faced with today that are not just challenges in developing countries. These are very serious difficulties that all of us must face. I think we will probably hear much more about that over the next few days. Thank you.

**THE GENERAL SCIENCES LIBRARY OF HO CHI MINH CITY:  
MEETING INTERNATIONAL STANDARDS EFFECTIVELY WITHIN  
LOCAL BUDGETS AND RESOURCES**

Nguyen Thi Bac  
Deputy Director  
General Sciences Library  
*Vietnam*

***Introduction***

The General Sciences Library is located in Ho Chi Minh City, an important center of business, industry, international commercial exchange and more recently, both foreign and domestic tourism. The city is also home to numerous research and teaching institutions, including the University of Ho Chi Minh City, the Central Medical School, Buddhist University, Teachers Training Colleges, Politechnics, and others. The General Sciences Library is used very heavily by students, researchers, foreign scholars, and ordinary citizens. More than one thousand readers per day have been recorded.

The General Sciences Library was founded in 1868 as the library of the Admirals and Governors. Prior to the liberation of the South Vietnam in April 1975, the library was recognized as the National Library of South Vietnam. The construction of the building was started 1968 and finished in 1972. The current name, General Sciences Library, is the result of a decision of the People's Municipal Committee on April 14, 1978. The library is responsible for selecting and maintaining materials of all kinds published both inside and outside the country and for organizing and providing documents and information to users. The library is also responsible for planning and supervising 22 district libraries in Ho Chi Minh City; and providing professional support to 21 provincial libraries in the southern region of Vietnam. The collections of the General Sciences Library are based on the library's former role as the National Library prior to the liberation and unification, including more than 500,000 books, 10,937 thesis, 7,453 newspapers and journals (including 650 current subscriptions), 3,778 microforms, plus video tapes, CD-ROMS, pictures, music, maps, etc. The special collections include some seventeenth and eighteenth century French and other European and Indochinois materials, totaling more than 40,000 volumes. The collection are catalogued, and access is temporarily through card files. Library automation was started in 1990 and now the library has an On-line Public Access Catalog (OPAC), which is made up a number of databases. Information can be retrieved from the databases through both keyword and boolean search strategies. The General Sciences Library is the second node the Wide Area Network (WAN) of the National Public Library System of Vietnam and provides information services to the libraries in the southern region of the country.

The staff of the General Sciences Library are highly involved in the education and training of library school students through lectures and internships, as well as acting as consultants to different organizations to help them develop their own libraries. The staff of the library totals 114, including 19 librarians. With the aid of grant funding from various organizations outside the country, staff have been given the opportunity for education and training abroad in countries such as the USA, France, Taiwan, Thailand, and India.

The library plays a vital role in the economic development of the country as it promotes the national culture, supports industry, provides current information that influences government decision-making, supports research, stimulates the formation of joint-ventures and, perhaps, most important, is part of the massive drive to eradicate illiteracy. In this latter case especially, the library's work in rural areas through smaller libraries is ground-breaking and of great importance. The result of these multiple roles is to place a heavy burden on the collections and maintaining their condition for all levels of use is difficult as many are becoming damaged and fragile.

### ***Collection condition and State of Preservation***

The collection is heavily used by the large population of the city as well as serving as a research for students and scholars in the region and from abroad. Over the years, climate, insects, and war have caused severe harm to the collection, and great effort has been made by the library to preserve these often unique and scarce materials and render them fit for the heavy use to which they are subjected within limited budgets and resources.

In recent years, problem of the environmental pollution has become a serious problem, because the quantity of motorcycles and automobiles running on the roads is in great number. Industrial factories, especially, chemical plants and food-processing enterprises flourish much progress. The disastrous consequences it brings back is quite great for everything in general and for libraries in particular.

Generally, the building is kept from leaks and fire hazards. The three first floors are in good condition, but other 9 floors all have different problems. The closed-stack rooms are not equipped with air conditioners, so windows should be opened during the day. Dust and pollutants from outside stick all over the books. Sometimes, book got wet because of the rain when librarians didn't have enough time to close the windows. To avoid these problems by closing the windows, the close stacks are extremely hot with little air circulation.

Though we didn't have expensive equipment or special trained staff, we have tried to maintain the collections in best way possible by keeping the book and storage areas clean, termite proofing, covering glasses with allophane to keep book from sun expose and maintaining an automatic fire-alarm system. The library staff are trained to handle properly.

From the beginning, the General Sciences Library has always maintain a bookbinding section designed to ensure the physical availability of books and periodicals. Generally, collections of libraries exists to serve often undefined future research demands, but only a relative small percentage of their books are heavily used. They have a responsibility to identify these books for the everyday readers consider important, and quickly repair them if they are damaged or replace them if the paper is badly deteriorated. For us, as mentioned, our collections are used by more than thousands readers a day (so although the library maintains book repair regularly, the number of books, which have to be repaired is still high). Moreover, bookbinding facility is very poor and the budget for these activities is very limited (50 – 60 million VND, about 4,000 USD a year). We have tried our best to repair books using simple equipment and local materials to serve the increased demand of users.

We are also aware, the costs of new books and periodicals subscriptions are high. We have very limited funds, so we try to choose those materials that we believe to be important to our readers. It is equally important that we are sure that the decisions we make on protecting new acquisitions actually help the reader.

The climate of Southeast Asia is not to the long-term preservation of historic materials. Fluctuating temperatures with sub-standard storage to produce a legacy of water, mold, light, and other environmental damage, insects have ravaged the collection over the time, and large number of books and documents need paper repair to prevent additional damage through use. We do nothing in remedial conservation treatment because of the lack of skill technician, good equipment, and sound materials. The demand for conservation treatment always exceeds our capacity.

The library has also maintained a microfilming operation to preserve newspapers from the library's collections and from other libraries in the South part of Vietnam. In recent year, however, it has been difficult to keep up the quality of binding because of outdated equipment and lack of advanced training, and the microfilming operation has been largely inoperative because of constant breakdowns of the aging Recordak MRD II camera and processing equipment, given to the library by UNESCO more than thirty years ago. When I was writing this paper, the processor of SA Microforms Project of the Center for Research Library had been sent. And now, our staff is getting acquainted with the new processor.

The General Sciences Library has been making an effort render some of the old and precious materials accesible in the way that does not result in their destruction. Scanning has been used to create digital files. By producing digital images of these books, we can create an authentic representation of the original volumes for transmission and use. The department of preservation and conservation of the General Sciences Library has leading participant in such efforts, having created over 6,000 digital images of old Saigon (Ho Chi Minh City) dedicated to the tricentenary of the city. Scanning has been continue with reformatting old journals.

Despite the difficulties however, the library has made valiant efforts to continue to play a central role in the region, providing preservation training by internship for staff members from smaller libraries in the provinces and offering general guidance and advice.

These efforts were made possible by a grant of 350 million VND (\$25,000) from the Ministry of Culture and Information, the first preservation funding ever given by this agency.

Our objectives in preservation could not achieved without cooperation and supports from outside. In 1993, following collaboration with Cornell University Department of Preservation and Conservation in 1991, the General Sciences Library participated in the “Conference on the Library and Archives Preservation Needs of Southeast Asia” held at Chiang mai University, Thailand. Madame Huynh Ngoc Thu, then Director of the General Sciences Library presented a paper entitled “The Problems and Conservation Needs of Southern Region of Vietnam”, in which she clearly articulated the problems inherent in the situation and possible resolutions. The conference led to the formation of a consortium dedicated to the preservation of the endangered library and archives materials in the North Region of Southeast Asia.

The staff and administration of the library have striven to move towards a viable and comprehensive preservation program, attending conferences, seminars, and other training sessions. In the spring of 1995, the American Center for Research Libraries sponsored microfilming and conservation training in Hanoi, and all sessions were attended by key staff of the library, and as part of the same general efforts, John Dean (Cornell University) conducted a preservation workshop at the library and Robert Motice (University Microforms International) conducted an analysis of microfilming operation, succeeding in making the old Recordak MRD II microfilm camera operable for a time.

In 1995 Mrs Nguyen Thi Bac, vice-director of the library, obtained a master degree in library science at Simmons College in The United States, and between July and December 1999, she was one of the two preservation interns in the Department of Preservation and Conservation, Cornell University in Ithaca, United States. In 1996, Mrs Bac participated in SPAFA training course for preservation of rare books and manuscripts at Bangkok, Thailand.

Great effort has been made by the library to improve condition and expand access, with staff participation in international preservation initiatives, upgraded storage facilities, and increased bibliographic activity. However, there is still so much to be done in preservation to meet international standards. Most librarians in our library are not trained in preservation work nor do they have access to professional instruction in library conservation methods. The preservation of the public and academic libraries in the Southern region of Vietnam is worse. The conditions under which materials in these libraries are stored and are used are very poor, and the many regional publications, such as newspapers and documents are not preserved in any way resulting in permanent loss because of the short life of the ground-wood paper in which they are printed, combined with uncontrolled storage environments.

In addition, no procedures exist to strengthen weak library materials to withstand reader use or to repair and rebind damaged books. Staff in these libraries have no training in basic preservation or collection care and opportunities to slow down the rate of deterioration are missed because of lack of knowledge. A more active approach is now needed to begin the task of preserving the library's collection and rebuilding the library's central leadership role within the region.

### *Solutions*

It is the General Sciences Library overall intent to establish a comprehensive preservation and conservation program that encompasses upgrading the storage environment, reformatting endangered materials through microfilm and digital imaging, and to establish a conservation operation to restore rare and unique materials, and expand the existing bindery operations to repair materials damaged by use. These capabilities are needed to strengthen existing operations at the library designed to address the immediate collection, but perhaps more important, the library's traditional central role in assisting all libraries in Southern region needs to be expanded and both preservation services and training provided to them.

A modern preservation program can not be realized with limited local budget. The library will seek funding from other agencies to help support needs assessing of the collections and developing the library preservation program. The needs assessment and plan of development will also assess the broader needs of this

regional constituency and help to lay the groundwork for a functioning regional preservation and training center. During the time of my internship at Cornell, I was assisted by Mr John Dean with the preparation of three separate proposals : one for Needs assessment and Training Center mentioned above, one for new binding and conservation equipment, and one for new microfilming equipment.

We are trying to ask for more funds from government to maintain and upgrade the environment which has been resulted by some inadequacies of the building. It is not sufficient for librarians to be aware of their responsibility for the preservation of their collections. It is also important to raise awareness among the general public and those who are in a position to fund preservation program.

It is necessary for Ministry of Culture and Information and the authorities in the city to establish a library statute which fixes the library functions, duties and authority, so that we can act with the other institutions and organizations such as Finance Department.

Cooperation is a great solution. Unfortunately, until recently, libraries and archives in Vietnam haven't cooperated well, although they have the same problem to varying degrees: lack of money, inadequate buildings, and the impossible task to varying new technologies with old. At the same time, the international cooperation projects haven't been worked well because of different reasons. It is our duty to overcome this problem to make the cooperation projects be effective.

I am very glad to know that several papers on the cooperation topic will be presented by specialists from different countries. This is the opportunity for Vietnamese librarians, archivists and policy makers to learn and to share their experiences, then to improve the condition in the country.

I would like to take this occasion to express my deep gratitude to the Meeting organizers for invitation and my thanks to all participants for information. For us, Chiang Mai Meeting is a good cooperation activity through which we can exchange information on preservation. I hope we will have projects to help each other to create preservation programs in member libraries.

## **MEETING INTERNATIONAL STANDARDS EFFECTIVELY WITHIN LOCAL BUDGETS AND RESOURCES**

Peter Arfanis  
National Archives of Cambodia  
Cambodia

After almost ten years of international aid and development the Cambodian economy today is still dependent on foreign aid and investment. The Royal Government of Cambodia, with its overstuffed civil service, has little cash and resources with significant portions of its budget allocated to military expenditure, and sectors such as rural development, the environment, public works, and health. Unfortunately, the Government at this stage does not consider libraries and archives as high priorities in Cambodia's redevelopment. Therefore, it is left to the staff and volunteers of archives and libraries in Cambodia to take the initiative to secure the resources and funding needed to develop their activities, which includes amongst many activities, preservation and conservation of their holdings. They also have the added responsibility of developing an awareness of the importance of archives and libraries in Cambodia and to try to persuade the Royal Government of Cambodia to support their most basic of functions. To gather support for a microfilming project would be even a greater challenge. There is very little microfilming experience available in Cambodia and no suppliers of microform equipment and film. Without government funding and allocation of resources how will Cambodia be able to establish and operate a national microfilming project that requires technical expertise, good management, and adherence and attention to strict standards?

The initiative to create a national microfilming project is being pushed from within the National Archives of Cambodia (NAC). There has, to my knowledge, never been a national preservation-microfilming project in Cambodia. During the early 1990s Cornell University coordinated a project to film palm leaf manuscripts held at the National Library of Cambodia. It was a short-term project and once completed was dismantled. The Documentation Centre of Cambodia (DC-CAM), a local non government organisation responsible for documenting and collecting evidence relating to the atrocities committed by the Khmer Rouge, has a small microfilming program, coordinated by Yale University Sterling Memorial Library and funded by SEAM, to film documents they have collected. Both are projects focused a specific target. The NAC has applied to various funding bodies for assistance to setup a national preservation microfilming project. The project aim is to begin preservation filming of material from its holdings and for the project to grow to include material held in other institutions, such as the National Library, the National Museum, Ministry of Information, and the Buddhist Institute.

Like many projects in Cambodia the NAC will initially rely on foreign funding to get started, to purchase equipment and run the program. However, if this project is to run for the long term and continually meet international standards then the NAC must attempt to find ways of generating income and national support while becoming less reliant on foreign funds.

Since 1995 the NAC has been conducting a program of redevelopment involving the arrangement, description, conservation and public accessibility to its holdings which had suffered considerably following years of social and political upheaval. Its collection consists of over 2000 linear meters of documents, the majority created during the French Protectorate period (1863-1954). When this project began the NAC did not have trained staff. Equipment such as photocopiers, computers, printers, archives boxes and other conservation materials were unavailable. The NAC relied on foreign funding to acquire basic supplies and overseas courses for its staff. The NAC is aware that donors will not support its activities indefinitely. Consequently, the NAC has attempted to become more self sustaining by raising funds from renting land around the repository to small business, by promoting itself through the local media and at universities thus attracting more people to use the NAC. The NAC is charging research fees to foreign researchers, providing photocopying services, writing stories for local newspapers, appealing for donations from the private sector and providing research services to companies for a small fee. While the money raised from these ventures does not amount to a large sum it is enough for staff to dedicate more time and pride to their work. The increase in the numbers of researchers using the archives has the effect of creating a greater sense of accomplishment, direction and responsibility amongst the staff, who previously found it difficult to appreciate the importance of their work in a country that was facing so many problems. A microfilming project requires dedicated and well-trained staff. To have such staff our project would require supplements to their meager government salaries. It is a recurring theme involving projects in all Cambodian government agencies.

Making priority decisions, being open, versatile, and flexible has been important in the growth of the NAC and we see this type of strategy as the basis for our envisaged microfilming project. Meeting international microfilming standards with small budget and resources will require the NAC to show flexibility and open up its project and cooperate with its neighbors. If the NAC were to rely solely on Government funding it would not succeed. The timing of this meeting is ideal for the NAC. The ideas and recommendations that flow out from here may have a great influence on how the NAC will structure and operate its proposed microfilming project.

In planning our microfilming project we have identified a number of important stages in the process that we think are important in controlling costs. These are:

### **The Selection and Preparation of Documents**

Generally the selection criteria for preservation microfilming don't place a high emphasis on the commercial value of a series of documents. It would be advantageous for the NAC to perhaps begin with filming documents that institutions abroad would be interested in purchasing, the funds from which will go back into the project. The project could be partly funded by sponsors or subscribers who are interested in copies of film produced.

Choosing a series of documents that have qualities that make them easy to film at the beginning of the project may help in easing staff into the technical side of microfilming and assisting their understanding and compliance with international standards.

### **Selection of Equipment and Film**

Given the lack of funds and technical expertise in Cambodia it makes sense for the NAC to purchase low tech easy to maintain equipment. For example the MRD2 camera has a reputation for being robust, low maintenance, cheap parts, and easy to repair. There are many on the market and they can be purchased at a low price. Also we should select a film and format that is versatile. Service copies on 35mm diazo film is the preferred choice.

### **Training and Education**

The NAC may have to train operators who have had no previous experience in microfilming. Fortunately for the NAC the planned establishment of its microfilm project will come at a time when its regional neighbors have already established successful microfilm projects of their own. Our project has budgeted for visits by NAC staff to projects in the region and for trainers from the region to spend time in Cambodia. We hope that in the future low cost training programs can be set up in collaboration with our experienced neighbors who would share similar experiences to Cambodia, providing opportunities for camera operators and project managers to share information and strategies. Close proximity of other projects in the region means travel costs are much more manageable.

### **Film Processing and Inspection**

Given the delicate nature of film processing, the high cost of equipment and chemicals and the need for the right facilities and conditions to carry out this process, we feel it would make more sense to have film processed outside of Cambodia, preferable in collaboration with one of our regional partners. Quality assurance could also be left to an outside source which means equipment such as densitometer and microscopes are not needed.

### **Storage**

Storage of master negatives will be one of the more difficult issues facing the NAC. There are no repositories in Cambodia that meet the stringent standards for archival storage, nor are there commercial facilities with film vaults. To establish an offsite facility in Cambodia would be expensive and difficult. Whether an attempt should be made to establish a national repository for microfilms in Cambodia or to collaborate in a regional repository is open to discussion.

### **Bibliographic Control**

Resources would be wasted if unnecessary duplicative work took place. Sharing bibliographic information about filming that has been or will be done on an international level is of major importance in this project.

### **Conclusion**

The whole prospect of the National Archives of Cambodia, a government department, starting a national preservation microfilming program from the very beginning in a country with a small national budget and little resources is a daunting challenge. However, with international meetings such as this one, international support and collaboration, and a realistic and practical approach to obstacles that we will face, the NAC should be able to establish a microfilm project that will operate to international standards.

## QUALITY CONTROL WITH EMPHASIS ON FILMING AT REMOTE LOCATIONS

Melvin P. Thatcher  
*Genealogical Society of Utah*  
USA

The challenge of attaining international microfilm quality standards within limited budget and resources can be effectively addressed by acquiring and using the necessary equipment and instruments and establishing and faithfully following quality control procedures. Refilming books or documents to replace exposures that have unacceptable quality is very expensive. Funds and other resources will be saved when the job is done correctly the first time. This requires some initial investment in equipment and personnel but in the long run the cost savings will be great.

"Microfilm quality" has two important aspects: 1) life expectancy and 2) readability. "Life expectancy" refers to the longevity of the image on microfilm. A life expectancy of one hundred years (LE100) or more can be attained for the camera negative through the use of the proper film stock, proper processing, and proper storage conditions. "Readability" means that the density, contrast, and resolution of the image on film must permit the writing on the page to be readable through a specified number of generations. To be in compliance with international microfilm quality standards, an institution should base its quality standards on ISO 6199 and 6200 or ANSI/AIIM MS23 standards or national standards that are derived from these standards.

In this presentation, I will draw on the experience of the Genealogical Society of Utah's worldwide record preservation program, which includes more than twenty-five years of microfilming in Southeast Asia. All of our production filming is done in locations that are hundreds to thousands of miles away from our processing laboratory; so I will give special emphasis to establishing and maintaining quality control when filming at remote locations. I will focus on equipment, instruments and procedures, especially the latter, that facilitate attaining international microfilm quality standards in the most cost effective way.

Due to the limitation of time, I will only be able to touch on the most crucial points for controlling quality. This discussion will take us briefly into the

film processing laboratory, then to the camera with particular reference to what procedures have to be followed when it is located some distance from the

laboratory, and finally to film evaluation. I will not spend time on microfilm quality standards or microfilm storage as these topics are being treated in other panels at this conference.

### **Processor Control**

Maintaining a stable, predictable processing environment is the key to quality control in microfilming. A deep tank floor model or table top processor that requires the film to pass through the developer, fixer and water baths is recommended [Figure 1]. The processor must have an effective water filtering system and an adequate water supply. If the manufacturers operating and maintenance instructions are faithfully followed, this type of processor will do quality processing. Lab personnel must also have access to a densitometer in order to monitor and control processing. The processor should be cleaned at the end of each processing day and the laboratory must be kept clean in order to prevent damage to microfilms from foreign particles.

To ensure that the processor is capable of producing acceptable quality, our laboratory personnel run two tests at the beginning of every processing day before production films are processed; these are the scratch test and processor control test. The two tests are done at the same time by splicing and running them through the processor together.

The scratch test is performed by running a piece of clear leader (i.e., unexposed film) through the processor, then checking the film for scratches that occurred in the processor. If scratches are found, the causes must be identified and eliminated before processing production films.

In our laboratory the processor control test is performed in two steps: 1) A control strip is developed by hand using Kodak D-19 developer to establish a reference density for the strip. 2) Another control strip is run through the processor operating at normal speed and temperature. After processing, the

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A processor control strip is a series of frames exposed at 21 incremental light settings. Control strips can be purchased from your vendor, who will also provide a reference density.

Hand developing tests in our laboratory have determined that Kodak D-19 developer gives results that are closest to the results of processing in a microfilm processor. We have found the hand test results to be reliable for controlling the processing of Kodak, Agfa, and Fuji microfilm.

This step is needed to confirm what the density of the control strip should be when properly processed.

resulting density at the same step on the control strip from the processor is then read in a densitometer and compared to the established reference density. Each time a control strip is processed in the processor the results are plotted on a processor control chart [Figure 2] and monitored for variation from the reference density. The D-min, or base fog, in the unexposed portion of the film is also plotted and monitored. If acceptable density is not attained, then corrective action must be taken, such as replenishing the developer, adjusting the temperature, etc., and additional control strips developed until the processor is in control before processing production filming. This processor control test procedure and associated adjustments, when needed, are necessary to ensure that documents on exposed films will be developed at the expected density.

To ensure proper processing for LE100 or more a periodic methylene blue test must be performed for residual chemicals, or “hypo,” on processed film. To perform this test, send a short strip of processed film to the microfilm vendor or to a service bureau for analysis within two weeks of processing. If the hypo content exceeds  $1.4 \text{ ug/cm}^2$ , then the processor’s water supply system must be checked for problems such as plugged filters and insufficient water flow volume; the problem must be corrected before processing production films. The frequency of this test will be determined by an institution’s processing schedule and workload.

#### ***Mechanical, Resolution and Exposure Step Test (MRE Test)***

The camera operator is responsible for attaining film quality at the camera, particularly when the filming location is not reasonably close to or on the same premises as the processing laboratory.

First, the filming site must be properly prepared [Figure 3]. The portable camera must be set up on a sturdy table, in a place away from excessive vibrations, like elevators or heavy vehicular or human traffic and with an adequate and stable supply of electricity. If the latter is not available, then a voltage stabilizer and generator are necessary. The intensity of ambient light in the room must be weaker than the camera lights; if this is not the case, the sources of light must be covered or turned off.

After the camera has been set up and its lights have been adjusted for balance (in the cases of the Kodak Model-E and MRD cameras and the Gordon-Hirakawa camera), the camera operator must do an exposure step test [Figures 4 and 5]. This test requires exposing a title board with technical information about the camera and film emulsion, a whiteboard that covers the entire copyboard of the camera, a technical target with resolution charts, and a typical document at different light settings or shutter speeds, depending upon the type of camera. Ten

exposures of simulated production filming are also recommended. If the camera is located in a microfilming center with a processing lab, the exposure step test can be developed in the processor.

When the camera is located at a remote site, we have our camera operator do a mechanical, resolution, and exposure step test (MRE test) to make sure that camera is operating properly and to select the correct exposure setting(s) for the documents that will be filmed. The camera operator does an exposure step test as outlined above, then processes the test strip by hand using Kodak D-19 developer. For this purpose, the camera operator is supplied with a change bag, a hand tank, scissors, a thermometer, a couple of beakers for developer and fixer, and a microscope. The developing time must be precisely according to the temperature of the developer [**Figure 6**] and the washing, fixing, and final wash steps must be done within the prescribed time limits for the results to be valid [**Figure 7**].

After all of the processing steps are completed, the camera operator evaluates the results.

Technical information on the title board is used for interpreting the test results, for troubleshooting, and to keep track of the film emulsion number.

The entire test strip is inspected for evidence of mechanical problems such as overlapping frames, broken shutter, etc. It is also checked for environmental problems like reflections and extraneous materials in the frame. If any problems are found, the causes have to be corrected and another test done for confirmation before production filming begins.

The whiteboard is checked for light distribution. The density variation between the center of the whiteboard and the corners and between the corners themselves must not exceed .20 [**Figure 8**] when the test is done at a remote filming site under less than ideal conditions. At a microfilming center a more stringent standard may be applied and attained. If the density variation is not acceptable, the camera lights must be balanced and another test performed until correct light distribution is achieved before beginning production.

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When filming in warm Southeast Asian climates the camera operator may have to use ice in a bucket of water to create an environment that is cool enough for developing film. In such a case, the ice must be removed when the water has cooled sufficiently. The beaker with developer is then placed in the water and cooled down to the temperature of the water. After the developer is poured into the hand tank with film inside, the hand tank must be held in the cool water during the development time.

The resolution charts on the technical target must be viewed through a microscope in order to check the resolution. If the resolution is not acceptable, the cause must be determined and corrected, and more tests performed for confirmation, before beginning production.

The exposed documents are checked with a densitometer or with a density comparison strip to determine the best light setting or shutter speed for filming documents that have the same paper color as the test document. If the documents to be filmed have a variety of paper colors, an exposure step test must be performed for each color in order to determine the appropriate light setting or shutter speed for the paper color. During production filming the camera operator must expose each color according to the test results in order to attain uniform density from frame to frame on the roll.

The simulated production portion of the test strip is inspected for filming techniques. If or when everything is found to be in order, production filming can begin.

In the case of remote site filming, the camera operator may be required to film an exposure step test at the front of a production roll for processing in the laboratory. This is done as a control on the camera operator's hand processing. The camera operator should expose and process an MRE test, then use the same documents for the exposure step test that will be processed in the lab. The MRE test is sent to the laboratory together with the exposure step test roll. The results of the two tests are evaluated and compared. If there is a significant variance between the two tests *and* the processor is in control, the camera operator should film according to the laboratory results and review his or her hand developing procedure.

When doing production filming, the camera operator must follow the required targeting scheme [Figure 9]. This includes the use of quality targets to inform the film evaluator that there are problems with the original documents [Figures 10 and 11]. This should prevent requests for refilming when the camera operator can do nothing to improve the quality of the image.

In our experience a beginner can learn these procedures and correct camera operating techniques in a two week training course. The MRE test can be performed, processed, and evaluated in less than one hour. It should be done at

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In our system the exposure setting selections and the processor are both controlled by developing tests using D-19 developer; so if the tests are developed correctly in both instances, the camera and the processor will always be synchronized. And the density on production films run through the processor should come out as expected.

least weekly, or when the camera is relocated, or the film emulsion number changes, or whenever the camera operator suspects a mechanical problem or thinks someone may have tampered with the camera. The cost of equipment and supplies needed for the test is money well spent. Faithful application of the foregoing procedures will go a long way toward ensuring that international microfilm quality standards are attained by filming in the first instance; thus reducing or eliminating the need for refilming and the consequent wastage of money and other resources.

### **Corrective Feedback**

Timely corrective feedback is also essential to attaining international microfilm quality standards. The camera operator must ship exposed films to the processing lab at least weekly for processing and evaluation. Holding the films longer and allowing them to accumulate at the camera will simply result in compounding quality problems and significant increases in the cost of correcting them. The camera negative must be evaluated as soon as possible after processing. Corrective feedback must be sent to the camera operator by the fastest, affordable method. The camera operator must know how to interpret the feedback and make whatever corrections are necessary to fix problems and maintain the required quality.

Equipment and supplies required for a film evaluation workstation include: a densitometer, a light box, film rewinds, scissors, a film splicer (preferably ultrasonic), and lint-free gloves. The working environment must be free of dirt dust, and other particles in the air or on work surfaces that might cause damage to the film. The evaluator must wear gloves to avoid leaving fingerprints on the negative that may shorten the life expectancy of its images.

The processed negative is evaluated against standards for density, resolution and legibility [**Figure 12**]. Because our cameras are all filming old historical documents in locations remote from the processing lab, we employ the concepts of “recommended,” “acceptable” (or substandard), and “unacceptable” in administering our film quality standard [**Figure 13**]. Corrective feedback must be given whenever the quality falls outside of the recommended ranges for density and resolution but is still within the acceptable range. The evaluator records the results on an evaluation worksheet [**Figure 14**] that can be sent to the camera operator and is used to produce a formal quality assurance report [**Figure 15**]. Tracking and reporting substandard but acceptable images enables the camera operator to make corrections before quality drops into the unacceptable range and refilming becomes necessary.

Film quality evaluation should not be done by the camera operator who exposed the film. An independent appraisal will help ensure that international microfilm quality standards are met. Consequently, maintaining harmony and a good working relationship between the camera operator and the film evaluator is an important part of a smooth microfilming operation that produces high quality images.

### **Conclusion**

International microfilm quality standards can be attained within limited budgets and resources by using the right equipment and quality control instruments and by strictly following correct quality control procedures. Some equipment and instruments are expensive but they will last for a long time if properly handled and maintained. The processor control, camera operation, and film evaluation procedures that have been presented can be easily and quickly learned by staff. Working together as a team, the processing laboratory staff, camera operator, and film evaluator can produce high quality results. Management or supervisory oversight to make sure that correct procedures are followed will ensure that films are processed properly for the desired life expectancy and that microfilm readability standards are met in the most cost effective way.

## General Discussion

### **Technical Operations:**

#### **Topic 1: Meeting International Standards Effectively within Local Budgets and Resources**

##### *Paper Presenters:*

*Nguyen Thi Bac*

*Peter Arfanis*

*Melvin P. Thatcher*

##### *Moderator: Dara Kanlaya*

Tim Behrend

I would like to say thank you for the papers that were delivered. I found them full of technical detail and institutional information that is quite interesting. And yet, I feel like we have spent more than an hour hearing presentations that we cannot process very well, and that none of them has addressed what I thought would be addressed. The question before this session was “Meeting international standards effectively within local budgets and resources.” And so, I would like to ask a question about that. The little bit that I was able to get from you, from Mel’s thing for example, was that within limited budgets, that questions of scale are significant. They have a worldwide operation with centralized processing, centralized operations. So the question that occurs to me is, is it possible in the regional context that we are talking about, to make use of the sort of model that the Genealogical Society of Utah represents? Is it possible, for example, to have a regional body of some sort that could centralize many of the technical aspects of microfilming, rather than a dozen different national and subnational technical centers? Does it make sense to have a centralized thing like Mel’s that all the members would contribute to and participate in, that would make better use of the resources and spread technical expertise at the same time? That is one question, and certainly associated with it, does it make better use of local resources not to try and replicate technical establishments within state funded organizations, but to job out or to subcontract the actual filming? To me, I am not a librarian, but these are a couple of questions that struck me in the course of this panel that sort of address the topic of this session. I do not mean this disrespectfully at all.

Melvin P. Thatcher

The point of my presentation is that if you follow the procedures which were designed to obtain good quality film, you can save a lot of money. It is very expensive to have to re-film, and so you want to get it right the first time. Our

expectation is that we want 98% conformity to international standards on first-time filming. Last year we didn't quite make it—we had 96.5% on 78 million frames. But the point is that it is very expensive to go back and film so you want to design your project if you are going to do filming at remote sites in such a way that the camera operator can start, he can go to the site and set up his camera, he can do some tests and he can start production with confidence that he will get good quality. If you go to a remote place, he does a test, he sends it back to the central lab, waits for a week or two weeks or three weeks to hear from it, then you are wasting resources. So this procedure that I introduced is designed to allow you to start filming right away and get good results and not have to film again, possibly.

Barbara Berger Eden

In the United States, we are following the model of many of the academic libraries of outsourcing all of our microfilming. If and when a preservation center is established here in Southeast Asia, that model could certainly be used where the center would be the place where the materials would be shipped to, they would be prepared by the home institution, be shipped to the center where the filming is done and then sent back to the home institution for inspection. I think that model could be easily replicated and work quite well here.

John F. Dean

If I could just add a little bit to what Barbara said, I think Peter mentioned what may be a very good model, which was to shoot the material on site, because one of the things that many people who have worked on many of these projects in the past have found is that politically, it is often very difficult to move materials across international boundaries. So the model that Peter mentioned may well have a great deal of promise. That is, to shoot the material on site, and process the film elsewhere, where there is high quality processing and storage available. When we filmed the palm leaf manuscripts that Peter alluded to in Phnom Penh, at that point we were shooting the material—this is all we had available at the time—the camera negative was being shipped via the International Red Cross, eventually to Cornell. It was being processed within 24 hours, the results then faxed back to the filming operator—very complex, very difficult and extremely clumsy. But I am quite certain that that is the kind of thing that could work quite well in a neighboring country. So I think there is a fairly good combination of those methods that could work efficiently.

Judith Henchy

I just want to follow up on that and say I think Peter's model is a good one, but I just want to say also that John is correct of course that there is a lot of political sensitivity about moving sensitive documents or very fragile documents physically out of the country, particularly. On the same token, I think there is also

sensitivity about shipping the film itself to an outsourcer, or to an unknown entity for processing. I would like to hear some comments on that, because this does seem on the face of it to be a good model but in my experience this has not been possible. Even Mrs. Bac has mentioned the attempts to develop cooperative microfilming or cooperative preservation for regional preservation within just the southern part of Vietnam, but I know from my experience working in Vietnam that moving materials even fairly short distances can be very problematic. So, I would like to know if perhaps somebody has a comment on that.

Blasius Sudarsono

My [comment] is very basic actually. Within this present time, I think that centralization is no more an eligible action, because decentralization is actually what the network is developing. Thank you.

Melvin P. Thatcher

I would just like to make a comment on two things. One is that we have been microfilming in cooperation with Chinese organizations since 1983, and there you have the problem of bringing unprocessed film out of the country. And you do not have a choice, or a budget to do local processing. I don't think it is so difficult to set up. If you can work out through a cooperative project a way of acquiring equipment that you need to set up a processing lab, and then if the other party can provide a trainer, I don't think it's such a big deal to train somebody to start your own processing lab. We did this for the Shanxi Academy of Social Sciences in Taiyuan, Shanxi. For three weeks of training, we trained them from a-z, with people who had absolutely no experience or no background in microfilming. So we trained them in microfilming, camera operation, and processing lab, and evaluation and in film duplication. So I believe that it is possible. I don't think we should make too much of the difficulty of training. I don't mean to minimize by my comment. This is just our experience that in three weeks, we were able to set up an entire operation from nothing. So it can be done, and we should not make too much of the difficulty.

Alan Feinstien

My question has to do with precisely this sort of training for your own purposes, processing for your own purposes. The Genealogical Society of Utah has made an enormous contribution, it seems to me, over the years, preserving a lot of genealogical as well as non-genealogical material, which is accessible worldwide. But I wonder what sort of contribution it has made to developing local capacity. These people in China you trained—after you finished your project, do they go on working as microfilm operators? Is there some benefit locally to these institutions? Secondly, wouldn't it have made sense, rather than shipping everything back to Utah to be processed, to have developed the processing locally

or regionally from the beginning? That would have saved you money, it is less of a distance, there is more control, and you would have added to helping develop local institutions.

Melvin P. Thatcher

Well, there are pros and cons to what you are saying. In China for example, we have made major contributions to the developing of an awareness of international microfilming standards. We have done four micrographics workshops, two sponsored by the First Historical Archives of China, one by the National Microfilming Center for Library Resources, and one by the Shanghai Library. We have also brought in trainers to train people; there was a transfer of technical know-how, and the work was all done there. In the case of Southeast Asian countries, in the Philippines, we have had the same impact on the microfilming, by the microfilming corporation of the Philippines, the transfer of knowledge and expertise, but in some countries, we have not found willing partners. And when we have not found willing partners, then we have had to do it on our own. It is just a mixed bag. We would be happy if as a result of our projects a country can not only have important historical documents preserved, with a copy left in the country, but a transfer of know-how so that the process can continue. But that depends upon cooperating parties on both sides.

Kwek Chew Kim Gek

This is a little question for Mr. Thatcher. I am from the National Archives of Singapore. We have used test charts from different suppliers, and it seems that different test charts give different readings. And there is a difference between matte finished test charts and glossy-finished test charts. Maybe from your experience you can tell us where to get the test chart from more reliable suppliers. The second question is that we are also involved with toning of master microfilms with poly-sulfide solutions. Do you have any comments on this practice? Thank you.

Melvin P. Thatcher:

Maybe John would be a better one to answer the question on where to get the best test charts.

John F. Dean

You can get them from AIIM. Let me ask Barbara to answer that question.

*[Laughter]*

Barbara Berger Eden

The Association for Information and Image Management produced the test charts and you can order them from them, and also you can order them directly from manufacturers such as Hull Equipment. So you have two choices.

Melvin P. Thatcher

We create our own technical target, but we are using the line patterns from AIIM. This is made to our own needs, but some of the charts, the metric strips for example, you can buy from the film manufacturers—you do not have to make your own. The methylene blue test, which you need to do to make sure you are washing the film clean enough, that can be done by a microfilm service bureau or a vendor. So you do not have to buy the expensive equipment to do the methylene blue tests either.

**I'VE GOT A DEADLINE IN THE MORNING . . .  
PLEASE GET ME TO THE FACTS ON LINE**

Tim Behrend  
Department of Asian Languages and Literatures  
University of Auckland  
New Zealand

**Introduction**

I have been asked to speak briefly on the topic of 'Providing bibliographic access both locally and internationally'. Whatever 'expertise' I have in this area was picked up on the fly while working on projects designed to preserve the contents of important Indonesian manuscript collections through microfilming. Part of my duties in organising those projects was to produce descriptive catalogues of the collections in order to make access to both the original manuscripts and the microform copies available to as wide a public as possible both in Indonesia and abroad. That is the extent of my experience working as a cataloguer and bibliographer, and I naturally feel very much the pretender amongst the specialists and professionals who fill this room.

At the same time, though, I am active on the user end of the information nexus. Nearly every day of my life I make repeated use of reference tools that have been assembled by individuals and institutions in the field of Indonesian Studies over the past century and a half of scientific activity. These cover the range from photocopies of handwritten catalogues of manuscript collections and dog-eared printed resources filled with 20 years of my own scribbles and marginalia, to a dozen databases put together for my own purposes over the past decade and the infinitely expanding mass of pixilated data racing outward from the big virtual bang that gave birth to the Internet. Most important among these, and of most general interest, are the on-line catalogues of major research collections.

It is primarily this experience of endlessly needing, seeking, and using information to pursue my personal and research interests that I will call upon to suggest some ideas relating to bibliographic access. What I will propose will in essence be the type of access I would like to have next week when I return to Auckland and get back to work on my current writing and teaching projects. Some of the details in my list of desiderata will be beyond the reach of what is currently possible, and none of it will be informed with any technical comprehension of either the protocols of cataloguing science or the associated computer programs

and applications. But just as science fiction writing has been inextricably bound up with certain impulses in actual scientific progress, so perhaps my assigned exercise in bibliografiction might add some fractional spin to the direction of thinking among you library scientists and information managers.

Let me begin first by giving a rough and partial overview of Indonesian Studies materials for which cataloguing is currently available in various forms, then follow up with areas in which improved bibliographic access is urgently required. I will not limit this to microform items, as the physical platform on or in which information is stored seems to me a bibliographic detail, an accident of accession, an aspect of storage and retrieval for use, but not something in any way significant to the nature of the information. From the point of view of the end user, the information is all that matters, and the easier it is to find, the fewer separate tools, steps and searches that must be taken to lay one's hands (or eyes) upon it, the better. I will also try and break down the walls that I perceive to separate collections and information by types (e.g., manuscripts, monographs, journal articles, archival materials, photographs, videos, electronic texts, dictionaries, webpages, Internet search engines), and that typically have access controlled or driven by the limitations and categorisations growing out of older technologies

### *State of the resources*

Beginning from the bottom up, or from the least accessible to the most, I have listed some examples of current bibliographic tools for humanist scholars of Indonesia and Java. Similar aids to access and information presumably exist across all fields, disciplines, and geographic/linguistic areas.

- **Personal catalogues, card files, notes, databases, and other materials created by scholars and devotees.** Over the course of their careers, most scholars construct custom tools to support their research interests. These are often jealously guarded throughout the lifetime of the compiler, but may be made available in part or in whole to colleagues, students and friends. After the career of the compiler closes these often make their way into libraries and archives as bequests. Often the individual items within such a legacy are not separately catalogued, but lumped under a single entry, and are rarely again available to the majority of users who might take great advantage from them. Instead, each generation of scholars begins anew to compile their own resources resources, which they then tend to guard as jealously as their professors before them. One prominent example in my field would be the private indexes of manuscripts and the poetic forms found in them created by J.L.A. Brandes during the 1890s when he served as head of the manuscript section

of the Batavian Society for Arts and Sciences. Related to these are copies of reference works such as dictionaries that were once owned, and frequently annotated, by great scholars of past generations.

- **Handwritten (typed/word processed) accession lists, collection descriptions, archive holdings.** Libraries, manuscripts collections, personal and institutional archives, museums similar establishments often have notes assembled laboriously over time that register and keep track of their holdings, but are only available to staff within the institutions and in some cases to on-site visitors. Older collections began with such handwritten catalogues, of course, but later produced published lists of holdings, though the latter frequently contain only a portion of the information available in the original notes kept behind the desk. One example is the manuscript accession notes of the manuscript collections at the National Library of Indonesia that contain invaluable information on acquisition and provenance, as well as references to the minutes of the Batavian Society in which gifts and purchases for its many collections were reported and relevant correspondence cited.
- **Detailed notes on collection items.** In the case of manuscript and archival collections, the institutional custodians have often undertaken projects that spanned decades to study and document in detail the heterogeneous and bibliographically challenging items in their care. Examples in my field include the thousands of pages of Soegiarto notes and transliterations prepared under the direction of the professors of Javanese at Leiden University and the voluminous notes made by Poerbatjaraka and associates on the manuscripts in the Batavian Society collections. Such resources are often little known to all but the most active scholars in the field, and inevitably require travel to the collection for consultation. In some cases, the staffs of collections themselves might not be fully aware that such resources sit on their shelves, and instances can be cited in which decades of painstaking uniquely expert labour have been lost to the world through neglect and eventual decay or dispersion.
- **Published manuscript catalogues.** In the area of Indonesian Studies there has been a regular stream of published manuscript catalogues since the 1860s. Periodically a new catalogue updates an older one, expanding the contents to include new acquisitions, but in many cases providing progressively less data than the original – citing instead the earlier works and inviting the reader to seek further information in their pages. Major catalogues are found in Dutch, English, French, German, Indonesian, Latin, and Malaysian, and a working knowledge of all or most of those languages is required to make good use of these resources. After taking the years required to learn this range of languages (in addition to the languages of the manuscripts themselves), a

thorough search of holdings in Europe and Southeast Asia requires the researcher to open dozens of different volumes, many of them indexed only poorly or not at all, and most of them not ordinarily held by any but the few most complete libraries in the world. Even getting to know all the manuscript catalogues that need to be searched requires consulting a separate catalogue of catalogues, itself running to hundreds of pages for all languages of the archipelago.

- **Library card catalogues, microfilmed card catalogues, published accession lists.** Each library until the last quarter of the twentieth century had its own, stand-alone catalogue in one form or another. Sometimes these (or parts of them) were published for distribution to other research centres, such as the Cornell Southeast Asian Collection, the accession lists of the Royal Institute for Linguistics and Anthropology, and most memorably for those over 40, the kilotomes of the LC's Union Catalogues. These were followed by the much more portable, inexpensive, and inconvenient fiche versions of library catalogues that could be circulated among research centres. In Indonesia stand-alone catalogues, whether in the form of card catalogues or finger-worn shelf lists, are still widely found (often in typescript only), and travel to the institution is still almost universally required, although the national information infrastructure is growing at a rapid rate.
- **Electronic library catalogues.** Computerisation of library catalogues initially followed the stand-alone pattern (at least at the user end), but local area networking, telnetting, and Web-based catalogues have now made remote access the norm for major collections in economically advanced nations and increasingly so in the developing world. For Southeast Asianists the collections of the Royal Institute, Cornell University, Australian National University are among the most important bibliographic resources for books and journal titles. The National Libraries of Indonesia and Malaysia also have attractive, informative, and user-friendly Web-accessible catalogues of rapidly increasing value.
- **Various general and specialised reference works, dictionaries, gazeteers, indices of a hundred sorts.** Too familiar to require comment.
- **Published specialised bibliographies of journal articles, dissertations, newspaper files, conference proceedings, and so forth.** The principal index of articles in the area of Southeast Asian Studies for the past half century has been the *Bibliography of Asian Studies* (BAS); it is supplemented by the full gamut of other disciplinary-specific reference works, dissertation guides and abstracts, current periodical guides, indexes for newspapers and magazines of

record, and so forth. None of these has good coverage of Indonesian language publications. *Excerpta Indonesica* is a publication of the Royal Institute that provides useful resumes of all manner of publications specific to Indonesia, still mostly based on non-Indonesian sources. *Caraka* is a specialist newsletter for Javanists that has extensive lists of new books and articles, the vast majority of them coming from Indonesian sources. Many of these resources have now gone on-line, usually by subscription, and have revolutionised the bibliographic side of research for scholars with well-funded libraries and easy network access. Much of what in earlier generations could have required weeks or months of searching can now be accomplished in minutes.

- **Internet resources and the tools for finding them.** Thanks to the efforts of millions of individuals and thousands of institutions, more and more information is becoming available at the click of a mouse at library terminals and on our home computers. We can race around the world from library to museum to discussion group to newspapers to government sites to personal webpages and have instant access to huge amounts of data, some useful, much of it not. We can instantaneously download whole texts of dissertations submitted a few months previously in just a few minutes, paying the inflated prices with credit cards. We can find out-of-print books on any subject, in dozens of languages, through sites that upload current lists of second hand books for sale from a thousand corner bookstores around the world. We can go to Web sites that have gathered together hundreds of links specific to an area or topic that we are interested in – for example Web Resources on Indonesia – and beam from there to archives and search engines that can retrieve even the most specialised sorts of information in many cases. And that's just the beginning. We can also go searching for bargains and exotica (loaded with their own special sorts of information) at on-line auction sites that have three or four million items for sale 24 hours a day, every day of the year, 15 percent of them freshly posted each day. I have been amazed to find letters from my wife's great-grandfather for sale in Illinois and a novelty drinking glass from the hotel and restaurant that my aunt ran for a few years but lost more than three decades ago, leaving no memorabilia for the family after the auction to pay her bills. More germane, I have found works of art, manuscripts, books, and all manner of Indonesia realia (including medals issued by the TNI during the revolution and police badges from Surabaya) offered for sale. Last month I was working on a short article about drawings of dragons in Yogyakarta in the early nineteenth century when I stumbled across an item on offer at eBay that contained a painting of two *naga* from a mid-century manuscript of the Sultanate. I didn't have to buy it, but was able to download the image and it will appear as an important part of the upcoming

article. And this is still just the dawn of the age of e-commerce and Web-based information retrieval.

Perhaps this is enough of a survey of bibliographic reference tools available today ; you surely know them much more intimately than I do. Their variety and number are huge, but they still have major lacunae, are not organised in a way that makes them easy to use, and sometimes require years of training, geographical proximity to the proper information gateways, and generous resources to take best advantage of them. In the next sections I will throw up some ideas on how to:

- increase the sorts and volume of published and manuscript materials bibliographically annotated and accessible via the World Wide Web;
- improve access to the full range of Indonesian bibliographic materials through better organisation and search tools;
- increase the number of gateways making full or partial access easier, and simultaneously lower the training/expertise barrier, for as many users as possible.

### *Spreading the information net*

There are large numbers of materials in many forms that are not yet accessible through any current bibliographic tools or sources, though some might fortuitously appear in the large specialist collections through routine accession. Among these are academic theses and dissertations, papers presented at symposia and conferences, published conference proceedings, reports and monographs of government and private research groups, and articles appearing in local journals. An effort must be made to begin including much larger numbers of these and similar materials in standard academic databases, particularly the Bibliography of Asian Studies and major disciplinary indices.

Access to manuscripts is also limited, in part due to the distribution of holdings among many institutions (and individuals) that remain at the fringes of the world of professional bibliography and modern information technology. Even at the most advanced collections of manuscripts in the world of Indonesian Studies, however, such as those housed in Leiden, access is limited by the nature and contents of the manuscripts. The description of highly heterogeneous manuscript materials presents special problems, and it is nearly impossible to use the rigidly standardised formats for cataloguing printed materials to adequately describe

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These have special significance in Indonesia because of the limited number of scholarly journals produced locally. There are also very few published internationally that allow Indonesian language submissions. Much of the work of Indonesian scholars only filters out to international colleagues through personal contacts, which only adds to the disjuncture between domestic and international scholarship on Indonesia. Something similar must also be the case across disciplines, including the physical, social, and human sciences in general.

manuscript collections. New methods must be sought to bring together the information now contained in dozens of handwritten and published catalogues, to enhance and update the information already available, to allow much more detailed descriptions and keywording for the contents of the manuscripts (incorporating descriptions, text excerpts, scans, references, codicological data), and at the same time to make all of this information remotely searchable through a single Web-based search engine. This should be pursued not only at Leiden, London, and other major repositories of manuscripts in Europe and North America, but also in Malaysia and Indonesia.

Looking specifically at microform materials, my experience with the library that I frequent the most (ANU's Menzies Research Library) is that acquisitions of microfilm copies of whole libraries of manuscripts from Indonesia, each one containing thousands of individual titles, authors, and keywords, are catalogued with a single entry, thus almost guaranteeing obscurity and under use.

Perhaps the main reason for these sorts of bibliographic shortcomings is the scarcity of resources, particularly as regards describing the materials and carrying out the data entry tasks. While a major, continuing project organised under the auspices of a central editorial authority such as one of the national libraries of the region, the CRL, LC, or the KITLV would require considerable outlays, there may be ways to work around funding shortages that call into play the expertise (and civic conscience) of publishers and users. There are probably few conferences or journals in Indonesia today that do not use word processing technologies to produce their materials. Establishing networks through universities, professional organisations, and the publishing industry could perhaps lead to protocols for making the programs of conferences and symposia, and tables of contents of journals, available to a regional bibliographic project. The uploading of the full texts of papers, articles, and theses (for authors and organisations that concur) might also be a reasonable goal to set, particularly given the great lexicographical vacuum in Indonesia that so urgently calls for attention. Such a labour seems a natural extension of the indexing already done by BAS. In the total absence of funding, even a network of (passionate) volunteers could accomplish a good deal along the lines.

With regards to manuscripts and archival materials, users could be requested or even required to fill out a detailed survey form for every item that they use for their personal research that could then be added to the existing databases – a sort of research equivalent to the deposit laws that govern published materials in many nations. Projects at universities affiliated with, or who send their students to work at, manuscript collections could also be involved by having graduate students required to survey selected manuscripts, as has been done for more than a

generation on the Mediaeval Spanish Dictionary Project at the University of Wisconsin. Whatever problems of quality and bibliographic control might arise under such a regime, the quantum increase in raw information and general accessibility would be extravagantly compensatory. With full text searchability the arts of text indexing and resume distillation become much less important.

Likewise, a parallel project to upload transcribed files of traditional and contemporary literary and other texts could be arranged through publishers, students, and scholars. One needs only observe the impressive results of Ian Proudfoot's Malay Text Concordance Project at the ANU – undertaken without special funding but with great good will in the academic world of Malay literature specialists to see how valuable such projects can be, and how central they quickly become for students and scholars in diverse fields.

### *Amalgamating access to disparate resources*

If you go to <http://www.arts.auckland.ac.nz/indo/links.html> you will find a well constructed webpage that provides links to hundreds of academic Internet resources on Indonesia. Following the Libraries link you will then find further hyperlinks to 11 separate research collections with Web or telnet connections, most of which allow standard searches of the associated collections one by one. All this is almost mind-bogglingly wonderful and inconceivable even a decade ago. But when I compare this to a site like BookFinder.com, a four - year old project which connects readers to over 15,000 booksellers from around the world, or eBay, which today (18/02/2000) has 774,961 books on sale out of 4,204,484 total items, I get excited about the possibilities of an information bazaar that, though of a much smaller scale, could connect all the major collections holding Southeast Asian materials, together with the Bibliography of Asian Studies and other relevant indices, and make them all searchable at a single mouse click. Such a universal index of Southeast Asian resources should be a high priority, followed closely by a virtual collection of the region's major works of scientific and cultural heritage. These could be made accessible to a vast public via multimedia technologies, thereby fostering the exchange of knowledge and dialogue over national, regional, and international borders. Similar projects are now underway in Europe. Southeast Asia should make its own contributions to the international effort to establish a global electronic library system.

Like the European based Bibliotheca Universalis, such a project 'should strengthen the function of libraries and improve international availability of digitized resources, including not only bibliographic records but also the information content (integrating text, graphics, still images, sound and video information). It will promote large digitizing techniques and encourage the

definition and adoption of global standards. Furthermore, it should demonstrate how integrated digitization techniques can support long term preservation as well as enabling immediate access to the information digitized. All documents would belong to the public domain.' (<http://portico.bl.uk/gabriel/bibliotheca-universalis/index.htm>) The intention is to assemble large information services containing millions of documents as rapidly as possible. To pursue this a 'network architecture based on distributed digital servers and a common interface for retrieval and navigation tools will be implemented. Existing standards in the field of text, image and sound digitization and of communication protocols will be employed.'

### *Democratising access by multiplying gateways*

It goes without saying that the kind of access that a trained, multi-lingual scholar with a big research library at her disposal, generous research budgets renewed annually, a new computer every three years, unlimited logon time through high speed ethernet connections, and all the other perquisites of professional academics in wealthy nations, will not be enjoyed by every potential user. The repositioning of access from expensive publications series to free, publicly accessible sites on the World Wide Web goes a long way towards tipping the balance back in the direction of general availability, particularly in an era when Infobahn infrastructure construction is already proceeding headlong throughout Southeast Asia. One area that continues to disadvantage local users is the overwhelming use of English on the Web. Preparation of the input, navigation and retrieval tools for the projects suggested in the previous section must take into account the general level of English mastery among potential users in Southeast Asia and provide interfaces in the principal languages of the region.

These interfaces must also be eminently accessible to technophytes and technophobes in order to lower the training barriers now in place. In the case of Indonesian, Malaysian, and Javanese (at least), in which titles and names are non-standard and found in many forms, and in which orthography has a high degree of variability, fuzzy logic systems and dictionaries of alternate spellings and synonyms should also be built into the search system.

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Catalogues of Javanese manuscripts in major German collections, for example, some written in English, others in German, cost around five months salary for a junior academic – if they can figure out how to find and purchase them. I would estimate the price of a similar catalogue of books and manuscripts in the six major collections of central Java to be about the same – if there were any available in the world.

## *Summary*

It is easy for a non-expert to sit back and spin bibliografictional scenarios, especially when the scope of the reverie is limited to a small field in one small area of the region under consideration. My assumption is that the arguments are technically applicable across disciplines, fields of study, national and linguistic boundaries. As will be evident to all, though, the much more subtle, perplexing, and challenging issues of the sociology, ideology, and political-cultural calculus of the application of such technology have been entirely bracketed and set aside in this discussion in a way that is not possible in the real world. Other presentations in this conference will focus, in part at least, on those.

In summary, these points are the most salient raised in my presentation:

- Questions of bibliographic access to microform materials are not separable from general issues across the spectrum of information storage and retrieval, and should not be segregated from them.
- Current bibliographic indexing leaves huge areas of significant information entirely outside its net. One such area of specific relevance to the theme of this conference is the common practice of accessioning the results of large-scale microfilming projects as single-entry items, though they may contain thousands of titles and tens of thousands of keywords that could profitably be indexed to open up access.
- A single Web-based search engine for greatly enhanced descriptions of manuscript and archival resources spread out through many disparate collections is highly desirable.
- Establishing networks through universities, professional organisations, and the publishing industry could perhaps lead to protocols for making the programs of conferences and symposia, and tables of contents of journals, available to a regional bibliographic project.
- Even in the absence of major funding there are steps that could be taken to elicit the support and assistance of institutions and individuals concerned with relevant materials to cooperate in the enrichment of existing bibliographic databases and to significantly expand the scope of coverage.
- A bit further down the line, a universal index of Southeast Asian resources combining multiple libraries, manuscript collections, archives, and various academic and journalistic indexing services should be made a priority

- A virtual collection of the region's major works of scientific and cultural heritage that could certainly supplement, and perhaps replace, current micrographic preservation, must also be entertained, and the planning begun. The European Bibliotheca Universalis is a model that may be applicable to the Southeast Asian case.
  - The globe-spanning nature of the World Wide Web makes it appear to be the ideal 'place' for revolutionising access to almost unlimited amounts of information, both in terms of the resources required to produce and distribute it, as well as the flexibility of the delivery systems and the ease of mass producing popular gateways. One computer terminal with Internet access replaces whole libraries of paper books and journals.
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- The infrastructures required for the growth of current networks are constantly being expanded by government, industry, and individuals as a matter of course throughout the region, and increasing ease of bibliographic access will naturally ride piggy back on that trend.
  - I do not think that the historical gaps between the most advantaged and the less advantaged within societies and between nations in terms of access to information will disappear overnight, but they have already been clearly reduced in the past five years by the interaction of huge, complex, and often chaotic forces of commerce, government, intellect, and human passion. The deep and long-standing disparities between local and international access to the widest range of academic resources on Southeast Asia – one small dimension of the historic play of class, culture, and imperialism in the region – are being steadily eroded by the IT revolution.
  - Finally, in areas where, for the foreseeable future, popular direct access to the new technologies and interfaces will remain limited, the libraries, universities, museums, and other institutions that represent field outposts of the information revolution will have an enhanced role to play. Rather than being able to offer just the few thousand books on their shelves, they will be able to guide local users to an almost endless world of knowledge, and direct them in adding to the rate and scope of its expanding horizons. They will also be able to easily and economically access information for repackaging and distribution in more traditional forms than has ever been possible in the past.

## **PROVIDING BIBLIOGRAPHIC ACCESS TO VIETNAMESE DATABASE RECORDS**

Kieu Van Hot  
National Library of Vietnam  
Vietnam

### ***1. Library system and library development in Vietnam***

Vietnam has a large number of libraries: about 20,000 units. Libraries in Vietnam are being developed as a program of the national development, and acted as education institutions and information agencies to server the development of the nation. Libraries and information centers in Vietnam are integrated in a network named National System of Scientific and Technological Information (NSSTI).

#### **1.1 National Library of Vietnam (NLV)**

Founded in 1917 under the name of Public Library of Indochina and opened to public in 1919, now The National Library of Vietnam is organized and operated in accordance with the Government's Resolution No 401/Ttg dated September 9, 1976 on Functions, Targets and Missions of the National Library of Vietnam. The Resolution assumes NLV with responsibilities:

- To build and maintain the national depository collection; - to organize and coordinate domestic and foreign document circulation in the whole country;
- To publish the national bibliographies of Vietnam, centralized cataloguing and other bibliographic works;
- To undertake methodology guidelines for all library systems and carry out R & D projects on library and information sciences;
- To coordinate library activities such as acquisition of foreign periodicals and books, union catalogues, and interlibrary loan; and
- To serve as the information center for culture and arts The document resource of NLV include 872,576 volumes, 8,198 periodical titles, and 6,000 national doctoral theses.

#### **1.2 Public libraries**

A system of public libraries in the country was set up after Indochina War. The system includes provincial libraries located in capitals of the provinces, district libraries located in capitals of the districts, and village libraries. According to the

statistic data, the system includes 61 province libraries, 535 district libraries and over 2,000 village libraries. NLV provides the system with technical assistance in the form of manpower training and library managerial guidance.

### 1.3 School libraries

In 1976, the Government issued a Resolution concerning establishment of textbook collections for common use. The resolution stipulated budget subsidies for compulsory establishment of textbook for common use in every school. In order to improve school library services, the Ministry of Education and Training issued the School Library Standard in July 1990. The total number of school libraries is 15,222 in compare with 20,086 schools

### 1.4 University libraries

Each university or college is equipped with library to serve teachers and students. The total number of university libraries is 350. University libraries are directly under the institutions of which they are a part.

### 1.5 Special libraries

Special libraries found in most corporation and institutions are autonomous, responsible only to the corporations or institutions which they are a part. The total number is 300.

## **2. *Library automation and networks***

### 2.1 Library automation

Library automation in Vietnam began about 15 years ago. The popular software is CDS/ISIS. Recently, after the announcement of the open-door policy, the Vietnam Government has started to invest more in libraries. The Government's Directive No 49/CP recognized that scientific and technological information is a priority aspect to develop. After its issuance, a lot of libraries and information centers have been equipped with PCs, and some local area networks (LAN) and two wide area networks (WAN) were built. The public libraries' WAN led by NLV links NLV with 61 provincial libraries all over the country. PCs from any provincial library can communicate with one of two regional hosts on the national backbone (Hanoi and Ho Chi Minh city). The information centers' WAN led by NACESTID links NACESTID (National Center for Scientific and Technological Information and Documentation) with other information centers.

Those networks provide remote login and online search services, and email but now they are separate in both organizational and technical aspects. The number of libraries and information centers which connect to the two networks is still small compared with the number of libraries and information centers in the country.

## 2.2 Databases

Most library automated systems in Vietnam today are using CDS/ISIS software to create and maintain their databases. According to the statistical data, libraries and information centers in NSSTI have created 57 Vietnamese databases. Those databases reflect document resources of their creators. Their structures and formats are different because when the libraries and information centers created their own databases they decided database structures and MARC formats themselves. Using different MARC formats has generated a lot of difficulties for library automation in library community of Vietnam. In September 1990, a national seminar on MARC was held in Hanoi under the auspices of France and Unesco. Various MARC formats were analyzed and discussed, some comments were made but up to now no version of MARC has been accepted as the national MARC of Vietnam.

NLV has created a database containing records of depository monographs and foreign monographs in NLV's collection. The database now has over 150,000 records and its growth rate is over 10,000 records per year. Retrospective conversion is done for the database. It is hoped that in the near future, the database will cover all publications in Vietnam and become the National Bibliographic Database of Vietnam. National Library of Vietnam databases can access from any province library and other libraries connected to the NLV through dialing up. Records of depository materials has been sending to the National Library of Australia to load into Australian Bibliographic Network (ABN) in an international project named Vietnam Union Catalogue (VUC) in order to provide international access.

### 3. *Microfilming in NLV*

The first depository legal law was issued in Vietnam in 1921 and the Public Library of Indochina was the depository agency. After Indochina War, the Public Library of Indochina became the National Library of Vietnam, but a big part of its collection had been moved to Saigon and then to Paris. The collection of the National Library of Vietnam became lacking a lot of books and periodicals published in Vietnam before 1954. The National Library of Vietnam has requested and received some microfilm copies of those materials from Paris to

serve its readers. But the number of received material is very small compared with the total, so we need a bigger project.

Vietnam enjoys a tropical climate with high temperatures and humidity. In this condition, materials are easy to be destroyed. On the other hand, materials published before 1954 were made with low quality paper. Now most of them turn to yellow and are easy to tear. To avoid using original copies, we have a project of microfilming. Because of limitations of budget and equipment, up to now the number of microfilm copies are very small. In our databases, those materials which are microfilmed have the letter M in the end of their call numbers.

From 1995, we have been carrying out a microfilm project sponsored by Luce Foundation. We have been supplied film and equipment to microfilm necessary Vietnamese materials. Up to now, 162 periodical titles are filmed. We keep one copy of the film to serve our readers and send the other copy to Research Libraries in Chicago. The copy sent to Chicago will be retained under archival condition. The National Library of Vietnam retain all duplication rights to any film generated through the project, subject to negotiation with the copyright holder.

The project helps us to film our materials and make international access to Vietnamese materials. We really appreciate the project and do hope that the project will be expanded for the sake of both sides. The problem with us when microfilming is that we don't know exactly which materials have been microfilmed and which library keeps the microfilm copy. So creating databases and providing bibliographic access to them are very important.

## General Discussion

### Technical Operations:

#### Topic 2: Providing Bibliographic Access both Locally and Internationally

#### *Paper Presenters*

*Tim Behrend*

*Kieu Van Hot*

*Moderator: Henri Chambert Loir*

Moderator

Thank you very much. We now have two very different sets of questions which both relate to bibliographic access. I suppose it will raise many comments or questions. Can we start with yours?

Blasius Sudarsono

Thank you Mr. Chambert Loir. I just want to share my experience. Maybe it can answer Tim's curiosity about why there is no bibliographic access to microfilm. It is actually a shame to mention while we are here a previous effort in microfilming in Indonesia, especially in my office. Sometimes it is too concentrated on technical problems. Instead of asking why we do microfilm, we just like to see how to do it. Unfortunately, the effort is not funded solely by the government, but usually it is assisted by a foreign country a kind of a special budget that we have to spend in a certain time. That is why sometimes we didn't do what actually we have to do with the bibliographic control. After producing the microfilm, not many cataloguers like to do very small inspections of the microfilm. It means that before, previous practices were not too comprehensive. It was very separate operations between technically producing microfilm and of controlling it for library or information retrieval systems. But later on in 1990 up till now, at least we do it in a more comprehensive [way]. Why do we do that? If we like to distribute this information, of course, we start with the information retrieval first, and microform comes later. That maybe answers your question and curiosity. Thank you.

Moderator

Tim, do you want to react?

Tim Behrend

No, I don't think so. I appreciate the comment; it's very germane, yes.

Judith Henchy

I want to follow up on a couple of things that Tim said. One is the question of what is different about bibliographic access to microform. I think librarians would say the answer to that is that there is a particular significance to that bibliographic access because it does prevent us from filming again materials that have already been filmed. There have been some major projects, particularly in Europe, under the auspices of the Commission on Preservation and Access, to try and create what we call union lists or comprehensive lists of all the microform masters. That is to say the camera negatives from which we can then duplicate other positives so we are not duplicating from that. So I think that to answer that question, that is why we regard it as a slightly different, and more important in some senses, of bibliographic activities.

Tim Behrend

Couldn't that simply be a box, you know, one field within a general bibliographic record [for] microfilm, for example?

Judith Henchy

Yes, right—and then in America there is an arrangement to exchange those records between the bibliographic utilities, so that everybody can look on those databases and see that, yes, this particular title has already been filmed. To get to your second point about the CRL collections—and I take this somewhat personally, since it is the SEAM project that you were talking about—you are right that they only have a collective title in their catalogues, but we have tried to create other online tools using the web, and I know you have too. I think, you know, this is something we should perhaps talk about. If we are not able to create a full bibliographic record and put that out into the major bibliographic networks, what else can we do in the way of providing net access that will enable us to see title by title what has really been filmed?

Tim Behrend

I thought I noticed—I was looking for it last week—maybe in the Solo manuscript project, there is a list of titles.

Judith Henchy

I thought that they were aiming to do that, because of course the CRL does have the list of titles that were filmed under those projects. I thought that they were solely working towards putting them up on the web.

Tim Behrend

But I could not find it again after I stumbled across it once last year. But what I would like to see is all of these unified; brought together by a single search engine.

Judith Henchy

Exactly. Well, I think that would be the objective of having a union list, that you could perhaps do under the auspices of a commission of some kind.

Wim J. Th. Smit

Supplementary to Ms. Henchy, in my suitcase upstairs, I have a report from Europe that was indeed installed—a European register of microform masters, under the umbrella of the CPA (the Commission of Preservation and Access). And the report of this EROMM I have, as I said in my suitcase, and I could give it to the organizational committee. Maybe they can copy this report and make it valuable for everybody.

Tim Behrend

I would like to sort of go out on a limb and say that the technical uses that professional librarians and institutions need bibliographic information for are certainly fundamentally important within the discipline as basic organizing tools. But for the vast majority of people, who want the information, some things are less important than others.

Melvin P. Thatcher

I just wanted to comment on two things. One is the point that Judith has made about the union lists of microforms. If out of this meeting should come a resolution to create a union list of Southeast Asian microforms, I would suggest that you not forget microforms created by foreign institutions, you know, non-Southeast Asian institutions. My guess is that that European microform union list does not have microfilm titles that my organization has microfilmed in Europe. I would bet on it. I am just saying that a master list of Southeast Asian microforms should include microforms created by institutions regardless of whether they are actually resident Southeast Asian institutions. That is one point. The second is Tim's comment about finding a project catalogued just as one entry. Our library is primarily a microform library. In our catalogue we are supposed to have detailed notes that allow the patron to browse the films through the note so they can make the decision about whether to order or to look at the microfilm. So when you are trying to provide bibliographic access to materials on microfilm, you have to do more detailed cataloguing. It is very irritating to me as one whose job is to acquire materials, to then go to our catalogue and find a one record entry for a 500-roll project. That is not providing access; no access at all is provided by that way. The cataloguers are reluctant to look at this microfilm. They have got to have some discipline, and management must insist that they spend the time that

it takes to do some analytical cataloguing, to break down the materials on film in a logical way. One way of getting help is to use the inventories from the place where the stuff was filmed and finding aides that they used themselves as one way of helping to organize and describe records on the catalogue. It is very important, I think, that the cataloguing process itself for providing access to what is on film is extremely important.

Tim Behrend

I don't think that requires a comment except that my department might be closed down next week—I will find out when I get home—and if that is the case, I will be sending you a resume, making a proposal to do some of that cataloguing of Indonesian materials.

*[Laughter]*

Akira Genba

I want to give one simple question for Mr. Hot about the appraisal procedures for the archival documents, or documentary heritage to be preserved permanently or to be microfilmed, because the appraisal procedures now are one of our major concerns. So, please answer to your possible extent.

Kieu Van Hot

In Vietnam, the procedure for microfilm depends on which material belongs to what institution. For example, in our library you can microfilm the periodicals and book publications in Vietnam in general books and publications, you know, in our library.

Helen Jarvis

I would like to just say how much I appreciated these two papers, these two presentations for us. Speaking as someone who has spent quite a bit of time on questions of cataloguing and bibliographic access, it is a pleasure to see this coming so early in the program. Also, the point being made that when we talk about the technical aspects of microfilming and when we work out project proposals, again, that this aspect of providing the proper bibliographic access should be built into the project document from the start. Maybe if we are having a Chiang Mai declaration, let us try and get that in. I thoroughly agree with what Blasius said about the experience, that all the concentration is on getting the things filmed, doing the job, and onto the next project, and then what happens? Let us not forget though some of the contributions that were made from our colleagues earlier in the early days of CONSAL with a master list of Southeast Asian microfilms, SARBICA and CONSAL. Yes, don't think we have to start from scratch; there is a lot there, but perhaps there has been a gap and it certainly needs to be filled up. But remember also, although our focus is on microfilm, that

this problem arises in other areas too, with chapters in books, for instance, which are absolutely invisible; unless you know where to find the analytical entry somewhere else, you are not going to find it in a catalogue. So I think there is a lot more to be done in enhanced cataloguing, and access to fiction, subject coverage of fiction; there are a lot of other areas that I think are skated over too rapidly. I would just like to say thank you to Hot. It was very interesting to hear the progress being made with the Vietnamese national bibliographies. Most encouraging.

Barbara Berger Eden

To elaborate on what Helen has just said, if the people here are not aware of this. In the United States, the great funder of preservation microfilming is the National Endowment for the Humanities. We receive funding for all of our filming projects at Cornell from what's called the division of preservation and access. The 'access' is the word I want to stress here because it is a requirement. If you receive money from NEH to microfilm, you have to create an online bibliographic record for every single title that you microfilm. So fortunately in that case, the problem is being addressed.

Moderator

Thank you. There was an interesting question raised by Tim, which in fact relates to both people in this panel, which is the question of the language of those catalogues. Tim advocated for a database for Indonesian materials to be in Indonesian, and I assume that the national database in Vietnam is in Vietnamese. But in fact, most of the material internationally created is in English, I suppose. Are there any comments about that, any suggestions? Does anybody want to react?

John F. Dean

It is not very long ago that an assessment was made when looking at suitable members of the research library school, which is composed of the senior libraries in the United States, where one of the questions was how do you decide which libraries should be members of this very elite organization. One of the responses was it should be libraries that have collections larger, at least, than the cataloguing backlog of the New York public library. In other words, many libraries have a lot of cataloguing backlogs. Not just cataloguing backlogs, things that have been acquired but not yet catalogued. Many of the large libraries have very large cataloguing backlogs—huge amounts of materials that have been acquired but never catalogued, mainly because the resources have not been there to do it. In addition to that, the other problem is re-cataloguing—doing retrospective conversion to MARC records, creating MARC records for materials that were catalogued on 3x5 cards. Realistically, just achieving the retrospective conversion of any of those records is going to take many years for a lot of libraries. The idea of creating, if you like, multiple language versions of some of the works that are

available, particularly bibliographic records, I don't think certainly at the present time is terribly realistic.

Tim Behrend

John, my point was that if there are search devices, search engines, that can be accessed from any Internet connection, that they should, that the instructions on how to use them should be available in all the major languages that might reasonably be spoken by people who are not multi-lingual in European languages. If you go to Roger's site, at the KITLV, you can choose do you want to do your search with messages and instructions in English or in Dutch. So, my point is not to convert records into languages that are accessible, but to convert the tools to do major searches into those languages. I also suggested that almost budgetless enhanced cataloguing could be done by forcing people who use research collections, manuscript collections, archives [by saying] if you want to use this manuscript, you have to fill out this information for us, and it's going to go up on the web.

Chu Tuyet Lan

Good afternoon everyone. I am from the Institute of Han Nom Studies. I have two questions. First, because the Japan Foundation is going to support us with system with microfilming equipment, I am interested in asking you the experience how to catalogue the material already microfilmed. The second question is how to preserve microfilm in such a serious climate like Vietnam. Mr. Hot already mentioned in his paper that Vietnam enjoys a tropical climate with high temperature and humidity, and your library is the first living library in Vietnam to microfilm some materials. Can you provide us with some experience in how to preserve your microfilm? Thank you.

Kieu Van Hot

I think that in our library the room for keeping microfilm is not good. So in our paper, it said we sent a copy to Chicago to be maintained in archival conditions, because our building is not in a good condition. So, I request that Judith Henchy keep one copy for us, so if our copy is destroyed, so we can receive one from Judith Henchy.

Blasius Sudarsono

Thank you for the second chance. Because you are asking about the language, I will comment about the language. Ideally of course, we are bilingual. Unfortunately it is costly, of course, but PDII has already made a kind of meeting in the middle where the description is in Indonesian but the descriptor or the keyword is in English. It means that you can search using the English keywords. Secondly, the users who are actually interested in Indonesian sources are supposed to understand *bahasa* Indonesia, like yourself, Tim.

Tim Behrend

May I ask a quick question? For you who know, I have heard that there is technology where you can run microfilm through a scanner and get an electronic image of it. For Southeast Asia, where storage conditions for microfilm is a challenge, both budgetary and by climate, is it useful to consider local storage being done in some scanned form, if it's ever affordable, rather than in the physical form of the actual microfilm which could be vaulted away somewhere. If there is degradation of the electronic image, you just hit 'copy' and there's a new one just like that. That is just a question. I don't know.

John F. Dean

A great deal of film is being created from digital images, and a great many digital images are being created from film. But it is in recognition of the fact that we cannot guarantee the longevity of the digital image. It has less to do with the physical degradation of the carrier; it has more to do with the migration of the digital image over different generations of storage devices. Moreover, one of the difficulties is the issue of software, changing software. Right now literally millions of dollars are being spent to try and resolve this particular problem. One of the difficulties, and to give you a fairly concrete example, it is said of the United States that of all the wars the United States has been involved in, the Vietnam war is the least best documented. That is because most of the documentation that was kept in computer form is now lost.

Kwek Chew Kim Gek

Can I just add on to the digitization of microfilms? I will share with you the experience I have had with the National Archives of Singapore. We are trying to digitize some microfilms, and a lot of it depends on the quality of the microfilm. If the microfilm is good, you get good quality digitization. You have to OCR the images before you can do test retrieval of the old microfilm image. So it is just not to digitize, but also to have good microfilm quality and to digitize it to use retrieval systems to provide fast retrieval. Ultimately this is how you access your information. Thank you.

## **BEST PRACTICE FOR THE CONSERVATION OF ORIGINAL TEXTS AND FILM NEGATIF**

Blasius Sudarsono  
Head of PDII-LIPI  
Indonesia

### **PRELIMINARY NOTE**

I am asked to present my thought on the “best practice” as mentioned in the title given by the organizer of this meeting. A question lingers in my mind about the word “best” . Why did the organizer choose this word for my presentation? I understand that in Indonesia, the implementation of preservation and conservation programs is still at a very moderate phase. Obviously it is far from the adjective “best”. It is in fact that ‘best practice’ is debatable. Best practice for conservation is different from one place to another place. This will definitely depend on the requirement of each location with different type of climate.

It is very fortunate that I have colleagues from several countries in this session. I say it is fortunate because directly in this session, there will be different angles from which to see the preservation and conservation activities. These differences occur because not only from different climates due to different geological locations, but also because of different understanding, perception and acceptance of preservation and conservation concept. If we recall what had been presented during 65<sup>th</sup> IFLA Council and General Conference by John F. Dean from Cornell University, the solutions to preservation problems are not the same in the East and the West.

Embarking from this standpoint, I will present my thoughts based on the experiences that I gained during my tenure as a librarian. For me, librarianship was not my intended job to be. However after serving this profession for more than 25 years, I feel that I have strong obsession with reformulating Indonesian librarianship. Many things have to be undertaken, including the issue of preservation and conservation. My focus on this topic will be an overview of the activities being undertaken so far by Indonesian libraries, and the need to revitalize them.

## **PRESERVATION AND CONSERVATION IN INDONESIA**

An earlier effort for preservation and conservation activities In Indonesia was done by Unesco Regional Conservation Centre for South East Asia, Oceania and the Pacific in 1983. This activity was in the form of visit by the Material Conservation Section at the Canberra College of Advanced Education to Indonesia in order to survey institutions with regard to preservation and conservation. However, this mission only visited 11 museums in Jakarta. No single library was visited. Undoubtedly this was a good precedent for library matters.

The decade between 1985 up to 1995 was actually a prime time for library preservation and conservation programs. The “grand” activity for preservation and conservation of library materials came at the same time with the effort to develop the national library system. An International Review Team for Library Conservation was established and assisted the National Library of Indonesia to set up its conservation program. Unfortunately, this program was less disseminated. Concentration in the institutional development at the National Library made this activity slightly aside from the core attention.

As a complement to the activity carried out at the National Library of Indonesia, there was a program supported by the Ford Foundation. A consortium of the Centre undertook this program for Scientific Documentation and Information (PDII-LIPI), the National Archives of Indonesia, and the National Library of Indonesia. The objectives of this program were:

To improve the society’s awareness on the importance of preserving library collections and archives.

To develop the capabilities of library and archive personnel in the preservation and conservation fields.

To improve the scientific information access by distribution of micro-reproduction.

The first step was a undertaken in this program was the consolidation of human resources. In fact there was a very limited number of persons (no more than 20) who had basic understanding of this field. A learning group then was established to enhance their knowledge with studies and discussions. These activities were intended also to directly write papers, reports and manuals. Two titles of textbook were published in 1992. The second printing was done in 1995. Those are :

Pelestarian bahan pustaka dan arsip (Preservation of library materials and archives)

Prosedur perbaikan buku (Book restoration procedure)

Some studies in the field of preservation and conservation of library materials had also been undertaken. These studies produced four master-degrees in library studies from the University of Indonesia. In search of dluwang, a study to trace the art of Indonesian traditional paper was also been undertaken. This activity produced a film of the art of dluwang making as the final product. Several seminars had also been conducted not only in Jawa, but also covering some places outside Jawa such as Padang, Palembang, Pontianak, Samarinda, Makasar, Denpasar, and Mataram.

The impact of the Ford funded program was significant to Indonesian librarians and students of library school. Awareness of library preservation and conservation had been flourished. Unfortunately, preservation and conservation is not inexpensive. Because of limited resources not every library is able to do conservation properly. To prefer “**preventive instead of curative**”, then, was the central motto of the Preservation Group (Daya Lestari Pustaka) to campaign.

### **CONSERVATION OF ORIGINAL TEXT**

A study of Indonesian paper was one of the activities undertaken by the International Review Team I mentioned earlier. Paper from 73 books published in Indonesia from 1952 to 1989 were analyzed on their basis weight, thickness, density, equilibrium moisture and filler content. The analysis was done at Tokyo University of Agriculture and Technology, Laboratory of Cellulose Science and Technology.

The following is the conclusion of this study.

The sample papers were considered as moderated as market book papers except for low folding strength and comparatively lower brightness. The sample papers were newer and so acidic compared with foreign book papers; however, due to their lower strength the proper consideration should be necessary for conservation of books.

Realizing the quality of Indonesian paper, PDII-LIPI formulized a preservation policy for scientific articles. Those selected articles are (microfiched), and its database is available via the Internet for wider dissemination. PDII-LIPI keeps two original copies besides the microform. One copy is for library service, and the other is kept in close collection. The problem here is in terms of paper selection, because it depends on the indexer. It is not easy to predict if there is high value to be preserved in microform, or otherwise it will only waste money, which presently is very limited.

Conservation of the original text obviously has to be undertaken. However, it should be economically correct. Staring from the motto adopted by the preservation group, the conservation activity should start with good house keeping of the collections to protect them from dust and unproper handing. Just an illustration of proper handing was found-out during a study of lontar collections in Bali in 1994. There some very old lontars are undertaken in traditional way using simple material which is easy to find. Special treatment of it is only done based on ritual activities. Some lontar are considered as sacred things, and those are in very excellent condition.

### **CONSERVATION OF NEGATIF FILM**

The most economic way to store microfilm presently used in Indonesia is a system of hermetically sealed aluminum pouches. Mr. Donald G. Wilson introduced the system to the Centre for Scientific Documentation and Information (PDII-LIPI) in 1984. He was the Records Manger of the Bank of Canada at the time. His assignment to assist PDII-LIPI was funded by the International Development Research Centre (IDRC). In that year he did a feasibility of testing the use of hermetically sealed pouches to store microfilm at PDII-LIPI. The system itself was installed in 1985 and is still operating at the present time.

Aluminum foil pouches are actually a laminate of a layer of polyester on the outside to help resist damage from handling. At the middle is aluminum foil, which serves as a barrier to foreign substances and gases. The inside layer is polyethylene to aid in the sealing process. The film is stored in this pouch. Commercial grade nitrogen is then injected to replace the air before the pouch is sealed. The sealing process is quite simple and does not require any special skills providing the proper steps are taken each time. This process requires the use of a vacuum packaging machine and a nitrogen dispenser. PDII-LIPI currently is using Swissvac Minor Vacuum Packaging Machine.

From the economic point of view, the cost to store microform using this system is very cheap. An aluminum pouch of 16 x 23 square CM can accommodate 25 negative microfiches. The other 17.5 x 23 square CM will accommodate 1 reel of 35-mm microfilm. Both are cost US\$ 2.50 (two dollars fifty cents)

### **THE NEED TO REVITALIZE**

As I mentioned at the beginning, activities on conservation of library materials in Indonesia is far from the adjective "best". This is because of various reasons.

The classic one is of course from the economic consideration. However, this is more relevant to the present condition of Indonesia, which is still facing a multi-dimensional crisis. I doubt that this activity will receive a good response from the government at this present time. The conservation program for library materials will not get priority as conservation of natural resources, which now is in a great demand.

Even though I mentioned that limitation of funds is the classic obstacle, I rather think that the understanding and acceptance of the decision-maker is a more basic one. Or in order not to become one-sided, the human factor is the core. By the human factor, I mean decision-makers, librarians and the users. All of them should think in the same way on the importance of the preservation of library materials. They have to be

A long-term vision of library preservation and conservation has to be reformulated. It has to be followed by dissemination of ideas and information to them all. However among three of them, librarians have to be in the forefront. I realize that not many librarians are interested in this field. I fully agree to the suggestion of the International Review Team that :

In fact conservation staff will have to work to establish a new career path, with suitable status, salary scale and promotional opportunities.

General education of the wider administrative community, the planners and decision-makers in positions of influence power should be conducted.

Even though there are only less conservation staff available, the knowledge (recorded) already exists. Re-consolidation of them is important, to make them proud of their function. In relation to staff self-confidence, the Information Technology seems to be one thing that has to be watched out for.

Since 1995 the progress of the application of information technology (IT) in Indonesia has produced a significant impact to the information institutions, including libraries. The IT application had overshadowed preservation and conservation programs. I myself realized the strong force of this field in PDII-LIPI day to day operations. With very limited human resources and low appreciation of the concept of library preservation it is logical that preservation and conservation programs in Indonesia are still far from the adjective "best". How little is the existing capability--I strongly urge upon the revitalization of previous programs.

## **HOW DO WE START**

To start the process of revitalization, a proper strategy has to be chosen. What I propose is to use IT as our backbone. I have seen many preservation and conservation web-sites in the global network (Internet). I believe that it is the perfect tool to disseminate ideas, concepts, information, knowledge, and wisdom of library preservation and conservation. The Internet also provides an inexpensive and quick means of communication. If we can agree to use this means of networking, then international cooperative efforts will become more easily undertaken. For Indonesia, the first step to be undertaken is to consolidate the existing capabilities related to library preservation, to do inventory of all recorded information related to library preservation to publish those recorded information in digital format

PDII-LIPI In this case will provide necessary storage capacity and Internet connection. Technical assistance is still needed to advise in the development process.

# BEST PRACTICES FOR THE CONSERVATION OF ORIGINAL TEXTS AND FILM NEGATIVES

Gardjito  
National Library of Indonesia  
Indonesia

## Introduction

Preserving the national cultural heritage is one of the most important duties of the National Library of Indonesia (NLI) to provide invaluable information to the community. Since its establishment in 1981, the NLI has given technical guidance to all types of libraries as well as preservation practices in order to improve their ability to prolong the life of their collection.

As a library in a tropical country, the preservation problem faced by the NLI more severe than the libraries in non-tropical countries. Fluctuation of the temperature and humidity are the main problems that must be overcome and controlled properly. All these conditions endanger the physical condition of the collection that requires specific procedures to maintain their original formats.

The collection of the NLI is approximately 1,500,000 volumes of publications. The collection consists of all types of printed materials including monographs, periodicals, prints and drawings. There are also about 15,000 sheets of maps consisting of old and new types of maps going back to the 17<sup>th</sup> century and 10,000 codices of old manuscripts which were written on different types of carrier base such as *lontar* (palm leaf), bamboo, rattan, clay, parchment, bark and *dluwang* (a kind of paper made by hand). Most of the condition of these publications is poor due to high acidity paper, lack of environment control and the ravaging of insects. Some publications have also suffered from misguided attempts to restore them in the past.

Dealing with these problems, the NLI's preservation program has been gradually developed during the last ten years. This program is under the Preservation Center. The main task of this Preservation Center is to conserve the collection as cultural heritage in their original format or to transfer them to another format.

## **Preservation and Conservation Activities**

### ***1. Conservation repair***

Nowadays, the great value and significance of the collection are increasingly being realized in Indonesia. Although a microfilming program has been carried out to preserve the intellectual content, in certain cases the NLI is still keeping those valuable collections in their original format. This is very important to be taken into account since microform preserves the information in black and white and does not give a real image of the original documents. Moreover, microform is not suitable for restoring the image of three-dimensional objects such as palm leaf, bamboo, rattan, etc.

### ***2. Preservation by substitution***

Transferring information on other media can be carried out in several ways. One of them is to photocopy. The use of stable paper such as non-acid paper is able to extend the life of photocopy. However, photocopying can break the binding of the original book and brittle the paper.

Another way of transferring information that also reducing the use of restoring space is microform. The primary purpose of preservation microforms at the NLI is to provide replacement for materials written or printed on paper of poor quality, so that the content will continue to be available to the scholarly and research community in the future. Microfilming at the NLI represents the largest activity. It began in 1963 with a joint project between Central Museum and Cornell University. Microfilming under this project continued until 1973, and has been continued by the library alone.

The National Library has been designed as a repository for microforms copies of Indonesian manuscripts. A good relation with the British Library has created a donation of microform copies of most of the Indonesian manuscripts held in British collections. With that recent donation and its own deposit, the NLI has been gathering under one roof a large number of extremely valuable primary

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Central Museum was integrated into the National Library of Indonesia in 1981

- to organize and direct collection maintenance activities and develop training program for library staff,
- to give preservation guidance to all type of library with the purpose of obtaining the correct procedure in preserving and conserving their invaluable collections,
- to treat of item/category of materials based on careful examination with regard to ethical, aesthetic and economic considerations,
- to maintain of appropriate storage environment
- to raise preservation awareness among staff and readers on topics such as correct handling and media transfer techniques.

sources for the study of Indonesia literature, history, and culture. Over 25,000 volumes are currently available on microform to our local patrons and to researchers.

Supporting the microform program at the NLI came not only from the British Library. Other institutions who pay attention to this program such as KITLV, Japan Foundation, and the National Archive of Singapore also gave their support in term of training, equipments, and consulting. This support makes the NLI able to improve the quality of its microforms collection.

### **Mission of the Preservation Center of Preservation and Conservation**

As a research library, the NLI's functions and duties are supported by the Preservation Center in terms of conserving, restoring and preserving its collection. Since 1991, the Preservation Center has actively pursued a program to create surrogate images of historic documents whether it be reformatting newspapers, manuscripts, or monographs onto microfilm, digitizing photographs from the library's collection, providing photographic reproduction for exhibition purposes. The mission of the Preservation Center is as follows:

- to preserve all Indonesian collection in its original format or in other format with the purpose of providing the present and future informational needs of the community,
- to develop national preservation policies that support the preservation activities in the country,

### **General overview of Reprography Division**

Preservation microfilm processing is the responsibility of **Photography and Micrography Subdivision**. This subdivision is under the Reprography Division. The types of collections, that will be microfilmed are newspapers, manuscripts and monographs. Most of the old collection is brittle and subject to unstable environment control and the quality of paper used. The main technical tasks of this Subdivision are:

1. **Evaluation** of the materials before microfilming. Some factors which will largely determine queing for microfilming are: size, physical condition of materials, quantity, completeness and availability of microfilm or reprint replacements.
2. **Registering** the materials which are going to be microfilmed and storing the data in a database. A record should have the title of the paper, the year, the volume(s), city of publication, etc. It is an agreement between the Preservation Center and the Information Services Center that all materials to be microfilmed should be cataloged before filming. In fact, cataloging microfilm is more difficult than cataloging the original publication.

3. **Preparing** the materials before microfilming which should be carried out in ways such as: flattening and collating materials, removing all materials that are not to be filmed, noting missing issues and or volumes and noting any special instructions (i.e. return original documents after filming is completed). Especially for the brittle materials, they will be sent to the Conservation Division to have specific treatment before microfilming.
4. **Reproducing** two copies; a master negative (it is kept as protection against future damage and need for replacement or sale of new copies) and a print positive. Due to the budget constraint, the NLI is not able to produce the print negative of the collections. In order to obtain high quality microfilm, the use of silver-halide film is recommended at the NLI. This film type gives a high resolution and clear images. However, good handling is needed to extend the life of this film, since silver is carried in a gelatin emulsion layer that is not tolerant of high relative humidity and only moderately tolerant of moderate relative humidity. Moreover, silver film is particularly susceptible to scratching. Because the emulsion which carries the image, is a surface layer, scratches may obliterate the image.
5. **Controlling** the quality of microfilming which is an essential part to obtain a good result of microfilming. Some standards of quality control rely on the densities, splicing, leader/trailer, film ties/boxes, scratches/fogging, and methylene blue test.
6. **Dispersing** the copies and storing them in different locales: the master negative is kept in the Reprography Division and the print positive is sent to the Information Services Center. The temperature of the microform storage climate is about 15 °C and the Relative Humidity (RH) is approximately 45%. Instead of Air Conditioning (AC) to control the RH a dehumidifier has been installed in the storage room. The microfilm collection are stored in drawer/shelving with non-corrosive metal.
7. **Maintaining** a good condition of microfilming storage, which is conducted by monitoring services: 24 hours climate control, pest control and checking the fire detection regularly.
8. **Assisting** the reader to have easy access of the microfilm collection, which is supported by the Microfilm Catalog in which the readers are able to search titles of microfilm required.

### **Goals of the Preservation Center**

The Preservation Center's goals are established as a subset of the goals of the NLI. The majority of the preservation activities are the responsibility of the Preservation Center, which is carried out by the Conservation Division and Reprography Division. The following are the goals of the Preservation Center:

- to protect and preserve rare and brittle collection without denying access to those who wish to study them,
- to create an easier duplication, distribution of those invaluable collections,
- to improve access and preservation of the information content for future re-use and research
- to solve the increasing space requirement for collection storage,
- to give the NLI a way to a greater collaboration with other similar institutions as well as the users in the future.

### **Conclusion**

The preservation microfilm program in the NLI is still being improved. The lack of modern equipment, trained staff, and problems caused by its environmental factors create a real big problem, which are difficult to overcome by the library alone. An effort of combined international approach is essential for the NLI to obtain invaluable information and good practices to deal with that problem. Participating this International Meeting on Microform Preservation and Conservation Practices in Southeast Asia: Assessing Current Needs and Evaluating Past Projects gives an opportunity to discuss all the problems effectively.

## **BEST PRACTICES FOR THE PRESERVATION OF MASTER MICROFILMS**

Barbara Berger Eden  
Preservation Reformatting Librarian  
Cornell University Library  
USA

### ***Microfilm Storage Vault***

- Temperature should be 10 degrees Celsius
- 20-50% Relative Humidity
- Even air circulation with filters if necessary
- Temperature and humidity monitoring with recording devices
- Air-conditioned without condensation on the wall or ceilings

### ***Microform Storage Vault***

- Air Purity essential
- Above Ground Level
- No potential water damage by floods, leaks or sprinkler systems
- Provide Good Housekeeping

### ***Microform Storage Vault***

- Film should be stored under dark conditions
- Fire protection essential
- Housing for storage must be non-combustible and non-corrosive
- Electrical system must be stable

### ***Microform Storage Vault***

- Film types should be segregated
- Keep silver, vesicular, and nitrate films in separate rooms
- Reels and storage containers should be chemically inert

### ***Polysulfide Treatment***

- Developed by the Image Permanence Institute
- Used to control redox blemishes on silver film

- Recommended if the storage of master negative silver film might have fluctuating storage conditions

***ANSI/AIIM Standards***

- Standards provide the guidance for longevity of stored microfilm
- Information available online at: <http://www.ansi.org>

***Cooperative Storage Models***

- Research Libraries Group, Inc. ; Cooperative storage model
- Other shared storage contracts through non-profit organizations
- Leasing space cooperatively

If proper storage of Master Negative Microfilm is achieved along with correct manufacturing and processing, the film will last 500 years.

## General Discussion

### Technical Operations:

### Topic 3: Best Practices for the Conservation of Original Texts and Film Negatives

#### Paper Presenters

*Blasius Sudarsono*

*Gardjito*

*Barbara Berger Eden*

#### Moderator: Cesar G. Lacanienta

Moderator

After hearing what is best, maybe now you have the best questions.

Roger Tol

Yes, I want to thank all of the speakers, and especially Blasius for drawing attention to the hermetic sealing process, which is not very well known outside of Canada, Indonesia, and the Netherlands. I will also in my talk tomorrow pay some attention to that. For those who are interested in reading some background information, in your package, there is actually an appendix to my paper two reports written in the 80s on this process, the hermetic sealing process. One of them was also written by Donald Wilson, which was also mentioned by you. I myself am quite optimistic about this whole idea, but I understand there are quite a number of questions about this, and myself not being a technical expert on this aspect, I look forward to the discussion on this from the real technical persons. I'm normally quite an optimistic person and so I think we have solved this problem in tropical countries. Thank you very much.

John F. Dean

Just a comment on the confusion on changes in conservation practices. I should point out that conservation practices change not just across international boundaries, but over time. Many of the places where I have worked—I have worked a year ago in Dar-al-khartoum National Library in Cairo, and found that many of the conservation practices, while sound 30 years ago, are no longer sound. Many of the methods being used were recommended, and certainly many of the staff were trained at the time through the India Office Library of Records. Much of that training was conducted in the 1950's. So the change in conservation practices is frequently over time. A good example is that fairly recently, many of the libraries and archives were actually laminating records using cellulose acetate.

That is no longer done. Many institutions were using thymol, using it as a fungistat. Again, very little thymol is being used now because of some of the bad things about it. Another example is some of the chemicals we used to kill insects; we now know that they kill human beings too. So many of the conservation practices that change, it's not just the result of different ideas, but frequently the result of research and observation. Thank you.

Kwek Chew Kim Gek

A question to Mr. Sudarsono. I am very interested in this aluminum foil procedure. I was just looking at it last year. You were saying it was quite cheap. Isn't \$2.50 a pound? Do you need some kind of machinery? Is it too costly, the machinery?

Blasius Sudarsono

We use the kinds of vacuum for food packaging.

Kwek Chew Kim Gek

And what was the cost of that vacuum machinery?

Blasius Sudarsono

At the time, we got the donation from the IDRC, the International Development and Research Center, and it was ordered from a Swiss company. I think that with the new type of packaging for foods right now, I think that you can just use those kinds of machines also. Basically, we vacuum the air from the container and then insert nitrogen and then seal it.

Kwek Chew Kim Gek

How fast can you do it, and what is the extent of your project?

Blasius Sudarsono

At the time we tested for 18 months. At the time we put the silica gel inside, and then just stored the envelopes in the roof, and everywhere, without proper air conditioning. After 18 months we opened it, and the silica gel was still good. It was tested by the Bank of Canada, actually.

Kwek Chew Kim Gek

So if you put it in the aluminum pouches, you don't need air-conditioning, and you don't need humidity control?

Blasius Sudarsono

No. Because actually, we make the chamber smaller—that is all. We control it easily.

Kwek Chew Kim Gek

How many reels of film have you done, and how long did it take you ?

Blasius Sudarsono

Since 1985 up until now.

Kwek Chew Kim Gek

But how many reels of film?

Blasius Sudarsono

One reel, one pouch. And then for the microfiches, the envelopes can store around 25 up to 40 pieces.

Kwek Chew Kim Gek

So, is there a process of going back to see those that you have sealed every year, or every two years, or three years?

Blasius Sudarsono

Yes, we inspect it. Routine inspections are, I think, for every two years. We open it and then make it again.

Kwek Chew Kim Gek

So the costs also include operating costs.

Blasius Sudarsono

Yes. For us, it is very important that we do not open it, because it is for preservation. We still have what we have for, as Barbara mentioned about the copy master, and then also we use the ISO guide for day-to-day operations, for day-to-day use by the users. This is just to keep the master negatives.

Kwek Chew Kim Gek

Thank you very much. The other question is to Barbara. Regarding the IPI polysulfite solution, I understand the IPI has stopped producing the solution because we were unable to obtain it, and we started using Kodak brown toner. Have you explored that?

Barbara Berger Eden

Preservation Resources—and I can give you information on how to get in touch with them—is manufacturing it. IPI used to manufacture it and they stopped, but they gave the license to Preservation Resources. You can purchase it from them.

Kwek Chew Kim Gek

Thank you.

Maenmas Chavalit

Thank you. It is a really very interesting presentation this afternoon, and I have one question for Barbara. This vault is very wonderful, but what would happen in our Southeast Asia, where humidity is so high? We have had an experience of trying to make an underground stack of the libraries, only to find out it's full of humidity. And very soon all the books have been—you know, my dear! Perhaps, would Cornell have any plan to start as an experiment, a pilot project to have this wonderful vault around in this area so that we can use that? That is one of the questions. Another, out of my own ignorance, is how do you find out that the microfilm would last 500 years?

*[Laughter]*

Barbara Berger Eden

Well to answer the second question first, because everyone is laughing, I am really three thousand years' old! The Image Permanence Institute, which I referred to, like I said they are a film think tank, and they have done accelerated aging tests based on the storage conditions at these storage facilities. As a result of their scientific research, we know that the film would last at least 500 years. As far as building underground buildings in this region, I am sure you're absolutely correct. I think the solution here is an aboveground building, like I mentioned in my talk.

Maenmas Chavalit

I asked because I know that the testing of the plane for so many long hours, I have heard, but this really is a wonderful thing. Because we are all not quite sure unless we have the proof that it has been tested. Now my other question is for Mr. Gardjito. You were mentioning about languages and access to the intellectual content. Of course, I have read that in Indonesia you have so many, you have at least 100 languages. The report during the last CONSAL in Malaysia said some of the languages have only two persons speaking [it]. *[Laughter]* So, it would be a pity if that language died out, because Indonesia is so rich in culture, I wonder if the national library has any scheme of, so for example, transliterating from the original script to the *bahasa*, the roman script, first. Second, would there be any

translation? Because I see a very wonderful Indonesian manuscript that is printed out by the British Library. It has been transliterated into English, so that we can read it, and it is translated so that we can get access into this wonderful content. Would the National Library of Indonesia have any scheme like that? Because I think it is, actually, the access to learning [Which is important]. Of course, one should say if you are really a research scholar, you should learn the language. But I think for the people in general, who want to appreciate the intellectual [history] of our neighbors, such a scheme would be really very helpful. I said it because I really learned a lot of Indonesian literature through the British, and also through the RCN project on transliteration and translation into, well, what we call international language so that we can learn from them. Thank you.

Harald Hundius

You mentioned that it is very expensive to build appropriate microfilm storing vaults, so I would like to ask you a concrete question. How much is the cost for establishing such a unit?

Barbara Berger Eden

I can't answer that. I am not an architect and a builder. John?

John F. Dean

I think it is fairly clear that the costs would depend on where you build it, how big you build it. You are not looking at massive walls or anything like that. Particularly if you construct a vault within an existing structure; it need not be that expensive. We actually constructed, a few years ago, a freezer building at Cornell, capable of achieving temperatures of minus 40 degrees Celsius for freezing water-damaged materials. This has a capacity for 15,000 bound volumes. The cost of that was about 15,000 dollars. That was a stand-alone facility on a specially insulated concrete pad. One of the problems in a place like Ithaca is that we have extremes of temperature between winter and summer, so we want to make sure that once we have 'fired up the freezer', it did not crack the concrete base, so the concrete base had to be insulated. So that was a fairly big vault to hold 15,000 bound volumes. You could get a lot of microfilm in a vault that size. So the cost need not be necessarily that high, I don't think.

**SUMMARY :**  
**PROVIDING EFFECTIVE AND COST EFFECTIVE**  
**TECHNICAL TRAINING**

O.P. Agrawal  
Indian National Trust for Art and Cultural Heritage  
India

***INTRODUCTION***

Whenever we talk of training in conservation, there are certain questions which need to be addressed at the very outset. These are:

- I. Why training? or need of training?
- II. Who should be trained?
- III Nature of training.

Only after we have answered these questions, can we examine the method of effective and cost-effective training.

***NEED OF TRAINING***

We all know that the profession of conservation is similar to the medical profession. In the medical profession, if there is a doctor without adequate knowledge and experience, he/she will be a great danger to the patient treated. In the same way, a conservator without proper training will be a great source of danger to his/her patients, which in this case are manuscripts and art objects. It is better there is no conservation, rather than conservation by an un-trained conservator. Also, there is a need of training custodians of manuscripts and books.

***WHO SHOULD BE TRAINED?***

I think, there are several partners responsible for conservation, and all of them should receive training. These are:

- I. Non-conservators, yet extremely important, are persons like librarians, archivists, curators, custodians of cultural property. Their responsibility is mainly to collect, to catalogue and to make the objects/manuscripts available to the user or to put them on exhibition. It is obvious that they need to be trained in the methods of collecting, storing and handling.

- II. The second important partner in conservation is the conservator-restorer. This person is responsible for treating or conserving the collections which are damaged or deteriorated. In other words, while the first category of persons is responsible for preventing deterioration or damage of library materials, conservator-restorer will treat or conserve the deteriorated objects.
- III. Technicians.  
Technician is the category of persons whose responsibility is to undertake conservation work of repetitive nature. They are excellent craftsmen and workers, but not trained to take decisions of conservation. They normally work under the guidance of a conservator-restorer.

### ***NATURE OF TRAINING***

From the above analysis, it would be clear that training in conservation can be imparted under the following 3 main categories:

#### **I. Prevention conservation.**

This type of training is aimed for librarian. Curators, archivists, etc.

The syllabus will include:

- a. Nature of material, like papers or palm-leaf
- b. Recognition of deterioration in manuscripts and its possible causes.
- c. Mechanism of degradation.
- d. Monitoring or measurement of factors of deterioration, like light, climate, fungi, insects and so on.
- e. Methods of preventing deterioration of manuscript from various factors like, climate, light, fungus, etc.

Duration of such a course will be between 7-10 days and number of participants limited to about 25 persons in each course, so that it is really effective.

In order that it is cost-effective, it should be a national effort. The effort should be to prepare teachers who can teach persons in their own country. Teaching of trainers would be a regional effort.

#### **II. Curative conservation.**

The second category of training will be to prepare conservator-restorers. This type of training is more professional and should normally include the following topics :

Nature of materials like palm-leaf or paper.  
Recognition of damage and causes of deterioration.  
Monitoring of factors of deterioration.  
Techniques of preventive conservation of manuscripts.  
Technique of curative conservation, like examination, cleaning, hole-filling, deacidification, restoration, repair, lamination, reinforcements and so on.

Obviously this type of training cannot be done in a few days. In fact there is no agreed international standard on this issue. Various training courses range from a few months to 2 or 3 years. This is a question which is being discussed at various levels, but without an agreement. In certain situations, for those who are experienced, a few months would suffice, on the other hand for complete beginners, a minimum of 2 years will be required.

For such a course to be effective, existence of experienced and qualified teachers is a pre-requisite and obviously this training cannot be held in each country; it has to be a regional effort.

In order that persons from various countries can participate, some travel and fellowships will be necessary.

### III. Technician level training.

This type of training is more or less the same as the 2<sup>nd</sup> category above, but on a scale in which high level of qualification is not required. Technicians are supposed to help and assist conservator – restorers in conservation jobs, under their guidance and supervision.

## ***HOW TO MONITOR EFFECTIVENESS***

The key question is how to monitor the effectiveness of a training programme. It is not so easy. Some of the methods are :

Compare with international standards. But since there are no set and agreed standards, what do we compare with? Possibly we need to develop Asian Standards.

Assessment by an outside agency. That is also very difficult, because the success of a program lies not only in the end product, but also in the teaching procedures adopted. The coordinator himself or herself is in the best position to assess.

Judge by the experience and level of teachers.

### ***INDIAN EXPERIENCE***

Now I would like to mention our experience in India. First of all there, is a University level 2 years degree course leading to an M.A. This course is given at the National Museum Institute, New Delhi. In this course all the materials which are represented in a museum are included in the syllabus. It is a very good course as a beginning, but it has to be supplemented by practical training.

At my institution, the INTACH Indian Council of Conservation Institutes, a course is being held now for the last two years, with the support of the Japan Foundation Asia Centre, NORAD and the Ford Foundation. There are 3 programs under the subject :

- I. Workshop of 10 days duration in Preventive Conservation at Bhubaneshwar in India. This is mostly for Indians.
- II. Training of 4 months duration in Curative Conservation of Palm-Leaf and Paper Manuscripts, at Bhubaneshwar, India, open for participants from Asia.
- III. Organized workshops of 10 days duration in Preventive Conservation in various countries. Participants will be from the country concerned.

### ***SURVEY OF LIBRARIES/MUSEUMS***

In India, we had conducted a survey of museums and libraries, to have a first-hand knowledge of the deficiencies and needs. The above stated courses were developed and established in response to the results of the survey. I therefore feel that survey of museums and libraries by experienced conservators is extremely important. If we do not first of all do the correct diagnosis of ills, we cannot administer the correct medicine. Survey, I feel, is extremely important.

### ***CONCLUSION***

In conclusion, I would like to mention that technical training in conservation is important, but to make it effective and cost effective a good deal of preparation has to be done. Any training programme, to be effective, must take into account the needs and then decide the nature of training accordingly.

## ***PROVIDING EFFECTIVE MANAGEMENT TRAINING***

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School of Information Systems, Technology and Management  
University of New South Wales  
Sydney, Australia

### **Introduction**

“Effective management” is a need that underlies all our preservation and conservation activities, but is almost always left out of project proposals, which overwhelmingly concentrate on the technical specification of the tasks in hand. However, from my own observation and experience, I would be so bold as to say that most of the difficulties surrounding projects in the preservation and conservation area, as indeed elsewhere, relate more to poor management practices than to technical weaknesses. While most of our discussions at this meeting will inevitably concentrate on the technical aspects, it is therefore wise to spend some time considering how one may best plan to achieve and sustain effective management.

My presentation will focus on what types of effective management needs can be identified, and how can they be provided for, but I will commence by looking at some examples of problems in projects, including in preservation and conservation, that can be seen to have arisen largely from management weaknesses.

### **Problems in Past Projects**

One library where I have spent some considerable time in recent years has had several preservation and conservation projects, including microfilming of manuscripts, as well as several in the area of bibliographic control. Relating to these projects, donors have provided a number of items of equipment, including air conditioners, photocopiers and computers. It is devastating to find that these items of equipment are seldom used and, as a result, the microforms themselves are in severe jeopardy and the bibliographic projects are at a standstill. The reason given for not using the equipment is that electricity is seldom available

In previous years it was true that the city’s electricity supply was erratic, but at least the library did receive power when it was supplied. Now the city’s electricity is far more reliable and stable, but the library’s situation seems paradoxically to be

worse, with extended periods (sometimes months at a time) without power because its bill is not paid. Why is this so?

Previously, government ministries and departments, including the library were provided with free electricity by the state. Now, as the market economy has been introduced, electricity services have to be paid for, albeit at concessional rates for government agencies. However, the ministry and department responsible for the library have neither paid the bill nor provided the necessary funds for the library to do so, and so the library's electricity keeps getting cut off for non-payment.

Sometimes the staff have gone to the electricity utility and successfully pleaded for special treatment, but this seems to be ever less likely to succeed as the market economy is more stringently implemented. Furthermore, because of a huge debt of unpaid bills since 1995, the library's current bill must be paid at full, not concessional, rates!

Sometimes the staff devote to the electricity bill some of the small income they receive from charging for bicycle and motorbike parking, photocopying (itself contingent on electricity availability!) and from selling coconuts and leasing the garden area to a commercial nursery. But with government salaries around \$20-\$30 a month, far below the cost of living, staff understandably feel that any such income should go first to supplement their salaries. And this strategy is further hamstrung because new superiors in the department responsible for the library have cut back on most of these private income-generating schemes, in the interests of beautifying the library precinct. In recent months several private donors have given funds to the library earmarked for payment of the electricity bill, but this is not a realistic expectation for the long term.

This is clearly a budgetary problem, and can be regarded as being outside the library's control, and relating to macroeconomic policies at the national and even international level (complying with demands from the International Monetary Fund and the Asian Development Bank). But one can see it also as a management problem for the library, as electricity is so fundamental to so many aspects of its work, that this must be addressed and overcome.

Perhaps if the library had regular staff meetings with reports from each unit, the electricity problems could be documented and then reported. Perhaps if the senior management of the library had the confidence to speak strongly to their superiors, and perhaps even to their superiors or to the press, about the damage being done from lack of electricity, backing their complaints with concrete data, something might be done. It would seem highly unlikely that the minister would actually state that the ministry is not able or willing to pay the electricity bill and thereby

risk halting externally funded projects, or even worse undoing the benefits of past assistance.

But to take the initiative to make a formal complaint, especially publicly, and to “go to the top” with it, goes against the grain and is seen by many as violating cultural traditions of respect and even submission to superiors. Effective management training should involve working with the staff in ways to tackle these problems without making themselves too vulnerable, and while keeping the support of their fellow workers. Confidence and assertiveness building, and conflict and dispute resolution procedures need to be developed, but at the same time the trainers also need to be aware of the cultural and social context and traditions. Far too often well-meaning expatriate experts arrive for one or two weeks to instruct the locals with techniques and approaches that are not realisable. When the expert departs it is the staff who are left with the awful conflict between ignoring all the good but essentially foreign ideas, or jumping into battle and risking all.

To move from issues relating to high levels of management policy to day-to-day management, at another level, and quite within the control of the library staff to manage, is the question of adequate cleaning and ventilation. The collection is being put at risk by haphazard and irregular cleaning, which could be rectified by clear management directives and participation. In the past, one day a week was put aside for manual work, and all staff, including the director, participated in gardening and cleaning, as was the general practice in the days of the collective economy. Now the staff work only five days a week and the market economy ethic emphasises a hierarchy of staff responsibilities. Nobody wants to be seen to do menial work, and so the essential cleaning tasks are left undone.

As to lack of air circulation, this is compounded by the fact that past donors who installed air conditioning units in sections of the building changed the arrangement of the windows, which had previously been normally left open each day. Now they have either been made permanently shut or the staff have been told to keep them so (in the assumption that the air conditioning will be constantly functioning). Since it is not functioning, or rarely so, the situation is actually considerably worse than the original, non-air conditioned but amply ventilated state!

This library also has no budget allocation for collection development or supplies and equipment, as the ministry takes responsibility only for staff salaries. As a result, it is completely dependent on donations. But even in that situation, the staff could play a far more proactive role than they have to date. One of my students

(who came from this library and indeed was its director for a short time) wrote a paper on “Collection development with zero budget” and he came up with a number of mechanisms that were entirely within the ability of the library to manage, such as regularly visiting all publishing houses, including newspapers, and government and non-government organizations to ask for donations of copies of all their publications. However, unfortunately, this strategy is not being employed at the library in any systematic and comprehensive manner, and so what is collected even from the national bibliographic output is scanty and somewhat haphazard.

My final example relates to the loss of staff as soon as they gain new and marketable skills. My example library has experienced this bleeding of talent quite acutely. Four senior staff who had gone overseas for educational programs at my university have all left the library and moved into the non-government or international organization sector where salaries are at least ten times those offered in government agencies. One can in no way blame the individuals for making such choices, when their family’s welfare is at stake, and while these four individuals are still employed in socially useful work and, in all except one case, in the field of library and information management, it is nevertheless an extremely depressing outcome. The fact is that the library has not benefited at all, or only briefly, from the donor’s efforts to develop senior management, and the most talented staff (who were selected for overseas training precisely for this reason) have been lost to the library. Some donors have taken the approach of giving salary supplementation for staff they have trained in order to keep them within the institution, and that approach can indeed work, but it is almost certainly a short-term solution, and it also can create feelings of disharmony and resentment from the now unequal salaries, with a result that other staff not so remunerated may feel that they have no obligation to carry out their tasks effectively.

I give these examples from not because I think they are unique to the situation of that particular library, but rather precisely because I believe that they are illustrative of problems occurring throughout the region; problems stemming from great macroeconomic and political and social changes which have to be addressed not only at the policy highest levels but also within each institution and work unit.

The essence of management is surely the ability to harness and sustain available resources (human, material and financial), mobilising them for the good of the whole organism.

It is necessary for staff to develop management skills to use in all areas of the library or archive’s operations, including its preservation and conservation

activities where knowledge, skills and equipment are generally in such short supply, and where effective practices are critical for the survival of the collection and the national, regional and international heritage.

### **Types of Management Skills Required**

One of the problems in developing effective management is that the areas covered are so broad, and the skills so various (in this we see a distinct difference from development of technical competencies in specialised areas, which I will not attempt to mention here). We can, however, attempt to enumerate the general areas of management that have particular relevance and applicability in the preservation and conservation area, including:

- Project management
- Project proposal writing
- Budget estimations
- Budget control, supervision and reporting

### ***Collection Management***

- Decisions taken at time of acquisition on the nature of materials to enter the collection and their conservation requirements;
- Implementing measures for maintaining the collection in optimum storage conditions;
- Triage, or the capacity to evaluate the collection and to assign priorities for preservation or conservation based on the content of the items and their importance to the specific collection; their physical form and condition; and also the capacity of the institution to carry out the preservation required;
- De-selection and disposal to take materials out of the collection and the need for preservation.

### **Personnel Management**

- staff recruitment and training existing staff
- teamwork
- accountability and initiative
- financial accountability

## **Providing Effective Management Training**

Having attempted to enumerate the management skills required, we must address the question of how these might be acquired or imparted. In other words, we must look at where is such training provided in our region.

The Southeast Asian region (with the exception of Thailand and the Philippines and, to a lesser extent, Indonesia) has been relatively slow in developing institutions and programs information management, including both library and archive management. Traditionally, major institutions such as national and university libraries and archives provided in-house training to their staff, while those who wished to achieve full professional qualifications had to study overseas. Over the past decade, however, new institutions and programs have been developed in Malaysia, Singapore and Vietnam. To my knowledge, Brunei, Cambodia, Laos and Myanmar are still without professional level information management educational programs.

However, within those educational programs, as far as I know, none are devoted to preservation and conservation of library and archive materials, and few even give the possibility of studying these areas as a specialisation or even an optional elective subject. To my knowledge none focus on the preservation needs of microforms themselves. Accordingly, it has been necessary to go outside the region to meet training needs either by importing trainers to teach in workshops and short courses (albeit in conjunction with local experts), or by sending staff abroad for professional level programs or short courses.

A new possibility is beginning to emerge of studying preservation and conservation management in distance education mode via the internet. This mode requires access to a fast computer and to a network connection of sufficient bandwidth to allow for effective online communication and browsing, which have not often been available at a cost that can be afforded, but which are becoming increasingly so, although to uneven degrees throughout the region and even within individual countries.

In conclusion, then, let me return to my opening message, that in devising our projects and in evaluating them too, we must make sure we look beyond the technical to the often even more difficult areas of project and institutional management.

## General Discussion

### Technical Operations:

#### Topic 4: Providing Effective and Cost Effective Technical Training

##### *Paper Presenters*

*O.P. Agrawal*

*Helen Jarvis*

##### *Moderator: U Pe Thein*

Moderator

Now the floor is open for comments and questions. Yes, John?

John F. Dean

I think the continued dilemma—and this is not just in libraries in Asia, but in a sense throughout the world—is that it is comparatively easy getting money for capital equipment. The real issue is dealing with the operational costs. Electricity is an operational cost. Film stock, developer, glue, board, book cloth; all these are things that have to be funded on a regular basis. Really, there is no escaping the fact that this is an institutional responsibility. It is particularly tragic in countries that devote significant percentages of their Gross National Product to supporting their military expenditures that they are unable to provide the support needed for libraries. Amongst these consumables, of course, as Helen has pointed out, are staff. It is especially tragic when it appears that in providing the training, you are actually in the long run weakening the staff structure because the good people are the ones that are trained and they are the ones most ready to leave. There really is no way to deal with this except to provide as Helen said it seems to me, some sort of mechanism for persuading government to devote some money to providing support for these institutions. It cannot come from outside. Foundations and foreign donors, as I have said, provide tremendous support in capital equipment, ‘one time’ things, but the day to day operations really have to come from the country itself. At some point, somebody has to make a choice. Somebody has got to say, ‘well, I guess they don’t want us to preserve their books and manuscripts anymore.’ It is tragic, but it looks as though that is the case in some countries.

Judith Henchy

I would just like to add to the issue of financial remuneration, the question of status. I believe also that has been mentioned earlier in the day. I think, perhaps, part of the reason why staff are sometimes glad to get out of the library is that it is a profession that has such a low status in the pecking order. I think it is part of the overall management strategy, doing something about the status of libraries and

librarianship within the national structure is certainly an important management function. I know that this is an issue in many of the countries that I am familiar with.

Helen Jarvis

I feel uncomfortable at the moment because I feel I don't want to be sounding so negative, especially at the end of the day. It would be a bad situation to leave on a particularly negative [note]. I agree with Judith; I think the status issue is an important one and I think it was mentioned, actually, earlier today about the visibility when people are being invited to a conference such as this, for instance. It is an important thing back home to have been invited to this international conference. It is important that this was considered important enough to devote funds to, that when the outside donors are focusing on this area, that will help lift the status. Also, I think the technology questions can be useful in this regard. Using computers, and talking about high-tech things also can be of great assistance in promoting the image of the institution sometimes. But again it is a bit of a two-edged sword because if you train people in this area then the computer area will pay more outside. Some people have found ingenious ways to keep the staff, and find ways to supplement the salaries or to allow people to have other jobs on the side that help sustain. I don't think it is an entirely negative thing by any means. Just really the main focus of my talk was to say we cannot just talk about the technical issues. We have to talk about how they can be implemented in the long run in a management question. I don't want to be too depressing.

O.P. Agrawal

The point mentioned by John is a great pity. It is a great pity, and tragic, that funds are not available for consumables and things of that type. Quite often I think the professional organizations can help in that respect. By that I mean, in the morning I mentioned the question of attitude and the question of awareness as far as that is concerned. If we approach political authorities time and again—authorities means political authorities, those in the bureaucracy—with something which is important; this is the goal that a professional organization can do. Sometimes what I have tried in India is to, say for an example, here is a report with me. I conducted a survey as a consultant on the manuscripts, books, archival and the like material in India, and their conservation status and needs. I want to find out what the needs are. So, the person whom I had engaged—he was from the state archives—he went down to many of the libraries and collected data on the status today. Why is it so? What are the needs? Then this was discussed and presented to the ministers, to the secretaries, and people like that. I think that helps a lot. Also it helped for me to clarify what exactly we needed to do. I was surprised that training was the key point, training of the librarians in the field of

conservation. The librarianship? Yes, at that point, it was excellent. But as far as the conservation needs are concerned, there was very little that was known to the librarian. Simple things like safety from insects, safety from fungus, safety from light—these were not known. So, I think what Mr. Dean mentioned is extremely important, but maybe approaching the people through some professional organization, that might help.

Jaffe Yee Yeow-Fei

I heard that all these problems came from one problem—no money. OK ? So I think especially with all of the developing countries in Southeast Asia I think certainly every nation has their national budget, but by the time national budgets come up for review, you know who gets the most money—people who have got the guns, right? So for example, in Cambodia, I was there about a week ago, and I was asking how much money they actually spend. There is no war anymore—the Khmer Rouge is no longer there, but I think they spend 40% on defense, so obviously they are still buying a lot of guns. If the people in the libraries and these sectors would...

Helen Jarvis

Get some guns?  
*[Laughter]*

Jaffe Yee Yeow-Fei

...find a way to get across to the top to say ‘we need this money’ and ‘why we need the money’, and that this is important for the national development, I think the government would probably give you the money. I mean they don’t know why you need the money. Tell me why you need it and I will give it to you—give me the reason.

Alan Feinstein

I just want to comment a bit on the issue of outside funders, because it has been raised. Funding for training is actually quite popular among foreign donors, embassies, or foreign foundations. Jenny Lindsay—I don’t know if everyone has read her little short story called the Keepers—she refers here to a woman who is the head of the national library. I will just quote from this. It says that: “Mrs. Pratheevi says the training workshops for her staff led by foreign experts are excellent in terms of raising the library’s prestige. Just this year alone there have been four workshops in manuscript and microfilm conservation techniques, one funded by the Dutch, one by the Germans, one by the Japanese, and one by the Australians. Seems to be that the more workshops the library organizes, the more they seem to be offered by other foreign embassies and offices.” Etc. The point here that she is satirizing, is that there is rather that coordination and cooperation

among donors, rather than thinking about the strategic ends towards which training can be used, there is actually competition, which ends up wasting resources, and ends up confusing the people being trained. This relates to what Mr. Gardjito was saying before about getting conflicting notions from different experts over the years, and sometimes different countries have different advice to give you over the years which may be conflicting. It is very important that not only we think about cooperation among the institutions, but also the donors too. There is an obligation on the part of the foreign assistance givers to think about these strategic questions. I think that we as donors have a responsibility to be more strategic in the way we provide funding. And not all training is useful, just as not all equipment is useful because it ends up eating up your entire budget. Thank you.

Melvin P. Thatcher

I just want to reinforce what Mr. Agrawal was saying about training for different levels. I think this relates to the issue of getting funding for your work. In the training programs we've done in China, India, and in Korea, for example, we typically have done a 5-day training program, the first two days for administrators, and the last three days for technicians. I don't know how you can go about getting higher level people to come to training sessions. If you can get the directors of libraries or their immediate subordinates to come, that is already pretty good. But if you have to go higher to get funding for your library, how do you get those people to come to the sessions? The purpose of having this training for administrators, I think, is just to increase the awareness of what is needed, and to try and create an environment so that those practitioners of that craft can get the financial and administrative support they need to go about doing their work.

I think it is very important that the training programs include some outwork, and in terms of the bureaucracy, some upward oriented training to try to marshal support for the work that must be done.

Helen Jarvis

It could also be that, perhaps, some study visits from more senior bureaucrats could be useful too, to attend at least some parts of international conferences, or at least visit some examples of model institutions in the region or outside. I think some strategic invitations and visits could be quite useful. The other area, too, I think could be working on establishing 'friends of the library' or 'friends of the archives' organizations within the country, to bring in decision makers and people with some prestige in the community who may have a particular interest in books or manuscripts or could have such an interest cultivated. Of course, local press coverage and exhibitions of the treasures, and cultural heritage, and so forth. I think there are a number of strategies that can combine with this raising the

prestige and having some inroads into the people above that may have control of the purse strings.

John F. Dean

I must confess I am unfamiliar with the organization ASEAN other than what I read in the newspapers, but I often wonder whether that organization has within it divisions that address some of the cultural needs of the countries involved in ASEAN. It does seem to me that we are really talking about something that is really quite basic to the way the governments, certainly the governments that are members of that organization apportion pieces of their Gross National Product. As I say, I don't know about the organization, what kinds of teeth it has, or what kinds of sub-pieces of the organization would be activated today. Maybe there is some possibility in invoking ASEAN in trying to look at some minimum standards here.

Helen Jarvis

I think the committee on cultural interchange would be... someone has their hand up to respond?

Ch'ng Kim See

I'm just responding because Judith Henchy has given me a notice to speak up. ASEAN has got this section called ASEAN COCI, which is the Committee on Culture and Information. I did a consultancy for them two years ago on their own library, which unfortunately is not very well recorded, and which unfortunately has yet to be implemented, so you can imagine their own house they have not built. But COCI has got a program amongst member countries, mainly for training and field visits, but not long term projects like this. In my paper for tomorrow, I have asked that this particular committee be approached because they have got well over 50 million US\$ in hand—unspent.

Maenmas Chavalit

Thank you very much. I raised my hand and then I decided not to speak, then I think I should speak. [We shouldn't] make the picture so sad. There are ways and means. Thailand has, a few years back, suffered from the same things—[There is] no support, and the librarianship is given a very low priority. Things like that, as mentioned in detail, we have had. But also one of the things [is that] the library association, as mentioned by Dr. Agrawal, has a role to play, because you do not have to go to the bureaucracy. For example, if you want to invite the Prime Minister to open the meeting, the president of the Library Association can write to him directly. Of course I am reluctant to say because this may not be applicable to the other countries.

The other thing I keep saying-because I used to be a teacher, and I was not taught these strategies from library schools in the United States, but I got some hints when I came here-is that we have to look in our cultural background. The things I teach my students are to study your boss, and learn what he likes and what he does not like and look for the opportunity for support.

The first boss I had, everybody was afraid of him because he was so demanding. One day he decided to go to Malaysia. I said, 'look, you are going to Malaysia. Here is all the information I will tell you. You know who to contact, where to buy from etc.' And from there he said, 'Oh, libraries are good when they can give you information.' He was the one who gave all the support, from a very low status, particularly of the public librarians, which I rate as the same all over, to a higher status. The library has made an effort. I said that it takes us about 30 years to convince the civil service people that the library profession is a profession requiring training. It's a kind of work that nobody can do. Otherwise they would just say, 'Oh library work is so easy, why do you demand so much? It is only putting books on the shelf'. We have to work from the inside to prove that we are efficient, that we are informative, that you do not have to know everything but you have to learn new words, new phrases, and you can talk to the scientists-but do not talk further in depth. You keep asking questions, and I could just say that, mentioning only last year, library status has been left as high as any profession. Also, in the training, we do not train our library students communicative skills. We are a rather quiet kind, sitting and classifying books. I say no; my students will have to have another picture. You have to speak up, you have to talk, you have to defend your budget, and you have to defend your profession. When we got the first United States teacher funding from the Fulbright, Dr. [Frances] Lander he said, 'Oh, why are these Thai people so quiet! We don't know whether they understand, or they don't understand!' I just said that they don't talk. But you can encourage [them].

To sum up, do not make the picture so scratchy. The library profession has a role to play, but you have to prove yourself [to be] very efficient, very effective. So, I think it takes time, and don't give up easily. I was thinking of retiring many times a year, frankly speaking. I think that if we are all here, and I have been in the area, and we suffer and suffer the same thing. I know in some countries, Indonesia for example, the reason you get these wonderful National Library buildings is because Ibu [Miss] Marstini [Hardjoprakoso] knew the ways to get this. So I think we can exchange and learn the ways. In April there will be a meeting of Southeast Asian librarians in which we will talk about these things. I think even if you are not non-CONSAL, your colleagues are invited to come when we settle this kind of problem. Getting together, and talking things together, and openly speaking, I think that would help. It takes time. Thank you very much.

## **IMPLEMENTING EFFECTIVE PRESERVATION MANAGEMENT ON A NATIONAL SCALE**

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The cultural historical and intellectual expression/communication in the forms of words (manuscripts, printed text, etc.) and image or graphic (rock painting or carving, drawing on barks or paper, mural paintings, textile patterns, photographs, book illustrations/illumination, etc.) and sound (verbal recitation of poetry, songs, lecture, addresses delivered on important occasion) are considered the properties of the individual creators (if they can be identified, or if they sign the names) of the local communities, the nation, the region, and the world (such as the religious scriptures). The majority of the physical outputs have been in the custody of governmental agencies, local, national, or international (Unesco archives for example). A certain portion belongs to private individuals and organization, or institutions. To ensure that these properties, whenever they are kept, are given equal standard treatment for preservation, conservation, and restoration, the approach and measures undertaken towards these goals should be holistic, in particular at a national scale.

The effective management at a national scale requires :

- 1) a well-thought-of and practical national policy ; and
- 2) comprehensive planning, to cover all aspects required for implementing the policy (for example-programme activities ; manpower ; methodology, money, management, or copyright aspects).

There exist in many developing countries master plans for conservation/restoration of the world heritages in the forms of buildings, monuments and sites, but a master plan, at a national level, to preserve/conserve/restore cultural property in the forms of words, graphics and sound are rare. Recently, under the Unesco Memory of the World programme, some developing countries establish a national mechanism to undertake inventories and formulate national plans for safeguarding, conserving and providing access to the national memory.

Actually, it is the duty and responsibility of the people of the nation to ensure the safeguarding. Private individual collections or agencies may decide to sell them at high prices to foreign countries, and they can rightly do so unless these

properties are protected by laws, or so much the better, by their own awareness, conscience and pride of the national values. Because of these values factors, the first step to be undertaken by the governmental agencies concerned, and also by the non-governmental organizations established for the safe-guarding of the national cultural properties (e.g. in Thailand, the Association of the Protection of Cultural Properties) is to organize a campaign for creation of public awareness of the values of cultural, historical, and intellectual properties. The campaign can be concerted efforts of the governmental and non-governmental agencies. The purpose is not only to create awareness of the values, but also awareness of the necessity in safeguarding, preserving and making them easily accessible for all who need to acquire knowledge and information.

The campaign should be comprehensive, harnessing all mass media to be involved, and attempts should be made to ensure that the campaign covers remote areas where some individuals or temples have held valuable properties in their custody. In Thailand, for example, in 1999, a national project for conservation of cultural heritage was established by all access sectors concerned. The programme activities cover exhibitions, research projects, mass media programmes, seminars and festivals held in Bangkok and various provinces.

Another aspect to foster awareness is to provide education. The meetings of the ASEAN-Japan Multinational Cultural Mission were held in Japan, and ASEAN member countries emphasized the necessity to educate the people of all ages, at formal, non-formal and life-long levels. The meetings also called for co-operative efforts and participation of the member countries on an equal basis in implementing the objectives of conservation of cultural heritage, including education programmes. The importance of contents as well as physical outputs should be included in the educational curriculum, including the training of teachers and cultural administration personnel. For children, some interesting and attractive extra-curricular programmes can be included as selective activities, not compulsory because sometimes students have negative feelings about being forced to learn.

Legislative measures which should be enacted should include those concerning not only copyright issues, but also the rights and responsibilities of the people of the nation to safeguard and to ensure the accessibility for the use of present and

future generations. For example, in Thailand the current Constitution and the National Education Act emphasize, among other rights and responsibilities, the rights and responsibilities for education, conservation, and development of national cultural and intellectual outputs.

One of the major programme activities to be included in the policy and planning are to conduct research and development projects in the areas of preservation/conservation and restoration to ensure the most effective methods for longer span of life of the materials undergoing different treatments, and not turn out to be harmful to them at later stage.

Safeguarding and preserving activities requires large amounts of money, time consuming, and efficient personnel who are not only qualified in theoretical knowledge and skills, but also appreciative of the values of cultural heritage, and who have a lot of patience in the case where the works are monotonous such as microfilming, or assembling broken pieces of fragile printed pages together. The government should put emphasis on the allocation of adequate budget, or to establish special funds, to make arrangements for positions, salary scale and opportunities for attractive promotion of the preservation personnel; practitioners, specialists, trainers, researchers and so on.

These programme activities should be undertaken before launching national implementation of the policy and planning. As regards the questions on preservation of the existing microfilm, which are main topics of the discussion of this meeting, some are about the technical aspects, others on the question of the national policy, or the institutional policies. It is very appropriate for this international meeting of experts, institutional administrations, and representatives of the national archives, national libraries and national museums to exchange ideas, information and experiences in order to find ways and means to solve problems and to formulate recommendations to respective governments, and non-governmental organizations concerned regarding national policy and holistic planning for effective preservation management.

## **PRESERVATION MANAGEMENT AT THE NATIONAL LEVEL: THE MYANMAR EXPERIENCE**

Tun Aung Chain  
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Myanmar

I have been asked to prepare a paper for this Conference bearing on the topic, “Implementing effective preservation management on a national level.” Since most of you would know more about this subject than I do, I am limiting myself to a presentation of something which is perhaps less generally known: the management of preservation work in Myanmar as we have been doing it for the past five years or so.

I would first like to sketch the institutional setting in which preservation work is carried out in Myanmar. The resources and facilities for preservation work are distributed in a number of ministries--Culture, Defence, Education, National Planning, Religious Affairs. As in most bureaucracies, there are tidy hierarchies and departmental boundaries which are well observed. Departmental heads establish their own priorities, arrange their own funding and decide on the deployment of their resources. However, the basis for a common use and deployment of resources and facilities is provided by an inter-ministerial body, the National Commission for the Preservation of Traditional Manuscripts, established in 1994.

The National Commission has a somewhat immaterial existence, occupying no physical space, nor having staff or finances of its own. It exists primarily as a coordinating body of those departments and institutions which have the resources and facilities for the purpose of carrying on preservation work beyond departmental boundaries.

The materials to be preserved--modern paper or traditional palm leaf and folding paper books--can be divided into two categories on the basis of their location: those in public institutions and those in private collections. The former is represented by holdings of the National Library, National Archives, etc., and the latter by collections in monasteries and in the possession of private scholars. There is an ongoing process of the transfer of materials from private collections to public institutions through purchase and presentation, but it proceeds at a glacial pace, and the prospect is of a substantial amount of material continuing to remain in private collections.

The management of preservation work varies according to whether the material is in a public institution or in a private collection. With the former, the procedures

are, of course, quite bureaucratic, but there is the comfort of working with established systems. It becomes a matter of sorting out the priorities and of finding a place for preservation work, of needs assessment and the development of short and medium term plans, of finding and developing the necessary resources and facilities and trying to use them in the most rational way possible, of developing appropriate procedures and practices, of laying down rules and regulations, etc. The work is familiar to all departmental heads although they work with varying resources and facilities.

The role of the National Commission with regard to the management of the preservation of material in public institutions is primarily an advocacy role, with some supplementary work in training and skill development. The Commission has not had any seminars or workshops specially focused on management--perhaps this is an area of work which needs to be developed--but it has had managerial personnel as participants in some of the short-term general training courses. At another level, the meetings of the National Commission help to emphasize the necessity and importance of preservation work among departmental heads as well as serve as a forum for departmental heads to discuss common issues and problems related to preservation work in various departments and institutions.

One of the problems common to all departments and institutions is that of finance. In a developing country like Myanmar, it is natural that priority in national budgets go to the development of facilities and resources--roads, dams, schools and hospitals--which are directly related to the social and economic advancement of the general populace. The departmental heads in the National Commission are all familiar with the annual fight for budgets; the Commission itself tries to ensure that the work of preservation secures adequate recognition in these budgets.

There has been, in recent years, an awakening to the importance of preserving the national cultural heritage which has resulted in a vast release of funds, both public and private. But the work of preservation of printed and manuscript material has not had an adequate share of this "rain of gold and silver." Being connected with the idea of gaining religious merit through benefaction, the rain has fallen mainly on objects of public veneration, most conspicuously pagodas, while manuscripts, even though deposited in public institutions, are not considered public, and even though embodying sacred texts, are not venerated.

The management of preservation work with regard to the material in private collections is quite another matter from that of public institutions. It does not work by bureaucratic rules and procedures although it does not quite dispense with them.

The bulk of the material in private collections is in the monasteries, which have been good custodians, at least of the palm leaf manuscripts, from time immemorial. Some monasteries retain their traditional role of being the guardians of knowledge and continue to take good care of their palm leaf manuscripts using traditional methods, e.g. wiping with earth-oil, modified by modern ideas of propriety, e.g. keeping the manuscripts in glass-fronted cupboards. However, in modern times, there has been a decline in the perceived value of the traditional palm leaf manuscript. This is perhaps partly due to the development, or perhaps explosion, of knowledge beyond the bounds of traditional learning, but it is also due to the magnificent effort of some publishing houses which has succeeded in transferring many--but not all--of the significant texts on palm leaf manuscript to the medium of print. This decline in the perceived value of traditional manuscripts puts them to the risk of neglect or of unconsidered disposal.

The management of preservation work with regard to private collections goes outside bureaucratic structures and procedures although it does not quite dispense with them. Private collections differ from public institutions in that they do not have a professional staff. Therefore professional personnel from the departments and institutions from a pool trained in preservation work have to be deployed on the basis of interdepartmental cooperation, the framework of which is provided by the National Commission. The strategy employed is to send out a team into the field for a period of two weeks to a month to make an on-the spot inventory, to provide some guidelines in preservation work, to give a practical demonstration of preservation methods by applying some of these methods to the collection, and latterly to microfilm selected texts. This is usually a one-off effort; although a follow-up and periodical monitoring would seem to be desirable, this is beyond the means of present resources.

Preservation work in the field makes use of two networks. One is the network of university and college libraries which have personnel who have been trained in preservation work and who help to augment the skilled personnel sent out from Yangon. Sometimes too, members of the teaching staff of such departments as Myanmar Language, Pali and History are employed as auxiliaries in inventory work. The other network is that of the Religious Affairs Department which has personnel down to the level of the township. The township officer is usually a good source of information with regard to collections in the monasteries and is also helpful in providing an introduction to the abbot of the monastery. Establishing a good relationship with the abbot is essential since he can often provide lodging for the preservation team within the monastery and since he has to take on the responsibility of preservation once the team departs.

Preservation work in the field also involves making use of the administrative bureaucratic structure and enlisting the cooperation of the local administrative authority. This cooperation is essential because the authority of the local administrative authority is considerable and extensive, and it can provide assistance to the preservation team in many ways, including making arrangements for logistical support.

As in the preservation work in public institutions, one of the basic problems of the preservation work in the field is that of finance. Most departments budget limited funds which can be used for field preservation work, but they are quite inadequate for an extended work programme. External funding is crucial, and the field preservation work thus far has been sustained by a three-year grant from the Japan Foundation.

In conclusion, I would like to make a few brief comments. The first is with regard to the national body or agency which provides the guidelines and oversees the work at the national level. There are, of course, many alternatives in the formation of such a body. In the Myanmar situation, where major collections of manuscripts as well as the resources and facilities of preservation work are in public institutions, and where everything is highly bureaucratized, it has been found convenient to make this body a governmental body. Only as such can it make use of governmental hierarchies, and it is only through the use of governmental hierarchies that preservation work is made possible and effective.

The second comment relates to the establishment of effective working relationships. The National Commission itself is a two-tiered structure. The first tier is that of the departmental heads which acts as a decision-making body. The departmental heads may come from different backgrounds, but working in the same bureaucratic environment, speaking the same bureaucratic language, grappling with the same bureaucratic problems and working together in various other inter-ministerial committees, they can relate well to each other. The second tier is that of library and archives professionals which acts as an implementing body. Here, the relationship is closer still, not only on the basis of their professionalism, but because all of them are graduates of the single library school that is in Myanmar and the old school tie is a very close bond.

Outside the National Commission and in the field, relationships are a bit trickier because they involve a variety of types. The leader of the field preservation team has to be both a professional and an official of a high enough status to gain acceptance in a status-conscious local bureaucracy. At the same time, in his dealings with the abbots and the monks and the elders of the community, he has to be less of an official and more of a public relations person. Drawing from a fairly

large pool of professionals, the National Commission has been fortunate in getting good team leaders.

My third comment relates to the use of resources and facilities. The establishment of a good working relationship within the National Commission has allowed the pooling and sharing of resources and facilities. This sharing is quite essential to our preservation work. Our technical facilities are so limited that even without the favour of a formal inventory each of us knows what technical equipment the other has. The sharing extends to consumables which are sometimes in short supply because their procurement involves hard currency expenditures. Inter-departmental use of such consumables goes under the name of “borrowing” and frequently involves, after a decent interval of time, the writing off of bad debts.

One last comment perhaps. The preservation work carried on in Myanmar has been heavily dependent on a small body of senior professionals who combine managerial and professional functions. It is they who provide the professional inputs for the planning and design of preservation programmes, they who act as instructors in the training programmes, they who act as supervisors in the field, they who set an example of selfless devotion to the profession when this is coming into question because of the growing disparity in remuneration between the private and the public sectors. Unfortunately, they are dwindling in numbers although some of them continue to give their services beyond retirement to an age when, by life expectancy statistics, they should be in their graves. Among the most pressing of our problems, then, is the creation of a new cadre of senior professionals of the same professional competence and devotion.

# **PRESERVATION EFFORTS OF THE PHILIPPINE NATIONAL ARCHIVES IN SAVING ITS COLLECTION FOR POSTERITY: AN OVERVIEW**

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## ***I. Introduction***

Established 99 years ago, the Philippine National Archives, then called the Bureau of Archives, now functions under the administration of the National Commission for Culture and the Arts (NCCA).

One of its main duties is to identify, collect, and preserve the nation's public records. It serves, therefore, as the custodian and administrator of priceless archival holdings.

The Philippine National Archives oversees the records sections of different government agencies through the technical-assistance mandate in appraising and evaluating the non-current or inactive records accumulated by each of such offices. Thus, the aim is to decongest record areas, save precious space, costly filing cabinets and stop hiring additional personnel. Needless to say that efficiency in work and savings for the government, in terms of money, supplies and equipment are achieved. The National Archives also oversees and gathers government records as a result of abolition of agencies or merging of government offices.

Another function of the Philippine National Archives is to promote awareness of the value, access to and use of the archival holdings. Towards this end, two regional service centers were established in Mindanao and in the Visayas. And two more such centers shall commence operation starting this year, one to be set up in northern Luzon while the other one is to be opened up in southern Luzon; thusly, the four service branches shall cover and serve the different geographical areas of the archipelago.

People in the provinces, including contract working individuals abroad, need not commute to the capital (Manila) to obtain evidentiary papers, such as birth and marriage certificates, and other required documents. It is apparent that we are

providing access to records by residents of different regions through those service centers. In yesteryears, often only traditional users of records were served. These were the academic researchers, civil servants and the general public.

Nowadays even educational institutions, business enterprises and industrial organizations have started to do research work on their founding dates and circumstances to commemorate their periodical histories, especially after the observance of the national centennial celebrations of the Philippines. As these entities set up their heritage centers and exhibits, they seek research aid and support from the National Archives.

## ***II. The National Archives Collection***

The archival collection is rich and varied. It is regarded as the “source” for the study of the Spanish colonial administration in the Philippines. It consists of papers dating from the 16<sup>th</sup> century up until the end of the Spanish (1898) in the Philippines. The holdings are broadly classified as follows:

### **A. Colonial Spanish Records**

dated 1552-1898:

1. Royal decrees
2. Founding of Towns and Provinces
3. Governors-General’s findings on the Colony and recommendations
4. Civil records
5. Schools
6. Ecclesiastical records
7. Military records
8. Land records

### **B. Post-Colonial Records**

dated 1899-1931

1. Notarial registers
2. Civil registers
3. Citizenship papers
4. Cadastral decrees on State lands
5. Civil Service appointments
6. Land titles-certificates of title
7. Court records
8. Maps and plans

### III. The Basic Policy for Cultural Heritage Preservation

The national policy on cultural heritage of the Philippines can be gathered from the following:

1. Section 2 of House Bill 430 titled Philippines Cultural Heritage Law on 1997 declaring:
  - a) protection and preservation of the nation's cultural heritage, its properties and histories in order to conserve the ethnicity of local communities and the nation as a whole
  - b) strengthening of cultural institutions
2. Section 7 of Republic Act No. 7356 titled "An Act Creating the National Commission for Culture and the Arts, Establishing a National Endowment Fund for Culture and the Arts, and for Other Purposes" which declares that it is the duty of every citizen to preserve and conserve the Filipino historical and cultural heritage and resources. The retrieval and conservation of artifacts of Filipino culture and history shall be vigorously persuaded.

The above-cited legislative provisions direct cooperative efforts between the government, on one hand, and the citizenry or non-government organizations which would be needed to achieve preservation and development of the nation's cultural heritage.

### *IV. Preservation efforts aimed toward posterity*

The Philippine National Archives addresses the development and preservation of its collection mainly through its mandated functions and that of the National Commission for Culture and the Arts as the national co-ordination body for culture, specifically under its function "to encourage and support the establishment and or maintenance all over the country of museums, archives, libraries, private or public, as repositories respectively of all cultural/historical artifacts and artistic creation, printed works, archival records and all other materials in dispensable to the study and evaluation of Filipino culture and history."

1. The government, through the Philippine National Archives, worked for a memorandum of agreement with Spain through its Agency for International Cooperation for the modernization of the National Archives with the following components:

- a. installation of mobile shelves (compacts)

- b. construction of a conservation laboratory complete with equipment.  
This will be operational by June 2000.
- c. creation of databases (location registry) for documentation
- d. computer-based cataloguing for stand-alone and network systems

2. With the help of the Department of Education, Culture and Sports, the PNA obtained a grant of equipment for its conservation of archival materials from the Japanese Government.

- 3. Microfilming
- 4. Digitization

### ***V. Conclusion***

It has been observed that the government alone can not attend to the demands of cultural preservation, which undoubtedly are expensive, and the results of some may be intangible. It is vital to approach and harness non-governmental or private organizations, or some other governments.

## General Discussion

### Management Issues:

#### Topic 1: Implementing effective preservation management on a national scale

#### *Paper Presenters:*

*Khunying Maenmas Chavalit*

*Tun Aung Chain*

*Rosalina A. Concepcion*

*Moderator: Ch'ng Kim See*

Jennifer Lindsay

I would like to address my comment to Tun Aung Chain. I would like to thank you for a very stimulating paper. I think you brought up some very important points, namely that national coordination has to come first before we talk about regional coordination. Also, the empowerment of traditional custodians, that this has to be part of national programs, and that you reminded us all of the political realities of Southeast Asia, and the role of status and governments. This is the reality that everyone is working in. My question is about the National Commission in Myanmar. I think this is a very interesting model. I would like to know how you organize funding. Is it centrally decided by the government and then given to each department? Also, do you receive foreign funding? If there are foreign donors involved, how is the money given to the different departments? Is it also decided centrally? I can see advantages and disadvantages in this because of course, if it is decided centrally, it prevents the situation of different organizations competing to foreign donors to get funding, and competing against themselves. The disadvantage might be that there is this control and it stops worthy causes from getting funding. So, I am interested in knowing more about the funding situation in Myanmar.

Tun Aung Chain

Yes, the National Commission has no separate budget. It is now primarily funded by the Ministry of Education because we work under that ministry, and also of course, most of the personnel whom we use in our programs are funded by their own organizations, by their own departments. For our programs, we have to rely on external funding, and this, of course, is given to the National Commission at what you might call the central level. This is all directed to programs—nothing else.

John F. Dean

Something that Mrs. Concepcion mentioned, I think, actually brings up an important point. One of the things that many of us have thought about for some time is the drafting of at least some sort of minimal specifications for agreements of this kind to ensure that both parties are protected, both the filmer and the owner of the original materials. I was wondering what do people here think about that. It seems that every project we are involved in requires endless hours of negotiation, going over the same kinds of things again and again. So I am wondering if maybe, as part of this meeting here, one of the things we could maybe think about are what are the kinds of things that concern people about agreements with vendors or with outside bodies in filming materials. We want to make sure that everybody's interests are protected, but at the same time, it does seem to me that a few of these things can be articulated ahead of time, instead of negotiated on a case by case basis.

Rosalina A. Concepcion

I would say that in the case of the Spanish government, that was the only memorandum of agreement that took two weeks to finalize on the stipulations, and on the terms of agreement. This was aided by a legal mind during the negotiation, but nothing was really very serious on that. Definitely the word reciprocity is there, that we, the owners of the document would have the last say on all these things.

Chu Tuyet Lan

As you may know, I am a manuscript librarian, and I have been working for years in a research institute in Hanoi. I share the same ideas as Khunying Maenmas mentioned in her paper. Our collection is very rare and unique, so right now in Vietnam very few people can reach our collection. So I agree with Khunying Maenmas Chavalit that we need to invest more, ask for funding, and ask the government to pay attention to spending some [of the] budget to educate the young general population to learn to study traditional languages. My collection is mainly written in Han characters, classical Chinese characters, and classical Vietnamese characters. To enrich the new culture, we cannot [return] to the old cultural heritage, so it's very important for us to explore more about that kind of collection. The second idea I would like to mention is that to create a master plan is very important for us in exploring and preserving the cultural heritage. I would like to ask Khuning Maenmas Chavalit to talk further about how to convince the leaders and the people who have a high position and high responsibility to pay more attention to the preservation work, because as you may know preservation and conservation work in Vietnam is not much paid much attention to. So, we

should know how you organize funding. Do you depend on the state, on the Thailand government, or outside? Thank you.

Moderator

Two questions, one on manpower, and the other one on the ancient languages.

Khunying Maenmas has two minutes.

Maenmas Chavalit

Not actually on manpower, but access to the intelligence. Some examples done by the Han Nom Institute should be followed and should be strengthened. If you need financial assistance, when you ask for support, direct the attention of the supporter [by saying] that this is the project that needs to be done. The people and the younger generation in Vietnam should have access to the content in the ancient scripts. So please, representatives of the foundation contributors, pay attention to this request from Vietnam. It is very important to provide access of the content to the younger people. As for learning ancient languages and training of the manpower, once again, you have to look into your country [for] the availability of the persons who know the ancient languages which have become very rare. We did the same thing in our country. We looked up the abbots and [others] who know the ancient scripts. My technique is this: I do not know whether Dr. Hundius is here, but when he came and asked for microfilm of the palm leaves, he needed someone to catalogue. I said “in my staff there is an expert in the ancient language who can catalogue. He does not speak English, but if you could provide all the logistics and be there”, and we sent him. I used this to explain to the National Civil Commission that this is not an easy job, and it requires a lot of learning. So please give them the appropriate position. So please [make sure] to contact your national civil service or the minister. As I said the other day, you have to study your boss. I think in Vietnam now you are encouraging national pride. I am sure that you will be successful. I will be glad to give you my personal help or advice after this meeting or later on.

Harald Hundius

I would like to ask Mr. Tun Aung Chain about the National Commission for the Preservation of Manuscripts. First, how many projects are presently being run under the umbrella of the commission? The second question would be how is this commission comprised, or who is sitting on this commission? Are there high-ranking representatives of the government authorities, and who were the people behind the establishing of this commission?

Tun Aung Chain

First about the projects: The projects we run have to be run in cooperation with our funding sponsors. For the past few years, we have been doing that with the Japan Foundation. Probably, we are doing a couple of more projects if we can

find partners. About the membership of the commission, it is made up of departmental heads, [such as] the National Archives, Culture, Military Archives, etc. All departmental heads are there. It is a governmental body. The full information will be in another paper which has been prepared by U Thaw Kaung. He is more professional. I'm a non-professional; I sit among librarians and archivists and I feel as out of place as Tim Behrend does. I am not a professional librarian.

Kieu Van Hot

I would like to ask Professor Tun Aung Chain from Myanmar. For me, I pay more attention [to the] Myanmar Commission on the Preservation and Conservation of Traditional Manuscripts. I have a question about the administrative level of your commission in the government. Does your commission belong to the government of the country or the ministry of culture? And what about the cooperation between your commission and the archives and library?

Tun Aung Chain

It is a governmental body organized by governmental regulation. All institutions, all departments which have a stake in preservation and conservation are involved in this organization—all departmental heads, and by departmental heads, I mean chief librarians, director generals, and so on, at that level. It is not a very large body—about 14 or 15 members—but we have this body which works as a coordinating body for the work any individual institutions, as well as for work together in the field.

Nguyen Van Quang

I am Nguyen Quang from Vietnam, and I would like to direct my questions to Khunying Maenmas Chavalit. I take it for granted that the importance and obligation of safeguarding our cultural properties and national heritage should be included in the Constitution. Actually we have it in Vietnam. I am very much in agreement with you when you are talking about the training of teachers and raising people's awareness in education, translation of ancient documents, legislative measures, and things like that. Anyway, we have some problems, and I wish that if we share [them] here in the conference, hopefully we could get experience from you. The first thing is that you are talking about including the knowledge and awareness of the importance of safeguarding our cultural properties in the curriculum. I take it for granted when we are talking about the courses for archivists and librarians; the awareness should be included in the curriculum, but here we are thinking about educating the young generation so that they can see the importance and the obligation of safeguarding our cultural properties here. However, we have actually been working with the Ministry of Education, and the secondary and primary schools in Vietnam, and we are talking

about that. But they are saying that it is all very well but they are afraid that now they are overloaded, they have to work overtime, work against time, and the students are overloaded.

Moderator

What is the question?

Nguyen Van Quang

So, how do you think you are going to deal with that, because it remains controversial and undecided in Vietnam? That is the first question. The second question is, that the library and archives staff are fully paid—I don't know whether it is the same story in Thailand or not, but in Vietnam they are fully paid. We are talking about the moon and existence. Preservation is the moon and existence is something of everyday life. So they have to think of how to generate the income for their family. I just wonder how you can help them to generate income beyond their salary, so that they can make ends meet. Thank you very much.

Maenmas Chavalit

The complaint of the teachers is the same. It is included already in the curriculum of the primary [level]. They have got to know about the existence of the documents, and the teachers are required to know. But we have to work with the teachers as well. It takes time and patience and you have to go around talking to them. The second question [is]how do you make ends meet: As I said, the ends meet from the private sector. In our countries, you go to the bankers, you go to the private institutions and associations, like the Association for Protection of Cultural Property. Now we have a huge program which includes all the ministerial levels to come together and work for the cultural property. One of the reasons I cannot stay until the end of this meeting, which I very much love, [is that] on Friday, I have to go to Ang Thong province. We are going to conduct a huge program for all concerned in those areas to be aware of the value of the cultural property, including books and everything. So, [you can do] something like that; you can run a campaign. Anyway, because there is not much time, I will be glad to give you any of my experience that would be useful to you. We can keep in contact; this is not the end. Normally, we say that the meeting will not end with the meeting. It should end with the continuation of networking and correspondence.