MEMORY OF THE WORLD

LOST MEMORY - LIBRARIES AND ARCHIVES DESTROYED IN THE TWENTIETH CENTURY

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Every year, precious fragments, if not whole chunks of the world documentary heritage, disappear through “natural” causes: acidified paper that crumbles to dust, leather, parchment, film and magnetic tape attacked by light, heat, humidity or dust. As well as natural causes, accidents regularly afflict libraries and archives. Floods, fires, hurricanes, storms, earthquakes... the list goes on of disasters which are difficult to guard against except by taking preventive measures. Every year, treasures are destroyed by fire and other extreme weather conditions such as cyclones, monsoons.

It would take a very long time to compile a list of all the libraries and archives destroyed or seriously damaged by acts of war, bombardment and fire, whether deliberate or accidental. No list has yet been drawn up of the holdings or collections already lost or endangered. The Library of Alexandria is probably the most famous historical example, but how many other known and unknown treasures have vanished in Constantinople, Warsaw, Florence, or more recently in Bucharest, Saint Petersburg and Sarajevo? Sadly the list cannot be closed. There are so many more, not to mention holdings dispersed following the accidental or deliberate displacement of archives and libraries.

The present document, prepared within the framework of the “Memory of the World” Programme, under contract with ICA and IFLA, by J. van Albada and H. van der Hoeven, is an attempt to list major disasters that have destroyed or caused irreparable damage during this century to libraries and archives, whether written or audiovisual. The most endangered carriers are not necessarily the oldest. In the audio domain substantial numbers of acetate discs and tapes are lost each year. The world of film was the first to become aware of the decay of the polymers used to record sounds and images.

War, in particular the two world wars, caused considerable losses, numerous libraries and archives have been destroyed or badly damaged in the course of fighting, notably in France, Germany, Italy and Poland. War has also been the source of untold destruction to libraries and archives in the former Yugoslavia since 1991. Shelling by gunners of the National and University Library of Bosnia and Herzegovina started a fire that burned down the building and destroyed most of the collections. Many books in the library had been salvaged from collections in libraries that were damaged during World War II.

This document is not meant to be a sort of funerary monument, but is intended to alert public opinion and sensitize the professional community and local and national authorities to the disappearance of archival and library treasures of inestimable value and to draw attention to the urgent need to safeguard endangered documentary heritage all over the world. Librarians and archivists work hard to anticipate and prevent disasters affecting their holdings. Yet, even as the end of the 20th century approaches, it appears that documentary heritage housed in the world’s libraries and archives always remains at risk. Let us move into the 21st century with renewed commitment to protecting the “Memory of the World” through disaster planning, through vigilance and through the pursuit of world peace.

Abdelaziz ABID, Division of the General Information Programme
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1 Introduction

At the request of IFLA the Koninklijke Bibliotheek (National Library of the Netherlands) has prepared a list of libraries destroyed in the course of the twentieth century. This list is part of UNESCO’s ‘Memory of the World’ Programme. It is based on desk research by Dr. Hans van der Hoeven. In contrast to the list of destroyed archives prepared under the auspices of ICA, the list of libraries is the product of bibliographical research and documentary study only. As far as possible, the list of libraries presents data under the same headings the list of archives does, e.g. damage to institutions and collections as the result of either accidental or wilful destruction (fire, arson, water damage, war damage etc.). More insidious causes of decay, such as the impact of climate and the work of insects have not been considered. Theft and ‘everyday’ vandalism by library patrons have also not been taken into account, even though it is clear that all these factors can cause serious damage to collections as well.

The list is based on a literature search in LISA (Library and Information Science Abstracts) and other bibliographical sources, while the Koninklijke Bibliotheek’s collection in this field also furnished many references. Owing to the nature of the available sources and limitations of language, it is inevitable that the list is somewhat weighted and that Western libraries are more fully represented than those from other areas of the world. Entries are followed by references to relevant literature. Presentation of data is in chronological order and by country. Where data are available the nature and extent of the damage have been indicated.

The list is mostly restricted to major research libraries because it is not possible to make a complete list of all private or public libraries that have been destroyed. Moreover, most public libraries do not hold collections that can be considered irreplaceable. The list therefore devotes most attention to national and university libraries and other scholarly libraries as far as data could be found. Although this is not an exhaustive survey, the extent of the damage can fairly accurately be gathered from the data presented. The majority of cases derives from the Second World War, which remains the century’s most destructive event. Generally speaking, man’s destructive tendencies as shown during war and political upheavals can be said to have caused more destruction than natural disasters, as is clear from the introductory essay.

Libraries and archives are different institutions: while all archive material is in a sense ‘unique’, this is hardly true as far as library collections are concerned. Only a small part (manuscripts etc.) can be considered unique, although obviously many printed works survive in a very small number of copies and damage to a collection is therefore often quite as disastrous as the disappearance of archive material.
THE DESTRUCTION OF LIBRARIES IN THE TWENTIETH CENTURY

In 1880 the printer and bibliographer William Blades published *The Enemies of Books*. Among the enemies he described are fire, water, gas and heat, dust, ignorance and bookbinders. This catalogue of horrors is a recurring nightmare for booklovers all over the world and it cannot be denied that these ‘enemies’ are as powerful today as ever were before. The accumulation of books in this century and the continuing threats to the collections have made librarians more aware than ever that measures must be taken to preserve our written heritage.

The diverse nature of the ‘enemies’ makes it hard to check or fight them. Blades restricted himself mostly to accidental or natural causes of decay, like age, neglect and the destructive work of insects. But harmful as these are, they sometimes fall short of wilful actions designed to cause damage. This is especially true of arson and destruction in war time. Moreover, hatred of books has always been a powerful motive to destroy them. In 213 BC the Ch’in emperor Shih Huang-ti ordered the first recorded burning of books and his motives have a very familiar ring: books allegedly contained nothing but idle speculation and only excited people to criticize the government. However frail the material on which it is written or printed, the written word has always been regarded as having power over the minds of men and many rulers have seen fit to follow Shih Huang’s example in burning, banishing and destroying books and their authors.

Yet, our intellectual and cultural heritage is mostly preserved in written form: books, periodicals and manuscripts constitute the collective ‘Memory of the World’. Other than our individual memories, they span the generations and the centuries. Whether written on vellum, paper or palm leaves, they preserve knowledge that man has gathered over the ages. Much has been destroyed or has vanished without trace. Much also has been preserved, sometimes in an almost miraculous way. One thinks of those scraps of papyrus found in the Egyptian desert, which often provide the sole surviving evidence of Greek literary works. Much of the earliest written texts have come down to us in similar fortuitous ways and these texts are now carefully preserved as unique testimonies of ancient times. But even printed works from a much later date are often preserved in a single copy only. Recently the Dutch National Library (the Koninklijke Bibliotheek), was fortunate enough to acquire a few hitherto unknown books by a religious sect. The books had been hidden among the beams of an attic in the sixteenth century and had only recently come to light.

Whether they fortuitously emerge after many centuries or whether they have always been jealously guarded as national heirlooms, books and manuscripts have had a decisive influence on the way civilizations have developed and librarians all over the world are justifiably proud of the treasures that have been entrusted to them. Although essential to our civilization, this heritage is nevertheless constantly under threat: materials are fragile and decay. This is true even for modern books. Since the second half of the nineteenth century, much of the paper used for printing is of inferior quality and bound to become brittle within a few decades. Moreover, even if it is true that our libraries are overflowing with books, never before in the history of mankind has there been a century as destructive to books as the twentieth. Two World Wars and numerous armed conflicts have exacted their toll, many totalitarian regimes have purged libraries of publications and what is left is often damaged by water or fire.
From its inception, UNESCO has been confronted with the need to preserve the world’s cultural and intellectual heritage. It was founded when the ruins and the destruction caused by World War II were still very much in evidence. In 1949, Suzanne Briet, a conservator at the Bibliothèque Nationale in Paris, published a report on Bibliothèques en détresse (Libraries in distress). This inventory of the damage caused by the war was published by UNESCO. At the time, the Organization was primarily concerned with rebuilding libraries and restocking them. Since that time, many other disasters have hit the library world and in many cases no effort has been spared to compensate for the losses.

It has become clear that replacement (wherever possible) and preservation of unique material is only one way to take care of this heritage. Of course, restoration of what has been damaged remains an important means of preserving texts for posterity. But modern techniques now provide viable alternatives of preserving the written word. Microfilming has progressed rapidly since it was first put into use and nowadays texts and pictures can be digitized and made accessible in a variety of ways (on line databases, CD-ROM etc.).

Today, librarians are very much aware of these problems. In many countries they are now actively engaged in preservation programmes, but it has to be conceded that a universal panacea has not yet been found. Also, microfilming and other preservation options are costly affairs and with governments hard pressed for money it is far from easy to obtain adequate funding for these projects. To complicate matters even further, modern techniques of copying and digitizing information do not allow us to dispense with preservation of the original copies.

UNESCO is now actively engaged in promoting the preservation of documentary heritage through its ‘Memory of the World’ Programme. To illustrate the urgency of this programme, it is good to reflect on what has been irrevocably lost. With this in mind, a list has been prepared of libraries and collections that have been destroyed or seriously damaged in the course of this century. Inevitably, it makes sad reading to see how many millions of books have been lost in the twentieth century alone. Among the losses are many precious manuscripts and other irreplaceable documents and material.

Furthermore, there is no help against the destructive forces of nature: you cannot stop an earthquake or a flood, but it is a sad reflection on mankind that the most grievous losses have generally been the result of human action, whether through carelessness or through wilful destruction.

A few examples will suffice to illustrate the way things have been and what has been lost, If we go back to World War I (1914-1918) one vivid example springs to mind, the destruction of the Library of the University of Louvain, in Belgium, as a result of the German invasion. Within a few hours over 300,000 books as well as many precious manuscripts and incunabula were all reduced to ashes. After the war, many countries provided funds and books to help rebuild the library, without being able to compensate for the loss of irreplaceable manuscripts, of course. Yet fate proved singularly unkind to this library, for during World War II it was again destroyed by enemy action, the result of another German invasion.

Political upheavals have often created a frustrating situation for librarians and citizens in general. Consider the case of the Baltic states, Estonia, Latvia and Lithuania, which in 1918 had regained their independence after centuries of Russian occupation? As a result of the German-Soviet non-aggression pact of 1940, they were once more occupied by Russian troops and in 1940 bookstores and libraries were ‘cleansed’ and unwelcome titles
were burned. In 1941 Nazi Germany conquered these countries, only to be driven out once more by the Soviet army in 1944-1945. These succeeding regimes brought not only an appalling waste of human lives, but also rapidly alternating prohibitions of books, purging of libraries and the rewriting of history and textbooks.

If many countries in Europe have been hit very hard as a result of World War II (1939-1945), many countries in Asia have suffered losses on an equal scale. China has been particularly unfortunate: first, as a result of the Sino-Japanese war which started in 1937, hundreds of thousands of books were lost. After the communist take-over, libraries were purged of ‘reactionary, obscene and absurd’ publications. This, in its turn, proved only the prelude to the wholesale destruction of books during the Cultural Revolution of the sixties. A comparable frenzy of destroying all politically ‘incorrect’ books (and, it sometimes seemed, all books) took place in Cambodia, following the rise to power of the Khmer Rouge in 1976. And, very recently, a BBC documentary showed the destruction of libraries in Afghanistan, after the capital Kabul had been the scene of intense fighting between different factions.

Moreover, while the losses of European and American libraries are usually fairly well known, often it can not be estimated just how many books and manuscripts have perished during upheavals caused by the Cultural Revolution in China or the Khmer Rouge in Cambodia. Nobody has kept score of the destruction. All these losses might give rise to some bitter reflections on man as a political and destructive animal. It sometimes seems as if in 1920 the poet William Butler Yeats had already summed up the century in his ‘The second coming’:

\[
\begin{align*}
  \text{The Mood-dimmed tide is loosed and everywhere} \\
  \text{The ceremony of innocence is drowned,} \\
  \text{The best lack all conviction, while the worst} \\
  \text{Are full of passionate intensity.}
\end{align*}
\]

But, if it is true that books and libraries have suffered at the hands of men, it is equally true that nature has shown its destructive side as well. One thinks of the earthquake which did such heavy damage to Japan in 1923, including the destruction of 700,000 volumes of the Imperial University Library in Tokyo. Among the losses were records of the Tokugawa Government and many manuscripts and old prints. World wide distress was also caused when the river Arno in Italy flooded library basements in Florence. More than 2 million books suffered water damage and restoration is still under way.

In some cases, an ironic twist of fate seems to be reserved for libraries and collections. In 1946, a flood damaged books stored in the cellars of the former Royal and Provincial Library in Hanover, Germany. The irony of the case was that only recently had the library’s most precious books and manuscripts been recovered from storage during the war and placed in these cellars. Similarly, in 1966, a fire did serious damage to the Jewish Theological Seminary Library in New York. Many books that had been shipped to the US to keep them from the hands of the nazis were thus destroyed after all. A double irony, perhaps, is that many Jewish books in Europe only survived the war because the German National-Socialist Party had brought them together for ‘study’ purposes after the war.

Not all damage to collections is equally disastrous. A small public library in a big city may have a very useful function, but its loss can fairly easily be repaired. Larger libraries often hold irreplaceable collections, even if individual items are not always rare or unique. Of course, size is not all: especially in the developing countries, smaller libraries sometimes
provide the only library facilities and they are often the sole repository of the nation's historically important documents and publications. Apart from the national and university libraries, a wealth of material is also to be found elsewhere. One needs only to glance through the World Guide to Special Libraries published by K.G. Saur (2nd edition, 1990) to gain an impression of the richness and variety of collections all over the world.

In view of the importance of the subject, it is surprising how little has been written about it. Many studies have been devoted to the decline of the Alexandria Library in antiquity, but what has been described as 'the biggest single library disaster in this century' hardly rates more than a few lines in a specialised library periodical. I refer to the fire that damaged or destroyed about 3,6 million books in the former Soviet Union's Academy of Sciences Library in Leningrad in 1988. This is one of the problems in drawing up a list of libraries that have been destroyed in this century. While many losses in the Western world can be fairly accurately described, other disasters often merit no more than a passing reference in a library handbook or a general history. Library historians apparently are not much inclined to study what has been lost, yet this is a subject that the world can hardly afford to ignore. It reminds us how fragile a thing our intellectual and cultural heritage really is and it is an incentive to all concerned to further appropriate measures to preserve as much as is humanly possible for future generations.

Hans van der Hoeven
Koninklijke Bibliotheek
The Hague, The Netherlands
List of publications quoted more than once


Büch Boudewijn Büch, Boekenpest. Amsterdam, 1988


Goetz A.H. Goetz, Books in peril... Wilson Library Bulletin 47(1972-73) 428-439

Johnson E.D. Johnson, A history of libraries in the Western world. New York etc., 1965

G. Leyh Die deutschen wissenschaftlichen Bibliotheken nach dem Krieg, Tübingen, 1947

LJ Library Journal


WLB Wilson Library Bulletin
3 LIST OF LIBRARIES AND COLLECTIONS DAMAGED OR DESTROYED

1904 Italy, Biblioteca Nazionale Universitaria di Torino

In January, a fire started in the Library, resulting in very serious damage to its Manuscripts Department. Irreparable damage was done to some of the most renowned treasures, including Ciceronian palimpsestse, the Codex Theodosianus and the Duke the Berry’s ‘Libro d’ore’

Manoscritti danneggiati nell’incendio del 1904 (Bibliotheca Nazionale Universitaria di Torino). Torino, 1986

1914 Belgium, Library of the Catholic University of Louvain

Following the German invasion of Belgium at the beginning of the First World War, German soldiers set fire to the library on August 25. Within a few hours, over 300,000 volumes, about 1,000 incunabula, hundreds of manuscripts and the university’s recent archives were all reduced to ashes.

ELI vol. 2, p. 310

1923 Japan

In September, an earthquake and the resulting fires did heavy damage to libraries and archives. The Imperial University Library in Tokyo was destroyed and most of its contents, amounting to about 700,000 volumes, was lost. These included the Records of Counties and Villages of the 19th century, official Records of the Tokugawa Government, the Max Muller Library of books on languages and religions, the Nishimura and Hoshino Libraries (both centring on Chinese philosophy and history). Also destroyed were many manuscripts, picture scrolls and old prints. The Cabinet Library lost 70,000 volumes

First Report on the Reconstruction of the Tokyo Imperial University Library. Tokyo, 1926; Borsa, 291

1931 Nicaragua, Biblioteca Nacional

An earthquake caused considerable damage to the library. A second earthquake in 1972 reduced most of its stock.

B.M. Pelling, Biblioteksbladet 69(1984)124-126

1932 Spain, University of Valencia Library

A disastrous fire severely damaged the library during the Spanish Civil War.

Johnson, 182

1933, 1935 Germany

After the Nazi seizure of power, a number of public library officials prepared black lists of prohibited authors, amounting to about 10% of public library collections. These also paved the way for the public burning of books on May 10, 1933. A further list of 5,500 prohibited books was, prepared in 1935. Many of these books were destroyed.

1937-1945 China, losses during the Sino-Japanese War

A great many private and public libraries were destroyed. The most important losses were:

National University of Tsing Hua, Peking. Lost 200,000 out of a collection of 350,000 volumes; the card catalogue also destroyed

University Nan-k'ai, T'ien-chin. Complete destruction as a result of bombing in July 1937. More than 224,000 volumes were lost

Institute of Technology of He-peoi, T'ien-chin. Completely destroyed by bombs

Medical College of He-peoi, Pao-ting. Completely destroyed by bombs

Agricultural College of He-peoi, Pao-ting. Completely destroyed by bombs

University Ta Hsia, Shang-hai. Completely destroyed by bombs

University Kuang Hua, Shang-hai. Completely destroyed by bombs

National University of Hu-nan. Completely destroyed by bombs

University of Nanking. 10% of collections disappeared after 1939. Probably transferred to Japan, together with the card catalogue

Royal Asiatic Society, Shang-hai. Collections transferred to Tokyo after 1939

University of Shang-hai. 27% of collections in Western languages disappeared after 1939, as well as 40% of collections of works in Chinese. Probably transferred to Japan. Many other books damaged by water

Soochow University. More than 30% of the most important books disappeared during Japanese occupation 1937-1939

R. Pelissier, Les bibliothèques en Chine pendant la première moitié du XXe siècle. Paris etc., 1971, esp. p. 143-146; Briet, 22; Russell, 281

1937 United States

Hundreds of libraries in Ohio, West Virginia, Indiana, Illinois and Mississippi were destroyed by floods

Büch, 31

1938-1945 Czechoslovakia

After the Munich Conference of 1938, Czechoslovakia was robbed of a great section of territory, the Sudetenland. Soon afterwards, all Czech books in libraries in this territory dealing with geography, biography and history were confiscated, together with the works of many Czech writers. Many books were burned, collections were totally destroyed or sent to Germany. After the German occupation of the remaining part of the country, Prague National and University Library lost 25,000, mostly art books. The collections of
the Library of the Faculty of Natural Sciences were completely dispersed and destroyed, including the card catalogue. Many other libraries suffered severe losses, including treasures like the Slavata Bible, seven codices of the ancient library of Jan Hodejovsky and many others. Total losses of books, manuscripts and incunabula were estimated at 2,000,000 volumes.

L.J. Zivny, LJ 71(1946)877-878; Briet, p. 20

1939-1945 Poland

After the German occupation of Poland, the Germans embarked upon a policy of ruthless destruction of Polish libraries, archives and museums. In 1939 the Western provinces were occupied and they lost nearly all their public and private libraries. In Poznan, the Raczynski Library and the Science Society Library were destroyed. The Cathedral Library with its unique collection of incunabula was burned. After the Germans occupied all of Poland, nearly all Polish libraries suffered losses of collections and catalogues. In October 1944, the National Library in Warsaw was completely destroyed, with the loss of about 700,000 volumes, including almost all manuscripts and older printed works as well as the print, music and map collections. The Central Military Library, containing 350,000 books on the history of Poland, was totally wrecked, including the Rapperswil Library deposited there for safekeeping (60,000 volumes on Polish nineteenth century emigres, and the Krasinski Library. On the eve of the German evacuation of Poland in January 1945, the main stacks of the Warsaw Public Library were burned. Many other books were taken to Germany and were only partially recovered after the war. According to one estimate, 15 million out of 22.5 million volumes in Polish libraries were destroyed.


1939-1945 Poland, Jewish Libraries

As soon as the Germans had invaded Poland they formed ‘Brenn-Kommandos’ (arson-squads) to destroy Jewish synagogues and books. Thus the Great Talmudic Library of the Jewish Theological Seminary in Lublin was burned. The remainder of this library, about 24,000 volumes, was later shipped to Germany together with hundreds of thousands other Jewish books from private or public collections. A large part of these were destroyed by air raids, especially in Berlin. Of the books that remained in Poland, many were either pulped or burned.


1939-1945 Germany

The Second World War proved disastrous for German libraries. Millions of books have been lost, although many of the most precious works have been preserved by storage elsewhere; it has been estimated that a third of all German books were destroyed. The most important losses occurred at:

Aachen The Library of the Technical University lost 50,000 volumes stored elsewhere for safekeeping, in July 1943. These included all journals and serial works before 1935, doctoral dissertations and precious illustrated works.
Berlin  The Staatsbibliothek (National Library) lost about 2 million volumes. The University Library lost about 20,000 volumes. Many library collections were stored elsewhere, but severe damage was done to the Stadtbibliothek (Municipal Library), the Library of the Reichstag (almost completely destroyed), the Deutsche Heeresbücherei (Library of the German Army) and many other specialized libraries.

Bonn  The University Library lost 25% of its collections.

Bremen  The Staatsbibliothek lost about 150,000 volumes, especially rare and precious works, early illustrated books, 2,000 separate prints, sets of journals and many bibliographical works.

Darmstadt  The Hessische Landesbibliothek was destroyed by fire when Darmstadt was bombed in September 1944. About 760,000 volumes were lost, including 2,217 incunabula and 4,500 manuscripts. The Library of the Technical University lost two thirds of its collection.

Dortmund  The Stadt- und Landesbibliothek (Municipal and State Library) lost 250,000 out of 320,000 volumes, among which the patent and the historical map collection.

Dresden  The Sächsische Landesbibliothek was destroyed by bombs in February and March 1945; about 300,000 volumes were lost. In the fires following the air raid of February 1945 the Stadtbibliothek (Municipal Library) lost the reference collection as well as 200,000 other volumes and 12,000 volumes of the Library of the Verein für Erdkunde (Geographical Society). The card catalogues were partially lost.

Essen  The Stadtbücherei (Municipal Library) lost three quarters of its collection, about 130,000 volumes, including parts of the catalogues.

Frankfurt a.M.  The Stadt- und Universitätsbibliothek (Municipal and University Library) lost 550,000 volumes and 440,000 doctoral dissertations as a result of air raids, as well as 750,000 patents.

Giessen  The University Library lost nine tenths of its collection.

Greifswald  The University Library lost 17,000 volumes plus 1,900 manuscripts.

Hamburg  The Staats- und Universitätsbibliothek was destroyed by bombs in 1943 and 1944. Two thirds of the collection were lost, more than 600,000 volumes, with catalogues and reference works. The Commerz-Bibliothek (Commercial Library) lost 174,000 out of 188,000 volumes following an air raid in 1943.

Hannover  The Stadtbibliothek (Municipal Library) lost about 125,000 volumes as a result of bombing in 1943 and 1944.

Karlsruhe  The Badische Landesbibliothek lost about 360,000 volumes following an air raid in September 1942. The Library of the Technical University lost 63,000 volumes in the field of the natural sciences.
Kassel

The Landesbibliothek was destroyed by bombing in September 1941. About 350,000 out of 400,000 volumes were destroyed, while the rest suffered water damage. The Murhardsche Bibliothek lost two fifths of its collection of 241,000 volumes (political and social sciences, technical works etc.) in October 1943 as a result of bombing.

Kiel

The University Library lost 250,000 volumes after air raids in April 1942 and May 1944. The Schleswig-Holsteinische Landesbibliothek lost its reference collection after a raid in January 1944 and part of its catalogue.

Leipzig

The University Library lost several thousands of volumes, including incunabula, owing to bad storage conditions. The Stadtbibliothek (Municipal Library) lost 175,000 out of 181,000 volumes and the oldest catalogues. The Library of the German Museum of the Book lost 60,000 volumes after an air raid in December 1943.

Magdeburg

The Stadtbibliothek (Municipal Library) lost 140,000 out of 180,000 volumes after an air raid in September 1944.

Marburg

The University Library lost about 50,000 volumes after a fire broke out in a disused mine where books had been stored.

München

The Bayerische Staatsbibliothek was hit four times by bombs 1943-1945. It lost about 500,000 volumes, including publications of learned societies, doctoral dissertations and part of the Bavaria collection. The University Library lost one third of its collection, about 350,000 volumes. The Stadtbibliothek lost 80,000 volumes. The Benedictine Library’s 120,000 volumes were mostly destroyed,

Münster

The University Library was hit several times by bombs as of October 1943. Two thirds of the collection, about 360,000 volumes were destroyed, including the reference collection. The Library of the Fürstenbger-Stammheim Family lost its 22,000 old printed works in the fields of history and German and French literature. The catalogues were burned as well.

Nürnberg

The Stadtbibliothek lost about 100,000 volumes following an air raid in January 1945, with parts of the catalogue.

Stuttgart

The Württembergische Landesbibliothek was bombed in September 1944 and lost 580,000 volumes. In July 1944 the Library of the Technical University lost 50,000 out of 118,000 volumes, mostly natural and technical sciences. In the air raids of July and September, the Stuttgart Music Academy was destroyed.

Würzburg

The University Library was hit by bombs in March 1945 and lost about 200,000 out of 550,000 volumes, plus 230,000 doctoral dissertations.

1940 Baltic states

After the occupation by Soviet troops an official list of Banned Books and Brochures was issued in Latvia in November 1940. With additional lists, over 4,000 titles were proscribed: historical, political and ‘nationalist authors’. In Latvia as in Estonia and Lithuania such books were removed from bookstores and libraries and, in many cases, publicly burned.


1940-1944 France

Alsace-Lorraine These regions were annexed to Germany after June 1940. In consequence of a policy of ‘germanification’, thousands of volumes of French books were confiscated and sent to Germany. Libraries were forced to accept German books instead, as many as 70,000 in the case of Mulhouse. After the liberation of France in 1944, many of these books and libraries were destroyed in their turn by the French resistance, e.g. in Colmar.

Beauvais Bombs destroyed the Municipal Library in June 1940, with the loss of about 42,000 volumes.

Caen Both the University and the Municipal Libraries were destroyed by bombs in 1940.

Chartres An American phosphor bomb hit the Library and destroyed about 23,000 volumes, including manuscripts and incunabula.

Dieppe In August 1944 retreating German troops blew up the Municipal Library

Douai The Municipal Library lost 110,000 out of 115,000 volumes.

Le Havre The Library of the Société Commercial was completely destroyed by bombs in an air raid. Geographical and travel books were lost.

Metz An important collection of manuscripts (including the bequest of Baron de Salis) were stored for safe-keeping in Saint-Quentin. At the allied advance in 1944, a German soldier threw an incendiary grenade in the fort, which destroyed many precious manuscripts, including a Reichenau Evangeliary of the 11th century and a celebrated Apocalypse of the 13th century.

Paris The Library of the National Assembly lost 40,000 volumes during the liberation of Paris in 1944 when German soldiers set fire to the Palais-Bourbon. Old printed works in the fields of theology, science and the arts were lost.

Strasbourg The National and University Library was partially destroyed by an air raid in September 1944. Literary periodicals and publications of learned societies were among the losses, as well as the greater part of the medical collection. About 300,000 out of 800,000 volumes were destroyed.
Tours  The Municipal Library was hit by bombs in June 1940 and was completely destroyed, with the loss of 200,000 volumes, 400 incunabula and 400 manuscripts.

1940  Belgium

After the disaster of 1914, the Library of the Catholic University of Louvain was hit once again in 1940. In May, the stacks were completely burned down, as a result of German artillery fire. About 900,000 volumes, 800 manuscripts, all incunabula, and 200 prints of old masters were lost. Also in May, a German air raid destroyed the Public Library of Tournay, with its collection of old books and manuscripts.
J.F. Vanderheijden, in LJ 71 (1946)636-638; ELI vol.2, p 310-311

1940  The Netherlands, Middelburg

The Provincial Library of Zeeland was destroyed in May after German bombs hit the town; a valuable scholarly collection of about 160,000 volumes was completely destroyed, while the remainder was seriously damaged by water or fire.
Briet, 21; B.D.H. Tellegen, De Provincial Bibliotheek van Zeeland, 1953, p. 3

1940-1944  Italy

Italian libraries suffered damage as a result of allied and German air raids. More than 20 Municipal libraries were destroyed and many public libraries suffered the same fate. It has been estimated that almost 2 million printed works and 39,000 manuscripts were destroyed.

Milan  The Public Library lost 200,000 volumes.

Naples  In 1943 German troops set fire to the University Library, with the loss of about 200,000 volumes.

Parma  The Palatina suffered damage from an air raid,

Turin  The National Library was seriously damage by an air raid in December 1942.
Briet, 8, 23; Johnson, 181; G. Näther, Bibliothekswesen in Italien. München etc., 1990, 12

1940-1941  United Kingdom

Bristol  The University Library of Bristol was damaged by air raids, which destroyed the Library of the Department of Anatomy, with further damage to books by water and broken glass.

Coventry  The Central (Public) Library was completely destroyed by German bombs; more than 100,000 volumes were lost.

Liverpool  The Central Lending Library was destroyed
London

About 7,000 volumes of King’s College were removed to Bristol and were lost when the Great Hall of Bristol University was hit by incendiary bombs. The law libraries of the Inner Temple and Middle Temple suffered losses as a result of air raids. The Guildhall was partly destroyed by fire and lost 25,000 volumes. The Minet Public Library was hit by bombs in December and lost 20,000 books. The Library of the British Museum was damaged and lost 200,000 volumes in the main building and 30,000 volumes of newspapers in the Hendon Repository.


1941 Serbia, National Library in Belgrade

In April the Library was completely destroyed as a result of German bombs. About 1,300 Cyrillic Manuscripts from the twelfth to the eighteenth centuries were burned as well as important manuscript collections of Serbian authors and scholars. Incunabula and old printed works were also destroyed, as were Serbian books printed between 1832 and 1941.

Führer Nationalbibliothek der Sozialistischen Republik Serbien. Belgrade, 1973

1941-1944 Soviet Union

As a result of the German invasion, heavy damage was done to Russian libraries. It has been estimated that more than 100 million books have been destroyed, mainly from public libraries.

Bibliothekswesen und Bibliographic in der USSR. Uebersetzungen aus der Grossen Sowjetenzyklopädie, Berlin [c. 1958], 38; ELI vol. 26, 182

1942-1945 Japan

Air raids did heavy damage to libraries and collections, including the Cabinet Library in Tokyo.

Borsa, 291

1943 Austria, University Library of Graz

About 100 manuscripts and 4,500 volumes of academic publications, which had been stored for safe keeping in Steiermark, were lost as a result of plunder.

M. Hirschegger, in Liber Bulletin 32/33(1989)6-12

1943 Peru, Biblioteca Nacional in Lima

In May, a fire completely destroyed the National Library, with the loss of 100,000 volumes as well as 40,000 manuscripts (documents concerning the Spanish Conquest, the wars of independence etc.).

LJ 68(1943)486; La Biblioteca Nacional del Perú. Lima, 1971, 13
1944-1945 *Hungary*

Nearly all small libraries (public, special) were destroyed and many of the larger libraries suffered serious damage during the siege of Budapest. The libraries of Parliament and of the Academy of Sciences were among the libraries most severely hit; the library of the Polytechnic Institute was completely destroyed.


1944-1945 *Romania*

About 300,000 volumes from public libraries were destroyed. The Library of the Polytechnic Institute in Jassy lost 15,000 books and 4,000 volumes of periodicals, mostly on mathematical subjects.

Briet, 22; ELI vol. 26, 92

1946 *Germany, Thüringische Landesbücherei, Gotha*

A collection of about 270,000 (out of 400,000) volumes was confiscated by the Russian authorities and removed to the Soviet Union, including manuscripts and incunabula.

Leyh, 99

1946 *Germany, (Former) Royal and Provincial Library, Hannover*

In February, a flood did serious damage to books in the cellars, where 130 cases were stored (including 52 cases with manuscripts). These cases contained the library’s most precious materials and had just been returned from storage elsewhere.

Leyh, 113

1947 *Pakistan, Lahore*

As a result of communal riots, two of the largest libraries of the Indian subcontinent were damaged.

ELI vol. 21, p. 256

1949-1957 *China*

Following the communist take over, libraries all over the country were purged of ‘reactionary, obscene and absurd’ publications.

Ting, 139

1951 *United States, Michigan State Library*

In February a man accidentally caused a fire in the State Office Building. The Library, housed in the basement and the first floor, was seriously damaged by the water pumped into the building to extinguish the fire. As a result, 22,400 books and 7,200 pamphlets had to be discarded, while thousands of others had to be treated.

Goetz, 429-431
1963 **Yugoslavia, National and University Library of Macedonia**

In July, an earthquake caused serious damage to the town of Skopje and to the library.
ELI vol. 33, 439-440

1966 **United States, Jewish Theological Seminary Library, New York**

In April a fire broke out which destroyed many books which had escaped destruction in Europe during the Second World War. About 70,000 books, many of them rare, were burned to ashes, while the remaining 150,000 were damaged by the water used in extinguishing the fire.
Goetz, 431; Büch, 34

1966 **Italy, Florence**

As a result of the Arno flood of November, the basement of the Bibliotheca Nazionale Centrale was filled by water and mud. Nearly 1,200,000 volumes and pamphlets were flooded, including 100,000 rare volumes of the Magliabecchi collection, 50,000 folios of the Palatina, a newspaper collection of 400,000 volumes. The card catalogue was damaged as well. Other collections in Florence suffered flood damage too, e.g. the 350,000 volume collection of the Vieuxseux (including first editions and association copies). At the University Library, 200,000 volumes were under water. In the major libraries of the city, a total of 2 million volumes were submerged. An international rescue operation salvaged many of the books.
C. Horton, in WLB 41(1966-67)1035-1043; Goetz, 432-433; ELI vol. 8,541-545

1966-1976 **China**

During the Cultural Revolution, a systematic effort was made to purge and destroy all politically ‘incorrect books’. All libraries were closed for various lengths of time between 1966 and 1970. Some were closed permanently and burned. Others were thoroughly purged, only the books of Marx, Lenin and Mao being spared. Although no record has been kept of the losses, it is clear that destruction of books took place on an unprecedented scale.
Ting, 145-151

1966 **Tibet**

Tibet had been occupied by Communist China since 1950. In 1966, the Cultural Revolution wrought havoc in this country too. Red Guards invaded the leading monastery in Tibet and destroyed frescoes and irreplaceable historic manuscripts. Elsewhere in the country, heavy damage was inflicted as well, including the burning of religious and historic manuscripts.

1968 **Greenland, Central Library in Godthab**

The library was totally destroyed by fire, with the loss of the majority of the 30,000 volume book stock, including the irreplaceable Groenlandica collection.
Goetz, 431; Büch, 35
1968 United States, Holyoke Community College, Massachusetts

A fire destroyed the entire college, with the loss of 16,000 volumes as well as the catalogues.

LJ 93(1968)704; Goetz, 432

1969 United States, Indiana University Library

A fire destroyed 40,000 volumes and damaged 27,000 others, especially in the field of German literature.

LJ 94(1969)2384; Goetz, 432

1972 United States, Corning Museum of Glass, New York

In June, the collection of the Corning Museum of Glass was submerged by flood waters, the after-effects of a hurricane. A limited number of objects in the glass collection sustained damage, but the rare book and manuscript collection collapsed into the slime.

J.H. Martin, in WLB 50(1975-76)231-241

1976-1979 Cambodia

Following their rise to power, the Khmer Rouge systematically began to destroy all vestiges of ‘corrupt’ culture. In the National Library in Phnom Penh, the Khmer Rouge threw out and burned most of the books and all bibliographical records; less than 20 percent of the collection survived. The total amount of damage is unknown, but irreparable harm has been done to the country’s national heritage. The remaining material is seriously threatened by bad storage conditions, especially in the case of palm leaf manuscripts.

J.F. Dean, in American Archivist 53(1990)282-293

1978 United States, Stanford University Library

Water main break caused major damage to 40,000 books plus 3,000 valuable items including miniature books.

LJ 103(1978)2468

1979 United Kingdom, Taylor Institution Library

In January, a water main burst at the Taylor Institution Library of Oxford University, allowing a considerable quantity of water to enter the building. About 2,000 books were damaged, including rare volumes from a unique collection of Slavonic literature, some dating back to the sixteenth century.

Paper Conservator, 1982, 28

1984 The Netherlands, Library of the Dutch-South Africa Society

In January, left-wing activists destroyed the uniquely important library of the Nederlands-Zuidafrikaanse Vereniging in Amsterdam by throwing the books in the canals.

B. Büch, in Folia 21-28 jan. 1984, p. 5
1986 United States, Los Angeles Central Library

In April, a deliberately-set fire destroyed the nation’s third largest public library. In the worst library fire in American history, nearly 400,000 volumes out of a total of 2,1 million were completely destroyed. Another 700,000 volumes were water-soaked or dampened, while all remaining books suffered smoke damage. Among the losses were the largest and oldest collection of patents and inventions in the American West and one of America’s largest collections of cook books.

Conservation Administration News, Oct. 1986

1987 The Netherlands, Library of the University of Amsterdam

In November part of the collection that had been stored elsewhere was destroyed in a fire.

Büch, 157

1988 Soviet Union, USSR Academy of Sciences Library, Leningrad

In February, a fire caused what has been called ‘the biggest single library disaster in this century’: about 3,6 million books were seriously damaged and 400,000 newspapers and scientific periodicals destroyed.

P. Waters, in Special Libraries 81(1990)35-43

1989 Romania, Bucharest University Library

During the fighting which ended the Ceaucescu regime, 500,000 books were destroyed, many of them rare and valuable.

J. Raabl, in Mitteilungen Österreichischer Bibliothekare 43(1990)111-113

1990 Kuwait

Following the invasion by Iraqi troops, libraries and computer centres were destroyed and burned or (as in the case of the National Scientific and Technological Information Centre) removed to Baghdad.

S. Salem, in Information Development 7(1991)70-71

1992 Croatia

As a result of war violence in former Yugoslavia, many Croatian libraries suffered damage to buildings and/or collections.


1993 Bosnia, National Library in Sarajevo

90 % of the collection was destroyed as a result of the civil war, with the loss of unique material for the study of Bosnian culture.

1994 Great Britain, Norwich Central Library

On 1st August, a fire destroyed over 350,000 books as well as irreplaceable historical documents concerning the Norwich area.

The Bookseller, 5 August 1994, p 5
PART II - ARCHIVES

1 Foreword

Archives have been destroyed and damaged and will continue to suffer this fate as result of carelessness, accidental fires, arson, cyclones, pillage, shelling and air attacks, external and in-house flooding and so on. Archives have been destroyed and damaged and will continue to suffer this fate, by archivists and users, by mould and termites, but also by enemy-action and by partisans and liberators, by revolutionaries and counter-revolutionaries. Archives have been destroyed and damaged and will continue to suffer this fate due to the inherent instability of the materials they are made of, due to poor storage facilities, due to lack of training or lack of staff discipline, but also due to lack of interest from peers, administrators, etc.

Continuing acts of terrorism, ethnic cleansing and related archival cleansing and other acts of barbarism will add many more record groups to the list. Some of the disasters resulted from brutal violence by agents of the dominant political system, others from similar action by their opponents. To give a few recent examples, so far repositories and archives have been completely destroyed in Liberia, Burundi and Rwanda. The same has been reported about the territory of former Yugoslavia. Continuing attacks by humidity, heat and termites will result in the annihilation of archives in several countries in the tropics in the African, Asian, Pacific and South American regions in the next decades. Reality forces one to state that, without massive assistance, parts of Africa, the Pacific region and South and Central America will be bereft, not only of their oral tradition, but also of their archives.

Several colleagues provided data on the fate not only of public and official records, but also of private archives and special collections, like photographic and audio-visual archives. The outcome of this information is equally appalling. In many regions private archives and audio-visual materials will just vanish together with large sections of public and official records.

The loss of archives is as serious as the loss of memory in a human being; societies simply cannot function properly without the collective memory of their archives. That is why it is so vital to take action to stem the losses which have been revealed in this survey. There are things we can do.

This report may be the result of my hands, but I have received a lot of information and advice from several ICA-officers and other colleagues, especially Mr Ingmar Fröjd, Mr Björn Lindh, Mr George Mackenzie, Mr Michael Roper, Mr Atique Zafar Sheikh, Ms Soemartini, Ms Comfort Ukwu and Ms Zakiah Hanum Nor who discussed my ideas or sensitized me to other perspectives. Mr Ken Hall volunteered, as usual, as conscript language editor. However, most thanks go to the colleagues who collected and commented on all data, some of them in adverse circumstances.

Joan van Albada
Gemeentearchief, Dordrecht
The Netherlands
2 INTRODUCTION

By their very nature archives are unique both as individual documents and as documents in context. Lost archives are irreplaceable, any loss is final, reconstruction is impossible. Most record groups have been subject to a well defined appraisal process and have been selected for permanent retention because of their legal, informational or cultural value. Even the loss of parts of record groups selected this way for whatever cause, devalues legal and informational worth of the remainder. Archives are threatened by both internal and external factors, such as quality of component materials, rodents, mould, acidity, fire, users, etc. Regrettably we have to add external factors of another kind, such as political systems, shelling, arson and cleansing. In this report mainly neutral - generic - terms like fire, water, dust, use, will be used, whatever their cause. Archives are generally considered to form the skeleton of the “Memory of the World”, by containing not only factual information but also the informational context in which other elements of life, for example paintings and sculptures, wars and discoveries, can be placed and better understood.

However, by using the generic term ‘archives’ one implicitly accepts its limitations: ‘archives’ are part of a European concept, based on Roman law¹, a concept that was imposed on modern societies all over the world. Many societies outside Europe had developed advanced writing systems and preservation practices long before European colonists arrived with their own record-keeping systems based on European paper. Such paper does not survive well outside temperate climates. Climatically well proven systems for ‘memorizing’ data have been put aside as not suitable for ‘European’ administrations. In some cultures both systems ‘co-habitated’, the European one providing core data, ‘facts’, the indigenous one providing circumstantial evidence of some importance for understanding local traditions relating, for example, to religion or to culture, or providing other kinds of information.

In essence the information system embodied in ‘European’ ‘archives’ was created to deal with property. In other cultures it dealt mainly with different kinds of data, like locations of fresh water (e.g. Australia), movement of herds (e.g. North-America) or the relationship between deities and man. Under the assumption that script for storing data was introduced in accordance with local needs, one should keep in mind that even in highly literate cultures elements of oral and other traditions are still used. There are many good reasons to reconsider the validity of ‘European’ definitions of history and pre-history and to accept ‘data’ transmitted via other traditions as part of the corpus of historic data. One might also reconsider the validity of ‘European’ archival definitions for their applicability in non-European societies. This report, however, will restrict itself to records and archives according to the established European tradition. Before doing so, a few lines on the relativity of archives for the knowledge of the ‘history of man’, by relating them to the voyage of human species in time. According to many scientists, just after the last Ice Age, ‘Modern Man’ started about 100,000 years ago to domesticate animals and to adopt a sedentary life. Modern Man added script to his utensils for preserving the ‘Memory of Man’ only about 5,000 years ago. The earliest recordings of his writing, even official records, are to be found in museums, not in archives. Script is nowadays a reliable way for transferring information. How’ reliable’ will it be in future? How to convey a message to homo sapiens over a period of 50,000 years? For instance, a message like: ‘keep out, radiation zone’, put on top of underground nuclear waste belts? What kind of ‘sign’ will be understood 5,000, 25,000 or 50,000 years from now, as a warning not to drill in the ground because of the danger of radiation? What material should one choose for preserving any sign for such a long period: paper, wood-blocks, parchment, microfilm, clay-tablets, palm leaves, solid rock, computer-tape or diskettes, acoustic systems? Will there be any institution keeping records as over 50,000 years old? Will records of that age be more
likely to be kept in museums, as happens nowadays with records of 5,000 years ago? What equipment will people have by then to decipher messages - computers, or only brains and reading glasses? Such questions are not easily answered. As a native Australian proverb goes, 'rocks vanish, words remain'.

These questions open a domain of professional relevance: durability of 'data carriers', like paper, computer-diskettes, movie films, clay-tablets, of 'data', like script of any kind or graphics, of the chemical and physical fixation techniques that make 'data-carriers' and 'data' stick together (water in ink; magnetism; heat); and of instruments and 'brains' that make 'data' understandable and thereby turn data into 'information' (several early scripts are still awaiting deciphering). Little is known about the expected life span of specific 'data-carriers' apart from rock, of the 'sticking-material-technique' and of the 'equipment-brain-span' that make information out of data (or even identify possible data as such).

Here is an example for the sake of argument. In modern archival literature one can read a lot about acidity and the ageing of paper, However, how much has been published on ageing of paper as such? How much on life expectancy of a specific make of paper of a given era, exposed to a continuously high relative humidity, or a cyclical high and low relative humidity, or a continuously low relative humidity, combined with temperatures high, low, moderate or cyclical, combined with dust, exposure to sunlight, folders, boxes, administrators, archivists or users? Is this data available? Is data available on the ageing of paper in thick-walled, heavily insulated repositories in a variety of climates? Is there data on what happens to paper in thin-walled repositories fitted with cooling equipment that functions a few hours per day only? Is any information available on what happens to records stored in properly conditioned repositories and consulted or listed in hot and humid searchrooms or office blocks? Do we have any idea of the factual relationship between storage conditions and chemical and physical decay of paper, photographic materials etc.? Do we have any data for any formula that will enable us to make reliable estimates on the return on our investments in staff-time or in money? Do we have any data that can be used for risk calculation or for setting priorities?

Here are some postulates. In tropical climates, as has been established, it may take records, even if of long-lasting paper, only 100 to 200 years to become dust. Before that, they cross the no-use line (identical to a no-research line) and, shortly after, the no-touch line (identical to no-reformatting line or past-lamination line). In moderate climate zones, the no-research line may be crossed after 1,000 years and the no-reformatting line after 1,500 years. Special problems are posed by newspapers when printed on unstable paper of low quality. In some countries, this kind of paper is also used for stationary. The no-research line of unstable paper will be crossed in the tropics within 100 years, in more favorable climates within 400 years.

However, long before record has become dust, the data may have faded away. For example, some makes of ink fade easily, other kinds 'eat' paper. Some kinds of photocopies do not stand up under sunlight, other kinds can, if not properly processed, be wiped out easily. Some kinds of stencil seem to lose contrast, etc. Poor quality of ink, of magnetism - submitted to chemical and physical processes as they are - will increase the speed of decay of carriers and their data even further, even when, by comparison, kept under stable conditions, One may conclude that, according to the materials used and their environmental and office and repository conditions, the life span of carriers and data may vary in the tropics from a few years for some materials to twice the life span of man for other materials and in moderate climate zones from one or more decades to 5-20 times the life span of man. If one adds variables like fire, wind, water and war, a similarity with Russian roulette becomes apparent, as will be shown later. The report presents the scale of the problem we face; the challenge is to develop strategies to deal with it.
3 COLLECTION OF DATA

The ‘Memory of the World’ Programme was launched by UNESCO in 1992. It is meant to preserve endangered documentary heritage as well as to democratize access to it and ensure a wider diffusion. The programme intends to sensitize governments to the importance of protecting their documentary heritage.

ICA was contracted by UNESCO to collect basic data on archives as part of the documentary heritage. These data should give an insight into the hazards archives have been, and still are, exposed to in the 20th Century. ICA was also to prepare a list of archives that have been destroyed or damaged as result of natural or man-made disasters (appendix 2).

A questionnaire (appendix 1) was prepared by ICA and agreed upon by representatives of IFLA and UNESCO. The questionnaire was sent in August 1994 to all Category A members of ICA and to those members of other categories that have suffered losses relevant to the purpose of the report. The organisers of the Pan-African Conference on Archival Policies and Programmes in Africa and of the “Memory of the World” Experts’ Meeting of the Asia Pacific Region circulated the questionnaire also among non-members of ICA. In total about 225 questionnaires in 156 countries have been mailed. When applicable, Category A members received a list of other ICA members in their country who received the questionnaire separately. As requested in the cover letter many members circulated the questionnaire, resulting giving information on about 6,250 repositories in 105 countries; some 6,000 repositories reporting losses (appendix 2).

Table 1995/1 (form A) Repositories covered

<table>
<thead>
<tr>
<th></th>
<th>AFRICA</th>
<th>ASIA</th>
<th>EUROPE</th>
<th>NORTH AMERICA</th>
<th>PACIFIC</th>
<th>SOUTH &amp; CENTRAL AMERICA</th>
</tr>
</thead>
<tbody>
<tr>
<td>losses</td>
<td>36</td>
<td>3,054</td>
<td>2,900</td>
<td>4</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>no losses</td>
<td>7</td>
<td>69</td>
<td>163</td>
<td>0</td>
<td>3</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 1995/1 already confronts us with a statistical problem, namely both ‘under-response’ and ‘over-response’, ‘under-representation’ and ‘over-representation’. North-American archives suffered from very few disasters of any kind. The Chinese archival authorities reported in general terms on 3,000 repositories. The Pacific countries supplied few answers. The Russian archival authorities provided in broad terms information without specifying the number of repositories involved. The Spanish civil-war resulted in the total or partial destruction of over 1,700 repositories. Italian archival authorities provided detailed information on over 600 repositories. Many respondents reported on one event causing destruction or severe damage, however the great majority reported multiple occurrences of losses.

This spread of answers does affect the statistical consistency of the findings. Extrapolations have to be carefully handled, especially in case of the data presented in the columns ‘North America’ and ‘Pacific’. However, the findings do present a good overview of causes
of destruction and damage and resulted in a long list of examples of destroyed and damaged record groups. Professional archivists all over the world will be able to interpret the findings in accordance with local, national and regional circumstances and to inform administrative authorities accordingly.

Country reports presented at the Pan-African Conference on Archival Policies and Programmes in Africa (Abuja, Nigeria 1994) and at the Memory of the World Programme’s Experts’ Meeting of the Asia-Pacific Meeting (Kuala Lumpur-Malaysia 1994) have been of great help for a better understanding of the complexity of the subject. Both meetings provided a perfect occasion for studying both the country reports and the completed forms with the authors.

Addressees were requested to take into account that the questionnaire intended to deal with all archival holdings (including audiovisual archives) that had been selected for permanent retention. In some cases it was apparently difficult, impossible or, given national legislation, irrelevant to make such a distinction. Several respondents provided additional information to clarify such cases. Addressees were also invited to indicate, for all archives involved, the survival of finding aids or of printed or other reproductions (in transcribed or in other form e.g. facsimile or microforms) of parts of the archives involved. They were also invited to indicate in shelf metres the amount of documents that have been destroyed or heavily damaged. This kind of information has been provided fragmentarily and will not be presented in a table of its own.

The majority of returns were received by February 1995, including information up to events as late as the 1995 earthquake damaging the Kobe region in Japan. Several respondents considered in their cover letters that data gathering was a stimulus: several institutions never collected this kind of data systematically before. Other correspondents apologized for their incapability to provide comprehensive answers, the explanation being a dramatic one: losses - always caused by war - being unquantifiable. One of the respondents suggested a text providing some examples of annihilation of archive repositories “instead of a comprehensive answer needing a truck for carrying thousands of questionnaires that had to be completed otherwise.”

Special attention was requested by respondents for systematic removal of archives by occupying forces - a removal possibly resulting in destruction of some if not all archive series involved, in order to remove or destroy proof of evidence, or simply for reasons of ‘archival’ or cultural ‘cleansing’. Some respondents asked for anonymous presentation in the report, as did some other respondents providing data on e.g. neglect by national or local authorities.

An analysis of the answers shows several important disparities; some reporters refer to repositories of archive services as such, some refer also to records temporarily moved to and destroyed or damaged in auxiliary repositories, others include records that should have been transferred to an archive repository, a few reporters did not discriminate between records kept in archive repositories and records kept by creating agencies, even if not yet selected for permanent retention. These disparities do not influence the spectrum of answers substantially. If the amount of destroyed and damaged archives increases, the causes of their destruction or damage do not change.

From a theoretical point of view, it could have been of interest to make cross-tabulations, like the number of collections destroyed as result of fire, floods, war, etc. From a statistical point of view, cross-tabulations are not always very helpful in analysing the problems one
is researching and they would certainly not justify the additional workload. Apart from this, from the point of view of the user, loss of information is the most important factor. Intentionally therefore, the arrangement of the questionnaire did not foresee cross-tabulations. However, some respondents kindly arranged their answers allowing some cross-tabulations. An analysis of these forms demonstrates, not surprisingly, a cause-effect relation: fires quite often resulting in the installation or improvement of fire alarms and fire-fighting equipment, floods leading to the installation of water alarms or the transfer of records to safer repositories, and leakage generally to a better maintenance of the building.

Many respondents reported a lack of knowledge of the full history of their (previous) collections, many institutions having been established only after 1945 or having professional staff even more recently. Two of the cover letters illustrate in a few lines the impact of what has happened in far too many cases, all over the world:

Some of our repositories only completed form A of the questionnaire, since they were founded after 1945 and suffered no losses since. All other repositories suffered great losses. During this century, especially during the Second World War many repositories were completely destroyed. It is still impossible to estimate the total damage as all finding aids were destroyed together with the collections themselves. Therefore, most repositories could provide estimates only.

Currently, the most serious dangers are posed by the level of pollution of the environment, by the bad quality of paper used for records and by the lack of cost-effective conservation methods. An overall threat is posed by financial constraints, limiting the use of acid-free storage materials and the provision of conservation workshops with proper equipment.

We do, however our best to protect our holdings against fire and theft. We managed to secure the information in the most important records by producing microforms and by making diazo-copies available to the public.¹

Regrettably we cannot provide all details as far as the destruction of archives of the fascist period is concerned, since civil servants - members of the fascist party - wantonly destroyed records in order to dissolve their traces.²

At the Gardone Riviera Round Table on Archives of 1987 (‘Policies for the preservation of the archival heritage’), heads of national archives, chairs of professional associations and representatives of IFLA discussed the ‘state of the art’ of preservation in archives and libraries. Papers had been prepared by Mr D.W.G. Clements and Ms Marie Allen, based on a questionnaire conducted in 1986 jointly by IFLA (550 libraries, 194 responded = 35%) and by ICA (300 archive services, 217 responded = 72%, providing data on a total of 263 archive repositories.

Three publications present together a more or less complete survey of all papers that were submitted to the Gardone Riviera Round Table and of the discussions of the meeting. The tables presented hereafter are derived from the original hand-out ‘reporting forms’ presenting ‘database tabulations from ICA/IFLA questionnaire on conservation’. The CITRA-publication carried a summary outline of these forms only. A synthesis for archives and libraries per geographical area, based on the complete set of reporting forms, has been published in the Nederland Archieveblad.
The data, as presented on the basis of the 1986 questionnaire, can be considered to be representative of the state of preservation and conservation in archives all over the world. From a statistical point of view it is not advisable to deduce ‘fixed conclusions’ from any column based on less than 20 answers. However, smaller figures may be used as an indication of the archival situation in those geographical areas.

Analysis of the data presented provides some understanding of the archival habitat. A little confusing may be that some of the 1986 tables present data on 217 archive institutions and other tables data on 263 archive repositories: some institutions provided data on more than one repository.

Comparing the outcome of both questionnaires one gets a feeling of déjà vu: tropical and sub-tropical climate zones are hard on materials used for records, bindings, microforms, etc.. Archive services based in countries with a better climate are usually better off and better equipped to preserve archives of any kind. Many archive services based in areas plagued by war in this century lost essential sections of their holdings, containing unique information on local, national, regional and even global history.
4 REPORTED CAUSES OF DESTRUCTION AND DAMAGE

4.1 Introduction

Some cases of destruction of, and damage to, archive collections are well known and well documented. Other cases, most cases in fact, have not been documented and are known to insiders only. In several cases, reporters had to rely on third party information or on assumptions.

It is impossible to list the causes of destruction and damage in a world-wide frequency and priority order, each region having its specific range of problems: war, fire, water, wind, mould, rodents, neglect, use, etc. However, man causes more destruction and damage than nature. Cover letters and inserted case-reports demonstrate the difficulty of sheltering archives from the hazards of nature, not to mention the even greater difficulty of sheltering archives from human related causes.

Of importance for the future life span of records is the quality of record keeping during their administrative, active and semi-active phase. Many records have been and are still badly stored, mishandled and neglected by office staff and administrators.

4.2 Findings

Environmental conditions, as shown in table 1986/1, are of prime importance for the proper preservation of archives. In most cases archive institutions do not have, or will not have, much of a choice when selecting a proper site for a new repository. In countries in the Pacific most habitable areas are near the ocean; in countries in arid zones drought is a fact of life.

<table>
<thead>
<tr>
<th>Table 1986/1</th>
<th>Environmental conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 217</td>
<td></td>
</tr>
<tr>
<td>AFRICA</td>
<td>ASIA</td>
</tr>
<tr>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Does the site of your building raise preservation problems due to:</td>
<td></td>
</tr>
<tr>
<td>- proximity of sea</td>
<td>14</td>
</tr>
<tr>
<td>- proximity of other humid zone</td>
<td>23</td>
</tr>
<tr>
<td>- air pollution</td>
<td>36</td>
</tr>
<tr>
<td>- sliding ground</td>
<td>23</td>
</tr>
<tr>
<td>Do you observe problems due to climatic factors:</td>
<td></td>
</tr>
<tr>
<td>- drought</td>
<td>36</td>
</tr>
<tr>
<td>- humidity</td>
<td>50</td>
</tr>
<tr>
<td>- variations in temperature</td>
<td>45</td>
</tr>
<tr>
<td>- variations in relative humidity</td>
<td>36</td>
</tr>
<tr>
<td>- winds (particles, pollution, etc.)</td>
<td>55</td>
</tr>
</tbody>
</table>
In 1986, a large number of respondents reported problems related to humidity, variations in temperature and relative humidity. Assuming that the geographical spread of archives will remain the same for a very long time, one may accept those data as having long-term validity.

Not surprisingly, all RAMP studies on preservation and conservation of materials of any kind, or on training of conservators, present similar facts as those stated in the preceding table. Those studies provide a full spectrum of problems and possible technical solutions.9

One section in one of the RAMP studies is of particular interest. It is on the impact of extreme low and high or alternating humidity and temperature; although it refers to cellulose materials like paper, it is mutatis mutandis relevant for any other material used for records of any kind. It illustrates in words the data presented in table 1986/2:

Among (... ) [the] natural causes [of deterioration] the alterations caused by the binomial temperature-humidity are of great importance. Water is an essential element for the good conservation of cellulose materials, since the fibres are bound together by means of semi-chemical bonds in which water helps to form the hydrogen bridges which hold cellulose molecules together.

Lack of humidity will lead to the partial breakdown of these interfibre bonds, thus making the document fragile. Furthermore, dryness also makes these adhesives crack. Excess humidity causes decomposition by hydrolysis and provokes acid formation weakening the size and softening the adhesives. Abrupt changes in temperature and humidity produce dilatation, exfoliation and cracking in archive materials; micro-organisms proliferate when temperature and humidity levels are very high.10
Table 1986/2

<table>
<thead>
<tr>
<th></th>
<th>AFRICA</th>
<th>ASIA</th>
<th>EUROPE</th>
<th>NORTH AMERICA</th>
<th>PACIFIC</th>
<th>SOUTH &amp; CENTRAL AMERICA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 263</td>
<td>21</td>
<td>24</td>
<td>172</td>
<td>11</td>
<td>22</td>
<td>13</td>
</tr>
</tbody>
</table>

Have you observed any damages caused by:
- natural disasters (hurricane, flood, etc.)
  17
- fire
  2
- pollution
  27
- drought
  32
- mould
  55
- insects
  73
- rodents
  41
- bad quality of material (paper, etc.)
  55

Have you observed deterioration resulting from the use of documents by the public? If yes, caused by:
- frequent use
  94
- inadequate supervision
  41
- photocopying
  35
- impossibility to produce microform
  41

All over the world insects (particularly termites and rodents) on the one hand, and high frequency of use on the other, complete the palette of causes of destruction and damage to archive collections.

The findings of the 1994 questionnaire, see *table 1995/2*, present, again not surprisingly, a similar view of the causes of destruction and damage. It is interesting to note the influence of ‘leading questions’ on the outcome of questionnaires. However, hundreds of forms presented ‘free answers’ and thereby ‘respondent-selected’ causes. The total of analyzed forms has been set at 1291. Many answers have been simplified. Otherwise the total could easily have been 10 to 20 times higher. For instance, how does one deal with the information from China presenting data on about 3,000 repositories, fires (both accidental and criminal), flooding (both from outside and from inside), earthquakes, armed conflicts (1911-1950), civil disorder (1966-1970), resulting in the destruction of about 1,369,500 shelf metres of records, another 150,000 shelf metres having been seriously damaged? How does one qualify the destruction that occurred during the First World War, the Spanish Civil War, the Second World War and the wars and armed conflicts of Vietnam, Afghanistan, Liberia, Rwanda, former Yugoslavia?
Table 1995/2 (questions B3 and C3) Causes for destruction and damage

<table>
<thead>
<tr>
<th>Causes for destruction and damage</th>
<th>AFRICA</th>
<th>ASIA</th>
<th>EUROPE</th>
<th>NORTH AMERICA</th>
<th>PACIFIC</th>
<th>SOUTH &amp; CENTRAL AMERICA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 1291</td>
<td>65</td>
<td>134</td>
<td>1050</td>
<td>8</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>fire, accidental</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>fire, arson</td>
<td>5</td>
<td>8</td>
<td>9</td>
<td>63</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>flooding, from outside</td>
<td>9</td>
<td>2</td>
<td>10</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>flooding, from inside</td>
<td>11</td>
<td>3</td>
<td>10</td>
<td>13</td>
<td>-</td>
<td>22</td>
</tr>
<tr>
<td>earthquake</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>other ‘natural causes’</td>
<td>-</td>
<td>7</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>armed conflict</td>
<td>2</td>
<td>42</td>
<td>25</td>
<td>-</td>
<td>29</td>
<td>-</td>
</tr>
<tr>
<td>removed by occupying forces</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>-</td>
<td>29</td>
<td>-</td>
</tr>
<tr>
<td>civil disorder</td>
<td>11</td>
<td>4</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>terrorism</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>inherent instability</td>
<td>3</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>bacteria, insects and rodents</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>mould and humidity</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>dust</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>pollution</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bad storage</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>lack of restoration capacity</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bad restoration</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>neglect</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>while moving offices</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>administrative order</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>-</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>unauthorized destruction</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>theft</td>
<td>2</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>use</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Since the figures presented no significant difference between causes of destruction and of damage, the results of questions B3 and C3 have been totalled.

A superfluous conclusion is the necessity of eliminating any foreseeable and excludable hazard when planning an archive building or running an archive service. Special attention should be given to the least defeatable cause of destruction and deterioration: neglect and lack of commitment.

The scores for armed conflict are extremely high, not only in Europe but also in Asia. A world without war gives better insight in the ranking of ‘ordinary’ threats to collections. For the purposes of illustration, an imaginary calculation is presented below in table 1995/3.
Apart from war, the ranking of significant dangers for archives are: fire, accidental and criminal; water, from outside and inside; earthquakes; civil disorder; inherent instability; bacteria, insects and rodents; mould and humidity; bad storage; neglect; lack of restoration capacity and bad restoration; destruction by administrative order or merely unauthorized destruction. The high percentage of ‘administrative order’ in column Asia is related to ‘armed conflict’. At the end of the Second World War, a great number of record groups were destroyed all over Japan.

In some countries, a new problem is posed by the necessity of using master-microforms for research. In order to protect records from further deterioration, some respondents reported the use of microforms originally made as security copies. A preservation problem arises when these microforms happen to be master-copies instead of specially-made user-copies. Further deterioration of the original documents may be slowed down by providing any microform instead of the original document. However, the use of master-copies by staff or readers alike results in damage to the masters and thereby to capital annulment. An ‘easy’ answer would be

### Table 1995/3

| Causes of destruction and damage excluding armed conflict and removal by occupying forces |
|---------------------------------|----------|----------|----------|----------|----------|----------|
|                                 | AFRICA   | ASIA     | EUROPE   | NORTH AMERICA | PACIFIC | SOUTH & CENTRAL AMERICA |
| N = 888                          | 58       | 76       | 716      | 8         | 3        | 27        |
| fire, accidental                 | %        | %        | %        | %         | %        | %         |
| fire, arson                      | 5        | 14       | 13       | 63        | -        | 30        |
| flooding, from outside           | 10       | 4        | 15       | -         | -        | 11        |
| flooding, from inside            | 11       | 7        | 15       | 13        | -        | 22        |
| earthquake                       | 3        | 5        | 7        | 25        | -        | -         |
| other 'natural causes'           | -        | 12       | 1        | -         | -        | 11        |
| civil disorder                   | 11       | 8        | 9        | -         | -        | -         |
| terrorism                        | 0        | 0        | 0        | -         | -        | -         |
| inherent instability             | 3        | 9        | 3        | -         | 33       | 11        |
| bacteria, insects and rodents    | 9        | 3        | 4        | -         | -        | -         |
| mould and humidity               | 3        | 3        | 4        | -         | -        | -         |
| dust                             | 3        | -        | -        | -         | -        | -         |
| pollution                        | 1        | -        | 2        | -         | -        | -         |
| bad storage                      | 9        | 3        | 3        | -         | 33       | 4         |
| lack of restoration capacity     | 3        | 5        | -        | -         | -        | -         |
| bad restoration                  | 3        | 2        | -        | -         | -        | -         |
| neglect                          | 9        | 3        | 4        | -         | -        | -         |
| while moving offices             | 3        | 3        | 3        | -         | -        | 7         |
| administrative order             | 3        | 13       | 4        | -         | 33       | 4         |
| unauthorized destruction         | 7        | 1        | 6        | -         | -        | -         |
| theft                            | 3        | -        | 4        | -         | -        | -         |
| use                              | 9        | 1        | 1        | -         | -        | -         |
the production of user-copies. However, those who are forced to use the master-forms passed the ultimate defence line long before. This problem may well be one of the main dilemmas of the next decade in several countries for archivists.

Damage to documents leads to the implementation of restoration and copying programmes. Destruction of documents has forced several colleagues to start a reconstruction programme by entering data from other sources into a predefined information system. However laudably and successful these actions may be, no reconstructed set of data will ever equal original data, either in completeness, context, legal or cultural value, or for the purpose of the accountability of the record-creating bodies.
5 IMPLEMENTED PREVENTIVE MEASURES

5.1 Introduction

Implemented preventive measures are generally consistent with the accepted guidelines for a professional preservation policy. Such a policy should include:¹¹

(i) preventive measures to minimize the rate of deterioration;
(ii) housekeeping routines to clean, protect and extend the life of materials;
(iii) staff and user training programmes to promote and encourage correct handling and transport of materials;
(iv) security measures and contingency plans for disaster prevention, control and recovery;
(v) protective measures such as boxing, binding and wrapping, to reduce wear and tear on materials;
(vi) a substitution programme for replacing valuable or very brittle originals with surrogates such as microforms;
(vii) conservation treatments to repair damaged originals;
(viii) disposal programmed for materials of no further use;
(ix) procedures for reproducing originals;
(x) procedures for the exhibition of materials within the institution or whilst on loan to another organisation.

The physical environment in which materials are stored will have a significant effect on their life span. Environmental conditions such as temperature, humidity, light and atmospheric pollution can affect documents of all kinds. Preventive measures should aim to achieve the best possible conditions for storing and using items. The process of decay can be slowed down considerably by creating favorable storage conditions taking into account the general level of air pollution, the possibility of creating a controlled climatic environment and the cleanliness of the storage accommodation.¹² ‘Greening’ of archive buildings¹³ - i.e. the use of low energy and low technology engineering; the use of low toxicity, environmentally friendly construction materials; the use of recycled materials; and low running costs - should be given top priority on the professional research list.

5.2 Findings

One would expect purpose built repositories to be more appropriate for meeting optimal storage conditions than adapted buildings. Some adapted buildings may provide perfect climatic conditions, but it will be difficult to meet other requirements such as protection against fire, theft, leakage, etc. All buildings need proper maintenance and properly trained staff to service equipment regularly.¹⁴
As shown below in *table 1986/3*, too many archive repositories have previously served other masters. Archive repositories may have been purpose-built but, in several cases, archivists were not consulted during the process of site selection, building design or equipment selection. In other cases archivists were overruled by administrators or by architects, who were more intent on constructing memorials than effective repositories.

Most findings need further debate. For instance, regular maintenance is not always identical to proper maintenance. A building may be equipped with general air-conditioning or individual air-conditioning in each room, with humidifiers or de-humidifiers. But do they provide a proper climate in every room, 24 hours per day, 365 days a year? Will the budget be sufficient to meet the energy costs required?

<table>
<thead>
<tr>
<th>Table 1986/3</th>
<th>Technical facilities of repositories</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 262</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AFRICA</td>
</tr>
<tr>
<td>Was the building constructed for the purpose of its current use?</td>
<td>%</td>
</tr>
<tr>
<td>Are the stack areas isolated from the other parts of the building?</td>
<td>26</td>
</tr>
<tr>
<td>Is the building subject to regular maintenance?</td>
<td>57</td>
</tr>
<tr>
<td>Is the building equipped with - central air-conditioning?</td>
<td>50</td>
</tr>
<tr>
<td>- indiv. air-conditioning per room?</td>
<td>%</td>
</tr>
<tr>
<td>- heating?</td>
<td>13</td>
</tr>
<tr>
<td>- de-humidifiers?</td>
<td>57</td>
</tr>
<tr>
<td>- humidifiers?</td>
<td>9</td>
</tr>
<tr>
<td>- air-filtering?</td>
<td>14</td>
</tr>
<tr>
<td>- windowless walls?</td>
<td>36</td>
</tr>
<tr>
<td>- thermal insulation?</td>
<td>4</td>
</tr>
<tr>
<td>- windows with filtering glass?</td>
<td>27</td>
</tr>
<tr>
<td>- fire detection system?</td>
<td>23</td>
</tr>
<tr>
<td>- fire extinction equipment?</td>
<td>59</td>
</tr>
<tr>
<td>Do you disinfect accessions when received?</td>
<td>36</td>
</tr>
<tr>
<td>Do you disinfect periodically the stockrooms?</td>
<td>55</td>
</tr>
</tbody>
</table>
Monitoring of climatic conditions needs equipment, staff, training and discipline. The results of the monitoring should be acted upon as part of the preservation policy. It is not clear why there is a low score on the question of using the figures resulting from temperature, relative humidity and air quality monitoring.

<table>
<thead>
<tr>
<th>Table 1986/4</th>
<th>Repository conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AFRICA</td>
</tr>
<tr>
<td>N=217</td>
<td>22</td>
</tr>
<tr>
<td>Do you systematically check:</td>
<td></td>
</tr>
<tr>
<td>- temperature</td>
<td>%</td>
</tr>
<tr>
<td>- relative humidity</td>
<td>36</td>
</tr>
<tr>
<td>- air quality</td>
<td>27</td>
</tr>
<tr>
<td>Do you make a systematic use of the results of these checks?</td>
<td>14</td>
</tr>
</tbody>
</table>

The findings as presented in table 1986/5 suggest there will be a massive loss of records in future due to insufficient technical facilities. If the same question ‘over the past 5/10 years, preservation conditions in your building have remained unchanged, improved, deteriorated’ was asked again in 1995 the most likely result would be a change for the worse, from ‘unchanged’ to ‘deteriorated’, and possibly even from ‘improved’ to ‘unchanged’.

<table>
<thead>
<tr>
<th>Table 1986/5</th>
<th>Preservation conditions</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>AFRICA</td>
</tr>
<tr>
<td>N = 259</td>
<td>23</td>
</tr>
<tr>
<td>Over the past 5/10 years, preservation conditions in your building:</td>
<td></td>
</tr>
<tr>
<td>- have remained unchanged</td>
<td>48</td>
</tr>
<tr>
<td>- have improved</td>
<td>39</td>
</tr>
<tr>
<td>- have deteriorated</td>
<td>13</td>
</tr>
</tbody>
</table>

Some 50% of archive repositories do not have a conservation workshop or microfilming facilities. Surprisingly, as shown in table 1986.6, the scores for carrying out systematic policies to improve preservation conditions are much higher.
Table 1986/6
Conservation and preservation policy

<table>
<thead>
<tr>
<th></th>
<th>AFRICA</th>
<th>ASIA</th>
<th>EUROPE</th>
<th>NORTH AMERICA</th>
<th>PACIFIC</th>
<th>SOUTH &amp; CENTRAL AMERICA</th>
</tr>
</thead>
<tbody>
<tr>
<td>N= 217</td>
<td>22</td>
<td>16</td>
<td>153</td>
<td>6</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Are you conducting a systematic policy with a view to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- improve preservation conditions</td>
<td>71</td>
<td>94</td>
<td>71</td>
<td>100</td>
<td>71</td>
<td>77</td>
</tr>
<tr>
<td>- improve repack and rebind</td>
<td>67</td>
<td>88</td>
<td>79</td>
<td>83</td>
<td>57</td>
<td>69</td>
</tr>
<tr>
<td>- transfer on other media (microforms, etc.)</td>
<td>57</td>
<td>94</td>
<td>55</td>
<td>100</td>
<td>100</td>
<td>69</td>
</tr>
<tr>
<td>- train and recruit qualified personnel</td>
<td>86</td>
<td>88</td>
<td>38</td>
<td>50</td>
<td>86</td>
<td>85</td>
</tr>
<tr>
<td>- develop conservation facilities</td>
<td>67</td>
<td>94</td>
<td>69</td>
<td>83</td>
<td>71</td>
<td>62</td>
</tr>
<tr>
<td>Is there a conservation workshop operating in your institution?</td>
<td>50</td>
<td>88</td>
<td>45</td>
<td>67</td>
<td>86</td>
<td>85</td>
</tr>
<tr>
<td>If yes: equipment and processes followed include:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- disinfection</td>
<td>60</td>
<td>86</td>
<td>54</td>
<td>75</td>
<td>67</td>
<td>73</td>
</tr>
<tr>
<td>- deacidification</td>
<td>90</td>
<td>79</td>
<td>73</td>
<td>100</td>
<td>67</td>
<td>91</td>
</tr>
<tr>
<td>- traditional repair</td>
<td>90</td>
<td>93</td>
<td>97</td>
<td>100</td>
<td>83</td>
<td>91</td>
</tr>
<tr>
<td>- heat lamination</td>
<td>70</td>
<td>57</td>
<td>43</td>
<td>100</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>- cold lamination</td>
<td>40</td>
<td>43</td>
<td>53</td>
<td>75</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Is there a microfilm workshop operating in your institution?</td>
<td>50</td>
<td>88</td>
<td>54</td>
<td>50</td>
<td>86</td>
<td>85</td>
</tr>
</tbody>
</table>

The total of answers on the 1994 questionnaire studied for this chapter was 624 (see table 1995/5). Many forms show a relationship between the cause of damage and destruction and resulting action. Fires result in better fire alarms, the introduction of fire fighting systems and the use of fire-resistant building materials. Earthquakes lead to the introduction of possibly earthquake-resistant designs and building materials. Mould leads to intensified fumigation programmes, to climate control and systematic monitoring of repositories and holdings.

Regrettably the well known phenomenon, ‘disaster’, does not find its counterpart in a high score for ‘disaster preparedness’. 15 The frequency of damage through water or fire requires effective disaster prevention planning, disaster control strategies and recovery plans. However, these plans should be realistic. In some countries it makes little sense to have instructions based on access to stocks of plastic boxes and bags, refrigerated trucks and stores, in order to use freeze-drying in the event of water damage. Realistic disaster preparedness schemes should provide several options for recovery, e.g. varying from labour intensive air-drying to capital intensive vacuum freeze-drying.
Table 1995/5 (form D) Implemented preventive measures

<table>
<thead>
<tr>
<th></th>
<th>AFRICA</th>
<th>ASIA</th>
<th>EUROPE</th>
<th>NORTH AMERICA</th>
<th>PACIFIC</th>
<th>SOUTH &amp; CENTRAL AMERICA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td><strong>security</strong></td>
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6 INTENDED PREVENTIVE MEASURES

6.1 Introduction

The difference between preventive measures actually implemented and those intended can be explained by lack of financial resources and of training. Most literature underlines the need for an assessment of the operation of measures that have been implemented - control of quality and efficiency - and of an assessment of staff training. There is no need to introduce new preventive measures if the existing ones have not yet been properly implemented or carried out.

6.2 Findings

No new techniques were suggested in the list of preventive measures. Well-established programmes will continue for a very long time and will therefore feature at the top of the list in all future questionnaires.

A special kind of disaster occurs during a war. The effects may be the same as those of fire, water and wind, but the working conditions are totally different. It is very hard to develop adequate preventive measures; one can only make preparations based on past experiences. Here is an example from a report on preparation for war hazards:

‘Shortly before the war of 1991 the archives started to protect archival materials, following the instructions issued by the Ministry of Culture. All existing inventories have been microfilmed; valuable documents have been put in safes and closets; packing materials for transport prepared; verification of employed persons indebted for transport in case of evacuation prepared; according with the The Hague Convention some members of staff obtained an identity card for continuation of work in the archives in case of war; marks were obtained for the protection of buildings and objects (flags and labels, in accordance with the The Hague Convention).’

Forty years ago representatives of a number of governments met in The Hague (The Netherlands). After reviewing the successes and failures of cultural protection in World War II and other recent armed conflicts, they resolved to create a new world system for the protection of the physical heritage of humanity in times of war and other armed conflict (Convention for the Protection of Cultural Property in the Event of Armed Conflict, The Hague, 1954). Sadly, 40 years later, less than half of the Member States of the United Nations have ratified and adopted as national law this quite fundamental instrument of international humanitarian law and, of those that have adopted it in the legal sense, only a very small number have taken effective steps to implement it - for example by making adequate peacetime preparations for protecting their heritage.

Adequate preparations should not focus solely on the risks of war. In practice, almost every significant type of severe damage caused by war or terrorism can just as easily occur as the result of natural or civil disasters: fire, explosion leading to building collapse, flood through damaged roofs or disrupted drainage, or looting from seriously damaged and unguarded repositories.
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Every archival institution needs to reconsider its own policies and practical arrangements for the survival of its collections and for its operations in the event of all kinds of disasters, whether during peace or war. At the same time, both institutions and individual professionals should be asking their governments to take far more seriously the provisions of the The Hague Convention: pressing for its adoption if it has not yet been ratified, as well as developing effective protection programmes for their repositories and holdings in the event of every kind of disaster - natural, wartime or civil.

Furthermore, every single archival institution should examine in detail its own disaster preparedness plans, which should cover prevention, control and recovery and also its arrangements for staff training. Assuming that learning by mistakes is too costly a procedure, it would be a good idea to practice in advance on records which are going to be destroyed anyway, in the normal course of archival selection.

Recent experience shows the necessity for this kind of preparedness. However, one should also be aware that in ‘modern’ kinds of warfare, directed towards ethnic cleansing, the identification of valuable elements of the archival and cultural heritage may actually facilitate their annihilation. This represents another dilemma for archivists.

It seems to be easier to fight non-deliberate destruction through ignorance or carelessness, than deliberate destruction through war, arson and so on.
7 TO ARCHIVE COLLECTIONS

Lack of training, information and funding is traditionally considered as the major threat to the preservation of archive collections. Table 1986/7 gives some idea of the evolution of the budgets allocated to preservation and conservation in the 1980s. It would be useful to also consider a fourth factor as a possible major threat, and that is the improper or inefficient use or management of available resources (skills, manpower, information, building, equipment, money, etc.).

<table>
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<tr>
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<td>- increased</td>
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<td>- diminished</td>
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Levels of training or lack of it (see table 1986/8) cannot be forecast by interpreting the availability of formal education only. In many countries well established systems of apprenticeship result in fine teams of highly-skilled conservators and holdings are well looked after, despite little access to professional training, or even to professional literature and teaching aids.

Even if important measures have already been taken, given the annual 'growth' of collections and the speed of deterioration of existing holdings, conservation will in the future require not only more people using traditional techniques, but also the development of better appraisal and of appropriate mass conservation techniques.  

<table>
<thead>
<tr>
<th>Table 1986/8</th>
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Staff training of both archivists and technicians, does not score very high in the survey returns. However, in many covering letters, the subject was raised as a supra-institutional, national or even international responsibility, to be dealt with in co-operation with related professional institutions.

The tendency towards over reliance on technology represents a threat of a different kind. Most professional literature tends to set standards for training, for preservation, for conservation and restoration. These standards set ideal, or in other words maximum requirements. In many, if not most, countries such standards simply cannot be met within a reasonable or even foreseeable time span.

It should be possible to implement the use of standards through a step by step approach, taking into account the environmental, political and professional factors affecting archive management all over the world. Completion of all steps would be equivalent to implementing the standard in a single jump. Each of the steps should relate to the preceding and the following ones. It should be possible to take a new step with a minimum waste of previous capital investment. The hazards that will be met along the way should be outlined as well.

For instance, with regard to the improvement of storage conditions, how should one proceed when the financial means or materials needed are scarce, too scarce? Where should one start and what order should be followed: improvement of overall cleanliness, improving the balance of relative humidity and temperature, repacking first in acid-free boxes and later in acid-free folders or vice versa? Where does one start if the budget does not allow all the problems to be solved in one single operation?

An example of a different kind is that promoting the use of refrigerators for the storage of master microforms in countries having an unreliable electricity supply is not very helpful. A design for a vault making maximum use of natural cooling would be preferable. However, perhaps the best technical solution for proper storage of master microforms would be the ‘internationalization’ of storage capacity. Why not send master microforms to co-operating repositories abroad that are equipped with reliable cold storage facilities?

Unfortunately most literature sets maximum standards, which are out of the reach of many archivists and archives services and are therefore possibly counterproductive. Standards should provide alternatives that would assist professional archivists and conservators to cope better with the choices which are offered to them.

Another threat is posed by the lack of access to information. For example, a broad debate on a subject like the requirements for fire detection and fire-fighting equipment might change the attitude of many archivists towards the introduction of sprinkler systems.¹⁹

‘Water is always used by fire-fighting personnel to extinguish fires. Archivists have often been convinced that water was as destructive to archives and books as fire.

This view is still held by many custodians in Europe. However, archivists in North America accept and, in most cases, enthusiastically endorse the use of automatic sprinkler systems as an integral part of their fire protection system. North American archivists tend to accept the thesis that wet records can be recovered, but burned records cannot . . . .
It is important . . . to understand that, unless there is a specialized fire-extinguishing system to control the development and growth of a fire, responding fire-fighting forces would have no choice but to attack the fire with fire-hoses. In many facilities the quantity of paper fuel involved is such that . . . (one) would have to fight the fire from a distance under very adverse conditions. This would normally force . . . (the) use (of) heavy hose streams having the characteristics of a hydraulic ram. Wide and forceful disruption of the records storage arrangement would be a normal effect of efforts to prevent total destruction. The fire-fighters may also take actions that disrupt and damage records that are not burning in order to reach the actual seat of the fire. While properly constructed fire walls would assist a fire-department in limiting the size of a fire, all of the records within the fire area would probably be seriously affected by either fire or water from the high pressure streams of both.

Another serious threat is the use of untested materials for repair by trained technicians in the absence of tested materials. Some materials, as well as some techniques and equipment, have done more harm than good to documents.

A threat of a different nature is posed by the ever increasing quantity of records to be retained permanently by archive repositories. Possibly one will have to accept that the size of the documentary legacy may prove to be prohibitive for its total conservation in its original format and to be prohibitive for effective access to the information it contains. If the size of our documentary heritage already kept in archive repositories proves to be too great for its dissemination in its original format, this is even more so for the larger quantity of records not yet selected for permanent retention. Despite the fact that foreseeable technological developments will assist in both preserving the records and disseminating them, one may assume that the increase in budgets will rarely match the increase in holdings.

A special, and not unimportant threat is caused by the activities of contractors in buildings. Those activities in themselves may be directed towards an improvement of the facilities. However, they sometimes result in fires or floods. The introduction of a ‘contractors code of practice’ is advisable.
8 CATEGORIES OF ENDANGERED ARCHIVE COLLECTIONS

One may divide categories of dangers to archives in several ways. One option is an obvious two way division into natural and man-made dangers. Natural and most man-made causes - like fire and water, neglect and use - tend to be non-discriminating. Some man-made causes - like unauthorized destruction and removal by occupying forces - are discriminating.

This first group of non-discriminating dangers threatens all records equally, though some kinds of records are more vulnerable than others. This group of dangers is a well known enemy of archives and one not easily defeated.

The second group of discriminating dangers is of a very mixed nature and can be disguised as if part of the first group. Specifically endangered record collections can be identified best after the attack which results in damage or destruction. A related danger is ‘classification’. Records are too easily declared classified and not open for consultation because of the origin of the document, the origin of the researcher or the nature of the government. Modern ‘civil war’ tends to result in the movement of residents to other areas and in the destruction of records containing information on the origin of the population or on property of any kind. Civil registration, cadastral, notarial and other records are deliberately destroyed, not because they are archives, but in order to destroy evidence and to complete ‘ethnic cleansing’.

A second category of archives potentially at risk are those moved by occupying forces, for instance as a result of disputed land claims. ‘Migrated’ archives, removed to other countries, either as trophies or in order to provide secure storage, will often suffer from neglect. Although in some instances these records may be well kept, from a professional and ethical point of view archivists should try to convince their superiors that they should be returned to their rightful custodians. In the meantime, they should receive the same treatment as other records and thus be part of the backlog of the institution and be open for consultation by any researcher.

A third category at risk are record collections related to minorities of any kind. Some private institutions do their best to save endangered collections relating to minorities. However, these rescue operations will be successfully completed only after the collections have been returned, once the circumstances in the respective area have been normalised. Keeping records out of context endangers their preservation and use.

A fourth category are collections of materials having a short life span, materials which are in the main readable only with the help of ‘machines’, e.g. sound tapes, films, glass-plate negatives, and digitized records. They are endangered not only because of their fragility, but also because of the difficult task of maintaining machines necessary for transforming ‘data’ into ‘information’.

A category of a different kind is formed by legislation and access. Archives not kept under a proper legal system and archives that are not accessible are under a permanent threat of not only neglect but also wilful, unauthorized destruction. A similar category arises in political systems that do not accept any kind of professional control of record keeping by professional archivists. Under such systems all records are under permanent threat of neglect and of wilful, unauthorized destruction.
9 SAFEGUARDING THE ARCHIVAL HERITAGE

At the Gardone Riviera Conference, one of the participants made an interesting remark: ‘preservation is a question of management, not of repairing.’ Good archive keeping implies the proper organization of an archives office. Proper organization implies proper storage, security, handling, conservation, and, if applicable, reformatting. One has to set priorities and to evaluate the cost benefits of different types of action, be it passive preservation, active conservation or reformatting, against the importance of collections. The simplest preservation measures, such as good handling, are by far the cheapest. That is why there is a lot we can do.

The common way of preserving collections all over the world is by reformatting (microfilming and/or digitizing) the collections in priority order, after having listed them, and then keeping the originals unused but in a stable condition. Damaged documents receive conservation treatment, where possible. Again where possible, documents are put in folders, folders are put in boxes, boxes are placed in the stacks. Those who can afford air-conditioning provide an optimal climate for permanent storage. Master copies of microforms, tapes and digitized forms are more and more frequently being stored in off-site repositories. Many archivists are working along these lines, either implicitly or explicitly. If the quantities are small, there is no real problem. A few hundred reels of microfilm will be sufficient and most repair shops do a good job. Reality, however, is different. What can one do with hundreds, with thousands of files, each containing tens or hundreds of sheets of paper, all filled with text and drawings, some of them torn and soiled, others brittle and damaged? What is to be done with the backlog? Current activities may be well aimed and are often cost-effective, but their level is too low in relation to the scale of the problem.

Traditional conservation techniques may be sufficient for coping with several kinds of mechanical, biological and chemical damage, but one should consider any irreversible technique to be a potential danger. For example, 1996 respondents reported major damage due to chemical treatment of records in the past. Even the use of lamination for stabilizing archive materials is questioned and could well turn out to be a counter-productive process. However, for documents nearing the point at which they can no longer be handled, lamination may be the only solution for the time being.

On their own all archivists are minor players in safeguarding the elements of the “Memory of the World” entrusted to them. The possible outcome of a world-wide performance analysis of the role of archive services could be a recommendation to globalize technical services of workshops and storage facilities. Many barriers will have to be dismantled. Globalizing intellectual access was an odd idea. What else, however, will be the outcome of the introduction of electronic formats and electronic finding aids? One cannot cut communication lines in order to keep the electronic data on-site. Globalizing storage facilities and technical services also sounds odd, but the profession should not be split into two sections of ducks, the first sitting and potentially lame ones and the second flying ones. Each duck is responsible for her or his part of the total archival heritage, which belongs to all peoples, throughout the world, now and in the future.

Co-operation at institutional, national and international levels, in conjunction with libraries and museums, would be one of the instruments for a better preservation of the “Memory of the World”. Progress in modern technology may assist in coping with some of the problems posed by both natural and man-made hazards and by the ever increasing quantity of archives to be kept.
10 NOTES


3 Documents are still thrown away because they are 'unreadable'.

4 see appendix.

5 Summary of the covering letter of the Naczelna Dyrekcja Archiwów Państwowych, the Directorate of the Polish State Archives.

6 Archivio di Stato di Sassari, Italy


10 Vinas, Vicente, and Ruth Vinas, p. 20.

11 Chapman, Patricia, p. 7.


16 Varazdin Historical Archives, Croatia.


18 Forde, Helen, ‘Selection for preservation’, to be published Janus 1995.1


20 Shepilova, Irina G., p. 17

21 Kathpalia, Yash P., p.1

22 in: Van Albada, p. 77 [John Herstad, National Archivist of Norway, not minuted].
Appendice 1  QUESTIONNAIRE (abridged) - UNESCO / ICA QUESTIONNAIRE ON DESTRUCTION OF ARCHIVES 1900-1994

Section A / Identification
A1 Name of organization / A2 Full address of organization / A3 Name of repository
A4 Full address of repository if not identical to A2 / A5 Name of respondent / A6 Function of respondent
A7 Telephone / A8 Fax / A9 Questions B-F applicable to organization? If no, please return form A by return mail to Mr Joan van Albada, Stek 13, 3311 XS Dordrecht, Netherlands. If yes, complete all questions, and return all forms to Mr Joan van Albada, prior to November 1, 1994.

Section B / Destruction
Quantity of destroyed documents
B1 Total of destroyed documents, as % of total of holdings: 75-100% / 25-74% / 1-24%
B2 Estimate of destroyed documents, in shelf metres
B3 Causes of destruction / Year of event(s) / Type of materials (manuscript / printed / audio-visual / other) / Do lists exist? / Do copies of documents exist?
  1 Fire, accident / 2 Fire, arson / 3 Flooding, from outside / 4 Flooding, from inside / 5 Earthquake / 6 Administrative order / 7 Civil disorder / 8 Armed conflict / 9 Removed by occupying force / 10 Other, please specify:
B4 Title(s) of fends that have been destroyed (75 - 100 % / 25 - 74 % / 1 - 24 %)
  (Destroyed documents in shelf metres / Substitutes available / Enclosures mailed to Rapporteur / inventory of fond / official report on event)

Section C / Damage
Quantity of seriously damaged documents
C1 Total of heavily damaged documents, as % of total of holdings: 75-100% /25-74% / 1 -24%
C2 Estimate of heavily damaged documents, in shelf meters
C3 Causes of damage / Year of event(s) / Type of materials (manuscript / printed / audio-visual / other) / Do lists exist? / Do copies of documents exist?
  1 Fire, accident / 2 Fire, arson / 3 Flooding, from outside / 4 Flooding, from inside / 5 Earthquake / 6 Administrative order / 7 Civil disorder / 8 Armed conflict / 9 Removed by occupying force/ 10 Other, please specify:
C4 Title(s) offends that have been damaged (75-100 % /25 - 74 % / 1-24 %)
  (Damaged documents in shelf metres / Substitutes available / Enclosures mailed to Rapporteur / inventory of fond / official report on event)
Section D / Measures implemented

D1 Measures implemented against possible natural and environmental hazards (as in B3 and C3):

D3 Measures implemented to minimize the effects of natural and environmental hazards (as in B3 and C3):

D5 Measures implemented to provide substitute information for destroyed or damaged documents (as in B3 and C3):

D2,4,6 Reports on actions enclosed:

Section E / Measures envisaged

E1 Measures envisaged against possible natural and environmental hazards:

E3 Measures envisaged to minimize the effects of natural and environmental hazards in future:

E5 Measures envisaged to provide substitute information for destroyed or damaged documents for historical research:

E2,4,6 Reports on envisaged actions enclosed:

Section F / Any other information

F1 Other information considered relevant:

F2 Enclosures
Appendix 2 LIST OF REPOSITORIES REPORTING LOSSES

AFRICA

Algérie
Archives Nationales, Centrales, Régionales et Locales

Benin
Archives Nationales, Porto-Novo

Botswana
National Archives, Gaborone

Cameroon
Archives Nationales, Yaoundé

Cape Verde
Archives Nationales, Yaoundé

Ethiopia
Ministry of Infromation, Addis Ababa
National Archives & Library, Addis Ababa

Gabon
Gouvernorat Province de l’Ogooué-Maritime, Port-Gentil
Prefecture de Lambarene, Lambarene
Radiodiffusion Television, Libreville
Tribunal de Port-Gentil, Port-Gentil

Ghana
National Archives, Accra

Guinea
Archives Nationales, Conakry

Kenya
Headquarters National Archives, Nairobi

Liberia
Center for National Documents & Records Agency, Monrovia

Malawi
National Archives, Zomba

Mauritius
Mauritius Archives, Petite Riviere, Cormandel

Namibia
National Archives, Windhoek

Nigeria
National Archives Enugu, Enugu
National Archives Ibadan, Ibadan
National Archives Kaduna, Kaduna

Rwanda
Archives nationales, Kigali

Seychelles
National Archives, Victoria, Mahe

South Africa
Cape Archives Depot, Cape Town
Intermedia Depot, Port Elizabeth
National Film, Video and Sound Archives, Pretoria
Transvaal Central Archives Depot, Pretoria

Swaziland
National Archives Repositories 1 & 2, Mbabane

Tanzania
National Archives, Dar Es Salaam
Zanzibar National Archives, Zanzibar

Togo
Archives Nationales, Lomé

Zaire
Archives nationales, Kinshasa
Université protestante au Zaïre, bibliothèque, Kinshasa
Université de Kinshasa, bibliothèque, Kinshasa
Institut Pédagogique national, bibliothèque, Kinshasa

Zimbabwe
National Archives, Harare

ASIA

Afghanistan
National Archives, Kabul

Bangladesh,
National Archives, Sher-e-Banglanagar

Brunei Darussalam
Brunei Archives, Bandar Seri Begawan 2018

Cambodia
National Archives, Phnom Penh

China
1000 repositories

India
Andhra Pradesh Archives Institute, Hyderabad
Karnataka State Archives, Bangalore
West Bengal State Archives, Calcutta

Indonesia
Arsip Nasional, Jakarta

Japan
Aichi, Aichi Prefectural Archives, Nagoya
Akita, Akita City History Museum, Akita
Chiba, Chiba City History Museum, Chiba
Chiba, Chiba City History Museum, Chiba
Gunma, Gunma Prefectural Archives, Maebashi
Hanshin, Hanshin City Archives, Osaka
Hanshin, Hanshin City Art Museum, Osaka
Hanshin, Kobe City Government, Kobe
Hanshin, Nishinomiya City Gov. Div., Nishinomiya
Hiroshima, Hiroshima Prefectural Archives, Hiroshima
Hiroshima, Hiroshima Municipal Archives, Hiroshima
Hokkaido, Hokkaido Prefectural Archives, Sapporo
Ibaraki, Ibaraki Prefectural Archives, Mito

Korea
Government Archives and Records Service, Seoul

Lao People’s Democratic Republic
National Archives, Vientiane

Malaysia
National Archives, Kuala Lumpur

Maldives
no repository

Myanmar
National Archives, Yangon

Nepal
National Archives, Kathmandu

Pakistan
National Archives, Lahore

Philippines
National Archives, Manila

Singapore
National Archives, Singapore

South Korea
National Archives, Seoul

Thailand
National Archives, Bangkok

Vietnam
National Archives, Hanoi

Other
International Archival Organizations

Optical Character Recognition (OCR) document. WARNING! Spelling errors might subsist. In order to access to the original document in image form, click on "Original" button on 1st page.
Pakistan
National Archives, Islamabad

Philippines
Records Management and Archives Office, Ermita, Manila

Singapore
National Archives, Singapore

Sri Lanka
National Archives, Colombo

United Arab Emirates
National Archives, Abu Dhabi

Uzbekistan
Archive Department, Tashkent

Vietnam
State Archives, Hanoi

EUROPE

Albania
Archives Centrales
24 districts
Arkivi i Shtetit i Rrethit, Shkodra
Arkivi i Shtetit i Bregit, Vora

Andorra
Principat d’
Arxius Nacionals d’Andorra, Andorra la Vella
Radio Andorra, Andorra la Vella

Austria
Allgemeines Verwaltungszentralarchiv, Wien
Forst St-Quentin [temporaire], [pres de Metz]

Belgium
Archives dep. de la Moselle, Saint-Julien-les-Metz
Archives departementales de la Cote-dOr, Dijon
Archives communales de Thionville, Thionville

Bosnia and Herzegovina
Regional Archives, Tuzla
Regional Archives, Mostar

Bulgaria
Archives Centrales, Sofia
Archives centrales du parti communiste, Sofia

Croatia
Archives historiques de Karlovac, Karlovac
Archives historiques de Pazin, Pazin
Archives historiques de Rijeka, Rijeka
Archives historiques de Sisak, Sisak
Archives historiques de Split / occupied territory
Archives historiques de Zadar, Zadar

Czech Republic
Archives historiques de Brno, Brno

Cyprus
State Archives, Nicosia

Estonia
Estonian State Archives, Tallinn

Finland
Military Archives, Helsinki

France
Archives communales de Chateaurenault, Tours
Archives municipales du Mans, Mans

Germany
Bundesarchiv, Koblenz

Greece
Archives historiques de Thessalonique, Thessalonique

Holland
Archives historiques de Trompeter, Rotterdam

Hungary
Archives historiques de Budapest, Budapest

Italy
Archives historiques de Pisa, Pisa

Japan
Archives historiques de Nippon, Nippon

Poland
Archives historiques de Varsovie, Varsovie

Portugal
Archives historiques de Lisbonne, Lisbonne

Scotland
Archives historiques de Glasgow, Glasgow

Spain
Archives historiques de Madrid, Madrid

Spain
Archives historiques de Toulouse, Toulouse

Switzerland
Archives historiques de Genève, Genève

Turkey
Archives historiques de Istanbul, Istanbul

UK
Archives historiques de Londres, Londres

USA
Archives historiques de Washington, Washington

Validation of text.

Optical Character Recognition (OCR) document. WARNING! Spelling errors might subsist. In order to access to the original document in image form, click on "Original" button on 1st page.
Chambre of Commerce, Agriculture, Ind. and H.craft, Teramo
Chambre of Commerce, Agriculture, Ind. and H.craft, Chieti
Chambre of Commerce, Agriculture, Ind. and H.craft, L'Aquila
Paroisse S. Giovanni Battista, Castiglione, Cagliari
Paroisse S. Maria Assunta, Tagliacozzo
Paroisse S. Nicola di Bari, Atri
Paroisse S. Maria della Pace, Fontecchio
Paroisse S. Maria Maggiore, Roccaraso
Paroisse S. Maria delle Grazie, Carsoli
Paroisse S. Maria Nova, Collelongo
Paroisse S. Nicola di Bari, Monteleone
Paroisse S. Maria Assunta, Castiglione Subequo
Paroisse S. Maria Assunta, Cerchio
Paroisse S. Maria Assunta, Cocciano
Paroisse S. Maria Assunta, Collelongo
Paroisse S. Maria Assunta, Corbara
Paroisse S. Maria Assunta, Cosenza
Paroisse S. Maria Assunta, Cutrofiano
Paroisse S. Maria Assunta, Diano Castello
Paroisse S. Maria Assunta, Donnalucata
Paroisse S. Maria Assunta, Enna
Paroisse S. Maria Assunta, Finale
Paroisse S. Maria Assunta, Formia
Paroisse S. Maria Assunta, Gioia Tauro
Paroisse S. Maria Assunta, Ispica
Paroisse S. Maria Assunta, Marsala
Paroisse S. Maria Assunta, Massa Marittima
Paroisse S. Maria Assunta, Melilli
Paroisse S. Maria Assunta, Milazzo
Paroisse S. Maria Assunta, Modica
Paroisse S. Maria Assunta, Monreale
Paroisse S. Maria Assunta, Nicosia
Paroisse S. Maria Assunta, Nocera Inferiore
Paroisse S. Maria Assunta, Ragusa
Paroisse S. Maria Assunta, Realmonte
Paroisse S. Maria Assunta, Roseto
Paroisse S. Maria Assunta, Swabia
Paroisse S. Maria Assunta, Vibo
Paroisse S. Maria Assunta, Villamena
Paroisse S. Maria Assunta, Zafferana Etnea
Paroisse S. Maria Assunta, Castiglione Subequo
Comune di Padria

Imperia
Comune di Ponzomaggiore
Comune di Putifigari

Nuoro
Comune di Santa Teresa di Gallura
Comune di Sassari
Comune di Sedini
Comune di Siligo
Comune di Thiesi
Comune di Tissi
Comune di Torralba

Comune di Villanova Monteleone

Eglise parrocchiale St Caterina d’Alessandria, Mores

Piemonte

Comune di Padria

Imperia
Comune di Ponzomaggiore
Comune di Putifigari

Nuoro
Comune di Santa Teresa di Gallura
Comune di Sassari
Comune di Sedini
Comune di Siligo
Comune di Thiesi
Comune di Tissi
Comune di Torralba

Comune di Villanova Monteleone

Eglise parrocchiale St Caterina d’Alessandria, Mores

Toscana

Comune di Padria

Imperia
Comune di Ponzomaggiore
Comune di Putifigari

Nuoro
Comune di Santa Teresa di Gallura
Comune di Sassari
Comune di Sedini
Comune di Siligo
Comune di Thiesi
Comune di Tissi
Comune di Torralba

Comune di Villanova Monteleone

Eglise parrocchiale St Caterina d’Alessandria, Mores

Umbria

Comune di Padria

Imperia
Comune di Ponzomaggiore
Comune di Putifigari

Nuoro
Comune di Santa Teresa di Gallura
Comune di Sassari
Comune di Sedini
Comune di Siligo
Comune di Thiesi
Comune di Tissi
Comune di Torralba

Comune di Villanova Monteleone

Eglise parrocchiale St Caterina d’Alessandria, Mores

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alla versione originale del documento in formato immagine, fare clic sul pulsante "Originale" nella prima pagina.
Papua New Guinea
National Archives, Boroko

SOUTH- AND CENTRAL-AMERICA

Argentina
Archivo General de la Nacion, Buenos Aires

Cayman Islands
Cayman Islands National Archive, Georgetown

Chile
Ministerio del Interior
Gobernacion de Calbuco
Gobernacion de Coelemu
Gobernacion de Cochemu
Gobernacion de Coronel
Gobernacion de Maule
Gobernacion de Puerto Varas
Gobernacion de Talcahuano
Gobernacion de Tome
Gobernacion de Ultima Esperanza
Municipalidad de Corral, Corral, Chile
Municipalidad de Los Andes, Los Andes, Chile
Municipalidad de Penco, Penco, Chile
Municipalidad de Petorca, Petorca, Chile
Municipalidad de Punta Arenas, Punta Arenas, Chile
Municipalidad de Valdivia, Valdivia, Chile

Colombia
Archivo General de la Nacion, Bogota

Cuba
Archivo Nacional de Cuba San Isidro, Habana Vieja

Dominica
Archivo General de la Nacion, Santo Domingo

Jamaica
Jamaica Archives, Spanish Town PO, St. Catherine

Peru
Archivo General de la Nacion, Lima
Appendix 3 Examples of reported destroyed or damaged collections

Albania
Archives Centrales, Tirana

Andorra
Part du Terral, district 192, 1921, 75-100% destr. Part du Terral, district 192, 1921, 75-100% destr.
22 districts
Cooperatives agricoles, destr. Entreprises d’État, destr.


Ajuntamiento de Encamp
Radio Andorra

Andorra la Vella Archivo sonoro, 1-24% destr. 
Ajuntamiento de Encamp, 75-100% destr.


Ministerrats Präsidium, 1899-0000, 25-74% destr. 


Verein. Hofkanzlei, Präsidium, Varia, 25-74% destr.

Oberste Justizstelle, 25-74% destr.


Vereinigte Hofkanzlei, Bücher, 25-74% destr. 


Radio Andorra

National Archives, Minsk
Archives de l’Etat de Gabrovo

Archives de l’Etat, Sofia
Radio Bulgare, 1-24% destr. 

Archives communales, 0000-1916, 75-100% destr.
20 archives communales, West Flandres

Archives de l’Etat a Mons, Mons
Archives de l’Echeve de Tournai, Tournai

Archives de l’Echève de Tournai, 0000-1915, destr.
20 archives communales, West Flandres

Belgium
Archives de l'Etat a Liège, Liège
Archives de la ville de Ypres, leper
Archives de la ville de Tournai, Tournai

Archives de la ville de Ypres, leper archives de la ville, 0000-1915, t
20 archives communales, West Flandres

Archives de l’Etat a Mons, Mons
Archives de la ville de Ypres, leper
Archives de la ville de Tournai, Tournai

Archives de la ville de Ypres, leper archives de la ville, 0000-1915, t
20 archives communales, West Flandres

Belgium
Archives de l’Echève de Tournai, 0000-1915, destr.
20 archives communales, West Flandres

Belgium
Archives de l'Etat a Liège, Liège
Archives de la ville de Ypres, leper
Archives de la ville de Tournai, Tournai

Archives de la ville de Ypres, leper archives de la ville, 0000-1915, t
20 archives communales, West Flandres

Archives de l’Etat a Mons, Mons
Archives de la ville de Ypres, leper
Archives de la ville de Tournai, Tournai

Archives de la ville de Ypres, leper archives de la ville, 0000-1915, t
20 archives communales, West Flandres

National Archives, Minsk

Archives de l’Etat a Mons, Mons
Archives de la ville de Ypres, leper
Archives de la ville de Tournai, Tournai

Archives de la ville de Ypres, leper archives de la ville, 0000-1915, t
20 archives communales, West Flandres

Archives de l’Etat a Mons, Mons
Archives de la ville de Ypres, leper
Archives de la ville de Tournai, Tournai

Archives de la ville de Ypres, leper archives de la ville, 0000-1915, t
20 archives communales, West Flandres

Belgium
Archives de l’Echève de Tournai, 0000-1915, destr.
20 archives communales, West Flandres

Andorra
Archives Centrales, Tirana


Ministerrats Präsidium, 1899-0000, 25-74% destr. 


Verein. Hofkanzlei, Präsidium, Varia, 25-74% destr.

Oberste Justizstelle, 25-74% destr.


Vereinigte Hofkanzlei, Bücher, 25-74% destr. 


Radio Andorra
notaries and mortgage institutions of Słaska i Wilkiswes districts, 75-100% destr.
notaries of Aigišius-Radziwills region, 25-74% destr.
notaries of regions, 1-24% destr.
office of the president of Lithuania, 25-74% destr.
radio equipment factory, 25-74% destr.
state farms of various districts, 25-74% destr.
Trade union of cultural workers, Kelmė region, 75-100% destr.
Agricultural board of Pakruojis district, 1-24% destr.
Central Committee Lith., Young Communist League, 1-24% dam.
Chief of Seta area, Kadınai district, 75-100% dam.
Dzierzinskis collective farm of Bubliomyto area, Kedainia district, 75-100% dam.
Headquarters and executive committees and collective farms in Panevezys region, 1-24% dam.
Party commission of CC Lithuanian Communist Party, 1-24% dam.
state farm of Bubliomyto, Sakalkiciai district, 1-24% dam.
Malawi
National Archives, Zomba
Government Records, 75-100% destr.
Blantyre Mission Council, 1-24% dam.
Microfilms, 1-24% dam.
Shire Highlands Railway, photoalbum, 1-24% dam.
Mauritius
Mauritius Archives, Petite Riviere, Corromandel audience of police, 1772-1782, 1-24% destr.
cantonments, 1786-1812, 1-24% destr.
civil status records: P. Louis, Flacq, Famillemousses, Grand Port, 1739-1820, 1-24% destr.
draft despatches Governor Mauritius to Secretaries of State re Sceychelles, 1-24% destr.
family council indexes, 1863-1899, 1-24% destr.
index archives civils, 1833-1834, 1-24% destr.
legal enactments, 1722-1780, 1-24% destr.
Inquests procedures criminels, 1800-1851, 1-24% destr.
letters sent by Observatory, in- & out-letters; outward manifests, 1810-1913, 1-24% destr.
miscellaneous judicial records, 1754-1896, 1-24% destr.
notarial deeds, 1739-1929, 1-24% destr.
plans of P. Louis, 1773-1900, 1-24% destr.
proclamations, 1821-1852, 1-24% destr.
Recensement des habitants des Sceychelles, 1818-0000, 1-24% destr.
Register of consuls/superior, 1736-1743, 1-24% destr.
Reperitoires of notarial deeds, 1830-1950, 1-24% destr.
Rodrigues Orth-Lettres, 1890-1891, 1-24% destr.
Civil status registers, 1905-0000, 1-24% destr.
Myanmar
National Archives, Dagon P. O., Yangon
District archives (38), 75-1000 destr.
Namibia
National Archives, Windhoek
Administrator General, 75-1000 destr.
SWA territory forces, 75-1000 destr.
Netherlands
Municipality Alblasserdam
Alblasserdam Municipal records, 1813-1940, 75-1000 destr.

Municipality Dordrecht
Record groups of various offices, 1851-1944, 25-74% destr.

Municipality Eemnes
Municipal records, 1-240. dam.

Municipality Goriére
Civil registration, 1813-1890, 75-100 % destr.

Municipality Heerde
Municipal records, 0000-1943, 1-24% dam.

Municipality Kerkwerve
Municipal records, 1-240. dam.

Municipality Oostrum
Municipal records, 1800-1943, 75-100% destr.

Municipality Overloon
Municipal records, 1800-1943, 1-24% dam.

Municipality Oosterhout
Municipal records, 0000-1953, 1-24% dam.

Municipality Schipluiden
Civil registration, 1900-1926, 75-100% destr.

Municipality Schinopke
Municipal records, 1312-1931, 75-100% destr.

Municipality Sjerpenskerke
Municipal records, 0000-1953, 25-74% destr.

Municipality Steenbergen
Municipal records, 1312-1931, 75-100% destr.

Municipality Tiel en Waal
Civil registration, 1900-1936, 75-100% destr.
Obchody i uroczyścień krakowskie, 1917-1964, 1-24% destr.
Siegener Einwohner, 1820-1900, 1-24% dam.
Urząd Województwa Królewskiego, 1921-1939, 1-24% destr.
Zbiór dokumentów parafialnych, 1904-1914, 1-24% destr.
Zbiór Materiałów, 1913-1920, 1-24% destr.
Zbiór pokarmowych, 1300-1900, 1-24% destr.
State Archives Koszalin, Koszalin
Stańcza, 1852-1910, 25-75-100% dam.
Siedliska, 1864-1915, 25-74% dam.
Provincial Stałego Kierownictwa, 1906-1912, 75-100% dam.
WPrzemysłkim Archiwum, 1869-1954, 25-74% dam.
Szt Luczewn w Poznaniu, 75-100% destr.
18 record groups, 25-74% destr.
Amphenotypi, 75-100% destr.
Amphenotypi, 1921-1939, 1-24% destr.
Amphenotypi, 1940-1950, 1-24% destr.
Amphenotypi, 1951-1960, 1-24% destr.
Amphenotypi, 1961-1971, 75-100% dam.
Amphenotypi, 1931-1944, 25-74% dam.
Amphenotypi, 1994-2000, 25-75% dam.
Amphenotypi, 2001-2009, 25-75% dam.
Amphenotypi, 2010-2019, 25-75% dam.
Amphenotypi, 75-100% dam.
Amphenotypi, 1251-1793, 25-74% dam.
Amphenotypi, 1862-1914, 75-100% dam.
Amphenotypi, 1867-1914, 1-24% destr.
Amphenotypi, 1915-1920, 25-74% dam.
Amphenotypi, 1920-1931, 25-74% dam.
Amphenotypi, 1931-1944, 25-74% dam.
Amphenotypi, 1944-1945, 25-74% dam.
Amphenotypi, 1919-1944, 25-74% dam.
Amphenotypi, 1950-1959, 25-74% dam.
Amphenotypi, 1989-1999, 75-100% dam.
Amphenotypi, 1999-2009, 25-74% dam.
Amphenotypi, 75-100% dam.
Amphenotypi, 1-24% destr.
Amphenotypi, 25-74% dam.
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Amphenotypi, 75-100% dam.
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Prefectural of Balta district, 75-100% dam,
Rishel’ye college, 25-74% dam.
State Archives of Zakarpalska Oblast, Beregovo
Mucachevsky Basilian Monastery, 75-100% desfr.
Mucachevsky Basilian Monastery 1-24% dam.

United Kingdom
General Register House, Edinburgh
Register of Sasines, 1-24% dam.
Record Office, London
Chamber vouchers, 1700-1900, 9% desfr.
Chamberlain’s freedom records, 1930-1941, 1-24% desfr.
committee papers, 1939-1940, 1-24% desfr.
common council papers, 1930-1940, 1-24% desfr.
common councilmen, index and list, 1-24% desfr.
officers of the City, list, 1-24% desfr.
printed reports card index, 1-24% desfr.
rate books (local taxation), 1934-1939, 1-24% desfr.
records office reference library, 1-24% desfr.
reports to court of Aldermen and Committees, 1-24% desfr.
Sessions records, guide and calendar, 1-24% desfr.
Chamberlain’s freedom records, 1600-1940, 1-24% dam.
contemporary records, 1930-1940, 1-24% dam.
West Register I House, Edinburgh
Sheriff Courts, various, 1-24% dam.

USA
The National Archives, Washington
Air/ground personnel records, 1947-1963, 9% desfr.
Army personnel records, 1912-1959, desfr.
MCA - Universal Outtake Film, 1930-1951, desfr.
Airforce personnel records, 1947-1963, 75-100% dam.
Army personnel records, 1912-1959, 75-100% dam.

Uzbekistan
Archive Department, Tashkent
General records, 1200-1600, 25-74% dam.

Vietnam
State Archives, Hanoi
Imperial archives and wood-block documents, 1800-1942, 1-24% dam.

Zaire
Inst Pedagogique National, Bibliotheque Centrale, Kinshasa
Ecrits academiques, 75-100% desfr.
Ecrits academiques, 1-24% dam.
Ouvrages divers, 75-100% desfr.
Periodiques scientifiques relies, 75-100% desfr.
Usuels de la salle de lecture, 75-100% desfr.
Usuels, 1-24% dam.

Zimbabwe
National Archives, Harare
British South Africa Company, 1900-1923, 75-100%