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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PART I - LIBRARIES

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.
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 Chi'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':

   The blood-dimmed tide is loosed and everywhere
   The ceremony of innocence is drowned;
   The best lack all conviction, while the worst
   Are full of passionate intensity.

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
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<td>LJ</td>
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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 palimpsests, the Codex Theodosianus and the Duke the Berry’s 'Libro d'ore'.

Manoscritti danneggiati nell'incendio del 1904 (Biblioteca 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-pe, T’ien-chin. Completely destroyed by bombs

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

Agricultural College of He-pe, 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 émigrés, 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 Bavarica 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 Fürstenberg-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 Commerciale 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 Evangelary 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 Provinciale 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 damaged 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 Bibliographie 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 Biblioteca 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
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
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
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 law 1, 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. 2 Climatically well proven systems for `memorising' 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, woodblocks, 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 favourable 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.
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>
<thead>
<tr>
<th>Table 1995/1 (form A)</th>
<th>Repositories covered</th>
</tr>
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<tr>
<td></td>
<td>AFRICA</td>
</tr>
<tr>
<td>losses</td>
<td>36</td>
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<tr>
<td>no losses</td>
<td>7</td>
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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.\(^5\)

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.\(^6\)

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\(^7\) 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 Nederlands Archievenblad.

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></td>
<td>AFRICA</td>
</tr>
<tr>
<td>N = 217</td>
<td></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>Region</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>
<tr>
<td>Have you observed any damages caused by:</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>- natural disasters (hurricane, flood, etc.)</td>
<td>17</td>
<td>4</td>
<td>13</td>
<td>36</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>- fire</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>27</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>- pollution</td>
<td>27</td>
<td>17</td>
<td>12</td>
<td>9</td>
<td>5</td>
<td>46</td>
</tr>
<tr>
<td>- drought</td>
<td>32</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>- mould</td>
<td>55</td>
<td>63</td>
<td>42</td>
<td>45</td>
<td>86</td>
<td>62</td>
</tr>
<tr>
<td>- insects</td>
<td>73</td>
<td>67</td>
<td>31</td>
<td>45</td>
<td>91</td>
<td>69</td>
</tr>
<tr>
<td>- rodents</td>
<td>41</td>
<td>21</td>
<td>13</td>
<td>36</td>
<td>82</td>
<td>38</td>
</tr>
<tr>
<td>- bad quality of material (paper, etc.)</td>
<td>55</td>
<td>75</td>
<td>43</td>
<td>73</td>
<td>86</td>
<td>77</td>
</tr>
<tr>
<td>Have you observed deterioration resulting from the use of documents by the public? If yes, caused by:</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>- frequent use</td>
<td>94</td>
<td>100</td>
<td>83</td>
<td>100</td>
<td>100</td>
<td>82</td>
</tr>
<tr>
<td>- inadequate supervision</td>
<td>41</td>
<td>15</td>
<td>16</td>
<td>50</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>- photocopying</td>
<td>35</td>
<td>80</td>
<td>60</td>
<td>90</td>
<td>86</td>
<td>60</td>
</tr>
<tr>
<td>- impossibility to produce microform</td>
<td>41</td>
<td>16</td>
<td>34</td>
<td>30</td>
<td>77</td>
<td>70</td>
</tr>
</tbody>
</table>

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?
Since the figures presented no significant difference between causes of destruction and of damage, the results of questions B3 and C3 have been totalled. Not surprisingly records form the overwhelming majority of materials destroyed or damaged.

A superfluous conclusion is the necessity of excluding 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.

Table 1995/2 (questions B3 and C3) Causes for destruction and damage

<table>
<thead>
<tr>
<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>
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<td></td>
<td></td>
</tr>
<tr>
<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>
</tr>
<tr>
<td>fire, arson</td>
<td>5</td>
<td>8</td>
<td>9</td>
<td>63</td>
<td>-</td>
</tr>
<tr>
<td>flooding, from outside</td>
<td>11</td>
<td>3</td>
<td>10</td>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td>flooding, from inside</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>earthquake</td>
<td>-</td>
<td>7</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>other `natural causes'</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>armed conflict</td>
<td>2</td>
<td>42</td>
<td>25</td>
<td>-</td>
<td>29</td>
</tr>
<tr>
<td>removed by occupying forces</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>-</td>
<td>29</td>
</tr>
<tr>
<td>civil disorder</td>
<td>11</td>
<td>4</td>
<td>6</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>terrorism</td>
<td>0</td>
<td>-</td>
<td>0</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>
</tr>
<tr>
<td>bacteria, insects and rodents</td>
<td>9</td>
<td>0</td>
<td>0</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>
</tr>
<tr>
<td>dust</td>
<td>3</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>
</tr>
<tr>
<td>bad storage</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>lack of restoration capacity</td>
<td>2</td>
<td>2</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>
</tr>
<tr>
<td>neglect</td>
<td>9</td>
<td>1</td>
<td>3</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>
</tr>
<tr>
<td>administrative order</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>unauthorized destruction</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>theft</td>
<td>2</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>use</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Excluding armed conflict and removal by occupying forces

<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 = 888</td>
<td>58</td>
<td>76</td>
<td>716</td>
<td>8</td>
<td>3</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>14</td>
<td>13</td>
<td>63</td>
<td>-</td>
<td>30</td>
</tr>
<tr>
<td>flooding, from outside</td>
<td>11</td>
<td>7</td>
<td>15</td>
<td>13</td>
<td>-</td>
<td>22</td>
</tr>
<tr>
<td>flooding, from inside</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td>25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>earthquake</td>
<td>-</td>
<td>12</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>other <code>natural causes</code></td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>civil disorder</td>
<td>11</td>
<td>8</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>terrorism</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>inherent instability</td>
<td>3</td>
<td>9</td>
<td>3</td>
<td>-</td>
<td>33</td>
<td>11</td>
</tr>
<tr>
<td>bacteria, insects and rodents</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>mould and humidity</td>
<td>3</td>
<td>3</td>
<td>4</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>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bad storage</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>lack of restoration capacity</td>
<td>3</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>bad restoration</td>
<td>-</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>neglect</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>while moving offices</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>administrative order</td>
<td>3</td>
<td>13</td>
<td>4</td>
<td>-</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>unauthorized destruction</td>
<td>7</td>
<td>1</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>theft</td>
<td>3</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>use</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Omitting 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 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 pre-defined 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 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 programmes 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 any kind. 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 favourable 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 buildings\(^{13}\) - i.e. use of low energy and low technology engineering; use of low toxicity, environmentally friendly construction materials; use of recycled materials; low running costs - should get top-priority on the professional research list.

5.2 Findings

One may expect repositories built especially to keep archives to be more appropriate for meeting optimal storage conditions than adapted buildings. Some of these adapted buildings may provide perfect climatic conditions. However, it will be an assiduous task to meet other requirements such as protection from 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 served other masters before. Archive repositories may have been built for the purpose of their current
use but, in several cases, archivists have not been consulted during the process of selecting site, designing the building or selecting its equipment. In other cases archivists have been overruled by administrators or architects, happily constructing memorials instead of 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 per room, with humidifiers or de-humidifiers. But do they meet the exigencies of a proper climate in all rooms, 24 hours per day, 365 days a year? Will the budget suffice to meet the costs of the electricity needed?

<table>
<thead>
<tr>
<th>Table 1986/3 Technical facilities of repositories</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 262</td>
</tr>
<tr>
<td>AFRICA</td>
</tr>
<tr>
<td>23</td>
</tr>
<tr>
<td>Was the building constructed for the purpose of its current use?</td>
</tr>
<tr>
<td>26 %</td>
</tr>
<tr>
<td>Are the stack areas isolated from the other parts of the building?</td>
</tr>
<tr>
<td>57 %</td>
</tr>
<tr>
<td>Is the building subject to regular maintenance?</td>
</tr>
<tr>
<td>50 %</td>
</tr>
<tr>
<td>Is the building equipped with</td>
</tr>
<tr>
<td>- central air-conditioning?</td>
</tr>
<tr>
<td>- indiv. air-conditioning per room?</td>
</tr>
<tr>
<td>- heating?</td>
</tr>
<tr>
<td>- de-humidifiers?</td>
</tr>
<tr>
<td>- humidifiers?</td>
</tr>
<tr>
<td>- air-filtering?</td>
</tr>
<tr>
<td>- windowless walls?</td>
</tr>
<tr>
<td>- thermal insulation?</td>
</tr>
<tr>
<td>- windows with filtering glass?</td>
</tr>
<tr>
<td>- fire detection system?</td>
</tr>
<tr>
<td>- fire extinction equipment?</td>
</tr>
<tr>
<td>Do you disinfect accessions when received?</td>
</tr>
<tr>
<td>36 %</td>
</tr>
<tr>
<td>Do you disinfect periodically the stackrooms?</td>
</tr>
<tr>
<td>55 %</td>
</tr>
</tbody>
</table>
Monitoring of climatic conditions needs equipment, staff, training and discipline. Use of the results of those checks should be implemented as part of the preservation policy. It is uncertain what causes the low score on the question of using the results of checks of temperature, relative humidity and air quality.

<table>
<thead>
<tr>
<th>Table 1986/4</th>
<th>Repository conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 217</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AFRICA</td>
</tr>
<tr>
<td></td>
<td>22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you systematically check:</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>- temperature</td>
<td>36</td>
<td>81</td>
<td>80</td>
<td>67</td>
<td>100</td>
<td>69</td>
</tr>
<tr>
<td>- relative humidity</td>
<td>27</td>
<td>81</td>
<td>88</td>
<td>67</td>
<td>100</td>
<td>69</td>
</tr>
<tr>
<td>- air quality</td>
<td>14</td>
<td>44</td>
<td>8</td>
<td>0</td>
<td>29</td>
<td>8</td>
</tr>
<tr>
<td>Do you make a systematic use of the results of these checks?</td>
<td>27</td>
<td>75</td>
<td>70</td>
<td>50</td>
<td>57</td>
<td>54</td>
</tr>
</tbody>
</table>

The findings as presented in table 1986/5 predict a massive loss of records in future due to insufficient technical facilities. The same question `over the past 5/10 years, preservation conditions in your building have remained unchanged, improved, deteriorated' raised in 1995 most likely will result in a change for the worse, from `unchanged' to `deteriorated', possibly even from `improved' to `unchanged'.

<table>
<thead>
<tr>
<th>Table 1986/5</th>
<th>Preservation conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 259</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AFRICA</td>
</tr>
<tr>
<td></td>
<td>23</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over the past 5/10 years, preservation conditions in your building:</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>- have remained unchanged</td>
<td>48</td>
<td>30</td>
<td>54</td>
<td>45</td>
<td>73</td>
<td>54</td>
</tr>
<tr>
<td>- have improved</td>
<td>39</td>
<td>78</td>
<td>34</td>
<td>27</td>
<td>27</td>
<td>45</td>
</tr>
<tr>
<td>- have deteriorated</td>
<td>13</td>
<td>0</td>
<td>14</td>
<td>27</td>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

Some 50% of archive repositories do not have a conservation workshop or microfilming workshop. Surprisingly, as shown in table 1986.6, the scores for conducting systematic policies with a view to improving 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, 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, climate control and systematic monitoring of repositories and holdings.

Regrettably a too well known phenomenon, `disaster', does not find its counterpart in a high score of `disaster preparedness'. The frequency of damage through water or fire requires solid disaster prevention planning, coping strategies and recovery plans. However, these plans should be realistic. In several countries it does not make much sense to rely on instructions about having access to stocks of hundreds of plastic boxes, thousands of plastic bags, refrigerated trucks and stores, in order to start a freeze-drying process 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 labour extensive 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><strong>N</strong> = 624</td>
<td>56</td>
<td>78</td>
<td>408</td>
<td>11</td>
<td>18</td>
<td>35</td>
</tr>
</tbody>
</table>

#### security
- burglary alarm: - 3 5 - - -
- fire alarm: 5 7 11 - - 6
- water alarm: - - 2 9 - 3
- security system: - - 2 9 - -
- 24 h. surveillance: 4 1 0 9 - 3

#### building
- new site and building: 5 3 - - 6 -
- extension / update building: 11 3 5 9 - -
- climate control: 7 3 5 - - 6
- air-conditioning: - 4 2 - - 3
- building maintenance: 13 6 6 - 6 9
- fire fighting system: 5 10 6 - 6 9
- installation management: - - 0 - - 3
- separation user/staff sections: - - 0 - - -

#### storage
- reboxing: 5 3 2 - 6 3
- new shelving: - 2 - - 6 -
- hygiene and pest control: 5 2 2 - 12 3
- close down of repository: - - 0 - 6 -

#### conservation
- deacidification: - 3 1 - - 3
- disinfection and fumigation: 5 5 2 - 11 9
- deep freezing: - - - - - -
- microfilming: 11 15 15 - 17 6
- off-site storage security copies: 4 3 4 - 6 -

#### programmes
- automation programme: - - 2 - 6 -
- awareness/public relations prog.: - - - - - -
- copying programme: 6 5 5 9 - - 3
- disaster prevention/recovery programme: 2 3 4 18 6 6
- preservation programme: 5 10 6 18 6 14
- restoration programme: 4 6 8 9 - - 9
- training programme: 6 3 1 - 11 3
6 INTENDED PREVENTIVE MEASURES

6.1 Introduction

A difference between implemented and intended preventive measures can be explained by lack of financial means and of training. Most literature underlines the necessity of an assessment of the execution of implemented measures - control of quality and efficiency - and of an assessment of staff training. There is no need for the introduction of new preventive measures if the available ones have not yet been properly implemented or executed.

6.2 Findings

No new techniques were suggested in the list of preventive measures. Well-established programmes will be continued 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. The working conditions are totally different. It is very hard to develop adequate preventive measures; one can only prepare oneself for experiences in the past. 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).\textsuperscript{16}

Forty years ago representatives of many governments met in The Hague (The Netherlands). After having reviewed 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.\textsuperscript{17}

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.
Every archival institution needs to reconsider its own policies and practical arrangements for the survival of both its collections and 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 and for the development of 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 regarding prevention, control, recovery and, last but not least, staff training. Assuming that learning by mistakes is a too costly procedure, it could be an idea to practice in advance on records which are going to be destroyed anyway.

Recent experience shows the necessity of this kind of preparedness. However, one should also be aware that `modern' kinds of warfare directed towards ethnic cleansing may welcome the identification of high ranking elements of the archival and cultural heritage for facilitating their annihilation. This represents another archivists' dilemma.

It seems to be easier to fight non-deliberate destruction through ignorance or carelessness, than deliberate destruction through war, arson and so forth.
Lack of training, information and funding is considered traditionally as a 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 good to take a fourth factor into consideration as a possible major threat: improper or inefficient use or management of available resources (skills, manpower, information, building, equipment, money, etc.).

<table>
<thead>
<tr>
<th>Table 1986/7</th>
<th>Financial means</th>
</tr>
</thead>
<tbody>
<tr>
<td>N = 214</td>
<td>AFRICA</td>
</tr>
<tr>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Over the past 5/10 years, financial means allocated to preservation and conservation:</td>
<td></td>
</tr>
<tr>
<td>- remained unchanged</td>
<td>53</td>
</tr>
<tr>
<td>- increased</td>
<td>32</td>
</tr>
<tr>
<td>- diminished</td>
<td>11</td>
</tr>
<tr>
<td>N = 216</td>
<td>AFRICA</td>
</tr>
<tr>
<td>Is the training provided in your own country for:</td>
<td></td>
</tr>
<tr>
<td>- academic staff</td>
<td>9</td>
</tr>
<tr>
<td>- technical staff</td>
<td>36</td>
</tr>
</tbody>
</table>

Training or lack of training (see *table 1986/8*) cannot be forecasted by interpreting the availability of formal education only. In many countries well established apprentice-systems result in fine teams of highly-skilled conservators. In many countries selections of holdings are well taken care of, 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 decline of holdings already kept, conservation in the future will not only require more people using traditional techniques, but also the development of better appraisal and appropriate mass conservation techniques.ⁱ⁸
Training of staff, both archivists and technicians, does not score very high. However, in many cover letters, the subject has been raised as a ‘supra-institutional’, national or even international responsibility, to be dealt with in co-operation with related professional institutions.

The tendency to rely too much on technology represents a threat of a different kind. Most professional literature tends to set standards for preservation, conservation, restoration, training, etc. All standards set ideal - in other words maximum - exigencies. In many, if not most, countries these standards cannot be met within a reasonable and foreseeable time span.

It should be possible to implement the use of standards step by step, taking into account environmental, political and professional factors influencing archive management all over the world. Completion of all steps equalling implementation of that standard in one big step. Each of those successive steps should relate to the preceding and the following ones. Setting a new step should be possible with a minimum waste of previous capital investment. The hazards one will meet when walking step by step 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 hygienic conditions, improving the balance of relative humidity and temperature, repacking in acid-free boxes first and in acid-free folders later or vice versa? How does one start if one's budget does not allow one big operation attacking and solving all problems in one sweep?

An example of a different kind is that promoting the use of refrigerators for the storage of master microforms in countries having a faulty electricity supply is not very helpful. A blueprint of a vault making maximum use of natural cooling would be preferable. However, more likely in this case, 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 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 they are thereby possibly counterproductive. Standards should also present alternatives that would assist professional archivists and conservators to cope better with possibilities 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 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.\textsuperscript{20}

Another serious threat is the use of untested materials for repair by trained technicians in the absence of tested materials. Some materials, techniques and equipment have done more harm than good to documents.\textsuperscript{21}

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 real format and to be prohibitive for an effective access to the information it contains. If the size of our documentary heritage already kept in archive repositories proves to be prohibitive 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 come to assist in preserving the records and disseminating them, one may assume that the increase in budgets will very seldom match the increase in holdings.

A special, and not the least important, 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.
One may divide categories of dangers to archives in several ways. One of the options is a division into two obvious ones: nature-related and man-related dangers. Nature-related and most man-related causes - like fire and water, neglect and use - tend to be non-discriminating. Some man-related causes - like unauthorized destruction, cleansing and removal by occupying forces - are discriminating.

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

The second group of discriminating dangers is of a very mixed nature and can be disguised in forms of the first group. Specifically endangered record collections can be identified best after the attack resulting 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 moving residents to other areas and in destroying records containing information on the origin of the population or on property of any kind. Civil registration, cadastral, notarial records, etc., are deliberately destroyed, not because they are archives, but in order to destroy proof of evidence and to complete `ethnic cleansing'.

A second category of archives possibly in danger are those moved by occupying forces, for instance as a result of disputed land claims. `Migrated' archives, removed to other countries, either as a trophy 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 possibly endangered category is formed by 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 returning those collections as soon as the circumstances in the respective area have been normalised. Keeping records out of context endangers keeping and using records as well.

A fourth category is formed by collections of materials having a short life span, materials mostly readable with the help of `machines' only, e.g. sound-tapes, films, glass-negatives, digitized forms, etc. They are endangered not only because of their life span, 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. Another category of a different kind is formed by political systems that do not accept any kind of professional control of record keeping by professional archivists. Under those systems all records are under a permanent threat of both neglect and wilful, unauthorized destruction.
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, etc. 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, good handling etc., 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) the collections in priority order, after having listed them, and then keeping the originals unused but in a stable condition. Damaged documents receive, if possible, conservation treatment. Again, if possible, documents are put in folders, folders in boxes, boxes 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 stored in off-site repositories. Many archivists are working along these lines; implicitly or explicitly. If the quantities to be considered are small, there is no real problem. A few hundred reels of microfilm are sufficient and most repair shops do a good job. Reality, however, is different. What can one do with hundreds, 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 so on? What is to be done with the backlog? Current activities are well aimed and often cost-effective, but the level of activities is disproportionate in relation to the extent 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 preservation process. However, for documents nearing the no-touch line, it may be the only solution for preservation 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. Two possible outcomes 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 has been 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, sitting - potentially lame - ones and flying ones. Each duck is responsible for her or his part of the total archival heritage, belonging to all people, living all over the world, now and in time to come.

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.
NOTES


3. Documents still are thrown away for being `unreadable'.

4. see appendix.

5. Summary of the covering letter of the Naczelna Dyrekcja Archiwów Państowowych, 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.


MacIntyre, John, `Developing disaster control plans for government institutions in Africa: managing the disaster risk' to be published in Janus 1996.1

16 Varazdin Historical Archives, Croatia.

17 This paragraph and the following two have been `borrowed' from Patrick J. Boylan, Vice-President of ICOM's `Thinking the Unthinkable', *ICOM News 48 (1995)* 1, pp 3-5.


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].
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 fonds 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) of fonds 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
## 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, Yaounde

**Cape Verde**
- Arquivo Historico Nacional, Praia

**Ethiopia**
- Ministry of Information, Addis Ababa
  - National Archives & Library, Addis Ababa

**Gabon**
- Gouvernorat Province de l'Ogooue-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, Coromandel

**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
  - Intermediate 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, Lome

**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

**Bangladesh**
- National Archives, Sher-e-Banglanagar

**Brunei Darussalam**
- Brunei Archives, Bandar Seri Begawan 2018

**Cambodia**
- National Archives, Phnom Penh

**China**
- 3000 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, Sannomaru, Nakaku
  - Akita, Noshiro City History Division, Noshiro City
  - Chiba, Kashiwa City History Section, Kashiwa City
  - Gifu, Gifu Prefectural Archives, Gifu City
  - Gunma, Gunma Prefectural Archives, Maebashi City
  - Hanshin, Amagasaki City Archives, Amagasaki
  - Hanshin, Ashiya City Art Museum, Ashiya
  - Hanshin, Kobe City Government, Kobe
  - Hanshin, Nishinomiya City Gov. Doc. Div., Nishinomiya
  - Hiroshima, Hiroshima Prefectural Archives, Hiroshima City
  - Hiroshima, Hiroshima Municipal Archives, Hiroshima City
  - Hokkaido, Hokkaido Prefectural Archives, Sapporo
  - Ibaraki, Ibaraki Prefectural Museum and Archives, Mito City
  - Kanagawa, Kanagawa Prefectural Archives, Yokohama
  - Kanagawa, Yokohama Archives, Yokohama
  - Nagano, Nagano Prefectural Hist. Museum, Kohshoku City
  - Niigata, Nagaoka City History Division, Nagaoka City
  - Niigata, Niigata City History Division, Niigata City
  - Okinawa, Okinawa Prefectural Library, Naha
  - Osaka Municipal Museum, Osaka Sayamashi
  - Osaka, Kadoma City Historical Museum, Kadoma City
  - Osaka, Minoo City History Center, Minoo City
  - Osaka, Monomyama Gakuin Univ. Hist. Board, Osaka City
  - Saitama, Ageo City History Division, Ageo City,
    - Saitama, Urawa City Library, Urawa City
    - Tokyo, Itabashi City Hist. Division, Sakaecho, Itabashi-ku
    - Tokyo, Metropolis Research Inst. for Social History, Nakanoku
    - Tokyo, Tokugawa Reimei Kai Foundation, Toshima-ku
    - Tokyo, Tokyo Metropolitan Archives, Minatoku
    - Tokyo, Toshima City Historical Museum, Toshima City

**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, Dangon P.O., Yangon

**Nepal**
- National Archives, Kathmandu

**Afghanistan**
- National Archives, Kabul
Comune di Abagnara
Comune di Ales
Comune di Cabras
Comune di Fordongianus
Comune di Giniarca
Comune di Neoreni
Comune di Notrello
Comune di Nughedona Santa Vittoria
Comune di Paulatino
Comune di Pio Sardo
Comune di San Niccolo Arcidano
Comune di San Verso Mills
Comune di Santalussurgo
Comune di Scano di Montferro
Comune di Sorradile
Comune di Uras
Comune di Villaurbana
Eglise paroissiale di Asuni
Eglise paroissiale San Lorenzo, Mogarella
Eglise paroissiale Sant'Andrea, Villanova Truschedu
Sassari
Comune di Aggius
Comune di Ali' dei Sardi
Comune di Alghero, Alghero
Comune di Bortigliadas, Bortigliadas
Comune di Budduso
Comune di Burgos
Comune di Cagliari
Comune di Castelsardo
Comune di Cossone
Comune di Ceri
Comune di Lucas
Comune di Martis
Comune di Monteleone Roccaatoria
Comune di Monti
Comune di Nughedu San Nicolo
Comune di Olbia
Comune di Oschiri
Comune di Ozieri
Comune di Padula
Comune di Pozzomaggiore
Comune di Putifigari
Comune di Santa Teresa di Gallura
Comune di Sassari
Comune di Sedini
Comune di Silio
Comune di Tiesi
Comune di Tisiri
Comune di Torralba
Comune di Villanovamontealeone
Eglise paroissiale St Caterina d’Alessandria, Mores
Toscana
Accademia di Scienze e Lettere la Colombaria, Firenze
Accademia economico agraria del Georgofili, Firenze
Archivio privato maire Ferra, Firenze
Archivio privato Malenchini, Firenze
Archivio Demidoff, Firenze
Archivio privato Famille Bombici Pontelli, Firenze
Archivio privato Vivarelli Colonna, Firenze
Archivio privato Giucchiarini Corsi Salvati, Firenze
Archivio privato Bardis di Verno, Firenze
Archivio privato Caravaro Zogas, Firenze
Archivio privato Conti Capponi, Firenze
Archivio privato Almarni, Firenze
Automobil Club Italiano, Firenze
Autostrade SPA, Firenze
Azienda Territoriale Edilizia Residenziale, Firenze
Banca Federico del Vecchio SNC, Firenze
Banca Commerciale Italiana, Firenze
Banca d’America et d’Italia, Firenze
Casa Mutua Provinciale Malattia per i Coltivatori, Firenze
Collegio delle Ostetriche Provincia Firenze, Firenze
Comitato Cittadino di Solidarieta Popolare, Firenze
Credito Italiano, Firenze
Ente Nazionale per la Prevenzione degli Infortuni, Firenze
Fratellanza Popolare, Firenze
Fratellanza Militare, Firenze
Istituto Nazionale di Previdenza e Credito, Firenze
Istituto Nazionale per l’Assicurazione / Melattie, Firenze
Istituto Nazionale di Previdenza e Credito, Firenze
Istituto Gualandi per Sordomuti et Sordomute, Firenze
Opera Nazionale “Pro Derelictis”, Firenze
Opera Pia Carlo Naldi “Figlie der Carcerati”, Firenze
Unione Nazionale Cooperativa e Mutue, Grossoeto
Universita Popolare, Firenze
Umbria
Comune di Santa Anastasia di Narco (PG)
Comune di Torgiano (PG)
Comune di Ferentillo (TR)
Comune di Polito (TR)
Comune di Guardie (PG)
Comune di Città di Castello (PG)
Comune di Montecastrilli (TR)
Comune di Penna in Teverina (TR)
Comune di Spello (PG)
Comune di Umberide (PG)
Comune di Terri
Comune di Città della Pieve (PG)
Comune di Castel Viscardo (TR)
Comune di Monte di Pietà di Castello (PG)
Comune di Piesgare (PG)
Comune di Fabro (TR)
Comune di Montegabbione (TR)
Comune di Foligno (PG)
Comune di Costacciaro (PG)
Comune di Vallo di Nera
Comune di Gualdo Cattaneo (PG)
Comune di Porano (TR)
Comune di Castelgiorigo (TR)
Comune di Gualdo Tadino
Comune di Monteleone di Orvieto (TR)
Comune di Pannano (TR)
Comune di Baschi (TR)
Comune di Trevi (PG)
Comune di Deruta (PG)
Comune di Fossato di Vico (PG)
Comune di Preci (PG)
Repostierygio di Giove (TR)
Comune di Otrocli (TR)
Comune di Citeria (PG)
Comune di Bevagna (PG)
Comune di Narni (TR)
Comune di Monte Castello di Vibio (PG)
Comune di Amone (TR)
Comune di Acquasparta (TR)
Comune di Ficulle (TR)

Lavita
State Archives, Riga

Lithuania
Lithuanian State Archives, Vilnius

Netherlands
14 waterboards, Zuid-Holland
4 municipalities, Zuid-Holland
Municipal archives Dordrecht, Dordrecht
Municipal archives Kessel, Kessel
Municipal archives Oudewater, Oudewater
Municipal archives Wanssum, Wanssum
Municipality Odoorn, Odoorn
Municipality Schalkwijk, Schalkwijk
Municipality Tull en ‘t Waal, Tull
repositories participating municipalities
Repository Tiel, Tiel
State archives Zeeland, Middelburg
Townhall, Ablasserdam
Townhall, Arnhem
Townhall, Goerle
Townhall, Heeze
Townhall, Middelburg
Townhall, Schijndel
various repositories, region Zevenbergen
various repositories, region Zierikzee

Norway
Riksarkivet, Oslo

Poland
Archiwum Akt Nowych, Warszawa, “new records”
Central Archives, Warszawa, sections I, II, III
State Archives Bydgoszc, Bydgoszcz
State Archives Gdansk, Gdansk
State Archives Katowice, Katowice
State Archives Koszalin, Koszalin
State Archives Krawkow, Krakow
State Archives Lodz, Lodz
State Archives Olzytn, Olzytn
State Archives Opole, Opole
State Archives Piotrkows Trybunalskim
State Archives Poznan, Poznan
State Archives Przemyśl, Przemyśl
State Archives Radom, Radom
State Archives Siedlce, Siedlce
State Archives Slupsk, Slupsk
State Archives Suwalki, Suwalki
State Archives Szczecin, Szczecin
State Archives Torun, Torun
State Archives Warszawa, Warszawa
State Archives Wroclaw, Boguszow-Gorce
State Archives Wroclaw, Jelenia Gora
State Archives Wroclaw, Kaszisz
State Archives Wroclaw, Kamieniec
State Archives Wroclaw, Legnica
State Archives Wroclaw, Luban
State Archives Wroclaw, Wroclaw
State Archives Zamosc, Zamosc
State Repository Malbork, Malbork

**Romania**
Archivelor Statului, Bucarest

**Russia**
State Archival Service, Moscou
State Archives, Belgorod
State Archives, Kalinin
State Archives, Karelia
State Archives, Koersk
State Archives, Kostroma
State Archives, Kostroma
State Archives, Noginsk
State Archives, Rostov
State Archives, Saratov
State Archives, Sebastopol
State Archives, Smolensk
State Archives, St Petersburg
State Archives, Stalingrad

**Slovenia**
Arhiv Republike Slovenije, Ljubljana

**Spain**
Archivo General de Indias, Sevilla
Archivo General de la Administracion, Alcala de Henares
Archivo de Renite, Malaga
Archivo del Tribunal Supremo, Madrid
Alava, 12 repositories
Albacete, 5 repositories
Alicante, 10 repositories
Almeria, 11 repositories
Asturias, 118 repositories
Asturias, Archivo de la Audiencia Terr. de Asturias, Oviedo
Asturias, Archivo de la Deleg. Prov. de Hacienda, Oviedo
Barcelona, 23 repositories
Barcelona, Archivo Municipal de Mataro, Mataro
Caceres, 10 repositories
Cadiz, 12 repositories
Castellon de la Plana, Archivo de la Deleg. de Hacienda
Cordoba, 7 repositories
Gerona, 4 repositories
Granada, 50 repositories
Guipuzcoa, 2 repositories
Huelva, 89 repositories
Huesca, 496 repositories
Jaen, Archivo Delegacion de Hacienda, Jaen
Lerida, 117 repositories
Lerida, Archivo Delegacion Provincial de Lerida, Lerida
Madrid, Archivo Municipal, Alcoron
Malaga, 83 repositories
Malaga, Archivo Histórico de la Curia Diocesana, Malaga
Mao, Archivo Histórico Provincial de Hahon, Mao (Hahon)
Murcia, 14 repositories
Santander, 58 repositories
Santander, Archivo de la Deleg. Provincial de Hacienda
Segovia, 2 repositories
Sevilla, 51 repositories
Sevilla, Archivo de la Audiencia Territorial de Andalucia
Tarragona, 47 repositories
Teruel, 480 repositories
Teruel, Archivo Delegacion Provincial de Hacienda, Teruel
Toledo, Archivo Municipal de Toledo, Toledo
Valencia, Archivo de la Audiencia Territorial de Valencia
Vizcaya, 30 repositories
Zamora, Archivo Municipal de Fuentesaico, Fuentesaico
Zamora, Archivo Histórico Provincial de Zamora, Zamora
Zamora, Archivo Junta Pro Semana Santa, Zamora
Zaragoza, 18 repositories

**Suisse**
Archives federales, Berne

**Turkey**
Archives of Ottoman Period, Sultanahmet / Istanbul

**Ukraine**
State Archives of Charkivska Oblast, Charkiv
State Archives of Chernivskas Oblast, Cherniviv
State Archives of Dnipropetrovska Oblast, Dnipropetrovsk
State Archives of Odessa Oblast, Odessa
State Archives of Zakarpatska Oblast, Beregovo

**United Kingdom**
General Register House, Edinburgh
Lawyer’s office, Perth, Scotland,
Public Record Office, Kew, Richmond
Greater London Record Office, London
West Register House, Edinburgh

**Vatican**
Archivio Segreto Vaticano, Citta del Vaticano

**NORTH-AMERICA**
**Canada**
Ontario, National Archives of Canada, Ottawa
Quebec, Centre de doc. semi-actifs du Quebec, Sainte-Foy
Quebec, University Archives, Montreal

**USA**
The National Archives, Washington,

**PACIFIC**
**Fiji**
National Archives, Suva

**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 Colchagua
Gobernacion de Coronel
Gobernacion de Maulin
Gobernacion de Puerto Varas
Gobernacion de Taltalhuano
Gobernacion de Tverte
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
VI regiment of Tarnovo, 1879-1885, 75-100% destr.

Bulgarian Photography, Sofia

Negatives, all, 1-24% dam.


Electrical and Mechanical Part community, Sofia

Bureau politique du CC du PCB, 1976-1977, 75-100% destr.

Scientific and technical publications, 1976-1977, 75-100% destr.

Zivkov, Premier secrétaire, 75-100% destr.

Canada

Centre de doc - actifs du Quebec, Sainte-Foy

Bandes son, coll. s. Place Royale, 1900-1999, 75-100% destr.

Commerce and Industries, 1852-0000, 75-100% destr.

Dossiers de la Commission Lapalme, 75-100% destr.

Ententes e. main-d'oeuvre agricole, 1900-1999, 75-100% destr.

Lettres, 1900-1999, 75-100% destr.

Plan cadastral, 1870-0000, 75-100% destr.

Plan cadastral, 1870-0000, 75-100% destr.

Prix d'excellence décennaux prov, Quebec, 75-100% destr.

Reproductors, 1870-0000, 75-100% destr.

Relations internationales, 1960-1970, 75-100% destr.

Restauration des maisons de Place Royale, 75-100% destr.

Cape Verde

Archives Historique National, Praia

Douanes de S. Nicolae, 75-100% destr.


Commune Osor [Opcina], 1459-1945, 25-74% destr.

Commune Baska, 1849-1941, 1-24% destr.


Capitainerie de port - Puna, 75-100% destr.

Caisse de credit municipal - Baska, 75-100% destr.

Matricules, 1-24% dam.

Actes ecclesiastiques divers, 1-24% dam.

Ecoles primaires et rurales [150], 1920-0000, 75-100% destr.

Museum of Slavonija - Osijek, 1-24% dam.

Match works "Drava" - Osijek, 1-24% dam.

"Opeka" - Osijek, 1-24% dam.

Trade centre, 1-24% destr.

Meat and milk factory - Osijek-Brijest [DP "Proizvodnja mesa i mlijeka"], 75-100% destr.

Gospic, Eggeliee, Centre de culture, Chambre des finances, 25-74% dam.


Institut create des assurances medicales, Kralovic, 1955-1988, 75-100% destr.

Magistrat de la ville - Karlovac, 1905-1905, 75-100% destr.

Predecessors de l'union cooperative - Gospic, 75-100% dam.

Total holdings, few fragments except - 1938-1945, 75-100% destr.

Archives historiques de Osijek, Osijek

Selca Baranja - Knezevo, 75-100% destr.

"Gradina" - Osijek, 75-100% destr.

"Litj" - Osijek, 75-100% destr.

"Nivela" - Osijek, 75-100% destr.

Saponija - Osijek [Progon Nenets], 1-24% destr.

"Sloboda" - Osijek [DP "Sloboda"], 75-100% destr.

Wak - Vukovar, 75-100% destr.

Catering firm "Turist" - Osijek [DP "Turist"], 75-100% destr.


County district - Beli Manastir, 75-100% destr.

County district - Donji Miholjac, 1-24% dam.


County district - Podravska Slatina [registres of births, marriages and deaths - office Vocijn), 25-74% destr.

County district - Vukovar, 75-100% destr.

Court of Law - Vukovar, 1897-200% Cent, 75-100% destr.

E12 - Osijek, 75-100% destr.

General hospital - Osijek, 75-100% destr.

IPK "Oranica" - Osijek, 75-100% destr.

Kombinat "Belisce" - Belisce, 1-24% destr.

Kombinat "Borovo" - Borovo, 75-100% destr.

Meat and milk factory - Osijek-Brijest [DP "Proizvodnja mesa i mlijeka"], 75-100% destr.

MIO "Standard" - Osijek, 75-100% destr.

Museum - ilok, 75-100% destr.

Museum - Vukovar, 75-100% destr.

Propies library and reading club - Vinkovci (manuscripts by a.o, J Kotzar, V.Kovanac) (Narodna knjaznica i cilavonica Vinkovci), 1875- 20% Cent, 75-100% destr.

Reading club - Tovarnik, 75-100% destr.

Registres of births, marriages and deaths of Bapska, Borovo, Ilka, Ilaca, Lovins, Solin, Aljmas, Sarhegrad, Tompojevic, Tordinci, Torjanci, Tovarnik, Zmajevac, 1860-20° Cent, 75-100% destr.

Schools, communities, economy, 75-100% destr.

School center "Ruder Boskovski" - 1-24% destr.

Other colleges BIENZ [postal faculties], 75-100% destr.

Trade centre, 1-24% destr.

"Mobilij" - Osijek, 1-24% dam.

"Opoka" - Osijek, 1-24% dam.


District commercial law-court - Osijek, 1-24% dam.

Match works "Drava" - Osijek, 1-24% dam.

Museum - Dajko, 1-24% dam.

Museum of Slavonija - Osijek, 25-74% dam.

Archives historiques de Pazin, Pazin

Pazin, 1919-1945, 1-24% destr.

County district - Pazin, 75-100% destr.

Pazin, 1919-1945, 1-24% destr.

County district - Pazin, 1875-1948, 1-24% destr.

Archeological works "Drava" - Osijek, 25-74% destr.

Archeological works "Drava" - Osijek, 25-74% destr.

"Kompenz" - Osijek, 1-24% destr.

"Kompens" - Osijek, 1-24% destr.

"Niveta" - Osijek, 75-100% destr.

"LIO" Osijek, 1-24% destr.

"Gradnja " - Osijek, 75-100% destr.

"Vupik" - Vukovar, 75-100% destr.

"Sloboda" - Osijek [DP "Sloboda"], 75-100% destr.
Tartu Oeselische Kreisgericht, 25-74% dam. Wielandaerscher Kreisgericht, 1-24% dam.

Finland
National Archives, Helsinki
Pohjanmaan kunnan kunnan keskus, 1-24% dam. Juuparniemen kunta, 1-24% dam.

Estonia
National Archives of Estonia, Tallinn
Workers' Insurance Union, 25-74% destr. Workers' Insurance Union, 1-24% dam.

Czech Republic
Shabbazovna, 1-24% destr. Shabbazovna, 25-74% destr. Shabbazovna, 75-100% destr.

France
Archives départementales de l'Isère, 1-24% destr. Archives départementales de l'Isère, 25-74% destr. Archives départementales de l'Isère, 75-100% destr.
Various records, 1-24% destr.
Hochstift Würzburg, 0000-1805, 75-100% destr.
Hochstift Fulda, Aemter, 0000-1816, 25-74% destr.
Erzstift Mainz, 0000-1814, 75-100% destr.
Staatsarchiv Nürnberg, Nürnberg
Zentralfinanzamt München, 0000-1929, 75-100% destr.
Polizeidirektion München, 0000-1943, 75-100% destr.
Oberlandesgericht München, 0000-1880, 75-100% destr.
Abloesungskasse, destr.
Staatsgüter- verauszerungsrechnungen, Rechnungen der Isarkasse bzw. Kreiskasse, Staatsfond-, Kreisfond-, Forstfond-
Finanzamt München-Land, 0000-1934, 75-100% destr.
Staatsarchiv München, München
Hypothekenprotokolle, 25-74% dam.
Hypothekenprotokolle, 25-74% destr.
Staatsarchiv Landshut, Landshut
Staatsarchiv Coburg, Coburg
Various records from various record groups, 1-24% dam.
Akten Velle Br., dam.
Oberappellationsgericht Celle, 75-100% destr.
Ministerium der Auswartigen Angelegenheiten, 75-100% destr.
Kammerakten, 25-74% destr.
Kabinettsakten, 75-100% destr.
Grenz- und Hoheitsregistratur, 75-100% destr.
Geld-, kommerz-, und Dienstregister, 75-100% destr.
Geheime Raete, 75-100% destr.
Findmittel, destr.
Amt Bockenem, 25-74% destr.
Niedersächsisches Hauptstaatsarchiv, Hannover
Landeshauptarchiv Koblenz, Koblenz
Various records from various record groups, destr.
Urkunden, destr.
Ambtsbücher, 1750-1800, destr.
Villingen, Kreiskasse Landratsamt, 1-24% destr.
Schoenwald, Gemeindearchiv, 75-100% destr.
Hüfingen, Stadt, 1-24% dam.
Bad Dürrheim, Stadtarchiv, 1-24% destr.
Regierung Wiesbaden, 1803-1816, 1-24% destr.
Kriegsarchiv-Schwarzwald, Baden-Württemberg
Bad Dürrenmatt, Stadtarchiv, 2-14% dam.
Blumberg-Fütter, Gemeindearchiv, 75-100% destr.
Brünnlingen, Stadtarchiv, 1-24% dam.
Bämer, Stadt, 1-24% dam.
Eichendorffsche Privatarchive, 75-100% destr.
Doman, Stadtarchiv, 75-100% destr.
Donauwörth, Landratsamt, 75-100% destr.
Donaustadt, Stadtarchiv, 75-100% destr.
Höfling, Stadt, 1-24% dam.
Schloßwold, Gemeindearchiv, 75-100% destr.
Villingen, Kreiskasse Landratsamt, 1-24% destr.
Landesarchiv Berlin, Berlin
Amtsbücher, 1750-1800, destr.
Urkunden, destr.
Various records from various record groups, destr.
Landesarchiv Potsdam, Potsdam
Landesarchiv Berlin, Berlin
Landesarchiv Saarbrücken, Saarbrücken
Staatsarchiv Frankfurt am Main, Frankfurt am Main
Staatsarchiv Stuttgart, Stuttgart

Greece

Archives of Dodokianos
Hospital of Rhodes, 75-100% destr.
Judicial records, 75-100% destr.
Municipal records, 75-100% destr.
General State Archives of Leross
Fonds d'actualités, 75-100% destr.
General State Archives of Messinien
Fonds d'actualités, 75-100% destr.
Records of the prefecture of Kalamata, 75-100% destr.
Local archives, Kavala region
Almost all records of local and state level and religious organizations, 1800-1944, 75-100% destr.
Local archives, Nauplie region
Almost all records prior to 1845, 1800-1950, 75-100% destr.
State Archive of Hora
General records, 2-14% destr.
General records, 2-14% destr.
Notary archives, 2-14% destr.
Notary archives, 2-14% destr.
State Archives of Chios, Kalloni region
Court of first instance, 75-100% destr.
Department of internal affairs, 75-100% destr.
State archives of Corfu
Actes civils, destr.
Administration municipale, destr.
Administration Venitienne, destr.
Archives notariales, destr.
Documents d'eastéri, destr.
Estimations des olives, destr.
Francois Imeniers, destr.
Republique Settinsulaire, destr.
Tribunal 1er instance, 75-100% destr.
Tribunal corregal, destr.
State Archives of Fracilis, destr.
Prelateral archives of Fraccialis, destr.

Hungary

Magyar Örzégasos Levelez, Budapest
“Heyligau”, 75-100% destr.
Ackerbauerministerium, 75-100% destr.
AmtsPräsidium der Republik, 75-100% destr.
AmtsPräsidium der Republik, 75-100% destr.
Archivum Rakoczianum, 75-100% destr.
Archivum Rakoczianum, 75-100% destr.
Zentralregierungsarchiv, 75-100% destr.
Vorortsakten, 75-100% destr.
Schulregistratur, 75-100% destr.
Sammlungen zur Kriegschronik 1939-1944, 75-100% destr.
Medaillensammlung, 75-100% destr.
Klischeesammlungen, 75-100% destr.
Stadtarchiv Dormundt, Dormundt
Akten, 75-100% destr.
Bücher, 75-100% destr.
Handschriften, 75-100% destr.
Historische Akten, 75-100% destr.
Akten, 75-100% destr.
Stadtarchiv Freiburg im Breisgau, Freiburg im Breisgau
Various records from various record groups, destr.
Stadtarchiv Hannover, hannover
Bürgervorsteher-Kollegium, 75-100% destr.
Magistrat, 75-100% destr.
Registru des Bauamts, 1800-1900, destr.
Stadtarchiv Lübeck, Lübeck
Various records from various record groups, 1100-1825, 75-100% destr.
Various record groups, 1100-1825, 75-100% destr.
Stadtarchiv Möllnchendorf, Möllnchendorf
All records, 1000-1975, 75-100% destr.
Stadtarchiv Nürnberg, Nürnberg
Dienstrregistratur, Filialmittil, Dienstbliheke, 75-100% destr.
Indiensakten, 75-100% destr.
Kanienrechnungen, 1800-1850, 75-100% destr.
Konschsenahmen, 75-100% destr.
Kriegsführungs-und Kriegswirtschaftssstellen, 75-100% destr.
Medailensammlung, 75-100% destr.
Niederschlossungskassen, 25-74% destr.
Sammlungen zur Kriegschronik 1939-1944, 75-100% destr.
Schulegistratur, 75-100% destr.
Statishe Alte, 75-100% destr.
Tschechisches Archiv, 75-100% destr.
Uferlager für die Stadlichtung Aug.-Des. 1944, 75-100% destr.
Vorortsakten, 75-100% destr.
Stadtarchiv Stuttgart, Stuttgart
Various records from various record groups, 25-74% destr.
Stadtarchiv Würzburg, Würzburg
Some current records Rathaus, 1900-1945, 75-100% destr.
Municipal records, 0000-1943, 25-74% destr.
Municipality Odoorn
Municipal archives, 1800-1943, 75-100% destr.
Municipal archives, 1800-1943, 1-24% destr.
Municipality Oosterhout
Municipal records, 0000-1953, 2-4% destr.
Municipality Schijndel
Civil registration, 1900-1926, 75-100% destr.
Municipality Shinchou
Municipal records, 1321-1931, 75-100% destr.
Municipality Serooskerke
Municipal records, 0000-1953, 2-4% destr.
Municipality Sint-Pietersberg
Municipal records, 1797-1953, 25-74% destr.
Municipal records, 1813-1933, 25-74% destr.
Municipality Tull en Wijgal
Civic registration, 1900-1936, 75-100% destr.
Municipal Archives Dordrecht
Shipping Company Blusse, 75-100% destr.
Freemasons “La Flamboyante”, 0000-1940, 75-100% destr.
Regional Archives Tiel
Tiel Municipal archives, 1813-1944, 2-4% destr.
Tiel Municipal archives, 1245-1813, 2-4% destr.
Regional Archives Zevenbergen
Ecclesiastical archives of Zevenbergen and Dintelooord, 1944-1970, 75-100% destr.
Municipal archives of Klundert, 0000-1953, 75-100% destr.
State archives Zeeland, Middelburg
Various record groups, 1400-1900, 75-100% destr.
Polder Ruigenhil
Archives du polder, 0000-1953, 75-100% destr.
Polders Schouwen-Duiveland
Adriana Johanna, Dreischou, Schouwen, 1953-1974, 2-4% destr.
Vicararies Schouwen-Duiveland
Reformed churches Ostganderland, Nieuwerkerk-Oosterganderland, Dreischou, Oosterganderland, Elkersee, 0000-1953, 75-100% destr.
Nigeria
National Archives Enugu, Enugu
Chief Secretary Office Enugu, 1-24% destr.
Norway
Riksarkivet, Oslo
German civilian occupying authorities:
Gestapo, 1940-1945, 75-100% destr.
Riensalbauru, 1940-1945, 75-100% destr.
German records:
ruthless Soviet and few thousand Polish and Yugoslav POW, 1944-1945, 75-100% destr.
for German political prisoners / forced labour, 1944-1945, 75-100% destr.
Organisation Todt, 1940-1945, 75-100% destr.
Papua New Guinea
National Archives, Boroko
German New Guinea Records, 0000-1914, 75-100% destr.
Peru
Archivo General de la Nación, Lima
Cabillos, 1-24% destr.
Campesinado, 1-24% destr.
Compania de Jesus, 1-24% destr.
Guerra, 1-24% destr.
Libro de Cuentas, 1-24% destr.
Mineria, 1-24% destr.
Prototipos Notariales, 1-24% destr.
Real Aduna, 1-24% destr.
Real Audiencia, 1-24% destr.
Real Hacienda, 1-24% destr.
Real Tribunal del Consulado, 1-24% destr.
Reales Cajas, 1-24% destr.
Superior Goberno, 1-24% destr.
Temporalidades, 1-24% destr.
Tribunal de Santa Inquisicion, 1-24% destr.
Poland
Archiwum Akt Nowych, Warszawa
38 record groups, destr.
Central Archives, Warszawa
87 record groups, destr.
Archiwum Koronowej Krakowskiej (Zbior dokumentow pagonowych), destr.
Ksieg prodzinkie warszawskie, relacje, dam.
State Archives Bydgoszcz, Bydgoszcz
Akte der Stadt Bydgoszcz, 1-24% destr.
Kgl. Preus. Generalkommission für Westpreussen und Posen in Blomberg, 75-100% destr.
State Archives Gdansk, Gdansk
genealogies of Pommeranian cities, towns and monast., dam.
230 record groups, library, 1198-1945, 75-100% destr.
State Archives Kajsowice, Kajovice
20 record groups, 75-100% destr.
36 record groups, 75-100% destr.
6 record groups, 25-74% destr.
5 record groups, 1-24% destr.
Archives of Krakow, Krakow
Acta Castrensis Oscescinium, 75-100% destr.
Acta Terrestri Cracovienis, 1374-1796, 1-24% destr.
Acta Terrestria Cracoviensis, 1392-1796, 1-24% destr.
Acta Terrestria Zatoris, 1440-1778, 25-74% destr.
Acta cechu siodlarmy krakowskich, 1531-1884, 2-4% destr.
Acta Miasta Nowego Sacz, 1418-1848, 2-4% destr.
Caterynovskaya gubernska pravliniia, 75-100% destr.
Dneproskyi metalurgical plant, 1-24% dam.
Exec. Committee Dnepropetrovsk gubernian Council, 25-74% dam.
State Archives of Cherkivska Oblast, Cherkiv
Cherkiv 1st cable plant, 1-24% destr.
Cherkiv city council, 75-100% destr.
Cherkiv gubernska pravliniia, 1-24% destr.
Cherkiv medical-pedagogical institute, 75-100% destr.
Cherkiv technology institute, 1-24% destr.
Cherkiv treasury chamber, 25-74% destr.
Cherkiv University, 75-100% destr.
Novo-Olesky institute of agriculture, 75-100% destr.
Southern Railway, 75-100% destr.

Chernigiv:
Cartography of Chernigiv guberniya, 75-100% destr.
Chernigiv:
- Chamber of civil court, 75-100% destr.
- Chamber of criminal and civil court, 75-100% destr.
- Chamber of criminal court, 75-100% destr.
- Chamber of state properties, 75-100% destr.
- City apartment commission, 75-100% destr.
- City duma, 75-100% destr.
- City uprava, 75-100% destr.
- Congress of mirovii judges, 75-100% destr.
- Conciliatory court, 75-100% destr.
- Control chamber, 75-100% destr.
- District court, 75-100% destr.
- District court, prosecutor's office, 75-100% destr.
- General court, 75-100% destr.
- Guberniya committee on preservation of forests, 75-100% destr.
- Guberniya leader of nobility, 75-100% destr.
- Guberniya prosecutor, 75-100% destr.
- Guberniya statistical committee, 75-100% destr.
- Guberniya zemsta uprava, 1-24% destr.
- Nobles deputies' meeting, 75-100% destr.
- Treasury chamber, 75-100% destr.

City municipalities of Chernigiv guberniya, 75-100% destr.
District courts of Chernigiv guberniya, 75-100% destr.
Dobryanka posad duma, 75-100% destr.
Dobryanka posad uprava, 75-100% destr.
General military office, city Gluhiv, 75-100% destr.
General Leader of Nobility, 75-100% destr.
Malorossia Board, city Gluhiv, 75-100% destr.
Office of Chernigiv Civil Governor, 75-100% destr.
Oster city duma, 75-100% destr.
Posad municipalities of Chernigiv guberniya, 75-100% destr.
Tax office (indirect taxes) 1st district, 75-100% destr.
Town halls of Chernigiv guberniya, 75-100% destr.
State Archives of Odessa Oblast, Odessa
Demidiyskiy regional council, 75-100% destr.
General-Governor of Novorussia and Bessarabia, 25-74% destr.
Memmonites Community, 1-24% destr.
Odessa branch of Pesants Land Bank, 75-100% destr.
Odessa city and interdistrict archival administration, 75-100% destr.
Odessa Council, food committee, 75-100% destr.
Odessa Customs-House, 1-24% destr.
Odessa district court, senior rotary, 25-74% destr.
Odessa district department of education, 75-100% destr.
Odessa district financial department, 75-100% destr.

Odeska contora of foreign settlers in S. Russia, 1-24% destr.
Odeska miska uprava, 25-74% destr.
Rishchevskoe college, 25-74% destr.
Trusteeship com. on foreign settlers in S. Russia, 25-74% destr.
V.V. Shugin, personal records, 75-100% destr.
Vital statistics, subdivision, 75-100% destr.
Financial directorate of Transnistria province, 75-100% dam.
Inner Post of Odessa porto-Franco, 75-100% dam.
Odessa building committee, 25-74% dam.
Odessa city head, 25-74% dam.
Odessa Customs District, office of the head of, 75-100% dam.
Odessa Customs-House, 75-100% dam.
Odessa Port Customs-House, 75-100% dam.
Prelodecta of Balta district, 75-100% dam.
Rishchevskoe college, 75-100% dam.
Trusteeship Com. on foreign settlers in S. Russia, 75-100% dam.
State Archives of Zakarpatska Oblast, Beregovo
Muckachevo Basilian Monastery, 75-100% dam.
Muckachevo Basilian Monastery, 1-24% dam.

United Kingdom
General Register House, Edinburgh
Register Office, London
Chamber vouchers, 1700-1900, 9st dr.
Chamberlain's freedom records, 1930-1941, 1-24% destr.
committee papers, 1938-1940, 1-24% destr.
common council papers, 1930-1940, 1-24% destr.
common councilmen, index and list, 1-24% destr.
officers of the City, list, 1-24% destr.
printed reports card index, 1-24% destr.
rate books [local taxation], 1934-1939, 1-24% destr.
records office reference library, 1-24% destr.
reports to court of Aldermen and Committees, 1-24% destr.
Sessions records, guide and calendar, 1-24% destr.
Chamberlain's freedom records, 1600-1940, 1-24% dam.
contemporary records, 1930-1940, 1-24% dam.
West Register House, Edinburgh
Sheriff Courts, various, 1-24% dam.

USA
The National Archives, Washington
Airforce personnel records, 1947-1963, destr.
Army personnel records, 1912-1959, destr.
MCA - Universal Outtake Film, 1939-1951, destr.
Army personnel records, 1947-1963, 75-100% dam.
Army personnel records, 1912-1959, 75-100% dam.

Uzbekistan
Agricultive 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% destr.
Ecrits academiques, 1-24% dam.
Ouvrages divers, 75-100% destr.
Periodiques scientifiques relies, 75-100% destr.
Usuels de la soute de lecture, 75-100% destr.
Usuels, 1-24% dam.

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