

**The use of Information Technologies at the National Bank of Greece Historical Archive: Safeguarding archival material and creating powerful information retrieval tools for researchers**

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**Introduction:**

The National Bank of Greece Historical Archive (NBG/HA) was set up for the purpose of preserving, displaying and making the use of archives, deemed to be of historical importance, possible for researchers. In order to achieve its goal the NBG had to provide its Historical Archive with appropriate infrastructure which could guarantee proper archive safeguarding standards and facilitate easy access to the archives of anyone interested in consulting them. At the same time the NBG/HA considered that it was important to organize exhibitions, educational programs, research programs and publications on economic history in order to project its work among pupils, students and the public and to indicate the importance of a Bank's archive as a source for the study of Greece's economy, society and culture.

Our presentation, "*The use of Information Technologies at the National Bank of Greece Historical Archive: Safeguarding archival material and creating powerful information retrieval tools for researchers*", will present in brief all the activities of the Historical Archive with emphasis on Digitization and Microfilming and the use of a powerful information system which supports all in-house archival work (acquisition and appraisal, arrangement, description and creation of appropriate finding aids) based on the International Standard of Archival Description of the International Council on Archives.

**National Bank of Greece**

The National Bank of Greece, founded in 1841, is the oldest and largest bank operating today in Greece. It started as a private discount and mortgage institution with the exclusive right to issue banknotes.

In the years that followed, and until 1928, the bank's activities gradually expanded to commercial, agrarian and industrial credit. The Bank assumed the right to invest capital in transport services, maritime enterprises and public works. The Bank

financed public works such as the opening of the Corinth Canal, the construction of roads, ports and railways. With interim loans and open accounts the bank also assisted public finance, covered the state budget deficits and subscribed to national loans. The NBG very early established a branch network and gradually expanded its activities throughout Greece and abroad by opening branches and by merging with banks that either operated regionally, such as the Bank of Epirus-Thessaly (1899), the Bank of Crete (1919) or internationally, such as the Bank of Athens which had extended its business outside the confines of the Greek state into the prosperous Greek communities of the Middle East with branch offices in Turkey, Egypt and Cyprus.

The year 1928 marks a major turning point for the Greek banking system. With the assistance and designs of Britain the Greek banking system is reorganized. National Bank of Greece loses its exclusive right to issue banknotes, which was transferred to the new Central Bank of Greece, the Bank of Greece, transfers its agricultural credit to the Agricultural Bank of Greece and its mortgage credit to the National Mortgage Bank of Greece, banks specially founded for these reasons.

Over the course of its 165 year history, the bank's activities gradually expanded to encompass the full range of credit and financial services. Lately the bank developed the National Bank of Greece Group, which, besides playing an essential role in the domestic economy, today constitutes a major financial force in the Eastern Mediterranean and the Balkans.

### **The Historical Archive, National Bank of Greece (H.A./NBG)**

Since its foundation, in 1841, National Bank of Greece has always been aware of the importance of the preservation of its records.

In an organisation chart drawn up in just the second year of the Bank's operations, Georgios Stavros, the Governor of the Bank at the time, specifically assigns responsibility for the proper maintenance and safekeeping of the records of the Bank.

Indeed, the Bank's concern for the safekeeping of its archives is apparent from a number of initiatives taken by the bank over the 165 years of its history. For instance, in 1894 NBG published an inventory of its general archives, and in 1925 it built the first purpose-built archive in Greece. NBG's desire to make full use of its extensive archives for historical reasons was made clear from 1938 onwards. In 1938, as part of the Bank's preparation for its upcoming centenary celebration in 1941, the decision

was taken to create a separate Historical Archive Department in addition to the existing General Archive Department. The Second World War postponed all actions related to the decision to establish the Historical Archive. The year 1962 marked a turning point for the archives of the Bank in respect of both operational needs and the preservation of documents of potential historical interest. The Historical Archives Service was set up again. The mission of the new Service was to assemble books and documents illustrating the development of the Bank over the years and to classify and inventory them properly so that they may serve as sources or reference for historical monographs and other study projects. The work of the Historical Archive was suspended once more following the 1967 military coup, but the department was brought back into service in 1977. The fall of the dictatorship marked the beginning of an era of prosperity for the Bank's archives which lasts to this day. The Historical Archive was assigned with the tasks of modernizing the management of the records within its jurisdiction (1841-1940) and of ensuring that the records in its possession were made fully available to interested academics. Today the Historical Archive is an independent Subdivision of the Bank which reports directly to the President of the Bank.

The archives of the Bank have always been among its priorities. However, the importance placed on the archives in the age prior to the emergence of modern concepts of archive management and utilisation indicates an increased awareness reflecting the presence of an 'archive culture', at least among NBG's management. Information contained in the archives of the Bank was considered to have fundamental and continuing value for administrative, fiscal, legal, evidential or historical purposes.

The main task of the H.A. was to implement an archival preservation program to ensure adequate protection of the records of the Bank whatever their date, form or appearance, which are no longer in service, i.e. have ceased to be needed for current business. These records were preserved, either as evidence of origins, structures, functions and activities or because of the value of the information they contain for access by present and future generations of researchers and academics. Archives document human experience and serve as civilization's collective memory.

By safeguarding the archives of the Bank, the Historical Archive safeguarded a part of the country's cultural heritage. The archives of NBG are extremely important for the economic, social and political history of Greece since the Bank is not only the

largest bank operating in the country but was also, until 1928, the ‘central bank’, administering all the finances of the Greek state. If it had not been recognized early on that certain records of the bank were worth saving for posterity, NBG’s historical documents would have survived only by accident.

At the same time, the executives of the Bank admitted that the archives should be accessible to the public for research purposes, thus making their preservation meaningful.

Underlying this general principle are a number of assumptions:

- Firstly, the principal aim of the Archive is to make its material available for use, and not merely to preserve it.
- Secondly, preservation concerns information and knowledge.
- Thirdly, the word ‘adequate’ implies that there is no ultimate or perfect solution to the preservation challenge and that there are ways to approach solutions.

## **Acquisition and Appraisal strategy**

### **A. Acquisition**

Since the resumption of its activities in 1977, the Historical Archive has developed a specific strategy which makes explicit its priorities regarding the acquisition of additional archival material. Accordingly the Historical Archive gives absolute priority to the preservation of NBG’s in-house archives. The Historical Archive acquires archival material of this sort by making a proposal to the executive in charge, requesting that the specific documents that are no longer of any operational value and for which an adequate period of time has elapsed since their creation to safeguard the Bank’s own interests be handed over to the Archives. To date, NBG’s entire archives dating from 1841 until 1966 have been turned over to the Historical Archive. Second highest priority is given to the preservation of the personal archives of former senior executives of NBG such as Governors/Presidents, Managers and the historical archival material of banks with which NBG has merged. The Historical Archive NBG also makes an effort to preserve archives of companies which were taken over by the bank, usually following bankruptcy. Acquisition rules adopted in such cases, are the following:

1. The Historical Archive apply strict criteria for the selection of companies records, taking into account their importance to the Greek economy and Greek society as a whole, the nature of their relationship with NBG, the uniqueness of their activities, the age of the companies and their size.
2. The archives of companies which, following the application of the above criteria, are not considered suitable for preservation should be handed over to the General State Archives or to a private archive if they wish to preserve them due to their interest. It was in such a manner that the archives of several companies active in Greek provinces (e.g. The Glavanis archives in Volos and the Droulias raisin factory archives in Aigion) have in recent years been handed over by the Bank to regional offices of the General State Archives.

The following archives passed into the possession of NBG after its merger with other banks.

1. The National Mortgage Bank of Greece Archive, 1927-1998
2. The Bank of Athens Archive, 1893-1953
3. The Orient Bank Archive, 1904-1932
4. The Bank of Crete Archive, 1899-1919
5. The Bank of Epirus-Thessaly Archive, 1882-1899

## **B. Appraisal**

The most significant archival function is the evaluation of the mass of records and the selection of the portion that will be kept. The evaluation of records is based upon their current administrative, legal, and fiscal use; their evidential and informational or research value; and their relationship to other records. Appraisal is the most challenging work of the archivist. Because archival materials are usually unique, the archivist's decision about what to save and what to destroy is irrevocable. The archivist bears responsibility for deciding which aspects of society and which activities will be documented for future use.

The archivist in order to appraise records will study their age, volume and form and will analyze their functional, evidential and informational value.

The records of the National Bank remained full and intact from the time the Bank was established, in 1841 until 1917. The management of the records was the responsibility of the Bank's Office, later renamed Secretariat, and, later still General Secretariat. It was in 1917 that it was first decided to evaluate the older material and

to decide what part must be kept and what part must be destroyed as worthless records. In 1920, a record survey was conducted to gather information about the records that are created in NBG and how they relate to the activities and functions of the Bank. Once the information about records created was gathered the Bank drafted a disposal schedule which listed records at series level and codified disposal decisions. In 1922 these proposals were put into effect. Later, in 1962, the record disposal schedule of the Bank was updated. It also specifically provided that “as of the date of the establishment of the Historical Archive, no archival material should be destroyed, without prior notification of the Historical Archive Service. The Historical Archive Service was entitled to request certain records to be sent to it, or to request postponement of the disposal until material to be destroyed were examined. More detailed guidelines also provided that any archival material pertaining to the period 1841-1900 is listed as historical material and therefore to be preserved. Finally today as a general rule, branch records undergo more radical purging, whereas a different practice is followed in respect of Central Administration records. This is due to the fact that the Bank’s activities are very centralized and nearly all precious information is gathered at the Central Departments of the Bank.

The surest proof of sound records appraisal lies in the ability of the Historical Archive to answer most of the researcher’s requests which in return grows its reputation among the administrators, scholars and the public it serves.

The following examples are characteristic of sound records appraisal practices of the Historical Archive of National Bank of Greece.

### **Case Study 1**

Few years ago the Jewish Community in Greece researched evidence and proof of the fact that the Jewish Community in Salonica, in 1943, had paid the German Occupation Forces a big amount of money in order to avoid deportation which unfortunately was not avoided. The German state argued that the sum had been given personally to bribe a German officer and that the German State had no involvement in the transaction. The return (cancelled) cheques of the Bank of Thessaloniki proved that the German State had cashed at least 7 cheques.

How did it happen and the Historical Archive had preserved such documents when archivists maintain that cancelled cheques are often without value<sup>1</sup> or of no historical value (Cheque books and returned cheques. Unusual cheque books are often encountered, but unless they can be used as exhibition items because of the quality of their lettering and illustration, they are of little interest as historical evidence. Equally, returned cheques should also be destroyed at the end of the perspective period of 10 years. It should be noted that historic cheques are “collectors” items, and they therefore have a financial value unrelated to their archival usefulness)<sup>2</sup>.

Indeed, in 1993, the Historical Archive received from its intermediate storage area in the city of Salonica, records of The Bank of Thessaloniki Branch. The records consisted uniquely of account books and returned cheques and different receipts of the Branch.

Studying the records in order to decide if they were worth keeping we finally arrived to the decision to preserve them and this thanks to the application of specific appraisal criteria, in spite of the fact that in a first approach we were persuaded that they lacked any significant value. The appraisal criteria that guided us to preserve the records were the following:

1. The importance of the Bank in the regional economy of northern Greece.
2. The absence to our knowledge of other records of the Bank of Thessaloniki documenting its activities. As probably the only remaining documents of the Banks activities archival appraisal principles recommend that we have to consider keeping them, even if the documents do not contain essential information about the activity of the Bank. (Uniqueness)
3. The troubled historical period (1940-1945) records referred to for which we suspected that precious information may have been destroyed accidentally or in purpose.
4. The small volume of the records which demanded little storage space.

The Bank of Thessaloniki was founded in the city of Salonica in the year 1888 by the Fratelli Allatini Family, the Comptoir d'Escompte de Paris, the Imperial and Royal Privileged Bank of Austria and the Bank of Hungary. Later the majority of the shares of the Bank successively passed to Societe Generale de Paris, to Credit Foncier

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<sup>1</sup> Maynard J. Brichford, *Archives & Manuscripts: "Appraisal & Accessioning"*. SAA Basic Manual Series, Chicago 1977, p.23.

<sup>2</sup> Michael Moss, "Accounting records" in *Managing Business Archives*. Edited by Alison Turton, Oxford 1991, p.150

de Algerie et de Tinisie and to a group of Jewish interests. Its headquarters remained in the city until 1909 and then transferred to Istanbul. The Salonica Branch of the Bank remained in Salonica and in 1946 merged with the Chios Bank. The Archive of the Bank of Thessaloniki consists of records of current accounts, securities, cashier records, journals, ledgers and files of incoming correspondence, etc

## **Case Study 2**

A representative of a small village in the region of Thessaly was searching for title deeds of persons of his village who had purchased from the Bank of Epirus-Thessaly, in 1889, a big piece of land near their village, had lost their titles, and wished to contest every inch of ground that was theirs.

The Historical Archive was able to satisfy their demand thanks to the application of the following sound record acquisition and appraisal practices:

1. The Bank of Epirus-Thessaly Archive was preserved by the National Bank when the two Banks merged in 1899.
2. The National Bank Legal Department had preserved all the files in its custody until they were transferred to the Historical Archive.
3. The Historical Archive National Bank of Greece has estimated that the informational value of the Legal Departments records is sufficient to justify the costs of their permanent retention, description and preservation. We believe that in the absence of systematic preservation programs in other private corporations and state institutions in Greece the Historical Archive is the only institution that has preserved in its archives valuable information related to economic activities of individuals and Greek enterprises.

## **Arrangement and description**

Arrangement is the process of organizing records in accordance with the accepted archival principles of provenance and original order. This means that we first have to examine the records to determine their original order and then reorganize them into that order, which involves reboxing, labeling and shelving the records.

Description is the process of recording standardized information about arrangement, contents and formats of the records so that persons reading the descriptions are able to determine whether or not the records are relevant to their research. The arrangement and description processes produce descriptions of the

records, arranged according to provenance, providing a structural view of the records. Finding aids present this information in a variety of ways supplementing it with additional information and indexes to help users find their way into the records.

The Historical Archive of National Bank has set priorities for Arrangement and Description. The key questions we had to answer setting priorities where:

1. Which collections to do first?
2. What level of detail is required?
3. How much time to spend on each collection?

We immediately realized that priorities would be different if we decided to choose to satisfy requests of the Bank related to its recent functioning or if we decided to satisfy requests of researchers searching older and more general information on the development of the Greek economy and the foundation and development of private and public enterprises.

After carefully evaluating the situation we have decided to arrange and describe the records of the Bank in the following priority, in order to satisfy both the Bank's management and the researchers' demands:

- Articles of Association -Bylaws- Organization Charts
- Personal papers of Governors and Senior Executive officers
- Minutes of Meetings
- Annual Reports
- Circulars
- Public and Private Loans
- Shareholders
- Archives of merged Banks
- Correspondence
- Branches
- Industrial Credit
- Agriculture Credit
- Bank of Athens
- Audits
- Legal Division records
- Technical Services records
- Exchangeable property management division



## **The use of Computers: Creating powerful information retrieval tools for archivists and researchers**

Since archives exist in order to store and retrieve information they are appropriate for adaptation to computer methodology.

In 1996, the Historical Archives decided to take in consideration the evolution of computer technology and the possibility of using Electronic Data Processing in archival operations. We asked our collaborator on information technologies at the time, Mr. G. Mitrofanis, to investigate the problem, in collaboration with our archivists, and to prepare a report on the advantages and disadvantages of each technological solution presented.

The developments in data and network technologies, with their constantly improving capacity to store, retrieve and transmission of document images, opened the way for new forms of uses of the archives which we realized needed to be incorporated into our Archive preservation program.

The report, which took into consideration international research on the subject, was submitted a few months later and concluded that the Historical Archive should computerize its archival operations. The report added that “the system should be capable of operating in a local computer network supporting the electronic processing of the whole range of in-house archival operations: access, classification and description, inventory control and retrieval of archival material. The design of the system’s databases and tables should comply with internationally accepted standards for archival description, the General International Standard Archival Description, ISAD (G) developed by the International Council on Archives Committee on Descriptive Standards. The system should support the production and dissemination for digital images of primary archival material. The system should secure the authenticity and safety of the disseminated digital images. The system should allow the compilation and maintenance of electronic search aids. These search aids should link to digital images of primary archival material. The system should provide access to finding aids, and correspondingly to the digital images of the original archival material, by means of a common end-user interface”<sup>3</sup>.

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<sup>3</sup> George N. Mitrofanis, “Encoded Archival Description (EAD) and the dissemination of historical information. The application of EAD in the National Bank of Greece Historical Archives. Proceedings of the DLM-Forum on electronic records. European citizens and electronic information: The memory of the Information Society, p.271-279

The archival and historical information system, a database program created by Ethnodata Company in 1997 to meet the needs of the Historical Archive of NBG enables us to store, organize, update, sort and retrieve a large amount of information, for a variety of purposes. By computerizing detailed information on records we have gained a better intellectual control over our archives' holdings.

So far we have stored in our archival and historical information system 310.000 files and 15.500 accounting books. If we list the records series by the amount of files already processed we have the following order of the most important in volume archival series of HA/NBG

• Legal Division	116.000 files
• Shareholders	84.000
• Private and public loans	52.000
• Industrial Credit	12.000
• Bank of Athens	11.000
• Exchangeable Property Management Division	12.000
• Audits	1.800
• Minutes of Meeting	1.700
• Branches	1.200
• Correspondence	1.700
• Personal Papers of Governors and CEO	1.400
• Agricultural Credit	1.800
• Technical Services	1700

The files of the Legal Division were transferred to the Historical Archive recently in 2002. As we estimated that these files were of great interest for researchers we decided to give absolute priority to their arrangement and description and to record the information in a computer system in order to make possible the use of these records as soon as possible and to facilitate researchers. We decided that we would not weed the files and this process could wait as weeding must take place before microfilming in order to avoid unnecessary cost of microfilming material that may be destroyed (such as routine acknowledgments, circulars, notifications, requests, duplicates or extra copies of letters, preliminary drafts of letters, memorandums and reports, informal notes etc) without losing information. Fortunately the original

order of the files had not been disturbed. In order to make accessible the files of the Legal Department as soon as possible we decided that the title of the file, which nearly always includes the name of the individual or the name of the company concerned, and the dates of the records would be the only information recorded in our computer system. We have discovered that this is sufficient as researchers generally relate their enquiries to the name of a person or organization, to a particular date, to a geographical area to an event or to a combination of these.

The use of the archives is essential. Past, present, and future demand must justify retention. A long run of unique, understandable, and accessible records that will never be consulted by researchers is a bad investment of precious archival resources.

### **Preservation activities of the Historical Archives, National Bank of Greece (H.A./NBG)**

The goal of preservation is to achieve that records in archival custody do not deteriorate and that they are protected in order to survive as long as possible. Here we have to distinguish between two different activities. Those that prevent or significantly retard deterioration (Preservation) and those that address damage that has already occurred (Conservation). Archival records deteriorate due to a number of interrelated factors, including the chemical and physical stability of specific materials, storage under adverse environmental conditions, and such external causes as excessive or careless handling, and loss or destruction brought about by human-induced or natural disasters.

In the context of its preservation program, the H.A./NBG has taken a wide range of appropriate measures over the years.

1. The H.A./NBG conducted a series of periodical surveys of the archival repository's microenvironment in order to take appropriate measures to control and eliminate as far as possible variations in temperature, relative humidity, light, dust, gases and pests, in collaboration with institutions and companies specializing in conservation matters. The results of these surveys prompted the Bank to finance the renovation of the building that houses today the Historical Archive. The environmental conditions of the Archive are now monitored on a 24-hour base.

2. The H.A./NBG conducted surveys assessing the scope and nature of deterioration within collections. These controls were conducted in collaboration with other institutions. To give one example the H.A./NBG proposed to the Laboratory of Organic and Environmental Technologies at the National Technical University of Athens' Department of Chemical Engineering to study the archival material contained in its collections and to determine the causes (including humidity, heat, light and air pollution) and degree of paper deterioration. In order to determine the problems related to ageing of paper-made archival materials the Laboratory carried out multivariate, fluorescence spectra-based analysis. The research, which is still under way, has produced interesting results as to the preservation conditions existing in the repositories of the NBG in comparison with the conditions existing in the Greek National Library. The results of the research enable us today to assign dates to undated papers within our collections.
3. Preparing contingency plans in case of fire, flood, storms, earthquake and other natural or human disasters.
4. To obtain storage systems that protects records.
5. To establish policies on use of holdings by patrons and staff via the use of micro-reproduction and information technology to avoid frequent and indiscriminate use and handling of records.

Here we shall describe the use of Micro-reproduction and Information Technology by the Historical Archives Department in order to produce copies of the records in other formats so as to allow the H.A./NBG to

1. Avoid possible damage from improper handling by providing researchers with copies of the archival material in other formats.
2. Minimize the possibility of losing valuable information in the event of a natural disaster (earthquake, fire, flood, etc) by keeping duplicates of the archival material.

### **Microfilming**

A few years after reopening, in 1980, the Historical Archives Department of National Bank of Greece adopted a photographic program to produce reduced-size

images of textual or graphic material on film of its records, which over the years since then has evolved to adapt itself to technological changes.

The micro-reproduction program adopted then, after a thorough assessment of its needs conducted by the Historical Archives Department in collaboration with the Bank's Organization Division was planned mainly to serve two distinct roles in the Historical Archives. It was introduced as a preservation technique that would gradually allow the Historical Archives to obtain safety copies of the records, which could be stored separately and thus protect the Historical Archives from the possibility of losing valuable archival material in the event of natural disaster. It was also introduced to enable the Historical Archives Department to withdraw the most valuable, vulnerable or used records from regular use and substitute copies. Although microfilming is an expensive undertaking and diverts considerable resources from other, important tasks, the Historical Archives adopted the project in the belief that it was an important step towards securing its collections.

Of course microfilming is not a solution to all archival problems. It certainly will not improve access to poorly organized records, and indeed, will make them even less accessible, since it is generally harder to browse through microfilms than through hard copy. This means that before microfilming the archival staff must thoroughly appraise, arrange and describe the material. We also have to face the fact that researchers and the public in general do not like viewing microfilms and prefer to see the original material.

Making a collection camera-ready, as proved by experience and described in the Archives Microfilm Manual (published by the Research Libraries Group Inc in 1994), also includes such activities as:

- Unfolding and flattening material
- Weeding or flagging duplicates and other material that should not be filmed
- Removing fasteners and attachments
- Disbanding items with very tight gutter margins
- Removing surface dirt, mold, tape, and other blemishes that obscure the informational content of documents
- Repairing or enclosing in polyester sleeves items that would otherwise be too fragile or fragmented for filming

- Determining reel breaks
- Creating and inserting targets to convey information to the film user and special instructions to assist the camera operator during filming.

Preparing material for filming is a time-consuming and expensive process that involves a number of staff<sup>4</sup>.

As Nancy E. Elkington and Gary M. McLerran explain archival material also presents various obstacles to efficient microfilm production that typical library material does not present. “The most significant difference lies in the nonlinear nature of archival material. Although printed volumes come in all shapes, sizes and colours they nevertheless are internally sequential and predictable in nature. To a large extent, once the camera operator has established the settings appropriate to the volume in hand, he can often film all 50, 100, 500, frames without further adjustments. Such a situation permits the operator to develop a pace that facilitates fast, accurate work by experienced staff. Developing a fast and even pace is not normally possible when filming archival collections. Instead, the camera operator must assess nearly every item as an individual piece and consider a number of variables before exposing each frame of film:

- Position of a single item on the film surface in accordance with size and shape.
- Position, organization of multiple items (e.g. loose clippings) on the film surface.
- Shape of frame on film depending on item position and size.
- Necessity for interleaving or backing to minimize effects of show-through and bleed-through.
- Lighting and exposure based on contrast
- Degree of existing or potential damage due to fragile condition”<sup>5</sup>.

The H.A./NBG, after carefully examining the needs that existed, the resources required and available to meet those needs, and after examining different options, decided to perform, in house, all tasks associated with the preparation of the materials to be microfilmed as well as the actual filming. This decision was taken principally in

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<sup>4</sup> Anne R. Kenney, “Preparation of Materials”, Archives Microfilming Manual, The Research Libraries Group Inc, California 1994, p.26-27.

<sup>5</sup> Nancy E. Elkington and Gary W. McLerran, “Microfilming Archival Documents”, Archives Microfilming Manual, The Research Libraries Group Inc, California 1994, p.52-53.

order to avoid having to transfer the archival material elsewhere outside its repository.

The microfilming project included:

1. Production of a master negative
2. Creation of a duplicate copy for use

To achieve these goals the Historical Archives had to possess adequate storage and laboratory space, purchase microfilming cameras, a film developer machine, a duplicator, reels, storage materials and identification and labeling materials, and microfilm readers and printers.

The first four cameras purchased (RECORDAK STARFILE MICROFILMER RV-2) using 16mm roll film soon proved to be inadequate for the purpose, because they could not film documents bigger than A4 size, which is not the most usual size for documents of the 19<sup>th</sup> and early 20<sup>th</sup> centuries. Only the planetary Kodak camera (RECORDAK MICRO-FILE-MACHINE MOD.MRD.-2) using 35mm film covered the quality of microfilm needed. Film used for the master negative is the KODAK Imagelink H.Q.Estar Base ISO10602).

We needed also to acquire a film developer machine (MARPLE).

We needed to acquire a film duplicating machine (REAL). Film used for the production of a duplicate negative is the KODAK Direct Duplicating Microfilm 2468.

We needed to acquire a Canon microfilm reader printer, and four Dukane microfilm readers.

By 2007, the Historical Archive had microfilmed 95% of the archival material in their holdings dated until 1900 and 60% of the material in their holdings dated until 1940, producing around 4.800 reels of film.

### **Microfilming and/or digitization of archives. Preservation and/or dissemination of digital images and information**

In 1996, the Historical Archives decided to review the microfilming project.

The question raised at that point was the following. Should the Historical Archives of the National Bank of Greece continue to microfilm or opt for the digitization of the collection? We asked our collaborator on information technologies, Mr. G. Mitrofanis, to investigate the problem, in collaboration with our archivists.

The report, which took into consideration international research on the subject, was submitted a few months later and concluded that there was a necessity to perform

both tasks microfilming and digitization of archives.. The system should support the production and dissemination for digital images of primary archival material. The system should secure the authenticity and safety of the disseminated digital images. The system should allow the compilation and maintenance of electronic search aids. These search aids should link to digital images of primary archival material. The system should provide access to finding aids, and correspondingly to the digital images of the original archival material, by means of a common end-user interface”<sup>6</sup>.

The report also pointed out the need to continue microfilming for preservation reasons. As international experience has shown, archival material should be filmed before digitization for two main reasons.

1. For safety reasons as it is a medium that under proper environmental conditions can be preserved for many years and can be easily duplicated.
2. For quality reasons as digitization of the original and then printing on microfilm involves a notable reduction in quality.

As the European Commission on Preservation and Access pointed out in its publication “Digitization as a method of Preservation”, “image conversion of endangered archive material to other media, for protection and/or for permanent replacement of the original medium threatened by deterioration, requires systems which produce, over very long periods of time, the highest possible reproduction quality, availability and access, together with economy”. In this perspective “microfilm has the advantage, in comparison with other modern information media, that the material undergoes no fundamental technical transformation and is thus “future-proofed”. The analogue-stored information is directly accessible, with relatively little effort to the human eye. Increasing national and international compatibility of microfilming systems ensures acceptance across frontiers.... Microfilm can also be efficiently digitized with microfilm scanners.... As an analogue and ageing-resistant storage medium, whose accessibility can be maintained with relatively small resources over long periods of time, and which remains available at all times for further processing in digital systems, microfilm has its place in the digital media world”<sup>7</sup>. Thus, the European Commission on Preservation and Access advised

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<sup>6</sup> George N. Mitrofanis, “Encoded Archival Description (EAD) and the dissemination of historical information. The application of EAD in the National Bank of Greece Historical Archives. Proceedings of the DLM-Forum on electronic records. European citizens and electronic information: The memory of the Information Society, p.271-279

<sup>7</sup> Hartmut Weber, Marianne Dorr, “Digitization as a Method of Preservation”, ECPA 1997 p.3

in its 1997 edition on digitization to film archival material before digitization from the resulting microfilm. It insisted “that this remains true on financial grounds even when the only concern is digitization of material for new levels of access and use... Microfilm, as a compatible long-term storage medium, justifies over long periods of time the resources invested in its preparation and handling. Heavy expenditure for data migration and frequent technical and organizational measures to preserve readability in new system environments of material only available in digital form can thus be avoided”<sup>8</sup>.

These conclusions led the Historical Archives of National Bank of Greece to adopt the following procedures:

1. To continue microfilming. To achieve this task and to improve microfilming quality the Historical Archives decided to replace the existing camera with the purchase of two new technologically advanced microfilming cameras (ELKE SENATOR)
2. To purchase two Bell-Howell 3200AD film scanners in order to digitize the already existing microfilms and those which would be produced in the future, and to store the images in the computer information system of the Historical Archives.
3. To purchase a Static film cleaner for periodical cleaning of the microfilms
4. To purchase an Ultrasonic Film Splicer to repair damages.

From 1996, until August 2000 when the H.A./NBG temporarily closed due to the fact they had to leave the repository and move to the new building under renovation we had produced 1.000 microfilms (more than 4000 with those produced between 1980-1996), and digitized 60.000 frames.

### **Readjusting the digitization program.**

In view of the results obtained during the last 6 years in digitization of microfilms, the Historical Archives have concluded that there is a need to readjust the digitization program adopted in 1997. We realized that the digitization of already existing microfilms was a very time-consuming task that would demand many years

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<sup>8</sup> Hartmut Weber, Marianne Dorr, “Digitization as a Method of Preservation”, ECPA 1997 p.3

of work for the existing staff in the archives before the microfilms already existing could be digitized.

The Historical Archives decided:

- To upgrade its technical equipment by obtaining new microfilm cameras which would simultaneously microfilm and digitize original material thus saving precious work time. We have opted for the purchase of two ZEUTSCHEL OMNIA OK 300/OK301 cameras with backlight table DTO and glass plate drawing holder with the appropriate software (Powerfilm) to digitize microfilms produced.
- To upgrade its microfilm scanners by purchasing two KODAK 3000DSV microfilm scanners.
- To upgrade its microfilm readers by purchasing 2 readers ZEUTSCHEL OMNIA OL2/OL3
- To entrust the digitization of already existing microfilms to a professional firm.

In order to charge a professional firm with the digitization of its microfilm collection, the Historical Archives will have to develop a Request for Proposals that describes the project (amount to be filmed, schedule parameters, etc) for prospective vendors, then mail to at least three agents with a deadline for the submission of bids. Ultimately, the repository will have to justify its selection of a vendor, and that this decision will be based on the combination of price, product quality, and prospects for a productive working relationship.

Costs for contracted services will have to be carefully considered. To obtain an accurate figure for the digitization services, the institution will provide the number of microfilms to digitize. Communication between the Historical Archives and the company will be full and clear in every detail. To digitize existing films it is advisable that we undertake a thorough analysis of the films (material, state of preservation, reduction factor, reproduction quality, filming technique, nature of material, organization of the filming). This analysis will be undertaken in cooperation with an experienced service provider. Before any award of a contract, digitization tests will be carried out with standard test material. It is only on such a basis that a firm can arrive at a realistic price, which will include the possibility of improvement through

treatment of individual parts of the film and image enhancement. Any damage to the film, such as scratches, dirt or fraying, will also influence the result of digitization.

### **Access and Reference Services. Educational programs and guided tours for Schools, Universities and Public.**

All those who keep archives and other historical materials have two equally important responsibilities. The first is to identify, acquire and preserve records of lasting value as we have already demonstrated. The second is to make these materials, and the information they contain, available for use.

Access refers to the terms and conditions of availability of records or information maintained by archives for examination and consultation. Reference Services are the facilities and services that enable the researcher to use the archives and its records once access to them is approved.

Organizations and individuals create records that contain information relating to their personal or business affairs which could cause embarrassment or financial loss if made available for examination to third parts. Records of this nature include agreements made by an organization or individual with other bodies, information provided in confidence, personal and health records of staff, information relating to fraud or security procedures. Protection of individual privacy. Personal details about an individual should not be released to researchers unless the individual's permission has been obtained. Information supplied by individuals for the purposes of obtaining a particular benefit should not be made available to researchers. However, information from these records may be able to be used for statistical purposes providing no specific names are recorded that would reveal the identities of particular individuals. Availability of an archive for research depends also on the agreement made between the donor or depositor and the Historical Archive of National Bank at the time of the transfer.

The Historical Archive is open to all interested parties, particularly historians, social scientists and other researches. The facilities meet the best possible standards, and offer visitors a very comfortable research environment. The Historical Archive records have been catalogued, micro-photographed and electronically indexed. The specially designed research room, equipped with latest technology, enables access to the Historical Archive system (electronic inventory) and reading and reproduction of the archive and book material. The Historical Archive staff also assists researchers by

providing information, advice and support carrying out their work. In 2005 and 2006 more than 500 researchers visited the Historical Archive.

Records of NBG created before December 1966 are in general available for use at the Historical Archive provided that they do not contain confidential trading information or personal data. When requests concern archival series suspected of containing confidential trading information or personal data we inspect the files requested in order to verify if in fact they do contain information that must not be communicated to researchers. Our research on the subject and our experience has shown that most of the files concerning the historical period before the Second World War can be consulted by researchers without causing any problem.

Educational programs are especially important for archivists because, unlike libraries and museums, visits to archives are not frequent in one's early life or education. The result is that few people know what an archive is, what sort of work goes on there and why that work is invaluable.

The Historical Archive of the National Bank of Greece organize educational programs and guided tours designed for students of primary and secondary Schools, Universities and Public, both in the Athens region and the rest of Greece, with the purpose of projecting their work among students and the public and generating interest in Greece's history, economy, society, and culture.

The aim of the educational programs is to bring students in touch with archive material and the methods used to process it, and to enable children to interact with the historical and social environment of their country and understand the relationship between economic and social history. Each visit is flexibly designed to match the requirements of the school curriculum and the various disciplines taught, helping students gain access to one of Greece's key sources of historical knowledge. More than 3.300 students and 75 schools have visited the Historical Archive of National Bank in the school year 2005-2006 and more than 3.700 students and 121 schools have visited the Archive in the school year 2006-2007

Our team can design the educational tour to match specific needs according to age group and learning level and shape it to support lessons such as history, school career orientation, technology and political economy, as well as interdisciplinary subjects.

School and University groups may choose from:

- 1. A tour of the modern Historical Archive building**

Students are given a guided tour of the Historical Archive building, starting with the fully equipped, state-of-art research room, which includes an electronic archive management system, moving on to the library, the microphotography and digitization labs, the archival repository where archive material is indexed and finally, the storage areas.

## **2. Tour of the exhibition areas**

The ground floor of the NBG Historical Archive building has several exhibition areas, which include two permanent exhibition halls and a space reserved for temporary exhibitions, all displaying H.A.'s rich archival material and collections. Students have the opportunity to examine the exhibits, appreciate the rich and varied collections and gain an insight into Archive Science.

- a. Permanent exhibition: NBG's historical course seen through its archives and collections

The National Bank of Greece Historical Archive were set up for the purpose of preserving and displaying archive material relevant to the Bank's history from its establishment to the present day and to demonstrate the fact that the Bank has played a definitive role in the Greek economy, politics and culture life. The items on display were carefully chosen to reflect the rich and varied collections in NBG's possession, which go well beyond the limits of an ordinary bank archive and include Heinrich Schliemann's Last Will and Testament, architectural designs from the 19<sup>th</sup> and 20<sup>th</sup> centuries, a collection of typing machines, adding machines, bonds, the first share issued by the Bank, items, relating NBG's contribution to the Greek war effort, and the Bank and national infrastructure projects.

- b. Permanent exhibition: Machinery and printing Works

This permanent exhibition features printing machines, most of them belonging to Aspioti-Elka Printing Company (1873-1996), and also specimens and samples taken from various phases in the production of bank-notes, stamps, stamp duty stamps, lottery tickets, playing cards, shares, bonds, national bonds, bank cheques,, etc. The material also includes albums, posters, printing plates, etc.

- c. Temporary exhibition: The history of the Greek Bank-note: A journey, 1822-2002.

This exhibition is comprised of bank-notes from the collection of the Foundation for Social and Cultural Affairs, one of the most important and all-inclusive collections of Greek bank-notes, and from the collection of NBG, which contains unique specimens from its bank-note issues. Visitors to the exhibition are able to examine bank-notes produced by five different issuing banks of Greece (National Bank, Ionian Bank, Privileged Bank of Epirus-Thessaly, The Bank of Crete and the Bank of Greece) and other means of exchange which were put in circulation during the Greek Revolution of 1821, the era of Kapodistrias, and the German Occupation in the Second World War.

The tour throws light on the recent history of Greece and provides researchers with a variety of information on historical, administrative, financial, cultural aspects of Greece and changing trends in ideology, the arts, printing techniques and forgery.

### **3. Educational programs**

The educational program of the “History of the Greek bank-note: A Journey 1822-2002” is organized in collaboration with the Directorate of Museums Exhibitions and Educational Programs of the Ministry of Culture.

The educational program is designed for pupils of Primary and Secondary Schools (4<sup>th</sup> grade Primary-3<sup>rd</sup> Grade senior High). By starting out from a bank-note issued during the German Occupation bearing the illustration of the Byzantine church of Kapnikarea, students are encouraged to get to know the Bank-notes of Greece and their history. This program is combined with the educational program of the Ministry of Culture titled “Byzantine Athens: The example of Kapnikarea”. The combination of the two programs offers students an insight into the value of historical sources and promotes an interdisciplinary study of monuments and archives

### **5. Training activities & archival expertise**

1. Training officers of the NBG to recognize the significance of archival material and to care about its fate
2. Training employees of other banks on matters of management of archives through practical work in the Historical Archive

3. Educating students studying at the Technical school archives and library sciences, business administration, photography and conservation in the frame of their semiannual internships. They are used in positions related to arrangement, description microphotography digitization and references services

## **6. Research Programs**

NBG from the beginning of the 1980's has financed three cycles of research programs carried out by external researchers.

1. The first cycle comprised a series of monographs that covered aspects of financial history of Greece in the 19<sup>th</sup> and early 20<sup>th</sup> century and culminated to 36 publications classified in three series: Studies of the economic history, Sources of the economic history and processed data from the economic history of Greece.
2. The second cycle focused on a wide research project named "Economic history resources of modern Greece. Quantitative and statistical series, 1830-193" concerning the creation of financial data series of six basic figures of the Greek economy during the years 1839-1940
  - Gross Domestic Product, 1830-1939
  - Prices and price Indexes, 1830-1939
  - Public Expenditure
  - Public Revenue
  - Public Debt
  - Banking and Monetary system.
3. The third cycle concerned two multiple research programs, the first referring to "The history of NBG, 1841-1940 and the second one to "The financial history of the Modern Hellenic Nation"

## **7. Seminars organized by the NBG's Historical Archive**

The NBG's Historical Archive regularly hold national and international meetings dealing with economic history, as well as updating specialists from various Greek historical archives and facilitating contact with foreign colleagues.

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