

©

ATLANTI

30/1



International
Scientific Review
for Contemporary
Archival Theory
and Practice

Trieste - Maribor 2020



ATLAN TI



**INTERNATIONAL INSTITUTE
FOR ARCHIVAL SCIENCE
TRIESTE - MARIBOR**

**ALMA MATER EUROPAEA
- EUROPEAN CENTER MARIBOR**

©ATLANTI +

International Scientific Review for Contemporary Archival Theory and Practice

30/1

- Editor-in-Chief:** **Peter Pavel Klasinc**
(International Institute for Archival Science Trieste – Maribor,
Alma Mater Europaea – European Center Maribor, Slovenia)
- Managing Editor:** **Aida Škoro Babić**
(Alma Mater Europaea – European Center Maribor, Slovenia)
- Associate Editors:** **Živana Hedžbeli**
(Croatian State Archives Zagreb, Croatia),
Mikhail V. Larin
(Historical and Archival Institute of the Russian State University
for Humanities (RGGU, Moscow, Russia),
Elisabeth Scögggl-Ernst
(Styrien States Archives, Graz, Austria),
Grazia Tatò
(International Institute of Archival Science Trieste/Maribor,
Trieste, Italy)
- Reviews Editor:** **Aida Škoro Babić**
(Alma Mater Europaea – European Center Maribor, Slovenia)
- Head of the
Editorial Board:** **Ludvik Toplak**
(Alma Mater Europaea – European Center Maribor, Slovenia,
European Academy of Sciences and Arts, Salzburg, Austria)
- Journal Manager:** **Katarina Pernat**
(Alma Mater Europaea – European Center Maribor, Slovenia)
- Technical Editor:** **Tomaž Klojčnik**
(Alma Mater Europaea – European Center Maribor, Slovenia)

© ATLANTI + as the International Scientific Review for Contemporary Archival Theory and Practice is a peer-reviewed journal containing original scientific papers published two times a year by International Institute for Archival Science Trieste – Maribor. The journal is co-published by Alma Mater Europaea – European Center Maribor. The publisher resumes no responsibility for the contents of the reports. The authors are fully responsible for the contents.

Annual subscriptions are € 240 /print & online for institutions, and € 90/print & online for individuals. For more information, please visit our website at www.iias-trieste-maribor.eu.

The figure of Atlant taken from:

ATLAS NOUVEAU, Contenant toutes les parties du monde, Ou sont exactement Remarquées les Empires, Monarchies, Royaumes, Etats, Republiques etc. Par Guillame d'Isle, a Amsterdam, Chez Jean Covens & Corneille Morties, 1733.

Editorial Board

France M. Dolinar (Archbishop's Archives, Ljubljana, Slovenia), **Jedrt Vodopivec Tomažič** (Alma Mater Europaea - ECM, Maribor, Slovenia), **Gianni Penzo Doria** (State Archives of Venice, Italy), **Martin Stürzlinger** (Archiversum, Vienna, Austria), **Marcus Schmalzl** (Bavarian State Archives, Munich, Germany), **Joachim Kemper** (City and Monastery Archives, Aschaffenburg, Germany), **Pavel A. Kyung** (All-Russian Scientific and Research Institute of Records and Archives Management, Moscow, Russia), **Magdalena Marosz** (University of Pedagogy, Krakow, Poland), **Svetlana Usprcova** (State Archives of the Republic of North Macedonia, Skopje, North Macedonia), **Tijana Rupčić** (Historical Archives, Kikinda, Serbia), **Branka Doknić** (Archives of Yugoslavia, Belgrade, Serbia), **Ivan Martinović** (State Archives of Montenegro, Cetinje, Montenegro), **Robert Nahuet** (Library and Archives Canada, Ottawa, Canada), **Luciana Duranti** (University of British Columbia, Vancouver, Canada), **Azem Kožar** (University of Tuzla, Tuzla, Bosnia and Herzegovina), **Izet Šabotić** (University of Tuzla, Tuzla, Bosnia and Herzegovina), **Mario Plenković** (University of Maribor, Maribor, Slovenia), **Bogdan Florin Popovici** (National Archives of Romania, Brasov, Romania), **Andrei Rybakou** (Belarusian Research Institute for Documentation and Archival Science, Minsk, Belarus), **Loan Thi Tran** (Hanoi University of Home Affairs, Hanoi, Vietnam), **Thi Hoa Doan** (Hanoi University of Home Affairs, Hanoi, Vietnam), **Ana-Felicia Diaconu** (University of Bucharest, Romania), **Yolanda Cagigas Ocejo** (University of Navarra, Spain)

Editorial Office Address

International Institute for Archival Science Trieste - Maribor,
Via La Marmora 17, Trieste, Italy,
tel.: +39 040 39 00 20, fax: +39 040 98 800 33,
e-mail: info@iias-trieste-maribor.eu
Alma Mater Europaea – European Center Maribor, Slovenia,
Slovenska 17, 2000 Maribor,
tel: +386 59 333 077, Faks: +386 2 250 19 98,
e-mail: info@almamater.si.

Contacts

Peter Pavel Klasinc, peter.klasinc@guest.arnes.si
Aida Škoro Babić, aida.skoro@almamater.si
Urška Rok, urska.rok1@almamater.si

Number of copies

300 copies



IIAS since 1985

TABLE OF CONTENT

| | |
|---|----|
| Meena Gautam (India) ARCHIVAL EDUCATION AND TRAINING IN INDIA - A PROJECT STUDY | 8 |
| Živana Hedžbeli, Nikola Mokrović (Croatia) SOCIALIST UNDERSTANDING OF ARCHIVAL PROFESSION | 28 |
| Pekka Henttonen (Finland) ARCHIVAL EDUCATION IN FINLAND - TRAITS AND DEVELOPMENTS | 36 |
| Mikhail V. Larin (Russia) TRANSFORMATION OF THE EDUCATION OF ARCHIVISTS IN THE DIGITAL AGE | 43 |
| Grazia Tatò (Italy) THE ARCHIVIST, A SUPERHERO? | 49 |
| Jozef Hanus, Michal Hanus (Slovakia) AN ARCHIVIST AND NEW APPROACH TO ELIMINATION OF MICROBIOLOGICAL CONTAMINATION IN PRESERVATION OF CULTURAL HERITAGE | 55 |
| NOTES FOR CONTRIBUTORS | 66 |

THOUGHTS FOR ATLANTI +

Discussing archival science before archival science is fundamentally wrong. Archival science as an independent, academic, multidisciplinary, and interdisciplinary science is only one.

We cannot talk about old or modern archival science because professional work principles do not change due to various forms of archival work.

The International Journal of Contemporary Archival Theory and Practice *Atlanti* has brought a wealth of knowledge and useful insights into national and international settings since 1991.

Atlanti journals also present study material for students of independent Archival Science or those who are acquainted with it in addition to other study subjects.

The education of independent, highly professionally educated archivists must be the obligation of all countries that want to protect their archives as a memory of nations, regardless of whether the archives are in classical or electronic form.

"Archivistica, amor noster, semper et aeternum."

Peter Pavel Klasinc, editor-in-chief of *Atlanti* +

Dr. Meena Gautam¹
(India)

ARCHIVAL EDUCATION AND TRAINING IN INDIA - A PROJECT STUDY

ABSTRACT

The study aims to evaluate and analyze archival education system in India and to draw the attention of the Government, Indian Universities and other heritage Educational Institutions to explore and take up teaching of Archival Science in a big way and popularize the studies as in the Western and Asian countries by projecting the scope of the discipline as one of the career options to student community at large.

Under the study an attempt has been made to explore briefly the emergence of modern archives and archival training Schools in western world and its impact on Indian Archives, and how archival training evolved in India. It is still evolving, as survey conducted through field study and questionnaire methods widely establishes these facts. Different experiments are being made at the Archives of the Centre of Biological Studies, at the School of Cultural Texts and Records (SCTR) Jadavpur University, Indira Gandhi National Centre for Arts (IGNCA), besides National Archives of India (NAI). The system has also to change with different patterns of emerging new archives in different areas, and the new challenges of digital archiving and accessibility in digital environment, making things virtual and also accessible online. The study is based on archival sources & taken up in a project mode, its growth and development before and after independence, Archival Legislation Committee of 1960 and outcome of its recommendations, Archival Policy Resolution of 1972 and Archival Training, establishment of the Institute of Archival Training/School of Archival Studies (SAS) at NAI and modernization of course curriculum, after enactment of Public Record Act and Public Record Rules of 1993/1997. Further study also includes contributions made by international bodies like ICA, UNESCO, etc.

Key words: archival education system, India, archival training

1 ARCHIVAL TRAINING - A BEGINNING

National Archives of India was established in 1891 as Imperial Records Department (IRD). Besides there were archives existing in many of the Princely States in the country, being looked after by untrained professionals. There was lack of trained professional archivists in India and there was general ignorance about modern archival principles and practices as they had evolved in western European countries during the 19th and first half of 20th Century. The British Government and the Indian Historical Records Commission (IHRC), an advisory body established by Government of India in 1919, on matters connected with proper management of Records and their use for historical research

¹ Dr. Meena Gautam, Member, Archival Advisory Board, National Archives of India, B-3, Kailash Colony, New Delhi-110048, India. e-mail: meenagtm@yahoo.co.in

Dr. Meena Gautam, formerly Deputy Director of Archives and Head of School of Archival Studies at the National Archives of India (NAI), currently heads the Project on 'Archival Education in India', a 2 year Project (March 2018-August 2020) with grant from Indian Council of Historical Research, and affiliated to National Museum Institute (Deemed University), Ministry of Culture. She is serving the Govt. of India as a Member of the Archival Advisory Board, a Statutory Advisory Body of NAI. Has been an active Member of ICA and SWAR-BICA and has published books and articles in a number of journals of national and international repute.

(IHRC: A Retrospect, 1948, pp-52-53)²; were equally aware of these weaknesses of the archival profession in India.

The archival policy of the British government was such that, they were not very keen to give any kind of access to public records to Indians or '*natives*'.³ Such requests were referred to authorities in London and they never thought to begin any archival training program in India for the management and upkeep of records. Since 1920, IHRC sessions provided a platform for discussions to historians, archivists and officials to discuss about theoretical and practical training related aspects like access, arrangement, and description of archives. Initially, Imperial Record Department initiated practical training in-house, while working to manage archives, doing accessioning, arrangement, classification and cataloguing of records, available with or being received in IRD from Govt. Ministries/Departments.

In India, the history of professional training in archives could be traced back to the year 1920. Mr. Scholfield the then Keeper of Records at IRD had reorganized the Preservation Branch and all other state repositories were looking forward to IRD for technical advice, support and training. In 1920 one assistant and two attendants were deputed by Madras Record Office to IRD for training in the newly introduced methods of Repair And Preservation of records and followed by the Princely State of Jaipur, Punjab (1927), Mr. C.V. Joshi from princely State of Baroda (1928-29), Mr. B. N. Raleraskar and followed by Assam (1930), Bombay Secretariat (1935), to be followed by others till a formal beginning was made in 1941. The need for training even compelled Deccan College, Pune, a reputed Centre of Research & Training in Archaeology & History, to depute Mr. D.V. Gokhale to undergo training for 3 months in all branches of Archives Keeping in 1941 (then IRD). But stress was still on providing training in techniques and methods in preservation of records, as an Archival Research Laboratory had been established in 1940, even before starting any regular training program. However, the need of the hour was to have a formal training program in view of international archival developments on scientific lines.

The community of historians and scholars in India had been clamoring for access and use of records for reference and historical studies. IHRC too have been stressing for need of formal archival training for accession and arrangement of records with IRD, so as to make them accessible to people and had adopted a number of resolutions on the matter at its various sessions. Government of India, having realized and accepted the need for training, adopted a Resolution, No. F. 92-9/40-E on 16 September 1941, to train some record office employees from the Provinces, Residencies, Indian States and private students too, at the Imperial Record Department each year, in the field of Archives administration and rehabilitation and preservation of records in particular (Dept. Edu. Health & Lands, 1941, F. No. 92-9/E). Training was open to all Governments in the Provinces, Indian States, Universities and even other institutions who could benefit from this training. Finally, in 1939 access was also given to bonafide research scholars, to records up to 1880 in the custody of IRD.

As an outcome of Resolution, the Imperial Record Department introduced a regular system of training in Archives Keeping comprising a long and short course of Instructions in Indexing, Calendaring and Preservation of Records on up-to-lines, historical researches among Records and Library Science, to which a limited number of outsiders with requisite qualifications were to be admitted. Detailed syllabuses were drawn up for differ-

2 So far IHRC has held more than 65 sessions & has contributed significantly to the growth of Public & Govt. interests in the scientific management & use of Archives.

3 Word used to address Indian citizens

ent courses of training and arrangements were made for the grant of Diplomas to the successful trainees. The first session commenced on 1st July 1942, with a few nominees from Provincial and State Governments. During the year 1943, 13 candidates applied from various provinces and Indian States (NAI Annual Reports, 1942, pp.3-4, 1943, p. 4, 1944, pp. 2-4, 1945, pp. 2-4, 1946, pp 11-12).

All these developments and shortage of trained manpower necessitated need of creating a suitable training programme by the Imperial Records Department, the premier body in the country as part of a Post War Development Plan, to ensure availability of trained manpower to the archival institutions and to the people who wanted to take up Archives Keeping as a profession. A beginning was made with training of a limited number of students sponsored by their offices. Due to World War II, nothing much could be done for expansion of the Scheme. As soon as it was over, suggestions and opinions were invited from well-known Archivists within India and abroad to address these issues and a comprehensive Scheme was laid down and syllabus was revised in 1946 in consultations with international authorities, in the light of the developments taking place in archival training in foreign countries. A leaflet was printed embodying general information regarding the Scheme and was circulated among the provincial Govts, Indian States, Universities and archival Institutions and learned Societies in India and abroad. It was a matter of satisfaction that remodeled Scheme was favorably commented upon by such authorities on archival training such as Prof. Galbraith, Hilary Jenkinson etc. A Records Keeper's job was no longer regarded as an unskilled occupation, but a very special job, requiring skill, training and natural aptitude. The public should know that a Science has been developed in respect of this work. Under the revised scheme, now three courses were being conducted simultaneously inviting applications for two years, one year and six months course respectively. Diploma Course in Archives Keeping programs of Training were (Proceedings of IHRC, 1946, pp. 150-152):

1. Two years course - All candidates for the full course of training were to possess an M. A. Degree in History of an Indian University and in no case an undergraduate was eligible for this course.
2. One-year course- All candidates for one Year's course were to be at least a Graduate in History from an Indian University. Undergraduates were not admitted. The short course was on any of the two subjects, but if Librarianship was selected, Preservation was compulsory.
3. Six months course - This short Course was on Preservation only. Graduates in Science were given preference as such trainees would be able to do necessary laboratory work as well as to learn microfilming and other highly scientific methods of preservation. But Students with no degree in science were also admitted and given lessons in all other methods, except in those requiring knowledge of chemistry and physics. This course was also open to Menders, records personnel of Offices and Institutions and Students interested in that particular subject. Two stipends of Rupees 100/- each were introduced as well.

To this category of trainees, Certificates were given on completion of the course. All applications were invited in the prescribed form, addressed to Director of Archives, through an advertisement in the press. Private candidates should get their application certified by the Head of the Institution last attended. Applications for two years and one-year courses were received up to the 15th June, each year and those for six months course up to 15th June and 15th December each year. The classes commenced on the 1st July and 2nd January each year. No fee was charged for any of the Courses, but candidates were to meet their personal expenses. For Diploma students, written tests/exams were

held after completion of the course and successful candidates were awarded a Diploma by the Government of India (F. No. 14/1950-C, p.39.).

In the meeting held at Shimla in May 1946, the Standing Committee of Central Legislature on Education, considered the Training Scheme and recommended that requisite financial assistance should be forthcoming to encourage students to take up this training in large numbers. The Government of India subsequently sanctioned 3 Stipends at Rs. 100 pm each amounting to an annual expenditure of Rs. 3,600/-, but with no enhancement (F. N. 3/47-C. p. 67/c, & F. No. 2/1948-C, p.5/notes, and p.7 of the printed Proceedings of the Standing Committee of Central Legislature on Education)

Now three courses were being conducted, and applications were invited for Two years, One year and Six months courses respectively. Regarding eligibility and curriculum - a) to the Two Years Course, only those who held the M. A. Degree in History were admitted. The subjects taught comprised Preservation, Archives Administration, Library Administration, Calendaring and Indexing. b) For the One Year Course, Graduates in History were admitted and only two subjects of student's choice were covered; but if Library Administration was selected, Preservation was compulsory. c) The Six Months course covered only methods of Preservation. The course was meant primarily for preservation staff only, deputed by State Governments, Universities and Academic Institutions. Science graduates were given preference over other disciplines for admission to the courses. No fee was charged for any of these courses and stipends were awarded on merit by the Government, to the best students of the year on the basis of written tests. Diplomas were awarded to all the candidates who passed the examinations at the end of the training. The revised scheme of training was put in operation during the year 1947, after independence on 15th August.

2 GROWTH & DEVELOPMENT OF ARCHIVAL EDUCATION AFTER INDEPENDENCE

NAI after independence was facing some acute problems. There was lot of scope for improvement in the scheme as was being revised.

- The Department had no special staff, not even adequate staff for imparting the training. There was continued pressure on existing working staff. With the staff shortage, multiplicity of courses was another challenge to meet. It also confused the students and increased their difficulties in making a right choice. Continuing with the paper on Librarianship in the NAI was equally puzzling when there were more specialized agencies already conducting the full-fledged course in Librarian's Diploma like National Library in Calcutta.
- Another issue was over emphasis being given to Science graduates over graduates in History in any of these courses. May be, it was because from the beginning more emphasis was being given by IHRC members and the IRD to preservation of records and to provide training in preservation to in-service officials from other Record Offices. But there was no justification in over emphasizing the subject at the cost of study of other aspects of archival science. Hence it required a thorough revision in view of modern archival practices, besides in the understanding of the modern and contemporary period of Indian history, and to understand the archives being transferred and already available with NAI and other established and emerging provincial archives (due to reorganization/creation of the States taking place after independence by merger and otherwise and its impact on their Archival Offices) in their accession, arrangement, description and servicing. There were other aspects of archival science getting neglected, when the course was specialized for Archival Keeping, particularly was deficient in knowledge of history (Committee Report on Post War Reorganization of Archives Offices & Historical Researches in India, F.No.13/45-C).

- NAI was having shortage of space and could not provide a separate lecture Room for the purpose and multiplicity of courses caused lot of stress on the staff and space. Besides, could not provide accommodation to trainees and was facing difficulties for securing accommodation for the students in Delhi.
- There was shortage of technical books as they were not easily available. Department was expected to take upon itself the publication of Books and Pamphlets on the subject containing useful technical information on various aspects of archives keeping. Besides it was also required that a number of stipends should be offered to selected students working for the Diploma course.

Post War requirements of trained staff, the Committee observed that a large number of trained archivists were needed in view of reorganization of provinces by merger and reformulations; and thereby many Record offices were in the process of establishment to take care of old records and archives. In anticipation of the demand the IRD/NAI had already formulated a training Scheme with the approval of the Government of India. The Committee felt that the newly offered training facilities should not be restricted but if possible, the training classes should form a permanent feature of the normal activities of the IRD/NAI and in due course develop into a regular school. Meanwhile the Government of India would be well advised to encourage students to come in large numbers for the full courses of training and be awarded suitable stipends and scholarships (Committee Report on Post War Reorganization of Archives Offices & Historical Researches in India, F.No.13/45-C, pp.180-181).

The Secretary, IHRC gave a brief account on the proposal of a Diploma Course in Archives Keeping, at the 26th IHRC session and the following Resolution was passed:- Resolution III - Resolving that (I) all State Govts in India should fall in line with the Government of India in recognizing Records Administration as Technical Work; (II) ultimately all appointments to records repositories in India should be made from among Diploma holders in archives science from recognized institutions (for the time being NAI was the only Institution which offered on a limited scale Diploma courses in Archives Science);(III) all Ministries of the Government of India and State Govts who have to retain large bodies of 'current records' in their custody should employ full time Record Officers who should be Diploma holders in archives science, if such a person is available, or the Officer should after appointment be sent to the National Archives of India or to an organized State Record Office for training; and (IV) for the next five years 4 annual stipends of the value of Rs. 150 p. m. should be awarded by the Government of India to good candidates who come up for training at NAI. It was further resolved that in awarding the scholarship a contract should be entered in to with the stipend-holders to the effect that they would be expected to serve the Government of India or a State Government for a specified period after successful completion of training in NAI (Proceedings IHRC, 1950, p. 57).

In May 1952 the Government decided to do away with the two courses, 2 Year Diploma course and Six Months course in Preservation. One Year Diploma course was made more comprehensive including the latest developments in Archives Keeping and syllabus was modified in line with latest developments in the field with more emphasis on practical training. The subjects covered were Archives Administration, Preservation, Calendaring and Indexing. Examination was held at the completion of the training course, and Diploma was awarded by the Government of India. Admission criteria too were revised to enhance the standard of eligibility of applicants seeking admission to the course. A candidate seeking admission shall possess a 2nd Class M. A. Degree, or B. A. Hons Degree in History, with Modern Indian History as a special subject. Preference was to be given to students sponsored by State Govts, and learned Institutions. Private candidates were also admitted, provided their applications were endorsed by the Heads of Institutions

they had last attended. Two stipends each of the value of Rs. 125/- pm was awarded to those students who secured the first two places in a written examination, which was held about a month after the opening of the One Year Diploma Course (Roy S., "Professional Archives Training in India, Archivium, Vol. III, 1953, p.79).

The first Course began on 1st October 1952, and 7 students were admitted. In January 1952 a three-month course was also started, to be held twice in a year from January to March and July to September and restricted to officials of the Union and State Govts. For this course Matriculation was the minimum qualifications and certificates were issued to the students on completing the short course, began in January 1952. The Government approved the training scheme of NAI on regular basis as recommended by the Estimate Committee of the Parliament and also increased the stipend money by 50% and in addition, also introduced 8 stipends for each state sponsored candidates i.e. Rs 75/- thereby promoting in-service training simultaneously (NAI, Quinquennial Review 1952, p. 25).

Instruction to the trainees was divided into theory and practice. The morning sessions were devoted to practical work, and afternoons to theoretical classes. Lectures were broadly on subjects related to Records, Publications, and Preservation. This schedule was followed on all week days except Saturdays. The training also included: a) Seminars, where students exchanged views with the Officers of the Department on matters related to their studies, b) Symposiums which included reading of papers by the candidates on special subjects, with one of the senior members of the staff in the chair and with other students exchanging views on the subjects discussed. Personal attention was given by a member of the staff, earmarked for the training in theory, and whose duties in addition to lecturing, included welfare and discipline of the students (IHRC proceedings, 1954, p. 57).

In August 1953 an Assistant Archivist (Grade I) was designated to supervise the work of the trainees of both the courses. Board of Examiners was constituted, comprising the Director of Archives; also, Chairman and moderator, besides the State Directors (Proceedings IHRC proceedings, 1954, p. 57; Annual Report of NAI, 1953, p. 9). There were six papers in all, Part I with three papers, each carrying 100 marks, on Archives Administration, Calendaring & Indexing, and Preservation. Part II consisted of three practicals of the same three papers as of Theory. Students securing 35% marks in theory and 50% in practical exams and 40% in aggregate to pass in all the examinations held at the end of the 12 months were awarded Diploma by the Government of India. Those who scored 70% marks were considered to have secured distinction. The results were notified in the Gazette. The Diploma given to successful candidates was signed by Director of Archives and Educational Adviser to Govt. of India, Ministry of Education. The Diploma Examination for 1953 were conducted on these lines (Annual Report of NAI, 1953, p. 9; F.No.14-1/50-C).

Prior to the recommendations made by the Archival Legislation Committee in its report, submitted in December 1960, the training scheme was reviewed in 1959, on the basis of suggestions of the Parliamentary Estimate Committee in their sixteenth Report (2nd Lok Sabha). It revealed that all due care was being taken to maintain the quality not the number and training was not being taken casually. It was decided to continue both one year and three months course for a period of three years. The Stipend amount was increased to Rs. 150/- pm in each case, and the number of stipends was also raised to five. Provision was also made for admission of candidates sponsored by Central Ministries/ State Govts and a special monthly allowance of Rs. 75/- p.m. each could be given to not more than 8 such candidates in a year, hailing from outside Delhi. The course was to commence from 1st March, every year (Annual Report of NAI 1959, p.12).

The revised training scheme commenced on 1st September 1959 with 9 trainees on the roll, including four sponsored by State Govts. Some improvement was also made in the syllabus by introducing the study of the Administrative History of India as well. Besides the regular one-year Diploma Course, an informal special arrangement for training was also made for the candidates sponsored by Govt. Depts. and the Record offices, in any practical aspect of record keeping or record preservation. There was no fixed time schedule for this kind of training. The date and duration of the training was fixed in consultation with the sponsoring body in accordance with the convenience of the parties concerned (NAI Annual Reports for the year 1959-60, pp.12 & 9).

List of proposed Central Government Schemes to be undertaken by National Archives India during the Third Five Year Plan period, also included expansion of Scheme on Training in Archives Keeping, in view of the recommendations made by the Archival Legislation Committee, appointed in 1959. Planning Commission of India had also agreed to include Development of Archives, as part of State Plans to get funding for their archives from the Central Government and all the State Governments were advised to include Archives as part of their respective State Plans from 1968-69 to 1973-74, in view of importance of development of Archives, both for the purpose of meeting current needs of administration and of historical research.. It was also aimed to impart archival training to officials working in the State Archives and the Record Rooms of the Secretariats, Ministries and Departments, District Record Rooms besides developing their own archives in every aspect (NAI, F. No.13/68-C pp. 141-142/corr.).

The Archival Legislative Committee had recommended "*if a Special Archival Cadre is created consisting of no more than three ranks of Officers: Keeper (the Head of the Archives), Assistant Keepers (Senior), Assistant Keepers (Junior), all recruitment being made only at the level of Assistant Keeper (Junior). It may be profitable to examine as a long-term plan, the possibility of transforming the archival service into an All India Service...*" Further "*The appointees in our view should be selected by the Union Public Service Commission on the basis of a written test, after which they should be given training in different aspects of Archives Keeping in the National Archives. Only on the successful completion of such training should an appointee be regarded fit for being posted in the appropriate Division.*" The Committee believed that recruiting Archivists at a very young age and promoting them to higher posts as they gain experience of archive work, was the only way by which the short comings in the present system of recruitment or selection could be removed (Education letter dated 13th July 1961, F. No. 6-1/61-A-10).

This was the view point of the Committee regarding the mode of selection of archivists and the formation of their cadre both in the States and the National Archives of India. The reforms, suggested by the Archival Legislation Committee in the Training Course were based on the presumption that the recommendations regarding recruitment of Archivists would be acceptable to both the States and the Government of India. If accepted, it involved substantive changes in the administrative structure also, of the respective archival organizations in the Centre and the States, including selection of the requisite staff. There were divergent views on Committee's recommendations regarding the training of archivists.

After carefully examining the matter, Dr. Bhargava, Director of Archives, replied to the Government of India that it would not be possible to introduce the system of training in archives as recommended by the committee for several years to come. He reasoned out that the scheme did not get much support from the State Govts., both in regard to the training itself as well as the method of recruitment as suggested by the committee. IHRC members generally did not express any opinion except Director, Central Record Office, Hyderabad,

Sh. V.K. Bawa. They felt it would not be practical to implement the recommendation of the committee and supported continuation of the existing training facilities in NAI. The views of 11 out of 15 State Govts had been received. The State Govts of Maharashtra, Bihar and Assam did not offer any comments, perhaps did not attach much importance to the matter. The Govts of Mysore, Punjab and West Bengal agreed with the proposal but did not state clearly if they agree with the recommendations of the committee in regard to the recruitment and promotion of Archivists as embodied in paras 77(2) & 177 of the Report. The Govt. of Madras had given conditional acceptance and wanted archival posts to be declared technical, their pay scales made more attractive, with appropriate central grant in support for their implementation. They doubted if Govt. of India will give financial assistance to State Archival repositories (F. No. 4/61-R-5, pp. 19-20/notes).

The State Govts who approved the recommendations were Andhra Pradesh, Kerala and Orissa. Andhra Pradesh considered pre-appointment training of State Archivists as impractical, since it would necessitate planning the staff requirements of their office at least three years in advance, as all schemes were planned in advance under Five Year Plans in the country. Andhra Pradesh and Orissa Govts had also suggested promotion of archival training courses in the Universities with the ultimate idea of setting up of Schools of Archivists, to cater to the needs of Central and State Govts. While the State Government of Kerala wanted the selected candidates to possess knowledge of scripts in use in the states and must have preliminary training in special methods of preservation of palm-leaf etc. at the state level, before going for training at NAI (F. N.2-5/61-PR, p.17/corr.).

Though Archival Legislation Committee had suggested an ideal scheme which would have laid down the ground to have Organized Cadre for the Services of Archivists in the country in near future; but implementation was a problem as it pre-supposed the existence of Central and State archival repositories with certain minimum standards in regard to their professional activities and uniformity in regard to the status and salary of the staff employed by them. These presumptions were far from reality and not correct, as such the recommendations of the committee were going to lose much of its force. The committee's presumption was quite apt that all the trained candidates at NAI were not getting suitable employment, they failed to attract talented students and that talented persons were not generally available for archival posts because of relatively low pay scales and low status assigned to archivists in the state Govts. Such observations even hold well today in regard to service conditions of the staff of all grades working in archives and that talented persons were not generally available for archival posts because of relatively low pay scales and low status assigned to archivists in the State Govts. Such observations even hold good even today in regard to service conditions of the staff of all grades working in archives and their pay scales than those sanctioned for officers holding similar appointments in other Govt. Depts. To remedy the situation both at the Centre and the States Archives, it was extremely desirable that the State Govts as well as the Union Govt. should have suitably revised pay scales and the service conditions of staff employed by them. The suggestions given by the State Govts for Institutions of Archival Training in Universities, was a good one on the lines of Universities of London and Washington, but it was not possible within a short period. Indian Universities also did not possess the required facilities, the competent staff for the lectures. Even the universities of London and Washington depended on staff of their National Archives. Delhi University was the only university perhaps which could have started the programme with the support of part time services of officers of NAI for lectures and practical training. In the given situation only, practical approach was to continue the existing Training Scheme for some years with such modifications as might be necessary, till a final decision was taken (F. No. 4/61-R-5, pp.21-22/notes).

While sanctioning the continuance of the Training Scheme, the Govt. of India reduced the number of stipends from 4 to 2 (of Rs.150) for private and increased for the State nominees from 6 to 8 (of Rs.75 each) as were reduced as a condition for continuation of the training scheme pending approval of recommendations of the Archival Legislation Committee (NAI Annual Report for the year 1961-62, p.8). In all probabilities, he believed that the scheme had to be continued on long term basis with minor modifications and the practical difficulties involved in implementing the committee's recommendations and keeping in view the different stages of development of State archives. The Diploma Course continued with some modifications in the syllabus. The course was getting popular and students were being sponsored by the State Archives, Ministries and Departments of Central and State Govts. Universities and Learned Institutions, besides, from Afro-Asia region as being sponsored by UNESCO & German Foundation. Students were also being sponsored under Colombo Plan by Govts. of Malaysia, Sri Lanka, and Nepal. NAI also decided to depute students of one-year Diploma Course in Archives Keeping for a short period, to learn from field visits, the working of other State Archives, besides NAI. This was the beginning of sending students for study tours to the State Archives as part of the curriculum of the Diploma course. Since then it has continued till date, an important aspect of field training of students of the One Year Diploma Course (Proceedings of the National Committee of Archivists, 1954-64, pp.86-87).

Good development was that Andhra State Archives started training in Persian, Paleography and Diplomatic, utilized by PhD and post graduate members of the State Archives. They also started training of Record Clerks in the Collectors' offices. Similarly, Punjab and Madras Record Offices made arrangements for training of mending and binding. Kerala also started with an in-service intensive training in Archives Preservation and Administration course in Archives keeping for the staff of the Dept. of three months duration, more practical based (IHRC Proceedings, 1967, p.17).

Some members of the IHRC felt the need to modernize the scheme of Training of Archivists and Universities should also introduce the course. A resolution was moved by Prof. O.P. Bhatnagar to recommend to the Government, that the Universities and the University Grants Committee, to make provision of facilities for Archival Training and for the creation of Department of Archives along with History (IHRC Proceedings, 1971, p.29). But the resolution was modified in view of reply from IHRC, Secretary, that the One Year Diploma Course in Archives Keeping is already being conducted by NAI, and that they have also finalized to conduct short term course in Record Management as suggested by the Estimate Committee of the 4th Lok Sabha (1968-69), and the recommendations made by the Committee of Officers appointed by the Dept. of Administrative Reforms, Government of India in 1969.

The problem was twofold, the lack of arrangements for practical training in the universities and secondly scope of absorbing the trained archivists. While agreeing with the Secretary some members recommended increasing the number of stipends for trainees at NAI. The Chairman agreed with the view point and suggested that a survey could be made regarding the number of trained archivists required in the country for the next 10 years. Observing that UGC could not support a new proposal during the current plan, a modified resolution was adopted "*The Commission recommended that the Universities may provide facilities for archival training, during the 5th Five Year Plan period, if University Grants Commission could provide financial assistance for the purpose.*" Secretary further informed about two resolutions adopted by the Commission earlier at its 38th (1967) & 40th Session (1970), recommending *inter alia* that the universities be requested to entrust the care of their records to officers who

had training in Archives Keeping. A number of universities had welcomed the resolution and assured to take necessary action. In 1970 the universities were addressed again and a proposal urging the Universities to set up a Model Archival Cell was sent to the universities and UGC by the Secretary (IHRC Proceedings, 1971, p. 29; Annual Report of NAI, 1972, pp.7&13). Many states of Andhra Pradesh, Assam, Delhi, Goa, Karnataka, Nagaland, Kerala, Maharashtra, Punjab, Rajasthan, Tamil Nadu, UP, and West Bengal accepted the Resolution. Maharashtra even considered the question of establishing a centre for imparting training in Archives Keeping. Mizoram Planned to take action after setting up its Records office.

With the adoption of Archival Policy Resolution (APR) of 1972, based on recommendations of Archival Legislative Committee; it laid down that Departmental Records Rooms of the Ministries/Depts. holding semi-current records should be placed in the charge of properly trained, suitable and responsible full-time staff. (clause 4.1) (A Handbook of record Managers by NAI, pp.35-39). As per clause 5.1 of the APR, NAI was to organize suitable training/reorientation programmes for officers in charge of the Departmental Record Rooms and their Assistants, to enable efficient discharge of the duties entrusted to them. As an outcome of APR, NAI decided to start two short term Certificate Courses, on Records Management (8 weeks) for Departmental Record Officers and Preservation of Records (6 weeks) in NAI. The syllabus of the courses were finalized, during 1972 and started from October 1973, meant for the officials to be employed in DRR's. Training was considered very crucial and it was considered that even a trained Assistant could perform better than a senior officer on account of his training (APR Implementation Reports of NAI, 1974-75, pp. 9, 12).

Archival Policy Resolution was silent about the Training scheme of Archives Keeping, and categorically spoke about training of Record Officers and the staff working in DRR's. APR of 1972 helped in streamlining the work, as it laid down a well-defined policy in respect of all aspects of Records Management, appraisal and retirement of records and equally stressed for the need of trained personnel to run the Departmental Record/Muniment Rooms, besides other aspects of Records Management to improve the functional relationship between the DRR's and NAI. All 30 years old Records in the custody of NAI were now open for consultation by bonafide scholars. There was greater demand for trained personnel at professional and sub-professional level within India and from Afro-Asia region as every year a number of students were being nominated for the Diploma course, to give further thrust to archival education in the country. The Institute of Archival Training was established as a separate branch of NAI, with full time staff with the approval of Government of India; inaugurated on 11 December 1976 (Annual Reports of NAI, 1974-75, pp. 33-34). As part of this development, SWARBICA (South West Asia Regional Branch of ICA) was established at New Delhi in 1976 and the same year the Indian Institute of Archival Training at NAI was recognized by UNESCO, as approved Regional Centre for Archival Training for South Asia and South East Asia Region, thereby it enhanced the credibility of the Institute. The visiting team from UNESCO found the archival training at NAI attuned to international standards and its suitability to the region. Mr. Charles Keeskemeti, UNESCO representative at the first meeting of the SWARBICA at New Delhi had made a number of suggestions and in order of priority included setting of a Regional Training Centre for training of professional and technical experts on archives administration and archival science with a proper machinery to survey the national and regional requirements and developments.⁴

4 For details pl. refer to an article by Frank B Evans, pub. In Indian Archives, Vol. XXX, no-2, (July-December, 1981) pp.1-14.

In order to streamline the training curriculum of the courses at NAI, the Govt. of India, approved establishment of the Board of Studies, with Director of Archives as the Chairman, to design the syllabi and mode of implementation of the various courses by the School. The Archival Training Institute was renamed as School of Archival Studies in February 1980, with due approval of the Department of Culture, Govt. of India, vide their approval letter dt. 26 May 1980 (F. No. 4-2/81-AT, p.10/corr.).

Accordingly, a Board of Studies was constituted as an advisory professional body for the School with nominated experts, 2 each from the discipline of Archives and History as members with duration of 2 years. The first Board was constituted, consisting of six members with Prof. S.A.I. Tirmizi, Director of Archives as its chairman. Other members were Dr. P. Basu, Dr. B.S. Kesavan, Prof. P.B. Mangla, Prof. Bipin Chandra, and Deputy Director, School, was the Member Secretary. It was to examine the course contents of the new curriculum of the One Year Diploma Course in Archival Studies. While framing the curriculum the Board was to take into account the latest modern archival trends and training needs of the archival Institutions in India and abroad (F.N. 32-8/80-Lib, p.11/corr.).

The first meeting of the Board was held on 28th July 1980. The Board reviewed the Syllabus of the Diploma Course and made some significant recommendations. These recommendations were related to restrict the reading list to 20-25 items for each paper. While approving the curriculum, the Board desired that the schedule of work should be designed on the basis of 25 hours a week, out of which the practical content should not be less than 10 hours. Standardized the Scheme of marking, maximum marks should be 600. Each paper to carry 100 marks, out of which 60 should be reserved for the final theory examination, 15 for final practical test and 25 for internal assessment throughout the year. In addition to 5 papers⁵ there was project work to be done by each student based on archival sources, and should carry 100 marks, of which 75 should be reserved for the assessment of the project and 25 for Viva-Voce. The projects were to be assigned in the early part of the Session to enable each student to devote adequate time and attention to it. Another important decision of the Board was to invite specialists in the various fields, in addition to regular lectures for extension lectures on honorarium basis. For the first time it was the Board of Studies, which approved the appointments of examiners for the Diploma Course, and approved that one third of the paper setters and examiners, may be external and two-third internal. The Board also raised the issue of affiliation of the School and unanimously approved its affiliation to Delhi University and also recommended, members of the Board be associated with the Selection Committee for Admission. The Board also examined the Scheme of Correspondence Course introduced by NAI in 1978, and unanimously was of the view that such a course cannot impart Practical training, necessary for Archival Studies, hence may be discontinued ((F.N. 32-8/80-Lib, Minutes of the first meeting of the Board, held on 28th July 1980, pp. 12-13/corr.).

In the second meeting the Board also constituted a Moderation Committee with Director of Archives, as the chairman with other two members. Also decided that duration of exams should be of 3 hours and the students should be required to answer any four questions out of eight and one question should be made compulsory. Suitable guidelines may be provided to the paper setters to enable them to set the papers the way in which different topics might have been taught to the students. Also approved the syllabus of the Short-term course of Servicing and Repair of Records (F.N. 44-2/81-AT, pp.33-34/corr.).

5 *There were 2 Core +3 optional papers out of seven that a student had to choose, besides dissertation, i,e, project work.

Affiliation was to bring academic accreditation of the School by some university, so that Diploma/Certificate being awarded may carry greater acceptability and could be treated at par with that awarded by the Universities. Necessary action was initiated by NAI. Delhi University was approached for affiliation of the School and to invite experts for a series of extension lectures for the benefit of the trainees (F.NO. 44-15/80-AT, p.31/corr.), but the university after examining the matter, did not find it feasible to give affiliation, as informed vide their letter dated 24th February, 1981 (F. No. 44-2/83 AT, p. 42/corr.). The Board suggested approaching the university again to reconsider their decision in the light of UNESCO's inclination to convert the School into the UNESCO centre for Archival Studies in South Asia (F. No. 44-2/83 AT, p. 33). Even other two Universities, located in Delhi, Jamia Millia Islamia and Jawaharlal Nehru University were also approached but none of them favored with affiliation due to technical reasons.

Another significant development was to start a number of Short-Term Training Courses in all disciplines of Archival science: - Archives Administration, Records Management, Conservation and Reprography at professional level and Repair and Servicing of Records at sub-professional level. The purpose of organizing different Certificate courses was based on the fact that all sponsoring agencies are not able to depute their staff for training for full one year. The certificate courses did meet their specific archival requirements, of professionals and sub-professionals both of governmental and non-governmental agencies (F.N. 44-2/81-AT, p.33.).

Modernization of curriculum was another significant development. There were 9 papers in the old curriculum. As recommended by the Board, syllabus was now divided into Core and Optional subjects. Core papers were compulsory for all students and optional subjects, of which any three were to be offered (F. No. 44-13/80 A.T., p. 38/corr.). The choice was also subject to the approval of Director.

I. Core Curriculum:

Archives Administration 2. Record Management

II. Optional Subjects were from papers 3 to 9.

3. Conservation, 4.Reprographics 5.Administrative and Institutional History of India (Post 1500 period) 6. Editing and Interpretation of Documents- Persian or Rajasthani or Marathi, or, Malayalam or Portuguese, 7. Ancillary Disciplines. Sigillography, Cartography, Diplomatics Paleography 8. Archival Development in Developed countries & Developing countries 9. Archival Libraries and Information Systems.

III. Out of these 7 optional papers (3-9), a student had to opt for three papers.

Dissertation based on archival sources was compulsory for all students.

Most of the students opted for papers 1to 4, 8 & 9.

Board of Studies approved the revised curriculum of the one-year Diploma Course in its sixth meeting held on 25th August 1983 (F. No. 44-13/80 A.T., p. 38/corr.; NAI Annual Report, 1982, pp.13-15). The total number of papers were now rationalized from 9 to 6, and clubbed two papers of Conservation and Reprography as one paper, seeing the choice of the students during the previous sessions. Approved six papers for the course, comprising namely: (i) Archives Administration, (ii) Records Management, (iii) Conservation & Reprography, (iv) Administrative History, (v) Archival Library & Information System, (vi) Dissertation. These courses were preceded by Orientation Course in History and Evolution of Archives. Board constituted a Committee to examine and finalize the detailed syllabus. It comprised of DA as Chairman with 3 senior officers from the Department, Ms. D.G Keswani, Sh. Y.P. Kathpalia and Sh. P.K. Ghosh as members (F.44-2/83/AT, pp.90-92/corr.).

Annual examiners were also appointed by the Board of Studies. Out of 11 examiners 4 examiners were to be external and 7 internal. The marking scheme was 60% for Theory, 15% for practical and 25% for internal assessments per paper and Dissertation 75 for content +25 for Viva Vice. Altogether, now there were six papers. As per marking scheme, at 65% first Division and pass marks were 50% in aggregate and 40% in individual papers. In case of compartment, a candidate could reappear the following year and pass the exams. So grading was 1st Division, Pass, Compartment or fail. Total marks were to be 600, each Paper of 100 marks each (F. No. 44-3/82- AT & K W). The syllabus of Administrative History of India had been restructured keeping in view the objective of teaching of the paper. The purpose was to provide the trainees with an overall view of the growth and development of the Secretariat and remained confined to teaching mechanism of the Govt., organizational structure of few major Ministries of the Govt. of India, impact of the constitutional development on administrative machinery and the system of record keeping of the Govt. of India and that of the different archives series connected there with. Constitutional History of India was not covered in the course as had a sizeable proportion of trainees from foreign countries (F.No. 21-44/87-Lib., extracts of the Minutes of the Board of Studies, held on 4th Nov.1987 in NAI, p. 56/corr.).

As per the new Curriculum, School of Archival Studies continued imparting theoretical and practical training to the students of Diploma and short-term courses. After its recognition as foremost of its kind in the Afro-Asia region by UNESCO, candidates from many developing countries like Afghanistan, Bangladesh, Botswana, Kenya, Malawi, Malaysia, Nigeria, Sudan, and Thailand underwent training in various archival disciplines. 44 candidates were given training in One year Diploma course in Archival Studies during the years 1981-84 run by the School, while 164 were admitted to various short term courses in Records Management, Archives Management, Care and Conservation of Records, Reprography at professional level and Servicing and Repair of Records at sub-professional level. It was quite encouraging that some of the Indian States like Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal continued running short term training courses for the benefit of employees of their respective state Govts. Other states were also encouraged to run such short-term courses by using the services of their trained professionals within the states (Annual Exam Diploma-1985-86, session, F. No. 44-5/86-AT).

Courses were getting popular in Afro-Asia region and total seats available for admission to the one year Diploma and short term courses was restricted to only 20 in each course, keeping in view the facilities and infrastructure available for theory lectures and for conducting of practical classes. As recommended by the Board of studies, private candidates seeking admission to One-year Diploma course in Archival Studies were now subjected to an entrance test on merit from 1987-88 session, while sponsored candidates continued to be admitted on nomination basis.

Even School introduced registration fee of Rs.25 from Indian citizens and \$25 from foreign nationals as registration fee from the applicants (NAI Annual Report, 1982, pp.13-15).

To augment the teaching faculty in the School, a Fellowship programme was also introduced in 1985, as approved by the Board of Studies in its sixth meeting held on 25th August 1983 (F. No. 44-5/85-AT, one year one-year Diploma Course, Annual Exams (1984-85). The Dept. of Culture approved the scheme vide its U.O. Note No 28-42/83-Lib, dt. 7. 8.1985 (F.N.44-2/83-AT.p.92/corr. Minutes of sixth meeting of BoS. & F.N. 44-1/89-SAS, pp.117-118/corr.). The scheme aimed at initiation of research and development work in the field of archives, preparation of suitable reading material for the trainees of the School and professionals in archives repositories in the third world countries, undertaking consultancy services and improvement of the standard of training at SAS.

Changing the academic structure of SAS, within the approved scheme, the scheme offered 2 Senior and 2 Junior Fellowship (later amended as only Fellow), for renowned Archivists and Conservators for undertaking teaching, specified research work and to provide consultancy. Initially it was for a period of two years, extendable on year to year basis on the basis of performance. In 1989 the Board amended the Fellowship to be offered for one year only, in its meeting held on 19th September, 1989 (F.N. 44-14/85-SAS, pp.21-25/corr.). Fellowships were advertised and circulated on the basis of rules, framed by the Board of Studies, State Archives responded with remarks, no suitable candidates are available or no one to apply. Some recommended retired officers from National and State Archives. The selections were made by the Board of Studies and the Board also monitored the work of the Fellows periodically. Fellows were attached with various members of the Board of Studies for monitoring their working and progress. The Honorarium paid to Sr. Fellow and Fellows was Rs. 2000/- and Rs.1600/- per month respectively. A contingent grant of Rs. 4000 was given per annum, subject to some conditions. Administratively they were all under the administrative control of Director of Archives (F.N. 44-1/89-SAS, pp.112-113/corr.).

The scheme worked for only 6 years (1985-91). As an outcome, School was able to produce some standard text books on various subjects, particularly on Conservation, Reprographics and Records Management for teaching and reference purpose. Besides, School was able to develop and design a small Fumigation Vault, a Vacuum Operated Chamber, for use by small archives, libraries and manuscripts repositories economically priced to be available with limited resource.

With a view to develop efficient professional and sub-professional hands for staffing Archives repositories and other similar institutions, the School continued with its regular course of one year Diploma Course in Archives Keeping. Before the passing of the Public Record Act of 1993, 139 students were imparted theoretical and practical training under the scheme, during the years 1985-1993, including 58 foreign students from Malaysia, Kenya, Malawi, Thailand, Tanzania, Sudan, Nigeria, Sri Lanka and Uganda. State Archives sponsored a good number of officials to get in-service training, in both one year Diploma Course and other short term courses, and more than 500 students had benefitted from these training programmes, including private students. Short term courses are still very popular among officials and private persons particularly in Conservation and Records Management. With the support of Board of Studies and its faculty, the School gained lot of ground academically and administratively. As per recommendation of the Board more than 100 extension lecture programmes were delivered by eminent experts in the field of conservation, information, dissemination and publication, etc. (F.N. 44-1/89-SAS, pp.112-113/corr.). Some of the State Archives like Gujarat, Maharashtra, Rajasthan, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal are also running short term training courses in various aspects of Archives Administration for the benefit of their state Govt. employees and they had been time again advised to evolve a uniform pattern of training all over the country and NAI would support them willingly (IHRC Proceedings, March 1988, Bikaner, pp.99-100).

For augmenting training facilities in SAS, UNESCO also extended its support by funding many of the foreign students during the period of their training under various programmes and gave financial assistance to the School. UNESCO offered 12,000 US \$ for upgrading the School, as an Aid from UNESCO (NAI Annual Report, 1990, p.18). Also funded training of some of its faculty by supporting their deputation abroad for archival education and training.

The enactment of Public Record Act of 1993 mandated National Archives of India to organize training programmes in various disciplines of Archives administration and Records management. Director (Director General w.e.f. June, 1990) was empowered to lay down norms and standards for courses curricula, assessment and examinations relating to the training in archival science and other ancillary subjects and laid down guidelines for training of Archivists; besides training of Departmental Record Officers in the Union Ministries/Departments, Attached and Subordinate Offices manning Departmental Records Repositories. Even Public Sector Undertakings were brought under the purview of NAI. Training of their officials was initiated by- the School, which is mandatory and caters to their requirement of Record Management Practices of current and semi-current records. These organizations (more than 2000) have benefitted in a big way through these training courses.

Member Countries of SWARBICA and SAARC Region too have benefitted in a big way. As per Constitution of SWARBICA, the aims and objectives of SWARBICA is to sponsor professional training of archivists in the region, to organize training workshops as the pre-requisite for developing archives, facilitate international and regional collaboration and sponsor professional training of the archivists in the region while following aims and objectives of ICA. The proceedings of the SWARBICA meetings held since 1976 so far, clearly reveals that thematic conferences are being held regularly along with the meetings of its General Body and Executive Board, promoting regional cooperation and development in the field of Archives as a profession by sharing their expertise and experiences and also deputing their officers for various short term and long term training programmes, sometimes customized as per one's requirement. School had provided customized training to persons coming from Afghanistan, Bhutan, Myanmar, Iran, Gambia, Korea, Malaysia, Mauritius, Nigeria, Sudan, Tunisia, Uganda, Genealogical society, Utah, USA, Oman etc., under Cultural Exchange programmes or otherwise based on bilateral cooperation. Since then School of Archival Studies have been attracting students from the neighboring and African Countries; funding of the foreign students coming for training had been either under Cultural Exchange Programmes or by some International Funding Agencies under some programmes such as Asia Foundation, German Foundation for International Development, Ford Foundation or could seek financial assistance from International Archival Development Fund under Colombo Plan in a big way, particularly in the second half of 20th century, during 1970's and 1980's. Some of the countries who have sponsored students for the One year Diploma Course includes countries like Nepal, Sri Lanka, Bangladesh, Myanmar, Malaysia, Indonesia, Singapore, Afghanistan, Bhutan, Tanzania, Zambia, South Africa, Kenya, Nigeria, etc. NAI have trained more than 20 officers alone from Kenya National Archives and Documentation Service and more or less similar number from National Archives of Sri Lanka. Till recently Bangladesh, Sri Lanka, and Myanmar have been deputing their students. As a matter of fact India has offered more training opportunities than the total for all developed countries put together. This is certainly one of the best examples of South-South Cooperation. Foreign aluminize from the School of Archival Studies had occupied or are occupying the top most important positions in their respective countries like National Archives of Malaysia, Singapore, South Africa, Nepal, Kenya, Sri Lanka, Myanmar, Bangladesh, etc.

The Curriculum Transaction Methodology includes Lectures, Practical, written assignments, Field Study to any of two State Archives/Business Archives, Guest Lectures (30%), Workshops on latest trends of Indian History/Archives Management Information Technology, Conservation, Technology for Archival Storage and Reproduction and Seminar based on Historical/Archival themes.

The curriculum of the School was reviewed and restructured very scientifically in 2006 with more stress on use of Information and Communication Technology for teaching and practical work and hands on training. The curriculum had been since revised involving all the stakeholders by inviting their suggestions and input. The course has also been opened for Post Graduates in other disciplines besides history. The course now includes four compulsory Core papers on Archives Administration, Public Records Management, Conservation and Reprography, and Information and Communication Technology (ICT). There are two Optional/Specialization papers on (I) Business and Private Archives and (II) Archival Libraries and Documentation. A student has to opt for one of these papers. But most of the students prefer to specialize in Business and Private Archives for better employment opportunities as there are many archives being established by Business houses and corporate world like Banks, PSU's etc. Many of our trained archivists are holding top positions in these organizations. The compulsory assignment that every student has to complete is writing of Dissertation on any topic of the interest of the individual student. It's a research work based on archival sources and aims to prepare them to serve, help and guide the research scholars in future and give them a feel of future archivists working in a repository, as to how one has to conduct research, writing of synopsis and use of published material in the library, refer to the kind of finding aids they learn to prepare to get access to archival material of one's topic of research, collection of material, their classification and writing of their dissertation as per chapterization, including proper bibliography and other related details. Few lectures are also delivered on Research Methodology. It's a very comprehensive training programme that one has to undergo while going through this process. Many of the students have produced good standard thesis at par with M.Phil programmes of a University as these research dissertations are evaluated by a university professor and they also hold viva based on their research work and marks are awarded accordingly.

The infrastructure in the School was also strengthened and upgraded with a Modular Conservation Lab and a Computer Lab as a support system (2006-7) for learning and practicing conservation methods and to learn all the basic skills of use and operation of Computers as part of their ICT paper. Lecture cum Conference Rooms are equally furnished with modern equipments and teaching aids empowering the faculty and students to make use of these systems in delivery of the lectures and sharing of one's expertise and experiences on the subject of their study. At the end of the one year Diploma Course, examinations are conducted which include both theory and practical exams for 4 Core and one specialized paper that a student opts besides evaluation of Dissertation submitted. Marks are awarded based on one's performance besides internal marking for the practical assignments completed by the trainees during the year.

Since 2009-2010, a 6 months Internship programme has also been introduced for the private pass out Diploma holders and are also paid a stipend of Rs. 20,000/- per month. During internship period they are attached for a period of one month in important Divisions like Records Repository, Records Management, Conservation, Reprographics and Computers, Reference and Research, Publication & Exhibition etc.. It provides them an opportunity to work and earn at the same and gain experience by working in Archives. As an incentive it keeps their interest alive in the subject and they join the profession of an archivist in due course.

As we can see, the post graduate One Year Diploma Course in Archives Administration and Records Management of the School of Archival Studies, NAI have a very well laid down programme, with more stress on practices and hands on training. The curriculum is also updated regularly and is duly approved by the Board of Studies. It has taken care

of all latest techniques of Conservation, Reprographics including ICT, Digital Records, and specialization paper in Business and Private archives besides Archives and Records management. Currently 20 scholarships are being provided. A mandatory six month paid Internship training is an added incentive offered to pass out private students of one year Diploma Course w.e.f. 2010. The professional qualification has also been recognized as one of the qualification for appointments to the Post of Archivists at the Centre and the States Archival Repositories, University Archives and other such Institutes and Documentation Centers.

3 NOW THE QUESTION IS, DO OUR TRAINING MODELS MEET ALL THESE CHALLENGES?

The Archivists of today are facing several pressing challenges. These include management of electronic records, providing more resources to non-textual materials, devising new methods for description and access, expanding access facilities, generating more research on the archival aspects of information management, strengthening and expanding the resources of the archival enterprise, and maintaining the role of the profession as trusted custodians of the interest of the society. We are at the crossroads, facing challenge of the increasing volume of paper records, and at the same time with the boom of machine-readable records on new medium of computers, tapes, discs etc posing very complicated problems related to digital and digitized records and their management (IHRC Proceedings, Feb. 2013, p. 260).

We have to relook in the structure of the curriculum, that is being supported by our ongoing Archival teaching Institutions, the new emerging models/modules of Archival training as regular training programmes in the international universities like Universities of Dundee, offering courses like Masters in Archives and Records Management/ Masters in Records Management with Digital Preservation or Information Rights by online Distance learning as well as by enrolling at the Centre for Archive and Information Studies (CAIS) at the University to enroll in other courses on PGDip./MLitt/MSc programme. Centre also offers Master's Degree and single courses for continuing professional development, also all by online distance learning.⁶ Likewise International Council on Archives, ICA, launched its online courses on - 'Organizing Family Archives, Introduction to Records Management, Understanding and Using the Universal Declaration on Archives.'⁷ This is a new trend and these courses are expensive too. But they are meant for those who are already in the profession and would like to keep themselves relevant to the profession and updated, need to join these programmes. Happily some of our colleagues are also doing and are also utilizing the information available on the subject on various portals of archives besides ICA.

Besides, in India there are many basic issues that we need to address as beginners in many places. An honest attempt has been made through this Project Study to draw the attention of the authorities both in the Government System and Education set up in the Universities, UGC, and their affiliated Colleges.

These courses are job oriented courses and this is an area where there is lot of scope of employment also. There is shortage of not only trained archivists in the country but equally shortage of archival training Institutions.

6 More: <https://www.dundee.ac.uk/cais/programmes/single-modules/postgraduatemodules/>

7 For more information: <https://www.ica.org/en/training-programme>

While evaluating the case India there is need of trained archivists in thousands taking in view the real factual requirements in Ministries/Depts. of Govt. of India, State Govts.; their archives and other institutions, both in Public Sector Undertakings and Private sector, and further if we see the emerging new archives, as we have come to know, as an outcome of this project study. There is crisis in the system of Archival Education in the country, that we are undergoing and do require drastic changes and efforts, both on the part of the Government, the Universities and more on the part of the Archival community, the Educationists and above all the Historians and the community of the research scholars, the users of Archives. The irony is that they want to use archives to produce theses and books but are not ready to accept Archives and Education of Archival Science as a fully-fledged Discipline. They have to admit that it's a technical-scientific subject of study like any other subject, and more close to history, religious and family institutions, political science, Business and Management Studies, (case of IIMs), Contemporary history, International Affairs, Information and Library science and more so Scientific Institutions because of emerging archives of Scientific and medical Institutions. The subject touches almost all the areas of education and development including Industry, Labor, agriculture, applied sciences, multimedia, Trade and commerce and many more one can easily visualize. It can be studied both as an independent subject of study and can also be taken up as an inter-disciplinary subject of study as has been taken up in the West and China in particular.

ICA has brought out a Directory of Archival Training Institutions and that includes only three countries from Asia i.e. Israel, China and Japan (<http://www.ica.org>). It doesn't include any Institution from India including School of Archival Studies, NAI, even though it was reported to be meeting the archival training requirements of the Afro-Asian countries, when it was duly recognized by UNESCO in 1980. NAI received some books on Archival Science and 2-3 officers were trained at Canada National Archives with the support of UNESCO in doing one month Certificate Training Course in Records Management. It's because we could not fulfill our obligation as per the recommendations of UNESCO and failed to get attention and support in due course of time once recognized as a Regional Centre, in spite of the fact that they found our syllabus more comprehensive than the courses being offered in many European countries; and was considered attuned to international standards at that point of time (The Indian Archives: Volume XXX, 1981, number 2, p.6). Where have we been lacking need to be reviewed and analyzed. What were those recommendations of the UNESCO team, let us review them.

India started archival training way back in 1942 and also reviewed and upgraded its curriculum regularly till recent times. The training programme was summarized by the UNESCO team in these words, "In summary, there is every indication that the programme offered by the Institute of Archival Training of National Archives of India significantly exceeds recognized minimum standards for the introductory training of professional archivists and of technicians in archival restoration and reprography (The Indian Archives: Volume XXX, 1981, number 2, p.1-14).

The team records, that "*The programme of the School of Archival Studies was initially developed to meet the need for professionally trained archivists and technicians in archival restoration and Reprography in public archival repositories in India. The programme was confined within the administrative framework of NAI and had benefitted greatly from the immediate availability of the staff and facilities of NAI. The diplomas and certificates awarded by the school are fully recognized by the Indian Public Service Commission both at the national and state level and have contributed to the improvement in the status of archivists in India. The reputation of the School and the quality of*

its programme, as well as the absence of tuition fee, had attracted trainees from neighbouring countries and increasingly from Africa. One of the major obstacles to its further development and wider acceptance of the School, however, has been the absence of an academic affiliation and accreditation for its programme."

The committee rightly observed that bodies like UPSC will not withdraw their acceptance in developing countries particularly like India and continue their acceptance of these qualifications. Moreover Diploma in Archival Science is not an essential but a desirable qualification and a candidate having 3-5 years original research experience is also eligible to apply for the post of an Archivist in any public archival repository in the Central or State Government and its continuing till date. Rather they have proved their worth without a formal training of Diploma or a Certificate course while working in archives, gaining experience and their contribution had not been less than any trained person in the field of Archives and Records Management. I do fall in this category of officers, having served the Department for nearly 40 years and still continuing with my passion for the subject and profession with full commitment and dedication with the support of likeminded professionals.

UNESCO report also emphasized on the deployment of fulltime faculty. Commenting on the issue it was pointed out that *"Full-time staff members of national and local archival institutions, especially those with administrative responsibilities that come with experience, are not in the best position to undertake the closely-related tasks of basic experience, research and teaching, of experimenting and of cooperating more closely with those involved in training in the other information disciplines. This is ultimately the work, for full-time faculty members in an academic institution"* (The Indian Archives: Volume XXX, 1981, number 2, p.9-10). This is true also, with administrative responsibilities; faculty cannot give time to research and new areas of study.

Thus these were actually the reasons, both theoretical as well as practical to compel National Archives of India to re-designate the Institute of Archival Training as School of Archival Studies in 1980. The UNESCO team had expected SAS to be located within the Department of Library Service at the University of Delhi. But this never materialized in spite of the best intent and efforts of the National Archives of India and the personal initiatives of the then Director of Archives, Sh. SAI Tirmizi, as per NAI records.

Special efforts had been made by the Board of Studies since 1980, which had taken care to update the curriculum regularly. But they could not get it affiliated with any of the three universities in Delhi, University of Delhi, Jamia Millia Islamia or Jawaharlal Nehru University for their own technical reasons. Besides developing the infrastructure, course curriculum, Fellowship scheme was also instituted which worked successfully from 1985-1991 and also developed some teaching learning material for the School, still being used as important basic text Books for the Courses in Conservation and Reprography, both in English and Hindi. In 2006 the curriculum and syllabus had been drastically revised at the instance of Board of Studies;

introducing ICT as a Core paper and two Specialization papers on Business and Private archives and Library Science, Documentation and Information System. Further six months Internship had also been introduced since 2010-11 academic session of the Post Graduate One year Diploma Course in Archives and Records management. Yes regarding full time faculty it has been posted in SAS right from Deputy Director, Assistant Director of Archives, two Archivists and Assistant Archivist level. But sadly the quality of staff being posted in the School needs to be taken care of as in recent years the kind of staff posted therein are not fully well versed in the subjects they are handling with, affecting the overall quality of teaching as it does affect the reputation of the School and the credi-

bility it has gained nationally and internationally in the recent past. The intake capacity of the students has also been increased from 20 to 30 and is also attracting quality students. Some of these areas do need attention and to be looked into for maintaining and sustaining the standards of teaching and learning.

In conclusion, the team found the then infrastructure (in 1980, has been further upgraded since then) for professional and technical training of archivists in India, compelled them to extend recognition as UNESCO Regional Centre for Archival Training in South Asia region, as they recorded, "*now associated with NAI, provides the possible opportunity to expand the existing programme and to extend to it academic accreditation. These actions would enable it better to meet basic archival training needs both in India and in this very large region that now lacks regional Training facilities.*" (The Indian Archives: Volume XXX, 1981, number 2, p.13)

Another area which requires attention is international cooperation and the benefits that these archival institutions can draw from ICA, SWARBICA and UNESCO and other international bodies. The matter has been since revived during the past few years and efforts are being made to affiliate the School with some university. The government of India proposes to establish an **Indian Institute of Heritage and Conservation under Ministry of Culture**; it shall have the status of a deemed University and to bring all the Training Institutes of Archaeology, Museums and the School of Archival Studies under its Umbrella (www.indiabudget.gov.in/doc/budget_speech.pdf.para.73.(accessed on 14.11.2020). It is hoped that it will give the desired results we are all looking forward to.

REFERENCE LIST

- American Archivist, Journal of Society of American Archivists.
 Annual Reports of Imperial Records Department & National Archives of India, 1891-2015
 Archivum, ICA Journal, Few old issues available in SAS Library of NAI.
 Indian Archives, Bi-annual Journal of NAI, 1948-2006.
 Indian Historical Records Commission – A Retrospect 1919-1948 (Calcutta, 1949)
 National Archives of India, A Quinquennial Review- 1948-1952. (New Delhi- 1954).
 Proceedings of National Committee of Archivists, 1953-2000
 Proceedings of Indian Historical Records Commission - 1919-2000.NAI Library.
 Public Records of Imperial Records Department & National Archives of India - 1891-2010
 Report of the Committee on Archival Legislation, 1960, pub. in 1962
 Sixteenth Report of Estimates Committee, 1957-58.
 SWARBICA JOURNALS 1

Živana Heđbeli¹
Nikola Mokrović²
(Croatia)

SOCIALIST UNDERSTANDING OF ARCHIVAL PROFESSION

ABSTRACT

Authors have presented socialist understanding of the archival profession. The work is based on a relevant literature, laws, and statistical data. By using the statistical and descriptive method of analysis, it is elaborated whether the socialist regimes cared about the archives, and if they did, to what extent. There is no unified understanding of history in Socialist theory, as it contains a variety of theoretical orientations that attach different meanings to the concept, depending on other important concepts (state, freedom, class), and on different levels of theoretical consciousness. The problem of large backlogs of unsorted records has for many years been a fundamental characteristic of archival practice. Sticking mostly to technical issues, the relevant articles on this topic mainly wring their hands over the situation and try to standardize it as much as possible. Socialist theories of history, whether Marxist or non-Marxist, do not directly engender an attitude towards how certain material traces will be appraised. That is, they do not contain any epistemological predisposition that would determine the value of evidence, and thus directly influence an archival conception. In Socialist systems, the fundamental problem lay in the duality between the state and the party, which was either manifest in the invisibility of certain archives, or represents the potential for powerful social standardization, strong social values in the establishment of specialized archives whose role was to preserve, promote use of the records. There is a need to envisage a comprehensive metaphysics and philosophy of the archival science, and create an all-encompassing archivist paradigm appropriate to all the specificities of the history and development of Croatia – a task that neither the SRC nor, at least as yet, the Republic of Croatia have yet undertaken.

Keywords: archives, socialism, specialized archives, records appraisal

1 INTRODUCTION

Ruptures in the movement of history are a composite of the complex interplay between ideas and political dynamics. How we understand history will depend on a whole array of factors, including one that most usually goes unseen by the public – the material

1 Dr. sc. Živana Heđbeli, scientific associate, senior archivist, Croatian State Archives, Marulićev trg 21, 10000 Zagreb, Croatia, zhedbeli@arhiv.hr, +385 1 48 01 999.

Graduated history and archaeology, master and doctor of archival science. During hers reach and long carrier worked in archival institutions and governmental office, She was assistant professor and first woman, director of the State Archives of Zagreb, now working in the Croatian State Archives. Independently, or as a working group leader arranged some 4.2 long kilometers of records created by various creator from XIX till XXI century. Member of several professional associations and editorial boards. Participated in numerous national and international conferences and symposiums. Hers scientific, professional and popular articles are published in various publications and on web sites. Author of several books, manuals and translations.

2 Nikola Mokrović, archivist, Documenta – Centre for Dealing with the past, Selska cesta 112c, Zagreb, Croatia nikola.mokrovic@documenta.hr
Holds MA in Political Sciences, currently PhD candidate in University of Graz. Works in Zagreb based CSO Documenta, on protection of archival records and research of human losses in Homeland War.

traces safeguarded in archives. Archivists, as the guardians of these traces, may be more aware of this problem than anyone else – the wind-swept open spaces of history coincide with large quantities of unsorted material. Archivists are also more aware than others of the problem of *Fortuna* surrounding the fate of paper: the valuable records of one period become a worthless mass of discarded paper in another. The unwritten rule of the profession, which derives from the reasonable need to protect the records, is that users should never be given unsorted material. What's more, if an archival fonds and an archive represent a distinct body of knowledge, which guarantees information transparency and predictability, that is all the more reason to deny access – it is in nobody's interest to dig through informational chaos. The legal framework is of no assistance. The more complex the legislation becomes, potentially the more space there will be for various interpretations and out-of-joint practice. Things are all the worse in that archives only come into public awareness when there is a search for that one key document, precisely the one *that is missing*. Thus, in the public sphere, archives appear as the places of *scandal*. The 2017 Law on archival records and archives Act placed the long-deferred questions of what we know as "transitional justice" on the agenda of public considerations – however, this solution too was more a result of a specific political dynamics than a comprehensive conception in which all the stakeholders have an equal part. The situation as briefly summarized raises the question: how many of the determined parameters have carried over as the result of the former socio-political system?

2 SOCIALIST CONCEPTIONS OF HISTORY

There is no unified understanding of history in Socialist theory, as it contains a variety of theoretical orientations that attach different meanings to the concept, depending on other important concepts (state, freedom, class), and on different levels of theoretical consciousness. However, one might draw a rough demarcation line between two prevailing tendencies. One tendency is certainly that which has originated in Marxist theories, and found its conceptualisation primarily in the work of Marx and Engels, who saw G.W.F. Hegel's work as one of their main theoretical predecessors. The materialist understanding of history sees the movement of history as determined by certain laws – conditions of production, the social relations that constitute them – and a certain purpose, posited as the fulfilment or showing of the full potential, that is, the truth of a notion. Using a scientific approach to such rules, it is possible to reconstruct the logic of development of the modern societies characterised by the capitalist mode of production. Discovering the logic of these societies' development at once means the positioning of a certain subject of history so as to lead this truth to its final purpose and turn it into its own advantage. The conditions for a conscious intervention into history are narrow, and the main tension arises in the opposition between immutable laws and free political action. Such understanding of history wishes to see itself as scientific, in contrast to the utopistic, voluntaristic, etc. This position has largely been shaped in 19th century debates, chiefly concerning the question of the state, and has subsequently reverberated across a series of other discussions that accompanied the real splits within the Socialist movement (the publication of the Gotha programme, the split in the Russian Social Democratic Labour Party, the beginning of World War II and finally the Bolshevik revolution). With the Socialists' ascent to power, a certain conception of social development, and thus history, has irrevocably tied itself to the weight of political responsibility, that is, of actual subordination to political demands. Science-based politics (and hence also economy and other sciences) of that mould have come to an inglorious end in the late eighties, and together with such politics, a specific vision of the dynamics of history has also declined.

Such a vision of history is confronted with Socialist visions of history of different tenors, which see history primarily as the history of unfreedom and subjugation. In this case, the motives were so varied that it is impossible to enumerate them. However, what they do have in common is that they will determine their understanding of history, that is, contemporaneity, by and large with respect to the dominant currents of Marxist pre- and post-revolutionary flows. Thus, a series of historiographies will emerge, focussed on uncovering the betrayal of the revolutionary principles of the October revolution, or simply the crime of the October – that is, what we call dissident culture – or on the series of fellow travellers in the West (the so-called *New Left*). In these cases, the impetus towards political action will be inversely proportional to the creation of an all-encompassing conception of history, and thus also a method. The late eighties and the overall collapse of the Socialist idea will give place to other dominant political ideas, while left-wing alternatives will primarily rest on the various motives that largely grew out of the new social movements of the eighties. Parasitology will rework history with its methods and its emphases, such as culture of memory and oral history. The late naughties, with the outbreak of the global crisis, marked a return to methodologically stricter premises for a left-leaning social analysis.

3 ARCHIVES IN CROATIA

Socialist Republic of Croatia³ (SRC) did not inherit a developed tradition when it comes to archival records. Three archives existed on Croatian territory in the period after World War I, at the moment the Austro-Hungarian Empire was breaking up, in Zagreb, Dubrovnik and Zadar, as part of local administrative jurisdictions. Neither the Kingdom of Yugoslavia nor the Independent State of Croatia adopted archival legislation.

The network of archival institutions in Croatia was built in two waves, one in the 1960s, and the other after the Republic of Croatia (RC) gained independence, and now comprises 18 state archives and one special archive.

The SRC began keeping statistical records of archives in 1978. Statistical data is kept for general and special archives, for a total of 15 archival institutions with 4,100 users. The material from the older period is given separately from the material from the Socialist period.

Table 1, Archives 1978

| Archival material from the older period | | | | | |
|---|--------|-----------------|--------|-------|--------|
| Archivally arranged | | Current records | | Bulk | |
| fonds | d/m | fonds | d/m | fonds | d/m |
| 1,387 | 10,147 | 692 | 15,065 | 436 | 11,149 |

| Archival material from the socialist period | | | | | |
|---|-------|-----------------|--------|----------|-------|
| Archivally arranged | | Current records | | Unsorted | |
| fonds | d/m | fonds | d/m | fonds | d/m |
| 669 | 4,051 | 1,535 | 15,693 | 324 | 4,923 |

Statistical data were soon no longer collected separately for the records from the older period and the records from the Socialist period. The Croatian Bureau of Statistics keeps special statistical records for culture and the arts, where data on archives can also be found.

³ The SRC existed from 1945 until 1990.

Table 2, Archives 1984 – 2017

| Year | Arc-hives | Archival fonds and collections | | | | | | Users | Employees | |
|------|-----------|--------------------------------|---------|----------|--------|--------|--------|-------|-----------|---------------------|
| | | Total | | Arranged | | Bulk | | | Total | Archival profession |
| | | number | d/m | number | d/m | number | d/m | | | |
| 1984 | 16 | 6,242 | 61,779 | 5,225 | 51,017 | 1,017 | 10,762 | 4,763 | 289 | |
| 1990 | 16 | 7,712 | 72,806 | 6,094 | 55,685 | 1,618 | 17,121 | 6,928 | 330 | |
| 1999 | 13 | 9,633 | 95,460 | 6,773 | 72,550 | | | 5,795 | 358 | 230 |
| 2011 | 18 | 14,418 | 104,609 | 9,637 | 69,248 | | | 8,379 | 472 | 286 |
| 2017 | 19 | 15,763 | 117,268 | 10,674 | 73,664 | | | 9,928 | 495 | 318 |

Depending on the period, the special archives are: the Archive of the Institute for the History of the Workers' Movement of Croatia,⁴ the Croatian Memorial and Documentation Centre of the Homeland War⁵ and the Archives of the Croatian Academy of Sciences and Arts.⁶ The 1962 Law on Archives and the Protection of Archival Records (Rastić, pp. 125-138) stipulated that archival records resulting from the work of internal affairs and national defence bodies is to be kept by such bodies. The 1965 Law on Archives and the Protection of Archival Records (Rastić, pp. 166-178) stipulated that archival records resulting from the work of the League of Communists of Croatia is to be kept by its committees, which can entrust it to an archive or another interested organisation for safe-keeping and education.

If we compare the number of archives in 1918 and 2019, we can see that over one century, the number of archival institutions has increased by 533%.

The number of archives in 2018 was 18.7% percent higher than 1984. The amount of stored records in 2017 had increased by 89.8% on 1984. In 2017, the number of people employed in archives was 71.2% higher than in 1984. The number of users in 2017 was 108.4% higher than in 1984.

During 33 years, between 1984 and 2017, the number of archives and their employees has increased, as have the amount of records stored in archival institutions and the number of their users. However, the level of arrangement has not – in fact, the amount of unsorted records has practically doubled; in 1984, 17.4% of the records was unsorted, while in 2017 this rose to 37.1%.

The Ministry of Culture Strategic Plan 2020-2022 states as follows: "... it is necessary to harmonize or supplement the descriptive data for about 50% of the records held in archives..." The National Plan for the development of the archival profession 2020-2025 states that the amount of records that is unavailable due to the low level of its arrangement needs to be reduced; that is, the records need to be arranged and processed, and finding aids need to be made.

Both the SRC and the RC used statutes to regulate the office management of administrative bodies. From the 1957 to the 2017 statute, it has been determined that cases that have been settled are to be kept in bodies' record offices, which perform the tasks of safeguarding and disposing of files and other documents.

4 This archive was in existence between 1949 and 1995.

5 The centre was founded in 2004.

6 The beginnings of the Archives of the CASA reach back to 1867.

The Socialist Federal Republic of Yugoslavia, the SRC and the RC have legally regulated the archival service. From the 1950 General Law on State Archives up till the latest legislation, from 2018, the fundamental tasks of an archive have always been the same: selecting, acquiring, arranging and safekeeping archival records, and overseeing how archival records and current records held outside archives are kept, and prescribing measures to protect the records.

The proportion of unsorted records in records offices and archives has been growing. The question as to the causes of such under-performance inevitably arises. Is the poor state of arrangement of current records and archival records "merely" a matter of low efficiency, or is something else involved, a systematic attitude towards archives on the part of the state?

4 THE STATE AND ARCHIVES

The problem of large backlogs of unsorted records has for many years been a fundamental characteristic of archival practice. Sticking mostly to technical issues, the relevant articles on this topic mainly wring their hands over the situation and try to standardize it as much as possible.

How to determine the right angle to view this specific dimension? At the primary and evident level, archival systems are not helped by the fact of the development of states as large administrative apparatuses. With the development of societies and the rising complexity of economic, political and other relations, the amount of written traces also rises, which they cannot adequately process. Records does not reach archives in an organised and annotated form. On another level, there is no clear concept of what an archive is supposed to represent in a community. Almost none of the texts published in the 1958 edition of the *Arhivski vjesnik* [Archival journal] pose this question. All the discussions are oriented towards efficacy, with poor results.

Archival science concerns itself with preserving documents of lasting social value. It rests upon a series of assumptions and conceptual models that have a twofold goal: a) to protect what a certain society considers valuable to its contemporaneity and history from being forgotten, and b) to turn concepts into a reliable and efficient technique that can autonomously fulfill its primary, "substantial" task. One of the key issues for archival science is the appraisal of records. Classical archival studies, as well as every modern archival textbook, seek to grapple with two fundamental questions: "what is worth preserving" and "how to preserve". While classical formulations primarily viewed this problem from the standpoint of the efficacy of managing large quantities of papers (Jenkinson), or through the conceptual understanding of the diverse functions of papers from the standpoint of its primary and secondary use (Schellenberg), contemporary professional archival education increasingly challenges the archivist to be an active subject in deciding on values. From the safe comfort of technique, the archivist is becoming more and more exposed to the challenges of substance. In principle, the problem is unsolvable: assuming relative autonomy in decision-making, archivists are subject to their own subjective judgements, an arbitrariness deriving from one's own preferences and knowledge. On the other hand, an assumption that the archivist's role is that of a technician, for whom the value of certain content is defined from "outside", is untenable, as the other assumption, that some other, "neutral" body, has made the objective choice, has become questionable. This tendency is further sharpened by the extent to which the archival science, in dialogue with other social sciences, has brought to awareness its role as the guardian of the symbols of those who have power, and became increasingly aware of its functions in terms of social (and not merely formal and

legal) reasons. Archives are not neutral guardians of our history; the content they keep represents the symbolic power relations between the dominant and the excluded social, political and other groups. In so far as archivists are not merely guardians of history, but its active producers, and the question of producing and keeping content arises in a sharpened, brought-to-awareness sense as the question of social justice, the archival science is faced with the key question defining any polity: *what is just?* Is archival science, that is, are archivists qualified for such a mandate?

Archival science is a discipline whose fundamental function, by force of public authority (unlike other institutions of memory), is to preserve traces of symbolic relations as relations of power/powerlessness, inclusion/exclusion. In this purest, political sense, the potential that it might submit to political power is absolute, and will manifest differently in different political systems. Although an archive can preserve its autonomy in its purely technical dimension under totalitarian, authoritarian and democratic political systems, the question is precisely how to determine the dominant narrative, that is, the ideology that provides the basis for determining the values of substance. The more democratic the political authority and the more autonomously its assorted subsystems function – which also pertains to freedom of research and scholarship – it is to be expected that the process of determining the threshold of value will be more open.

Understanding a certain conception of history – that is, its inextricable relationship to a certain political substance and a certain dominant narrative – becomes visible in moments when social cleavages and conflicted social dynamics are revealed. In such moments, the hidden is revealed, and the hitherto dominant image is shown to be false and limited. All the challenges of transition justice originate from the challenge of making a clean cut between the undemocratic, authoritarian state where human rights are violated and the rule of law, and fairly tackling the previous understanding of justice. An important role here is played precisely by independent institutions of memory that have their roots in the civil society, as on the whole, the state always reacts more slowly in recognising previously committed injustices, and finds it much harder to deal with the problem of continuity. It is for this reason that the strength of archives carries enormous importance in transition societies. Even in consolidated democratic societies, social cleavages gain their expression through independent archives that stress the social role of excluded or invisible groups. In the West, such archives are generally, broadly called *community archives*.

5 CONCLUSION

Socialist theories of history, whether Marxist or non-Marxist, do not directly engender an attitude towards how certain material traces will be appraised. That is, they do not contain any epistemological predisposition that would determine the value of evidence, and thus directly influence an archival conception. The key threshold is the point where certain premises, guiding principles, dominant subjects are turned into a certain type of social action and, in the purest sense, of political action. In the sense in which Socialism, that is, a specific "Socialist" practice are relevant here, they need to be understood as a certain political system, and the main problem of managing a political system is how to transform various political, supra-political, moral values into techniques. In Socialist systems, the fundamental problem lay in the duality between the state and the party, which was either manifest in the invisibility of certain archives, or represents the potential for powerful social standardization, strong social values in the establishment of specialized archives whose role was to preserve, promote use of the records. From the perspective of the state/party, such material is accorded spe-

cial attention and its safekeeping is guaranteed. From the archival perspective, there arises the formal question of the integrity of fonds, of provenance, of original order, and, further still the question of mandate arises: while the primary function of regular archives is the protection and use of the material, the primary task of specialized archives is the production of knowledge, that is, developing a certain conception of the truth. The problem indicated above, between substance and technique, is thereby solved through a mechanical separation: technique (regular archives), substance (specialized archives). In this sense, it can be said that the state treats archival records differently, that is, analogously to the famous legal maxim, the general should yield to the special. Finally, this will mean that normal material will be processed using the regular procedures and norms, such that create huge, irreparable backlogs, while material of foundational value will always have precedence. This separation speaks to the need to envisage a comprehensive metaphysics and philosophy of the archival science, and create an all-encompassing archivist paradigm appropriate to all the specificities of the history and development of Croatia – a task that neither the SRC nor, at least as yet, the Republic of Croatia have yet undertaken.

REFERENCE LIST

1114. *Kultura i umjetnost u 1999. Statističko izvješće.* (2001). Zagreb: Državni zavod za statistiku
1475. *Kultura i umjetnost u 2011. Statističko izvješće.* (2013). Zagreb: Državni zavod za statistiku
1624. *Kultura i umjetnost 2017. Statističko izvješće.* (2019). Zagreb: Državni zavod za statistiku
- Arhivski vjesnik* (1958-2019), 1-62. Available at <https://hrcak.srce.hr/arhivski-vjesnik> (accessed on 15 April 2020)
- Atlanti* (2010), 20. Trieste: Archivio di Stato di Trieste, International Institute for Archival Science of Trieste and Maribor
- Gilliland, A., Flinn, A. *Community Archives: what are we really talking about?*, Available at https://www.monash.edu/__data/assets/pdf_file/0007/920626/gilliland_flinn_keynote.pdf (accessed on 11 August 2020)
- Greene, Mark A. (2013) A Critique of Social Justice as an Archival Imperative: What Is It We're Doing That's All That Important? *The American Archivist*, 76(2), pp. 302-34. Available at www.jstor.org/stable/43490357 (Accessed on 11 August 2020)
- Hrvatska akademija znanosti i umjetnosti, <http://info.hazu.hr/hr/>
- Hrvatski institut za povijest, <https://www.isp.hr/>
- Hrvatski memorijalno-dokumentacijski centar Domovinskog rata, <https://centardomovinskograta.hr/>
- Kultura i umjetnost 1978.* (1979). Dokumentacija 373, Godina 1979. Zagreb: Republički zavod za statistiku, pp. 36-37.
- Kultura i umjetnost 1984.* (1985). Dokumentacija 606, Godina 1985. Zagreb: Republički zavod za statistiku
- Kultura i umjetnost 1990.* (1992.). Dokumentacija 829, Godina 1991. Zagreb: Republički zavod za statistiku
- Mokrović, Nikola, Heđbeli, Živana (2013). Metamorfoza arhiva kroz prizmu političkoga. *Zbornik radova sa stručnog skupa : 4. kongres hrvatskih arhivista „Arhivi i politika“.*

- Opatija: Hrvatsko arhivističko društvo, pp. 45-57.
- Nacionalni plana razvoja arhivske djelatnosti za razdoblje od 2020. do 2025. godine. (2019). Available at <https://www.min-kulture.hr> (accessed on 14 April 2020)
- O studiju moderne arhivistike i dokumentalistike. Available at <https://inf.ffzg.unizg.hr/index.php/hr/odsjek/katedre/arhivistika-i-dokumentalistika> (accessed on 14.4.2020.)
- Rastić, M. (Ed.). (1998). *Arhivi i arhivsko gradivo : zbirka pravnih propisa 1828-1997*. Zagreb: Hrvatski državni arhiv
- Strateški plan Ministarstva kulture 2020. – 2022. (2019). pp. 60. Available at <https://www.min-kulture.hr> (accessed on 14 April 2020)
- Székely, I. (2010) The Four paradigms of Archival history, *Journal of Information Technology Research*, 3(4), pp. 51-82.
- Vukliš, V. (2020), Retracing Labor in Yugoslav Socialism. Reflections on Research and Archival Approaches, *Südosteuropa* 68 (2020), no. 1, pp. 25-43.
- Vuković, Marinko. Arhiv Hrvatske akademije znanosti i umjetnosti. Available at <https://www.matica.hr/hr/519/arhiv-hrvatske-akademije-znanosti-i-umjetnosti-u-zagrebu-27023/> (accessed on 26 June 2020)
- Zakon o arhivskom gradivu i arhivima (1997). Narodne novine, Official Gazette of the Republic of Croatia. no.105/1997, 64/2000, 65/2009, 46/2017
- Zakon o arhivskom gradivu i arhivima, (2018). Narodne novine, Official Gazette of the Republic of Croatia. no. 61/2018, 98/2019
- Zbornik radova sa stručnog skupa 4. kongres hrvatskih arhivista u Opatiji, Arhivi i politika*, 2013). Opatija: Hrvatsko arhivističko društvo. Available at <https://www.had-info.hr/dokumenti/publikacije> (accessed on 14 April 2020)

Pekka Henttonen¹
(Finland)

ARCHIVAL EDUCATION IN FINLAND – TRAITS AND DEVELOPMENTS

ABSTRACT

The article discusses history of archival education in Finland and evaluates critically its current status suggesting improvements. It also shows how content of degree programs for archivists and records managers are shaped by factors beyond the recordkeeping perspective: amount of resources, administrative and scientific context of archival science, co-operation of universities, and national policy of education.

Purpose: The purpose is to examine features that have affected archival education in the national context.

Method/approach: The article is based on literary sources and the author's own experience. The arguments are supported by examples.

Results: What is taught in degree programs educating archivists depends in part on issues that are not controlled by archival educators or archival profession.

Conclusions/findings: Situation might be improved by increased international co-operation of archival educators. Successful joint projects and degree programs would support archival education at local level, stimulate it, and probably increase status of archival science generally in academia.

Keywords: Archival education, Finland

1 INTRODUCTION

It is probably impossible to say when Finnish recordkeeping profession was formed. It is obvious that recordkeeping tasks have been there for centuries. It is known that in 17th century there were persons – usually called aktuarius – in administration responsible for registration and preservation of records. (Orrman, 2019a, p. 110) First registrars appeared in Swedish² government payrolls in year 1729 (Kallberg, 2013, p. 18). Highest government agencies had archivists in the 1820's, but the title of archivist was rare. In provincial government, at the next lower administrative level, positions of archivist appear in the turn of the 20th century. (Lybeck, 2016b.) The current National Archives of Finland was formed gradually from the Archives of the Imperial Senate. It changed its name to State Archives in year 1869. (Rastas, 1999.) The name was changed to National Archives in year 1994. First associations of records professionals outside the National Archives were founded only after the Second World War: The So-

1 Pekka Henttonen, associate professor, Faculty of Information Technology and Communication, Tampere University (Finland). Email: pekka.henttonen@tuni.fi

Pekka Henttonen's has PhD in information studies. His dissertation (2007) was about speech act theory and archival science. Henttonen's special field is electronic records management. Henttonen has published research about requirements for electronic records management systems, metadata, knowledge organization, and Finnish archival history. Before university career, Henttonen worked in the National Archives and Military Archives of Finland. Besides scientific publications, he regularly writes to professional journals and is a frequent speaker in national and international conferences. Henttonen is a member of the International Institute for Archival Science in Trieste and Maribor.

2 Finland was an integral part of Sweden before her annexation into Russian empire as an autonomous grand duchy in 1809.

ciety of Finnish Archivists in 1947 and The Finnish Business Archive Association in year 1960 (Lybeck, 2016a, pp. 16–17, 21).

Thus, it seems that for a long time there were few archivists in the country. A broad archival profession characterized by common identity and values is probably a recent 20th century phenomenon. This is certainly true to its education. Finland has never had archival schools. Instead of schools, the National Archives has been the driving force in archival education. This is typical to Nordic countries. (Lybeck, 2003.) First systematic archival education in the country was started only in year 1926. In the beginning this education was intended only to personnel already working in the National Archives. Goal was to familiarize students with the collections of the National Archives and to give them capability to read old documents. Some archival theory was also included in the course. The education was primarily targeted for future historians working in the archives. Because at that time there was no system for financing PhD studies, PhD students in history often made archival career to advance their studies. (Orrman, 2019b.) Besides higher education, also archival training was offered, but only much later. An archival exam for non-academic professionals was created in year 1969. (Toivanen et al., 1996, p. 57).

Today the National Archives is still giving training in the field, but since year 2014 higher education of archivists has been the responsibility of universities. (Lybeck, 2016a, p. 225.) However, archival science made its debut in Finnish universities before that. The first university program for archival science was launched in the University of Tampere (current Tampere University) in year 1997 after a planning process with the National Archives. The program did not then – and it still does not – make a difference between records and archives management. The approach is holistic and follows records continuum model and life cycle models (Huotari & Valtonen, 2003). Internationally archival science is usually positioned either in the context of library and information science or a department of history (Cox & Larsen, 2008). In Tampere University the context has been library and information science, although the hosting discipline was renamed to “information studies” in the beginning of the 1990s (Mäkinen, 2007).

When transfer of higher archival education to universities was considered also a department of history was also considered as locations for archival science (R. Pohjola, personal communication, June 4, 2020) but in the end the first program found its home in information studies in year 1997. Departments of history took an interest in archival science only later. The apparent reason for this has been the need to increase history students’ opportunities for employment.

Today several higher education institutions offer archival courses as part of their education (Table 1).

Table 1 Finnish higher education institutions giving archival education

| University | Location | Faculty/Department | Degree discipline(s) in which the courses are embedded | Intake |
|--|----------|--|--|----------|
| Tampere University | Tampere | Faculty of Information Technology and Communication Sciences | Information studies | Annual |
| University of Turku (together with Åbo Akademi University) | Turku | School of History, Culture and Arts Studies | Ethnography and ethnology, folkloristics, history | Biennial |
| University of Eastern Finland | Joensuu | Department of Geographical and Historical Studies | History | Annual |

| | | | | |
|--|-----------|-------------------------------------|---|----------|
| University of Jyväskylä | Jyväskylä | Department of History and Ethnology | Ethnology, anthropology, history, literature, museology, art history | Biennial |
| University of Oulu | Oulu | Faculty of Humanities | History, archeology, information studies, cultural anthropology, sami culture | Biennial |
| South Eastern Finland University of Applied Sciences | Mikkeli | - | Business Management | Biennial |

In addition to these five universities one may take the degree of Bachelor of Business Administration in South Eastern Finland University of Applied Sciences after studies in electronic archiving.

2 PROBLEMS OF THE CURRENT ARCHIVAL EDUCATION

The number of higher educational institutions giving archival education may create an impression that archival science is flourishing in Finnish universities. Unfortunately, this is not the truth. There are three basic problems.

Firstly, in general the university programs are small. Universities of Oulu, Jyväskylä, and Turku intake new students only every second year (Enbuske, 2019; Hänninen, 2019; Roiko-Jokela & Valtonen, 2019).

Secondly, the programs suffer from lack of resources. Until recently several programs were on temporary basis and their long-term future was uncertain. Only Tampere University has a teacher with PhD in archival science. No Finnish university has a professor in archival science. This is both a consequence of and a reason for the small size of the programs.

Thirdly, because of the lack of resources the task of giving higher archival education is only partially in the hands of the academic community. Although higher education institutions have formal responsibility, in practice outsiders often teach at the courses. The teachers often come from the National Archives and teach in the university in their private capacity, not as representatives of the National Archives.

These three basic problems – smallness of the programs, lack of resources in the universities, and outsourcing of education – have consequences when we look at the current situation.

Firstly, in my opinion it is fair to describe Finnish archival education generally more professional than research oriented. Most programs strive to give students capabilities that they need to find employment after graduation. Although giving professional capabilities is acceptable goal by itself, a vivid academic discipline also needs research. When universities do not have places for people capable to and interested in making research in archival science, academic research community remains underdeveloped, even though the number of PhD degrees grows slowly. Taking a PhD in archival science is possible only in Tampere University. So far, seven PhD theses have been completed in years 2005 – 2020, two by foreign students from Island and Namibia. Except for archival history and excluding all masters' theses, Tampere University is the sole center for research on Finnish archives and records management. This can be seen by looking at what has been published internationally in peer-reviewed journals about the subject.

Secondly, having several small programs in the field leads to waste of resources. Every program needs to give its students basic understanding of the archival field. This means that same things are taught in different institutions and the work is duplicated.

Thirdly, there is less room for specialization. When one teacher must cover most or all archival areas in the courses of his institution and keep his knowledge up to date in all these areas, it is more difficult to specialize in one topic and gain deeper knowledge in it.

3 SUGGESTION FOR IMPROVEMENT – INCREASED CO-OPERATION

It is easy to see that the situation might be improved by increased co-operation of universities. That would allow the universities to specialize and offer in-depth courses in different archives-related areas. For instance, one university could give a course in digital humanities, another in public sector information management, and the third in archival description.

Need for co-operation is generally recognized but achieving it has proven to be difficult. For instance, there has been discussions about a joint nationwide archival curriculum. On its way are numerous obstacles. Universities are independent actors and one cannot force them to co-operate or share resources. One must take into consideration division of workload and possible compensation that a university offering a less popular course should give to a university with a more popular course. Every university has its own schedule for renewing its curricula. Therefore, a nationwide joint curriculum could not be achieved at once but only after a period of transition during which universities would join it at their own pace. But this, on the other hand, has been hindered by the fact that programs that run on short-term basis and without assurance of continuation of their resources and existence in few years simply cannot make any long-term plans.

The issue has also a societal dimension that goes beyond specifics of any field: what is believed to lead to highest scientific level and best success in international comparison – is it competition between the national universities or, vice versa, their co-operation? This question is related to education policy, among other things. Finnish Ministry of Education and Culture wants universities to “profile” themselves, to cut off overlapping areas, and to concentrate on their respective strengths (Luoto-Halvari, 2016). A long-time goal has been to cut down costs and reduce the number of universities (Liiten, 2017). However, universities enjoy broad autonomy. The ministry can direct universities mostly indirectly by channeling their funding.

This creates the framework in which archival science operates. The winds of the policy turn from time to time. About ten years ago University of Tampere and University of Jyväskylä launched a joint archival science master program. The vision was at that time an alliance of three universities: University of Tampere, Tampere University of Technology, and University of Jyväskylä. The goal was tight co-operation that would bring advantages of a merger while universities would still retain their independence. (Myllylä & Sohlo, 2009.) Thus, when the joint archival master program of Tampere and Jyväskylä was started it was a prime example of what was to be expected and a model to follow for all the university. However, only a few years later the alliance of the universities was abandoned. The joint program fell in disfavour in the eyes of the university management, and it was dismantled.

However, attempts to increase co-operation are continuing. In this Autumn Tampere University and South Eastern Finland University of Applied Sciences will start co-operation by experimenting course exchange: a small number of students in archives and records management can participate in courses of the other institution. This hopefully turns a new page and other universities join in later.

4 ARCHIVAL EDUCATION IN THE MELTING POT OF TAMPERE UNIVERSITY

The network of universities is one framework for archival science. The administrative and scientific structure inside the university is another one. The immediate context of archival science impacts what future recordkeeping professionals learn in their studies. The fact that hosting discipline for archival science is information studies means that students graduating from Tampere University have at least some understanding of library management, information retrieval and information seeking.

The goal has been to unite different – e.g. archival and library – perspectives together, but my personal view is that real integration is limited: for instance, a course may discuss information management both from the angle of libraries and archives, but what takes place is that these views are presented by turn to the students, and not as an integrated whole: there simply is no theoretical and practical background for that.

In recent decade, the development in Tampere University has been towards larger units. Organizational mergers and resuffling has affected content and structure of degree programs. Inadvertently, at the same time, it has also lowered the status of archival science. During a relative short period of time, about ten years, the organizational structure in Tampere University has undergone several changes. Firstly, *The Department of Information Studies* was merged with HypermediaLab in year 2009. Next the number of independent units was reduced by merging departments together into schools. *The Department of Information Studies and Interactive Media* resulting from the previous merger disappeared and, in its place, came the *The School of Information Sciences* in which information studies and interactive media was grouped together mathematics, statistics, and computer science. The next step was abolishing the schools in 2017. Now information studies and interactive media found itself in *The Faculty of Communication Sciences* together with studies of translation and linguistics, among others. However, this faculty was only a temporary step in the formation of totally new university together Tampere University of Technology and Tampere University of Applied Sciences. The new university was launched in the beginning of year 2019. Today information studies is a discipline in the *Faculty of Information Technology and Communication Sciences*. The faculty covers a broad range of areas from engineering in semiconductor technology to journalism.

Thus, the current organizational structure is fifth in about ten years. At every phase combination of disciplines has been different. The closest companion during this time, interactive media, has now drifted apart. It still is in the same faculty, but not in joint degree program anymore.

Although organizational resuffling does not have a direct relationship to research or degree programs, disciplines in the same unit are generally encouraged to work together. While the resuffling has been going on the resources have been generally cut down. The Department of Information Studies and Interactive Media had five full professors, and, among other teachers, two lecturers specialized in archival science. Today, there are only two full professors in information studies and one lecturer in archival science.

A related development is reducing number of entry points to the university: there are today fewer degree programs than before. Therefore, degree programs have become broader and more multidisciplinary. Information studies still has its own master's program, but lower courses are now a part of joint Bachelor's Program in Multidisciplinary Communication Studies. The bachelor's program includes also courses in journalism, communication, and media research.

5 DISCUSSION AND CONCLUSIONS

What does this mean to the education of archivists and records managers? Firstly, formally the status of the courses in archival science has slowly been lowered. All the changes have contributed to this: disappearance of small independent administrative units that had interest in protecting even small degree programs; cutting down the resources which makes it harder to maintain a broad selection of courses and a degree program of its own; and the goal of reducing the number of entry points to the university which leads to fewer and broader programs. Therefore, courses that once were the core of a master's program in archives and records management, became first a study program or specialization inside a master's program. Today they are optional courses among others in the Master's Degree Program of Information Studies.

Secondly, if we look at the total set of skills and knowledge that an archivist or records manager may receive in course of his studies, it is only partially determined by the recordkeeping perspective. In the limits set by the degree program, the student in Tampere University may select very freely the courses to be included in his studies. Much depends on how goal oriented and conscious the student is about the requirements of the field when he selects courses that he wants to take. Nevertheless, the first choices are made inside the degree program, and its content is defined by the administrative-scientific unit (like a department or faculty) that is responsible for creating and maintaining the degree program. How these units are formed is a complex process in which needs of a very small research area plays only very small role, if any. More powerful research areas dominate, and the outcome of change processes is decided in their negotiations. This outcome is not always favorable to archival science in all respects.

For instance, from the recordkeeping perspective combining information and knowledge management in the degree program would be sensible. Unfortunately, despite discussions, information and knowledge management has been positioned in a different faculty from the information studies, that is in The Faculty of Management and Business. On the other hand, when interactive media was united with information studies, game studies was a part of degree program, and consequently, among the courses offered to future archivists. Because of the current organizational structure, the degree program includes now instead courses about journalism, communication, and media culture. Although also this combination of disciplines may have some merit, in my opinion it is not optimal for future archivists and records managers.

In ideal situation archival education would be given by academic institutions which are strong enough to make world class research and to create their own degree programs based purely on archival and records management considerations. In an imperfect world this goal is probably unattainable. Nevertheless, one could strive for it by increasing co-operation between archival educators. Successful joint projects and degree programs would support archival education at local level, stimulate it, and probably increase status of archival science generally in academia. Is there any change for such co-operation?

REFERENCE LIST

- Cox, R. J., & Larsen, R. L. (2008). ISchools and archival studies. *Archival Science*, 8(4), 307–326. <https://doi.org/10.1007/s10502-009-9092-3>
- Enbuske, M. (2019, August 27). *Tietohallinnan ja muistiorganisaatioiden asiantuntijuuskoulutus. Luonnostelmaa maisterivaiheen opetuksesta Oulun yliopistossa [Presentation]*. Tiedonhallinnan tutkimuksen ja opetuksen kehittämispäivät, University of Eastern Finland, Joensuu.
- Hänninen, K. (2019, August 26). *Arkistoalan ja asiakirjahallinnan maisteriopinnot Turussa [Presentation]*. Tiedonhallinnan tutkimuksen ja opetuksen kehittämispäivät, University of Eastern Finland, Joensuu.
- Huotari, M.-L., & Valtonen, M. R. (2003). Emerging themes in Finnish archival science and records management education. *Archival Science*, 3(2), 117–129.
- Kallberg, M. (2013). *“The emperor’s new clothes”*. *Recordkeeping in a new context*. Mid-Sweden University. <http://urn.kb.se/resolve?urn=urn:nbn:se:miun:diva-20217>
- Liiten, M. (2017, October 24). Korkeakoulujen määrää halutaan vähentää ja opiskelijoita hoputtaa valmistumaan – tällainen on opetusministeriön visio vuodelle 2030. *Helsingin Sanomat*. <https://www.hs.fi/politiikka/art-2000005420822.html>
- Luoto-Halvari, A. (2016, 24.11). *Meneillään opetus- ja kulttuuriministeriön korkeakoulu- ja tiedepuolella [Presentation]*. Opetus- ja kulttuuriministeriön Kirjastopäivät 2016, Säätytalo, Helsinki. https://minedu.fi/documents/1410845/4418814/Luoto_Halvari.pdf
- Lybeck, J. (2003). Archival education in Scandinavia. *Archival Science*, 3(2), 97–116.
- Lybeck, J. (2016a). *Arkistolaitoksen suhde tutkimukseen ja hallintoon järjestyy uudelleen: Vuodet 1944–1974*. Jari Lybeck & Pallosalama. <https://agricolaverkko.fi/julkaisusarja/jari-lybeck-arkistolaitoksen-suhde-tutkimukseen-ja-hallintoon-jarjestyy-uudelleen-vuodet-1944-1974/>
- Lybeck, J. (2016b). *Reinhold Hausen. Valtionarkiston johtaja ja historiantutkimuksen perustaja*. Turun yliopisto.
- Mäkinen, I. (2007). From marginal to excellence: The development of the research in Information Studies in Finland. In E. D. Garten, D. E. Williams, J. M. Nyce, & S. Talja (Eds.), *Advances in Library Administration and Organization*. Vol. 25 (pp. 155–174). Elsevier JAI Press.
- Myllylä, T., & Sohlo, P. (2009). Allianssiyhteistyö–Yliopistojen kädenpuristus. *Agorama*. <https://jyx.jyu.fi/handle/123456789/50555>
- Orrman, E. (2019a). *De archivis. Arkistoista—Om arkiv—On archives* (P. Henttonen, Ed.). Tampereen yliopisto. <http://urn.fi/URN:ISBN:978-952-03-1063-9>
- Orrman, E. (2019b). Riksarkivet – en forskarskola för historiker? In P. Henttonen (Ed.), *De archivis. Arkistoista—Om arkiv—On archives* (pp. 289–299). Tampereen yliopisto. <http://urn.fi/URN:ISBN:978-952-03-1063-9>
- Pohjola, R. (2020, June 4). *Arkistokoulutuksesta yliopistoissa [Personal communication]*.
- Rastas, P. (1999). Valtionarkistosta Kansallisarkistoksi. 130-vuotta arkistolaitoksen historiaa. *Arkisto. Arkistoyhdistyksen Julkaisuja*, 6, 107–124.
- Roiko-Jokela, H., & Valtonen, H. (2019, August 27). *Asiakirjanhallinnan opetus muuttuvassa ympäristössä [Presentation]*. Tiedonhallinnan tutkimuksen ja opetuksen kehittämispäivät, University of Eastern Finland, Joensuu.
- Toivanen, T., Leppänen, E., & Sormunen, E. (1996). *Asiakirjahallinnon tietotekniikka ja informaatioalan integroitu opetus*. Tampereen yliopisto.

Mikhail V. Larin¹
(Russia)

TRANSFORMATION OF THE EDUCATION OF ARCHIVISTS IN THE DIGITAL AGE

ABSTRACT

One of the main tasks of the development of the Russian Federation is to ensure the accelerated implementation of digital technologies in the economy and social sphere. To solve it, within the framework of the National Program "Digital Economy of the Russian Federation", the Federal project "Personnel for the Digital Economy" has been developed. Its implementation is designed to provide the country with a sufficient number of human resources with the competencies necessary for the new century of digital technologies and the economy of knowledge and data. Activities are planned to develop a competency model for the digital economy, a competency profile and a personal development path; improving training and retraining programs for the digital economy, providing training and retraining of specialists in the competencies of the digital economy. All these activities fully relate to the field of training specialists in records management and archives. The report highlights the main stages of archival education in Russia, reveals the features of each stage. The main attention is paid to the modern stage of education of specialists-archivists of different levels of training (bachelors and masters), taking into account the course on the use of digital technologies in working with documents. The issue of the development and updating of professional standards, taking into account modern digital technologies for professional qualifications in archiving, is considered. An analysis of the standard of higher education for archivists in terms of requirements for the formation of competencies in the digital world is given and recommendations for updating the existing educational programs are developed.

Key words: *archive, archivistics, information technology, electronic records, archival documents, competencies, education, standards, bachelor, master, university.*

1 HISTORY

The first attempts to organize archival education in Russia date back to the 19th century, when special courses for archivists were organized at the universities of Moscow and St. Petersburg. However, the training of archivists with a higher specialized education began in 1930, when the Institute of Archival Science was created in Moscow, which was soon renamed the Moscow State Historical and Archival Institute (MGIAI). The Institute played a huge role in the formation and development of archival work in the USSR and for many years was the only higher educational institution in the country that trained personnel of historians and archivists. A distinctive feature of teaching students at MGIAI was a combination of deep historical training with mastering the theory and practice of archiving. The faculties of archival science, scientific and technical archives (information), and state records management were created at MGIAI. Every year, about 500 specialists of various professional profiles graduated from the institute for all categories of archives and office work services. It is important to note that the theoretical knowledge

1 Mikhail V. Larin, Dr., Professor., Head of the Department of electronic records management systems, Russian State University for the Humanities (RGGU), Russia, Moscow, 125993, GSP-3, Miusskaia pl., tel: +7 495 6285297, mobile: +7 910 4210529, e-mail: larin.m@rggu.ru; asdou@rggu.ru

of students was supported by the practice of working in archives, compulsory research work as part of the educational process. A deep respect for the historical source, historical truth has always distinguished the educational process at the Historical and Archival Institute. It is noteworthy that archivists from a number of foreign countries (Vietnam, Bulgaria, Mongolia, etc.) also received archival education at the Historical and Archival Institute. For many years MGIAI was the only higher educational institution in the country that trained archivists. Only in 1970, as part of the Ural State University at the Faculty of History, the specialty "Historical and Archival Science" was opened. This measure made it possible to increase the number of specialists with higher archival education in the east of the country. After the collapse of the USSR, the Russian State University for the Humanities (RGGU) was created on the basis of MGIAI. The Historical Archives Institute (IAI) became part of a large humanitarian university.

2 HISTORICAL AND ARCHIVAL INSTITUTE AS PART OF THE RUSSIAN STATE UNIVERSITY FOR THE HUMANITIES

After the incorporation of the Historical and Archival Institute into the RSUH, great changes took place in its structure. In those years, educational activities at the IAI were carried out in five faculties: archives; records management; history, political science and law; technotronic archives and documents; archival school. Subsequently, the list of the faculties at the Historical and Archival Institute expanded due to the creation of the Faculty of International Relations and the Faculty of History. At present, instead of three faculties, which trained archivists and records management specialists, a single faculty of archival science and records management was formed. Thus, there is a tendency to reduce the share of archival education in the structure of the IAI and, moreover, within the university as a whole. In part, this trend can be explained by the fact that in the context of decentralized management of higher education in the country, dozens of universities across the country have organized training of archivists and records managers for their regions. In the new Russia, the opening of new specialties in higher educational institutions has ceased to be the prerogative of the state. It was enough to prepare the appropriate educational programs so that any higher educational institution (university) could apply, after the procedure of their approval, to open a new specialty. Thus, a number of universities in the country began training personnel of historians and archivists, having neither trained personnel of professors nor experience in such work for these purposes. In our opinion, these factors led to a decrease in the quality of training specialists for archives.

Thus, there has been a change in the organizational model of archival education. Instead of concentrating it in two higher educational institutions of the country, there was a transition to expanding the network of educational institutions that provide training for specialists in this field. Of course, this led to the impossibility of ensuring the quality of teaching archival disciplines in different educational institutions at the same level. To eliminate this deficiency, the process of developing state educational standards for higher professional education was launched. The first standard for the specialty "Historical and Archival Science" was developed and approved by the Ministry of Education and Science in 2000. This standard provided for the full-time training of a historian-archivist for 5 years. The main educational program for the training of a specialist provided for the student to study the following cycles of disciplines:

a cycle of general humanitarian and socio-economic disciplines;
cycle of general mathematical and natural science disciplines;
cycle of general professional disciplines;
cycle of special disciplines.

This model consolidated the main approaches to the training of archivists that had developed in the previous period, and ensured the uniformity of their application throughout Russia in all educational institutions of higher education.

A new stage in the development of the specialty "Historical and Archival Studies" is associated with the transition within the Bologna process to a two-level system of training "bachelor-master", which was generally completed by the 2010/2011 academic year. In the new system of higher education, the specialties "Document science" and "Historical and archival science" were combined into one direction - "Document science and archival science". IAI graduates receive a bachelor's or master's degree in the above direction. Thus, the unique name of the profession "historian-archivist" was lost, which, of course, is also a negative factor, since the further development of the direction of training students is increasingly associated with the strengthening of its technological component.

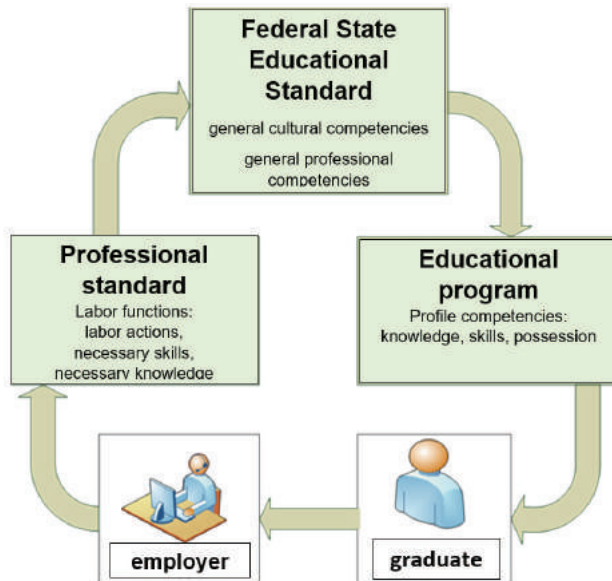
3 PROFESSIONAL STANDARDS

A distinctive feature of the modern stage is the requirement for training specialists, taking into account the needs of employers. The employer becomes the main developer of the requirements for the training of graduates, especially in terms of professional competencies. Taking these requirements into account, federal educational standards are developed, approved by the Ministry of Education and Science, and only then universities prepare educational programs and determine the set of disciplines in which students are trained. This learning model is called a competency-based approach. The competence-based approach strengthens the orientation of education to practical activity, emphasizes the importance of experience, the ability to practically implement knowledge, and solve production problems.

The named model includes three components:

- *professional standards that enshrine the requirements of employers for specific types of practice;*
- *federal state educational standards, the composition of the competencies of which must take into account the requirements of professional standards;*
- *educational programs for training a specialist that meet the federal educational standard and ensure the formation of competencies in accordance with the requirements of professional standards.*

As a result of training at different levels of education, a specialist should be prepared whose competencies meet the requirements of the employer. The general scheme of such interaction is shown in the figure.



The quality of modern education should be ensured by new educational standards of the third generation. These standards are based on a competency-based approach and the use of innovative technologies in teaching. The federal state educational standard of higher education is a set of requirements that are mandatory in the implementation of the main professional educational programs of higher education - bachelor's and master's programs in the direction of training »Document and archival science«.

Educational programs are being developed on the basis of federal state educational standards of higher professional education of the third generation. In the basic part of the training program, which is common for records managers and archivists, there are three blocks of academic disciplines: professional, legal and informational.

The types of professional activities for which graduates of the bachelor's program are prepared:

- research;
- technological;
- organizational and managerial;
- design.

If the bachelor's program is focused on research and (or) pedagogical type (types) of professional activity, this is an academic bachelor's program; and if the program is focused on practical activities, it is called an applied bachelor's program. The same requirements apply to the education of masters.

4 IMPROVING THE CONTENT OF TRAINING OF ARCHIVISTS

A modern archive of any level and profile is a complex information system. The requirements for archives have increased significantly. Along with the increase in the volume of traditional work, new tasks have emerged for the introduction of modern information technologies, the organization of storage of electronic records. Therefore, the preparation of students in the direction of «Document and Archival Science» should take into account these changes and modernize the training programs for both bachelors and masters. However, the question arises: how can you effectively achieve the desired changes?

The first and easiest way to solve this problem is to change the general training program by introducing information-oriented disciplines into the curriculum. These disciplines should contribute to the formation of students' competencies in the field of information technology:

- ability to analyze the situation on the market of information products and services;
- carry out an expert assessment of modern systems of electronic records management and electronic archives;
- own methods of information protection;
- own modern systems of information and technical support for records management and management of archives;
- improve work with archival documents based on the use of modern information technologies.

However, in order to achieve the required quality of information training of students in this way, it will be necessary to fill approximately one third of the curriculum with disciplines of the information profile, which, of course, will lead to a conflict of interest with the disciplines, the teaching of which was traditionally carried out in the preparation of historians - archivists. Therefore, this path, apparently, is not acceptable as a universal solution.

Recently, we hear more and more about the need for a new profession in the archival community. This is the profession of "IT archivist". According to one of the active supporters of the legitimization of the new profession A.A. Pettersson (Sweden), the competence of a new specialist should include knowledge, skills and abilities: working with digital archives; the storage of archival information in digital form, so that it is available when technology changes and changes in computer systems; working with documents that exist exclusively in digital form, work that is completely performed by means of a computer. It is important to know the basics of the development, management and decommissioning of computer systems and to understand the terminology of computer science, to have knowledge in such areas as computer science and information technology.

At the meeting of the International Council of Archives in 2012, the issues of training modern personnel for office work and archiving were discussed. In the report of the representative of the Archives School in Marburg (Germany), it was noted that there is no such universal concept of education or employment that would suit all jurisdictions and communities, so it is important for graduates to have an idea of the environment in which they would like to pursue their careers. The nature of work is changing, the necessary knowledge and skills are changing, therefore the attitude of those who start their working life should also change. Diversity is good, but it also challenges those with traditional notions of what is central to archiving and information management.

This statement once again confirms our idea that the archives, along with those who have general competencies in the field of information technology, will require specialists with special knowledge, such as in the field of digitizing archival documents, digital restoration of documents, building reference search databases, migration and conversion of electronic documents, the use of electronic signatures, the protection of archival information, the publication of archival documents in electronic form, able to use artificial intelligence systems and robotic systems in the archive. Such professional competencies, of course, can be obtained in the system of postgraduate education, in special courses or during an internship.

In this situation, attention should also be paid to master's programs, which in our practice are of two types: academic, in which more attention is paid to scientific work, and applied, where training pursues more specific professional goals. For example, the IAI

implements a master's program "Theory and Practice of Working with Electronic Documents in Management and Archives", which is aimed at developing a system of knowledge and skills in managing electronic documents in various fields of activity.

One should also agree with the fact that the recognition of the exclusive role of modern information technologies as a factor of transformations in the field of records management has given rise to a certain technocratic incline in the professional training of specialists. The importance of the competencies formed in the process of studying information bases, electronic records management technologies, etc., is beyond doubt. However, these competencies alone are not sufficient to ensure effective records management in organizations using modern information technology.

For the development of an educational program for the preparation of masters that meets the challenges of the time, capable of ensuring effective records management in the context of intensive IT implementation, the emerging trend towards convergence and merger of activities that were previously considered in organizations as autonomous, namely: systematization and design of business processes, on the one hand, and records management, on the other, putting forward specific requirements for the organization of the educational process at the master's level. This approach provides for an orientation towards the training of transfessional - specialists who are firmly on their feet in their initial profession, but constantly go beyond it in order to enrich it with knowledge and technologies from other professional fields.

Thus, for the implementation of plans for the transformation of education of archivists in the digital era, several options for training specialists can be chosen: a) strengthening of the traditional training of students by attracting additional disciplines of the information profile; b) formation of a new specialist "IT archivist"; c) using the possibilities of postgraduate narrow specialized education; d) specialized master's training. One thing is clear - the profession of an archivist in the modern world can no longer be the same as it was formed in the previous century. The archivist of the XXI century had to be a versatile professional of the highest standard in order to fit into the trajectory of the modern development of the information society.

REFERENCES LIST

- Kharus O.A. (2018). The concept of the master's program "Records management in a modern organization" // *Document. Archive. History Modernity. Materials of the VII All-Russian scientific-practical conference with international participation, dedicated to the 80th anniversary of the Faculty of History of the Ural Federal University*. Yekaterinburg, November 16-18, 2018 Yekaterinburg: Publishing house of the Ural University, 2018. pp. 569-574.
- Khramtsovskaya N.A. (2014). Records management in the electronic era: thoughts on the future of the profession // *Herald of RGGU. Series "Documentary. Records management. Archival science "*, 2014. No. 2 (124). pp. 249-257.
- Pivovar E.I., Bezborodov A.B., Khorkhordina T.I. (2012). Russian State University for the Humanities // *Archivists herald*. 2012, No. 4. pp. 3-18.
- Surovtseva N.G. (2019). Robotic documentation: problems of management // *Records management in the digital economy: Materials of the scientific and practical conference*. 5 December 2018. Moscow: RSUH Publ.; 2019; 23-30.
- Uhde K., Hoy M. (2012). *Career choices for archivists and information managers: Lessons learned from graduate experiences* // International Council on Archives Congress. URL:<http://ica2012.ica.org/files/pdf/Full%20papers%20upload/ica12Final00224.pdf>.

Grazia Tatò¹
(Italy)

THE ARCHIVIST, A SUPERHERO?

ABSTRACT

Methodology: The purpose of this paper is showing how being an archivist has always been a very complicated job or better, more than a job, a way of being and living the job as a passion.

Method: It was verified how the training is always more and more demanding and needs to be a permanent training.

Results: Agreed upon the fact that one must start from a solid, scientific basis, which can guarantee the talent of working self-confidently in the archives, one must also know what is going on in the newest borders of archival science, that always submits new standards.

Conclusions/findings: It becomes therefore essential that the educational offer can face these needs. And we must also add the need of being ready to face the unexpected archival problems given by the Covid19 pandemic.

Key words: archives, archivists, standard, training, Covid19 pandemic.

1 METHODOLOGY

We certainly live in times to define at last accelerated and, in this scientific and social context, being an archivist is increasingly complicated. "Doing" is also a reductive meaning because you do not really "do" the archivist, but in fact you "are" an archivist. Ours profession is not only like many others, but a way of being and facing history and its sources by ensuring their preservation and the respect for their authenticity, as well as mediate towards scholars who will approach them to listen in respect, without pretending to manipulate them to give false semblance of truth to preconceived theories.

In most cases, it is a work lived passionately, with enthusiasm and emotional involvement! Studying documentary sources, making them accessible through research tools is a mission and gives the possibility to travel through time without ideological or political intermediation, but living directly, almost as cohesive witnesses, the events of the distant or recent past. Moreover, on the shoulders of the archivist lies the decision to identify which of those documents should be kept forever and which should disappear irreparably.

Appraisal is one of the most difficult, complex and full of responsibilities that can be! One of the greatest charms of this work is facing with a science that changes, evolves and grows in a continuous progression, which forces continuously formation and prevents you from taking refuge in the old patterns. This permanent challenge is inspiring and keeps the archival passion alive.

One of the most important issues to be addressed is the knowledge and adoption of international standards, beginning at the end of the last century.

1 Ph. D. Grazia Tatò, former Director of the State Archives of Trieste and Gorizia, IIAS Deputy Director. e-mail: raztat@tin.it

Ph. D. Grazia Tato, Former director of Trieste State Archives and Gorizia State Archives and of the School of Archival Sciences, Palaeography, Diplomatica at the State Archive of Trieste; director of the IIAS Autumn Archival School for the young archivists from Eastern Europe; Italian Official member of the International Institute for Archival science of Trieste and Maribor from 2003.

2 METHOD

The panorama of international archival standards or otherwise associated with the development and management of documentary information systems, released by international bodies responsible for their elaboration and updating or established as a de facto standard due to their widespread dissemination and their wide use, is as articulated and varied as ever²

The work of the archivist, linked to the models and rules of the traditional Italian "School", was greatly influenced by the principle according to which each documentary complex constitutes a sui generis entity, resulting from a special and unrepeatable bond which, by virtue of by a subject, is established among its various parts.

The interpretation of this principle has contributed to a deep-rooted and tenacious particularism in archival practice, especially with regard to the way archives are described, which has only recently been called into question and scaled back.

On the basis of the experience in the Anglo-Saxon environment, however, the belief that the description can be "normalized", that is, regulated according to explicit and shared principles that, while guaranteeing the quality level, make communication and data exchange between experts

The first international standard of archival description was developed between 1988 and 1993 by the Ad hoc Commission for The Description Standards of the International Council of Archives (ICA/DDS), a Commission that became the Standing Committee at the Beijing International Archives Congress in 1996. These rules were revised over the next five years to September 1998 and on the basis of proposals from 25 countries (including Italy) the second edition of the rules, approved in September 1999 in Stockholm, was drawn up. and made public during the ICA Congress in Seville in September 2000: International Council on Archives / Conseil international des archives, ISAD (G): General International Standard Archival Description, Second Edition, Adopted by the Committee on Descriptive Standards, Stockholm, Sweden, 19-22 September 1999, Ottawa, 2000.

The first edition of the International Standard for Archives of ISAAR Bodies, Persons and Families, description of the producers in files of authority separated from the descriptions of archival entities but connected to them, was drawn up between 1993 and 1995 by the Ad hoc Commission for the Descriptive Standards of the International Council of Archives (ICA/DDS), which became the Standing Committee at the International Congress of Beijing archives in 1996. These rules, which aim to manage information relating to the producers, published in 1996, were revised over the four-year period 2000-2004 and the second edition was drawn up on the basis of the proposals. discussed and approved in Canberra (Australia) in October 2003 and subsequently published and presented at the ICA Congress in Vienna in 2004: International Council on Archives / Conseil international des archives, ISAAR (CPF): International Standard Archival Authority Records for Corporate Bodies, Persons and Families, Second Edition, Adopted by the Committee on Descriptive Standards, Canberra, Australia, 27-30 October 2003.

Kingdom, 10-11 March 2008.

An initial draft of the International Standard for the Description of Conservative ISDIAH Archives was drawn up by a working group of the Committee for Good Practices and Standards of the International Council of Archives (ICA/CBPS) in Milan in January 2006 and discussed, amended and integrated in Madrid in May 2007. Between July and November 2007, the draft was circulated to solicit comments from the international ar-

2 Cfr. ICAR www.icar.beniculturali.it and ANAI www.anai.org.

chival community. At the next meeting in London on 10-11 March 2008, the working group considered the comments and amended the draft, where appropriate, drafting the final version of the standard, which was subsequently approved by the International Archives Council's Program Commission (ICA/PCOM) and submitted to the CIA Executive Council for its formal adoption. The final version of the standard was presented at the ICA Congress in Kuala Lumpur in 2008: International Council on Archives / Conseil international des archives, ISDIAH. International Standard for Describing Institutions with Archival Holdings, First edition, Developed by the Committee on Best Practices and Standards, London, United Kingdom, 10-11 March 2008.

The origin of EAD - Encoded Archival Description dates back to the Berkeley Finding Aids Project (BFAP), started in 1993, at Berkeley University in California, with the aim of developing a non-proprietary standard for digital coding of research tools such as inventories, summary lists, indexes using the Standard Generalized Mark-up Language (SGML). The adoption of SGML as a coding language led to the development of an early experimental DTD, which, after involvement in the project of other conservation and research institutions, including the Library of Congress in Washington, and the interest shown by the U.S. archival community and the Society of American Archivists, was further refined and assumed, in the summer of 1995, the name Encoded Archival Description. Version 1.0 of EAD was released in 1998, accompanied by the publication of the Tag library and Application guidelines on the project's official website, housed within that of the Library of Congress, which had, in the meantime, become the responsible agency.

AD has proposed itself as a tool for the conversion and publication electronically of archival research tools originally produced on paper and their publication in electronic format, as well as for the elaboration and exchange of archive descriptions in natively digital format. The adoption of standards and technologies such as XML that enable data retention and communication, regardless of specific hardware and software platforms, aims to ensure the persistence of the structure and content in the descriptions, and their accessibility and validity over time. In 2002, after a review phase that lasted many months and which saw the involvement of archivists from other countries, a new version of the DTD (EAD 2002) was released, which did not introduce radical changes compared to version 1.0, but mainly adapted some of its elements to the new edition of the General International Standard Archival Description, ISAD (G), published in 2000. In the meantime, the conversion of DTD into XML, a markup language with which it was already substantially compatible since version 1.0 in 1998, has been carried out.

In 2010, a further review phase was initiated, leading to the release in August 2015 of a new version of the standard called EAD3, which introduced significant changes in both the XML path structure and descriptive elements.

EAC-CPF – Encoded Archival Context-Corporate Bodies, Persons and Families aims to set a standard for XML coding and the exchange of authority records based on the International Standard Archival Authority Records for Corporate Bodies, Persons and Families – ISAAR (CPF). It originates from an international working group first meeting in Toronto in March 2001, whose work produced, in 2004, a beta version of the standard that was tested in various European and American projects. In 2007, the initiative was revived under the auspices of the Society of American Archivists, which formed a new working group, largely representative of the European and American archival worlds. At the meeting held in Bologna in May 2008, thanks to the support of the Gladys Kriebel Delmas Foundation, the Institute for Cultural and Natural Artistic Heritage of the Emilia-Romagna Region, the State Archives of Bologna, the working group established the fundamental lines of the structure and elements of the standard. The work, continued

by e-mail and conference call, led, in August 2009, to the draft final draft of the new version of the standard, on which the international archival community was called to comment and comment. The final standard path, its schema, and the library tag were released in March 2010.

The METS - Metadata Encoding and Transmission Standard format defines a flexible mechanism for encoding descriptive, administrative and structural metadata for objects that are part of digital archives or libraries, and for documenting the complex relationships between various forms of metadata. It can also provide a useful standard for exchanging between repositories of objects belonging to the digital library. Finally, the METS scheme offers the ability to associate a digital object with behaviors or services. It is based on the XML language and is maintained by the Network Development and MARC Standards Office of the Library of Congress. A METS document consists of seven main sections: - METS header: contains the metadata describing the METS document, including some information such as the responsible, the processing date, status etc. - Descriptive metadata: contains descriptions, even multiple, of the digital objects expressed with metadata included in the METS document according to standard formats or a link to external descriptive records present in bibliographic catalogs or archival databases. - Administrative metadata: contains both information on digital objects, copyright, and relationships between objects in the digital library (eg relationships of master and derivation files and information about migration and transformation). Like descriptive metadata, administrative metadata could be either external to the METS document or encoded internally. - File section: contains the list of digital object files described in the METS document. - Structural map: indicates the hierarchical structure to which the object of the digital library belongs, and connects the elements of that structure to the content files and metadata belonging to each element. - Structural links: allows you to store the existence of hyperlinks between the nodes defined in the Structural Map. - Behavior: indicates the behaviors of the digital object. The work on NIERA standards is also important. These are the "Italian Norms for the elaboration of the records of archival authorities of entities, persons, families". The 2011 guidelines are edited by Euride Fregni and Rossella Santolamazza and in July 2014 the second edition was published.

Last but not least, the UNI VADO standard which systematically identifies and presents the characteristics that can be relevant in the evaluation of programs for the description and organization of the archive. In other words, the standard identifies measurable dimensions, with the aim of composing an articulated system of evaluation factors. In fact, the standard defines a model for the analysis of applications for the description and sorting of the archive. The UNI VADO standard is proposed as an orientation tool, to the advantage of sector operators. In particular, thanks to the standard: - users will be able to easily analyze, evaluate and compare the solutions available on the market, so as to make an informed choice when purchasing or in any case acquiring an application for sorting and description archival; - companies will be able to refer to an organic system of requirements when developing a new application or updating an existing application.

The standard can also be used as a tool in training and vocational training processes. In fact, its understanding and use require specialist skills and knowledge that are an integral part of the cultural baggage of archivists and should therefore be acquired in the processes of training and professional updating. For these reasons, the rule is aimed at all actors operating in the domain of cultural goods: institutions, conservation institutions, archival services, document management services, documentation centers, libraries, universities, companies, professional associations and consumer associations.

3 RESULTS

Overall, it is a jungle of rules in which it is not easy to extricate yourself correctly! The effectiveness of these rules remains linked to their dissemination to the various members of the national and international archival community. Whether and how much of these standards are actually applied and disseminated among archivists is something to be verified!

Among the various difficulties that an archivist may have to face and manage, there are natural disasters such as floods, earthquakes, etc., but also completely unpredictable ones such as the recent Covid19 pandemic. At the end of the emergency, of any emergency, being able to document and therefore understand what happened is essential.

Politicians, judiciaries, scientists, and historians will need the data produced that will serve to understand and perhaps protect against future analogues. But we must act immediately, in the immediacy of the present, without forgetting that there may be someone who instead prefers an unpunished oblivion to those data. This is the time for those who govern the archives to move and clearly identify the priorities, putting the appointed bodies in a position to act effectively. The digitization of a land register can now wait, the energies must be channeled elsewhere, and this seems a specific duty.

Speaking of the historians of the future, one interesting thing will be to understand, how young people have reacted to this emergency.

In fact, beyond the institutional sites that it is essential to preserve, because it should not be forgotten that many important information is shared on government and public administration sites, from which, among other things, it is legitimate to expect clarity, timeliness, completeness and consistency in the choice of channels, social profiles are also to be taken seriously. Moreover, it is on social media, especially on personal media and in user groups, that a significant part of the information is produced, which is also essential for documenting the reactions of the community. Conservatives therefore have to deal with dynamic media and lots of more labile non-standard content, which can include formats and architectures that are more difficult to navigate, capture and store. There are also issues of confidentiality, limitations, and rights: content is often inaccessible, because it is shared in closed or license-protected groups. As a rule, institutions must obtain consent from the authors, which is fundamental especially in this situation, where everyone's emotionality is put to the test. And this brings us to some ethical considerations about the use of the source. At this time, particularly sensitive information and data are being shared: health, private life, moments of understandable despondency or exasperation. Using them correctly will be an inescapable task for historians and researchers starting from the rules of ethics provided by the privacy legislation and possibly reflecting on their update.

4 CONCLUSIONS/FINDINGS

The digital transformation of public administration and business has also undergone a sudden acceleration in these weeks of the pandemic, resulting in a radical and probably irreversible change in the way people work, communicate and of course document people and organizations. It has emerged all the importance of having well-organized, comprehensive, reliable files to be consulted even remotely and, therefore, necessarily computer science. The future seems, therefore (at least for now), destined to also dye the colors of the archives and assume more decisively than in the past, among other dimensions that the crisis has changed, also that of a document production and preservation revisited and developed in increasingly digital forms with significantly increas-

ing levels of quality and efficiency, both in the development of models and tools and in the offer of services and operational solutions. In this phase of emergency it seemed, in fact, evident, especially in the public sphere, even to the less attentive interlocutors that without the support of a healthy, coherent and organic document management system and without infrastructure and solutions capable of making usable the wealth of information and documents that organizations have in daily life, no digital transformation can be lasting success and guarantee the promised benefits.

Of course, even at this juncture, there was no lack of invitations, in truth not always well thought out and understandable except for market reasons, to skip all the intermediate steps, especially referable to the tools and intermediation work that the national legislator has defined in at least twenty years of specific regulations. It should be remembered that the objective of the rules on document management and on the so-called conservation according to law was and is to make available an integrated network of standardized services and tools, in order to form valid digital documents, manage their existence with certainty for the necessary time, organize and order functional and identifiable as well as consultable IT aggregations.

Thinking about the conditions that in this phase of forced changes "made the difference" is fundamental for professionals in the sector both to understand and evaluate the usefulness and effectiveness of the methods and tools developed so far, and to design with rigor and foresight. the future evolution of document systems once the emergency has been partially or completely overcome. The painting we have experienced in this period presents lights and shadows, pleasant surprises and some worries. Let's start with the most obvious problems due to the need to solve very complex issues in an often improvised way, such as the digital identity of those who submit applications and request services, the identification of channels and forms to exchange and share information and documents and manage administrative activities. so far entrusted exclusively to dedicated officials, as in the case of protocol recording, in environments without any level of security and with personnel not always adequately trained. Of course, the urgency to find operational solutions never favors, and has not favored even this time, the quality and accuracy of the solutions, even if it often contributes to overcoming resistance and unjustified delays.

In conclusion, the figure of the archivist emerges as central and both in the normal management of archives in quiet times and in the extraordinary nature of stormy times. However, the commitment required is always strong even when external difficulties are not added to the archival works, because one must always be alert, attentive to what is evolving in archival science and this requires continuous tension and an ability to renew oneself. simple. In times of emergency then everything becomes even more complicated and really requires the archivist to transform into a superhero!

REFERENCE LIST / WEB REFERENCE

Associazione Nazionale Archivistica Italiana, www.anai.org

Direzione Generale Archivi, <http://archivi.beniculturali.it/ica.org>

Istituto Centrale per gli Archivi – ICAR, www.icar.beniculturali.it

Polo archivistico dell'Emilia-Romagna, <https://parer.ibc.regione.emilia-romagna.it/>

Jozef HANUS¹
Michal HANUS²
(Slovakia)

AN ARCHIVIST AND NEW APPROACH TO ELIMINATION OF MICROBIOLOGICAL CONTAMINATION IN PRESERVATION OF CULTURAL HERITAGE

ABSTRACT

Specialised study of archival science and auxiliary historical sciences has been running at the Faculty of Philosophy of the Comenius University in Bratislava within the framework of the Department of Czechoslovak History, Slovak History and Archival Science since 1950; since January 1, 2000 it has been at the self-reliant Department of Archival Science and Auxiliary Historical Sciences. Since 1989 also the course "Preservation of Archives" has become a part of regular compulsory education at this Department as one semester course carried out during the 8th semester of the studies.

However, preservation of archives, other objects and materials of cultural heritage in their original form represents an enormous interdisciplinary complex problem; at the same time it has been one of the principal tasks of archives, libraries, galleries, museums and other memory institutions. Therefore, besides archivists, participation of librarians, conservators, restorers and experts from different fields of science and technology supported by adequate financial background is inevitable for solution of problems in this field.

Microbiological contamination and degradation of objects and materials represents a serious problem in preservation of cultural heritage. The paper informs about the research and practical application of eco-friendly whole-spatial full-area disinfection system for elimination of microbiological contamination in preservation of different types of cultural heritage objects. Moreover, this disinfection system has been also successfully used for disinfection applications also in hospitals and other important objects and services during COVID 19 pandemic in Slovakia.

Keywords: *archives, cultural heritage objects, preservation, microbiological degradation, disinfection*

- 1 Jozef Hanus, Ing., PhD. SANOSIL SK, s.r.o., Holekova 1, 811 04 Bratislava, Slovak Republic, e-mail: hanus-jozef1@gmail.com, info@sanosil-slovakia.sk
Graduated from the Slovak University of Technology in Bratislava, Faculty of Chemical Technology in 1973. He gained a Ph.D. at the same University in Technology of macromolecular substances in 1987. From 1974 until 2008, he worked at the Slovak National Archives as Head of Department of Archives Preservation. Since 2009 till February 2013 he was the Director of the Slovak Archives Administration, Ministry of Interior of the Slovak Republic. Senior consultant at the Faculty of Chemical and Food Technology, Slovak University of Technology, Bratislava 2013-2019; external lecturer at the Comenius University, Bratislava, Department of Archival Science and Auxiliary Sciences in History 1989-2019. Member of several professional international committees on preservation of archives, participant at several EU projects in preservation of cultural heritage. Honorary member of ICARUS - International Centre for Archival Research and IIAS - International Institute for Archival Science, Trieste - Maribor; Technical Director, Sanosil SK, s.r.o.
- 2 Michal Hanus, Mgr., BIOM s.r.o., Holekova 1, 811 04 Bratislava, Slovak Republic, e-mail: hanus@biom.sk
Graduated from the Faculty of Management, Comenius University in Bratislava in 2002 including one year of study at the Business college of Sydney, Australia. After University worked as Project manager for companies KKH Slovakia 2002 - 2005, continued as Head of Projects in West Slovakia region in INCON 2005 - 2007. Later on, he worked for Henco, Belgium as a Sales director for the Czech and the Slovak Republic. Executive manager Sanosil SK, s.r.o., the exclusive representative of Sanosil Ltd. International® since 2012 for the Slovak Republic, Austria and Ukraine. Executive manager BIOM, s.r.o., the exclusive representative of Halosil™ International since 2020 for many European countries.

1 INTRODUCTION

Archival documents, containing rich and irreplaceable source of information, are an inseparable part of cultural heritage of human civilisation. They present not only an immense creation of man's spirit and artefacts but represent also enormous economical values. One of the principal tasks of archives and libraries is to make accessible these materials and use them for benefit of all users; however, another principal task of the same importance is preservation of documents and this heritage in the original form for future generations. In order to fulfil successfully this mission, well-educated and experienced archivists but also conservators, restorers and experts from different fields of science and technology are needed.

Specialised study of archival science and auxiliary historical sciences has been running at the Faculty of Philosophy of the Comenius University in Bratislava within the framework of the Department of Czechoslovak History, Slovak History and Archival Science since 1950; since January 1, 2000 at the self-reliant Department of Archival Science and Auxiliary Historical Sciences (Sokolovský, 2002).

The first level - bachelor degree (study program: archival science, field of study: historical sciences) - full-time study course lasts three years and ends after completing the state bachelor exams (bachelor diploma work and oral examination). The second level - master degree (study program: archival science, field of study: historical sciences) - full-time study course lasts two years (after bachelor degree) and ends after completing the state master exams (master diploma work and oral examination). The third level - doctor degree in auxiliary historical sciences - full-time study course lasts four years (external part-time study five years) and ends by submitting the doctor thesis and dissertation exam (Katedra archívniectva a PVH, 2020).

Since 1989 also the course "Preservation of Archives" has become a part of regular compulsory education at this Department. It is a one semester course (two hours of lectures per week) carried out during the fourth year (8th semester) of the studies. The detail information on this topic was published also in ATLANTI 2005 (Hanus et al., 2005). The course provides general information on main degradation factors and preservation of archives.

In general, preservation of archival documents, library materials and other objects and materials of cultural heritage in their original forms is one of the principal tasks of archives, libraries, museums, galleries and other cultural memory institutions all over the world. As preservation of cultural heritage represents an enormous interdisciplinary complex problem participation of experts from different fields of science and technology, practical end-users, conservators and restorers supported by adequate financial background is an inevitable in solution of partial problems in this field.

Conservation science, with respect to cultural heritage, is the interdisciplinary study of conservation of art, architecture, and other cultural works through the use of scientific inquiry. General areas of research include the technology and structure of artistic and historic works and the materials and media from which they are made. Conservation scientists use scientific methods and principles to support work in the fields of art conservation and architectural conservation, and care of cultural objects in museums and other collections. Cultural conservation science work includes identifying the materials that make up a structure or piece of art including their chemical makeup, identifying and cataloguing changes that cause deterioration and developing methods to mitigate deterioration of cultural heritage (AIC, 2003).

On the basis of long term cooperation of the Faculty of Chemical and Food Industry in Bratislava with the main cultural memory institutions in the Slovak Republic, especially the Slovak National Archives, the Slovak National Library, the Slovak National Museum, the Slovak National Gallery, University Library and others, the new study programme "Heritage materials conservation" within the framework of the study field "Chemical Technology or Engineering Chemistry" at the Faculty of Chemical and Food Technology, Slovak University of Technology in Bratislava has been accredited in 2008. The program represents a new conception of education in conservation science on university level in the Slovak Republic (Katuščák et al., 2008, Bakoš et al., 2008). Besides the education, basic and applied research within the framework of different projects represents an important and integral part of activities at the Faculty. It was presented in details also in ATLANTI 2014 (Hanus et al., 2014).

2 PROBLEMS IN CULTURAL HERITAGE PRESERVATION

Cultural heritage objects exhibit a great variability of material basis (paper, wood, leather, metals, glass, ceramics and other inorganic materials and plastic materials), heterogeneity (works of art are composed from layers differing in composition, books, textile-based objects, historical furniture contains various kinds of materials) and are differing in shape (spacious 3D-objects, 2D-objects – paintings, graphical works, photography, small 3D- objects – statues, museum artefacts, archival and text analogue documents – books etc.).

An important group of cultural heritage objects from the material point of view is represented by the carriers made from the different organic materials (paper, wood, textile, leather, waxes and their modifications), very often consisting of combination with natural polymeric materials.

Objects and materials of cultural heritage are subject to change due to aging degradation and are often contaminated. They may include mechanical, biological and even chemical pollutants. Specifically, the dust, insects, moulds, fungus and also chemical substances introduced into the production of the material, or impurities such as oxidation products resulting from the reaction with oxygen, ozone, oxides of sulphur and nitrogen, or degradation products of the materials and objects themselves (acid, low molecular weight aldehydes and decomposition of various materials depending on the type of base matrix) are the examples of these contamination. These factors greatly contribute to reducing the life span of the material and thus of the whole object. Important factor is the temperature and humidity of environment in which objects are stored and displayed or high and frequent fluctuation of those parameters. Due to these factors, the material loses its strength and optical characteristics. These phenomena are due to degradation processes, causing degradation of the basic components of a change in the structure of the material.

The effort of all those involved in their protection must therefore be to ensure optimal conditions for minimizing degradation processes and eliminating risk factors during long-term storage and use. So far, the only proven way in this area is consistent preventive care of collections and funds.

Microbiological contamination of cultural heritage sites can not only cause the degradation of natural organic materials, but can also create serious problems in protecting the health of workers and visitors moving in microbiologically contaminated areas of museums, galleries, archives and libraries. This is also evidenced by the real situation in many such institutions, especially in connection with unsuitable climatic conditions for the storage of many objects of cultural value.

Another disadvantage lies in application of chemical, frequently toxic and aggressive solvents and substances in order to eradicate microbiological contamination. Ethylene oxide (Kowalik, 1980, 1984, Postlethwhite, 1991, Hanus, 1996), phenol derivatives (Valentin, 1986), quarternary ammonium mixtures (Strzecznyk, 1986) or another substances have been applied. Due to the fact that the objects in question could contain various materials (dyes, thermoplastic glues, plastics, leather, wax etc.) which are heat-sensitive, classical sterilization procedures carried out at temperatures exceeding 35°C cannot be applied in every case.

The problems do not lie in the disinfection or sterilization of individual objects, to which it is possible to apply technologies in special devices, e.g. sterilization based on ethylene oxide with proven effects on tested types of materials and objects (Hanus et al., 1997, Hanus et al., 1999). Rather, the problem lies in the application of suitable and effective, yet environmentally friendly and acceptable means of disinfection system with documented effects on various types of materials and objects that are located in the treated areas. Therefore, the development and application of new methods of sterilization and disinfection are still receiving great attention.

3 DISINFECTION SYSTEM TESTED AND APPLIED FOR OBJECTS AND MATERIALS OF CULTURAL HERITAGE

3.1. Applied research for elimination of microbiological contamination

Based on interdisciplinary cooperation between the Faculty of Chemical and Food Technology, Slovak University of Technology Bratislava, the Slovak National Museum and the company Sanosil SK, s.r.o. a two-year research project was carried out. Its aim was to find, test and evaluate a suitable disinfection system for the acute elimination of microbiological contamination, especially in depositories with various types of museum objects, as well as in areas for the public or the offices of museum staff. At the same time, the disinfectant should also provide a long-term preventive effect against further potential microbiological contamination. In this paper we present some achieved results within the mentioned project which can be applied also in archives institutions.

3.2. SANOSIL® disinfectants

Sanosil® disinfectants from Sanosil Ltd. International (*Sanosil Ltd. International, 1982*) are based on the synergistic action of two main components - hydrogen peroxide as a strong oxidizing agent and the oligodynamic effect of silver. Elemental oxygen formed from hydrogen peroxide attacks the cell walls of microorganisms by direct contact. The chemical reaction of oxygen with cell wall molecules causes their denaturation and destruction. This effect is enhanced by the action of silver ions, which bind to the disulfide bonds of the proteins of the reproductive complex as well as the metabolic system of microorganisms, while inactivating them and thus prevents microbiological recontamination.

Sanosil® disinfectants are effective against pathogenic microorganisms, viruses, bacteria, yeasts, fungi, moulds, biofilms (*Sanosil SK, 2020*). Sanosil products are tested by the European EN norms: EN 1276, EN 1650, EN 13697, EN 14348, EN 14476. The effectiveness of Sanosil disinfectants against numerous pathogens has been tested and confirmed in more than 280 assays carried out by international institutions. At the same time, they are environmentally friendly because hydrogen peroxide decomposes into harmless products - oxygen and water. Sanosil products are produced by production label ISO 9001.

Sanosil SK, s.r.o. (Ltd.) has been the exclusive representative of Sanosil Ltd. International since 2012 for the Slovak Republic (*Sanosil SK, 2012*).

3.3. The Halo Disinfection System® (Halosil™ International, 2020)

Sanosil disinfectant is applied to the room using Halosil HaloFogger® aerosol mist device to disinfect enclosed spaces. The device automatically converts the disinfectant into ionized particles using a patented nozzle and a compressor air system. The sprayed aerosol particles have good suspension characteristics, spread easily throughout the space and cover all surfaces, even the most difficult to reach, in the disinfected area. Concentrated micro-droplets everywhere in disinfected room reach also those spaces beyond the reach of sprays, wipes, or UV lights. On the other hand, the size and distribution of the mist droplets do not cause wetting of the surface and diffusion of water into the structure of the porous material. The thin film of the used Sanosil disinfectant disinfects all reached surfaces and evaporates (speed of evaporation depending on ambient temperature) without leaving any visible deposits.

BIOM, s.r.o. (Ltd.) has been the exclusive representative of Halosil™ International since 2020 for many European countries. It took over this representation from Sanosil SK, s.r.o., which represented Halosil™ International since 2012.

4 POTENTIAL USE OF PRESENTED SYSTEM IN ARCHIVES AND LIBRARIES

The potential use of the presented system in the field of protection of archival and library documents are mainly on two levels:

- acute disposal of microbial contamination in case of emergencies, but also long-term chronically unresolved problems that can cause extremely rapid mould contamination,
- preventive protection of archival and library depots, areas for the public and other areas where microbial contamination could potentially endanger the health of workers and visitors.

The disinfection presented by the Sanosil® and HaloFogger® systems is superficial. It should be noted that archival documents are usually stored in archival boxes in storage rooms, thus primary contamination may occur on their surface and not inside on archival documents. The results of testing microbial contamination of books in the deposits of the Slovak National Library in Martin showed that in the case of sampling from the outside edges of books the results were positive in 97.5 % of cases, while in the case of sampling from inside the books the result was positive in only 7.3% of cases (Híreš, 2014). Similar results were found in the University Library in Bratislava (Palkovičová et al., 2015).

The application of a disinfection system directly on contaminated walls and space is very effective. Among other things, the above-mentioned project monitored the immediate effectiveness of disinfection in some depositories with unsuitable climatic conditions, where not only some walls, shelves, but also stored objects were microbiologically contaminated.

5 EXPERIMENTAL

5.1. Disinfection system and its applications

Sanosil Super 25 Ag (S010) disinfection solution was selected for the experiment. The solution was applied to the test samples of materials and in the test areas in the form of a dry mist by the Halosil HaloFogger.

5.2. Objects and materials used for testing

For experimental verification, samples selected and prepared by the experts of the Slovak National Museum were used. The samples represent objects and materials from the museum collections that may come into contact with the disinfectant application. They represent the following materials: textiles (wool, cotton, flax, silk), leather (natural, dyed, fragments of clothing and objects), furs (natural and artificial) and feathers, wood, dried plants, mosses, fungi and prepared animals, objects with coloured layers.

As model paper was chosen voluminous wooden paper from Czech Paper Mill JH Vetřní which is easily absorptive, non-sized and from the point of view of its nature and production technology it is very inclinable to degradation of cellulose fibres. Paper properties:

- printing wooden paper, low-calandered, non-sized, consisting of 65 % wooden pulp and 35 % non-bleached sulphate pulp, basic weight 50 g/m², surface pH 5-6, dry residue 93,4 %, ash content 0,47 %.

5.3. Application in real storage conditions

In order to monitor the disinfection effect, heavily microbiologically contaminated storage and depository areas with persistent unsuitable conditions with possible impact on the health of professionals as well as the physical condition of collection items were selected. Prior to application, swabs samples were taken from walls, shelves and surfaces of objects in the depository. Subsequently, Sanosil Super 25 Ag (S010) disinfection solution was applied Halosil HaloFogger to the room, according to the recommended dose of active substance per room volume. If necessary, it was applied repeatedly - always after checking for the presence of microorganisms presented.

5.4. Modification of the paper sample

The paper samples were modified with Sanosil Super 25 Ag (S010) disinfectant in two ways:

- Spray application of disinfectant:
The application conditions were chosen so that its effect on paper was very intense. 15 injections of disinfectant were performed in succession under laboratory conditions by hand sprayer in a fume hood directly on paper. This application represents an extreme case where the paper sample is wetted.
- Application of disinfectant in the form of a mist:
The solution was applied in the form of a mist by the Halo Fogger device 7 times to model samples placed in the real space of the depository.

5.5. Accelerated ageing

Two accelerated aging methods were applied to samples of unmodified and modified paper: Thermal aging in a hermetically sealed space at 98°C ± 2° C and 50% RH (American Society for Testing, 2002) for 10 days.

Aging in a polluted atmosphere 200 ppm NO_x in a hermetically sealed space at 98°C ± 2°C and 50% RH (modified ISO standard with addition of pollutants) 3 and 5 days (International Standard Organization, 2008). Selection of samples for accelerated aging was chosen to represent possible extreme combinations of paper degradation factors.

5.6. Tested and evaluated parameters

5.6.1. Changes of optical properties

When evaluating colour, colour relationships, differences and similarities, colour tolerances, the numerical expression of colour differences is of fundamental importance.

The optical parameters CIE $L^*a^*b^*$ (*Commission Internationale de l'Éclairage, 2019*) were measured on the objects and the total colour difference ΔE^*_{ab} after application of the disinfection system with respect to the unmodified sample was evaluated. An orientation description of colour differences in terms of colour perception is used for orientation in colour tolerances in ΔE^*_{ab} values (*Panáč, Čeppan, et al. 2008*).

Techkon SpectroDens Advanced Spectro-Densitometer measuring device was used to detect changes of optical properties of material surfaces.

5.6.2. Disinfection effect

Hygicult® Y&F test plates measuring 20x50 mm were used to detect microbiological contamination from the examined area. The surface is coated on both sides with agar containing maltose which promotes the growth of yeasts and fibrous fungi. Bacterial growth is suppressed by the presence of antibiotics and low pH. The samples were cultured in a biological box at 27 °C. The growth of microorganisms was monitored every seven days with the appropriate photo documentation. The number of colony forming units was evaluated.

5.6.3. Determination of the limiting viscosity number (LVN)

The determination of the LVN of modified model paper samples was carried out according to the appropriate international standard (International Organization for Standardization, 2010). Based on the LVN value, the degradation of cellulose as the main component forming the paper carrier is monitored. Cellulose behaves as a high molecular weight compound in solutions and forms solutions with relatively high viscosity even at low concentrations. The length of the cellulose polymer chain affects the viscosity of the solution and therefore measuring the viscosity is a suitable indicator of the degradation of cellulose molecules.

6 RESULTS AND DISCUSSION

6.1. Changes of optical properties

The measured results show that the modification of the sample surfaces with tested disinfection system causes a minimal to acceptable difference in terms of the overall colour difference for tested objects (wood, textiles, leather and feathers). We can state that the application of the disinfectant does not cause damage to the collection items in terms of visible colour change, nor does it reduce their aesthetic value. It should be noted that some dyed fabrics such as silk and cotton threads on embroidery and in some cases dyed leather can be problematic. It follows that the problematic factor is not the type of material, but its surface treatment (e.g. dyeing, shellac surface treatment).

Detailed information is given in (Vizárová et al., 2015, Hanus et al., 2019).

6.2. Disinfection effect

The resulting values show that with heavily contaminated surfaces of objects, materials, walls and rooms, 95-100% efficacy was observed after repeated application of the tested disinfection system. In total, the disinfectant in the form of a mist was applied for 90 minutes (Vizárová et al., 2015, Hanus et al., 2019).

6.3. Changes of limiting viscosity number for model paper

6.3.1. Application of disinfectant in the form of a mist

The measured results clearly show that the application of the Sanosil disinfectant mist using the Halo Fogger does not have a degrading effect on the tested paper sample.

Repeated application (3x, 7x) even caused a slight increase in LVN not only after the mist application, but even after accelerated aging of the samples (Vizárová et al., 2019).

6.3.2. Spray application of disinfectant

This application was carried out in connection with the testing of possibilities for using Sanosil disinfectant for simultaneous disinfection and bleaching of paper artefacts in case of restoration intervention.

Based on the obtained results, it is possible to state the following:

- after three injections there is only a minimal reduction of LVN because the modified sample retains more than 98% of its original value compared to the unmodified sample and even after 7 injections it is about 95%;
- 10 sprays reduce LVN by approximately 23%; this decrease is practically maintained even after 15 sprays (24%) (Blašková, 2015).

7 CONCLUSION

Microbiological contamination of cultural heritage can cause not only the degradation of natural organic materials but creates also serious problems in protecting the health of workers and visitors in microbiologically contaminated areas. Therefore, the development and application of new methods of sterilization and disinfection are still receiving great attention.

The disinfection system should provide acute elimination of microbiological contamination as well as a preventive long-term effect without damage of treated objects and materials. At the same time its effect should be environmentally friendly.

For experimental verification, samples selected and prepared by the experts of the Slovak National Museum were used. The samples represent different objects and materials from the museum collections that may come into contact with the disinfectant application. As model paper was chosen voluminous wooden paper which is from the point of view of its nature and production technology very inclinable to degradation of cellulose fibres and thus paper degradation.

Sanosil Super 25 Ag (S010) disinfection solution was selected for the experiment. The solution was applied to the test samples of materials and in the test areas in the form of a dry mist by the Halosil HaloFogger.

Changes of optical properties of selected objects and materials, disinfection effect and limiting viscosity number of cellulose for model paper after disinfection treatment were tested and evaluated.

The measured results show that the modification of sample surfaces with tested disinfection system causes a minimal to acceptable difference in terms of the overall colour difference for objects made of wood, textiles, leather and feathers. We can state that the application of the disinfectant does not cause damage to the collection items in terms of visible colour change, nor does it reduce their aesthetic value. It turns out that some dyed fabrics such as silk and cotton threads on embroidery and in some cases dyed leather can be problematic. It follows that the problematic factor is not the type of material, but its surface treatment (e.g. dyeing, shellac surface treatment).

Microbiological analysis showed that in objects infested with fungi, the removal of contamination depends on the type of material, resp. the nature of the surface and the previous method of preservation. The investigated disinfectant can be applied to contaminated objects intensively - to destroy moulds but these must then be removed from the surface (cleaning).

In addition to the acute effect, however, it is very important to use the system as preventive precautions - for disinfection of rooms and air conditioning - which in case of contaminated environment - can transfer this pollution to disinfected clean rooms. After the initial removal of high contamination by intensive intervention (so-called shock disinfection), preventive protection will be very effective in the normal mode.

The measured results clearly show that the application of the Sanosil disinfectant mist using the Halo Fogger does not have a degrading effect on the tested paper sample. Repeated application (3x, 7x) even caused a slight increase in limiting viscosity number of cellulose not only after mist application but even after accelerated aging of the samples.

It is important to note that in addition to regular disinfection and cleaning of the premises, it is necessary to ensure optimal conditions (temperature, relative humidity, air circulation, regular cleaning) for all relevant spaces of all memory institutions.

We can confirm that the properties of tested disinfection system - Sanosil Super 25 Ag (S010) disinfectant with Halosil HaloFogger - are very important also in terms of its use and environment protection. In addition to its effectiveness against pathogenic microorganisms, viruses, bacteria, yeasts, fungi and moulds, it is primarily ecological safety and simple and safe for application with minimal maintenance.

REFERENCE LIST

- AIC (2003). The American Institute for Conservation of Historic and Artistic Works: Defining the Conservator: Essential Competencies.
- American Society for Standards (2002). *Standard Test Method for Accelerated Temperature Aging of Printing and Writing Paper by Dry Oven Exposure Apparatus*. (ASTM standard No. D 6819-02e3).
- Bakoš, D., Katuščák, S., Hudec, I., Čeppan, M., Reháková, M. (2008). Nový študijný program STU: Ochrana materiálov a objektov dedičstva. I. Etapa rozvoja VŠ európskeho vzdelávania Conservation Science na Slovensku. *Knižnica*, roč. 9, č. 6-7, p. 14-15.
- Blašková, E. (2015). Antimikrobiálna ochrana prírodných polymérnych materiálov v objektoch kultúrneho dedičstva. *Diplomová práca*. STU FCHPT Bratislava. 78 s.
- Commission Internationale de l'Eclairage (2019). *Colorimetry – Part 4: CIE 1976 L*a*b* colour space*. (Joint ISO/CIE standard 11664-4:2019(E)).
- Halosil™ International (2020). *Halosil's Halo Disinfection System*. Available at <https://halosil.com/products/the-halo-disinfection-system/> (accessed on 05.07.2020).
- Hanus, J. (1996). Microbiological contamination and ethylene oxide fumigation - for and against. *International Institute for Archival Science. ATLANTI 6*, Maribor 1996, p. 85-93.
- Hanus, J., Ďurovič, M., Bacílková, B., Mináriková, J. (1997). Influence of ethylene oxide sterilization on some properties of different types of paper. In: *La Conservation: Une Science en evolution - Bilan et Perspectives. Actes des troisièmes journées internationales d'études de l'ARSAG*, Paris, 21 – 25 April 1997, p. 193 – 203.
- Hanus, J., Richardin, P., Bonnassies-Termes, S., Ďurovič, M., Kubelka, V. (1999). Comparison of two different methods by head space gas chromatography for determination of residual ethylene oxide in sterilized papers. In: *ICOM Committee for Conservation, 12th Triennial Meeting*. Lyon, 29 August - 3 September 1999, Preprints Volume II, p. 507 – 512.

- Hanus, J., Richardin, P., Bonnassies-Termes, S. (1999). Influence of ethylene oxide sterilisation on some photographic papers. In: *ICOM Committee for Conservation, 12th Triennial Meeting*. Lyon, 29 August - 3 September 1999, Preprints Volume II, p. 550 - 554.
- Hanus, J., Vizárová, K., Lalíková, N., Jablonský, M., Čížová, K., Hanus, M. (2019). Nové možnosti v oblasti eliminácie mikrobiologickej kontaminácie pri ochrane predmetov kultúrnej hodnoty. In: *Zborník Slovenského národného múzea - História*. Bratislava, Slovenské národné múzeum, 2019, s. 19-33. ISBN 978-80-8060-457-8.
- Híreš, O. (2014). *Metódy identifikácie biologickej kontaminácie knižničných dokumentov*. Diploma work, Faculty of Chemical and Food Technology, Slovak University of Technology Bratislava, p. 65.
- International Organization for Standardization. (2010). *Pulps – Determination of limiting viscosity number in cupri-ethylenediamine (CED) solution* (ISO standard No. 5351:2010).
- International Standard Organization. (2008). *Paper and board – accelerated ageing – Part 5: Exposure to elevated temperature at 100 degrees C* (ISO standard No. 5630-5:2008).
- Katedra archívnictva a pomocných vied historických, Filozofická fakulta Univerzity Komenského v Bratislave (2020). *Študijné programy*. Available at <https://fphil.uniba.sk/katedry-a-odborne-pracoviska/kapvh/studium/studijne-programy/> (accessed on 03.07.2020).
- Palkovičová, I., Slaninová, P. (2015). Prieskum výskytu mikrobiologického poškodenia na knihách z fondov Univerzitnej knižnice a ich následná dezinfekcia. In: *Integrácia konzervačnej vedy a technológií do interdisciplinárnej ochrany materiálov a objektov dedičstva*. Zborník príspevkov konferencie CSTI 2015 Conservation Science, Technology and Industry (posterová prezentácia). FCHPT STU, SNM Bratislava.
- Panáč, J., Čeppan, M., Dvonka, V., Karpinský, Ľ., Kordoš, P., Mikula, M., Jakucewicz, S. (2008). *Polygrafické minimum*. TYPOSET, s. r. o., Bratislava. s. 64, ISBN 978-80-970069-0-7.
- Sanosil Ltd. International (1982). *Sanosil – disinfectants for life*. Available at <https://www.sanosil.com/en/> (accessed on 05.07.2020).
- Sanosil SK, s.r.o. (2012). *O nás*. Available at <http://www.sanosil-slovakia.sk/> (accessed on 05.07.2020).
- Sanosil SK, s.r.o. (2020). Zoznam testovaných patogénnych mikroorganizmov. Available at <http://www.sanosil-slovakia.sk/kategoria/zoznam-testovanych-patogennych-mikroorganizmov> (accessed on 05.07.2020)
- Sokolovský, L. ed. (2002). Universitas Comeniana, Historica XLV, *Pamätnica k 50. výročiu študijného odboru archívnictvo a pomocné vedy historické FiF UK v Bratislave*. Univerzita Komenského Bratislava.
- Vizárová, K., Hanus, J., Lalíková, N., Jablonský, M., Čížová, K., Dubínyová, L., Hanus, M. (2015). Nové trendy v oblasti eliminácie mikrobiologickej kontaminácie pri ochrane objektov kultúrneho dedičstva. In: *Integrácia konzervačnej vedy a technológií do interdisciplinárnej ochrany materiálov a objektov dedičstva*. Zborník príspevkov z konferencie CSTI 2015 Conservation Science, Technology and Industry. FCHPT STU, SNM Bratislava 2015. ISBN 978-80-8060-377-9, EAN 9788080603779. s. 271-287.
- Vizárová, K., Hanus, J., Lalíková, N., Čížová, K., Hanus, M. (2019). Možnosti eliminácie mikrobiologickej kontaminácie pri ochrane objektov kultúrneho dedičstva. In: *XVI. seminár restaurátorů a historiků*, Opava 2016. Praha, Národní archiv, 2019. ISBN 978-80-7469-059-4.



IIAS since 1985

NOTES FOR CONTRIBUTORS

The Editors of © Atlanti + / International Scientific Review for Contemporary Archival Theory and Practice welcome initial approaches from prospective authors. Acceptance of articles is **subject to an anonymous refereeing process**. Articles submitted to © Atlanti + / International Scientific Review for Contemporary Archival Theory and Practice **should be original contributions and should not be under consideration by another publication or has been, or will be published elsewhere**, authors should clearly indicate this at the time of submission. Each manuscript should be submitted via e-mail to e-mail of editors. Articles should be written on A4/Letter paper, double-spaced and with sample margins. All pages (including those containing only diagrams and tables) should be numbered consecutively.

There is no standard length for the articles but 6,000 – 8,000 words (including notes and references) is a useful target. The articles should begin with indented and italicised abstract of around 100 words, which should describe the main arguments and conclusions of article. The author should provide brief bibliographical details including affiliation and full correspondence address, research interest and recent publications.

STYLE

Authors are responsible for ensuring that their manuscripts confirm to the journal style. *Headings* should be in capitals (or Roman numerals), sub-headings in lower case. *Quotations* should be in single quotation marks, doubled with single. Long quotations of five or more lines should be indented without quotes. Capitals should be used sparingly, principally for proper titles and where they may be necessary to avoid ambiguity.

REFERENCES

References (citations in text) to be inserted in round brackets at the appropriate place in text, stating author's surname, publication date of work referred to and, where appropriate, relevant pages.

For example: (Adams, 2006, pp. 34).

Comments to appear as notes, indicated consecutively through the article by raised numerals corresponding to the list of notes placed at the end of the manuscript.

Reference list to appear after the list of notes, containing all the works referred to, listed alphabetically by author's surname (or name of sponsoring body), stating author's surname, forename and/or initials, date of publication, title of publication, edition, place of publication and publisher, and pages if relevant.

For example:

Novak, M. (2018). Upravljanje občutljivih podatkov in arhivska informativna pomagala. *Atlanti*, 28/2, 33-41. Maribor: Arhive Centre for Professional and Technical Problems.

Popovici, B. F. (2016). Records in contexts: towards a new level in archival description? *Tehnični in vsebinski problemi klasičnega in elektronskega arhiviranja. Popisovanje arhivskega gradiva: zbornik mednarodne konference*, Radenci, April 13-15 2016, 13-31. Maribor: Pokrajinski arhiv Maribor.

http://www.pokarh-mb.si/uploaded/datoteke/Radenci/radenci_2016/013-031_popovici_2016.pdf.

Smole, M. (1976). *Zgodovina arhivistike in arhivske službe*. Ljubljana: Arhivsko društvo Slovenije.

COPYRIGHT

It is a condition that the authors assign copyright or license the publication rights in their articles, including abstracts, to the International Institute for Archival Science Trieste/Maribor. This enables us to ensure full copyright protection and to disseminate the article, and of course the Journal, to the widest possible readership in print and electronic formats and appropriate. Authors retain many rights under the Institutes policies. Authors themselves are responsible for obtaining permission to reproduce copyright material from other sources.



ALMA MATER
EUROPAEA
ECM



ARCHIVAL STUDIES

ON ALL STUDY LEVELS

ARCHIVAL STUDIES

BA

I Bologna cycle
Undergraduate study programme

ARCHIVES AND RECORDS MANAGEMENT STUDIES

MA

II Bologna cycle
Graduate study programme

ARCHIVAL SCIENCES

PhD

III Bologna cycle
Doctoral study programme



IIAS since 1985

*"Archivistica amor noster,
semper et in aeternum"*