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THE MAIN STRATEGIES FOR ENSURING THE PRESERVATION OF ARCHIVAL DOCUMENTS UNDER CONDITIONS OF ACTIVE HOSTILITIES (RUSSIAN ARMED AGGRESSION AGAINST UKRAINE)

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Abstract:

Purpose: The article examines the key strategies associated with the preservation of archival documents under conditions of active hostilities on the territory of Ukraine.

Methodology/Approach: The authors analyze the emergency measures implemented by Ukrainian archives following Russia's full-scale military invasion of Ukraine in order to ensure the preservation of archival documents.

Results: The study provides a comprehensive set of preventive and active measures designed to ensure the preservation of archival documents under conditions of active hostilities.

Limitations: The analysis is limited to archives located in areas directly affected by hostilities.

Originality/Value: This study constitutes one of the first systematic academic analyses to address archival preservation during contemporary high-intensity conflict.

Keywords:

archival documents; preservation of archival documents; copies; armed aggression; hostilities

Izvleček:

Glavne strategije za zagotovitev ohranitve arhivskih dokumentov v času vojaških spopadov (ruska vojaška agresija proti Ukrajini)

Namen: Članek obravnava ključne strategije, povezane z ohranjanjem arhivskih dokumentov v razmerah aktivnih sovražnosti na ozemlju Ukrajine.
Metodologija/pristop: Avtorji analizirajo izredne ukrepe, ki so jih ukrajinski arhivi uvedli po ruski obsežni vojaški invaziji na Ukrajino, s ciljem zagotoviti ohranitev arhivskih dokumentov.
Rezultati: Študija ponuja celovit niz preventivnih in aktivnih ukrepov, namenjenih zagotavljanju ohranitve arhivskih dokumentov v razmerah aktivnih sovražnosti.
Omejitve: Analiza je omejena na arhive z območij, ki so neposredno prizadeta zaradi sovražnosti.

Izvirnost/vrednost: Študija predstavlja eno prvih sistematičnih akademskih analiz ukrepov za ohranjanje arhivskega gradiva med sodobnim visoko intenzivnim vojaškim konfliktom.

Ključne besede:
arhivski dokumenti, ohranjanje arhivskih dokumentov, kopije, oborožena agresija, sovražnosti

1 Introduction

Facing the unprecedented challenges of a full-scale Russian invasion, Ukraine has been compelled to seek innovative methods and measures for protecting archival collections under wartime conditions. The process of ensuring the preservation of archival documents under wartime conditions requires archives to develop and implement a package of preventive and active measures in order to minimize the consequences of active hostilities, such as theft, destruction, or damage to archival documents.

As a result of the full-scale invasion, a large number of settlements (cities, towns), including those where Ukrainian archives were located, have been completely or partially destroyed.



Picture 1: Photo of destroyed Ukrainian city
(source: https://www.diakonia.se/ihl/news/ukraine-two-years-since-russias-full-scale-invasion/)

Due to active hostilities, archival records of the state archives of Kharkiv, Mykolaiv, Kyiv (Kulyk, 2023), Dnipro, Sumy, and Kherson regions (On the work of the State Archival Service…, 2024) have sustained partial or total destruction.



Picture 2: Photos of the archival documents destroyed during hostilities (source: https://argumentua.com/stati/minule-zaradi-maibutnogo-pro-rol-arkhiviv-u-zberezhenni-pam-yati-pro-podii-ta-naslidki-viini)



Picture 3: Photo of the archives damaged during hostilities (source: https://scienceatrisk.org/uk/story/vartovi-istorii-yak-derzhavnyi-arkhiv-khersonskoi-oblasti-vidnovliuie-vykradeni-rosiianamydokumenty)

Year	Losses	Evacuation
2022	1,500 fonds from archival repositories of the state archives of the Kherson region were stolen	11,758 items of the collection (93%) of documents of the National Archival Holdings of the state archives of Donetsk Region (city of Kostyantynivka); about 32,000 items of the collection (90%) of documents of the National Archival Holdings (NAH) of the state archives of Luhansk Region (city of Severodonetsk); part of the archival documents of the National Archival Holdings of the state archives located in the city of Kharkiv
2023	because of the occupiers' aggressive actions, part of the documents of the National Archival Holdings of the state archives in Zaporizhia, Luhansk, Sumy, and Chernihiv regions was damaged, stolen, or destroyed	100,000 files of the state archives of Kherson region
2024	72,671 storage items were stolen 1,047 storage items were destroyed	the archival documents from areas of possible hostilities and dangerous territories to the state archives of Sumy, Rivne, Kherson regions
2025	the buildings of the state archives of Zaporizhia, Odesa and Kherson regions were damaged as a result of hostile shelling by the aggressor country (Russia). The premises of archival departments in Dnipropetrovsk, Sumy, and Khmelnytskyi regions were also damaged	the archival documents from areas of possible hostilities and dangerous territories to the state archives of Sumy, Kherson regions

Table 1: Losses of the archival documents during hostilities (based on annual reports of the State Archival Service of Ukraine, source: https://archives.gov.ua/)

Key factors hindering the preservation efforts include:

- volatile security environment, impeding strategic long-term planning;
- insufficient financial resources, as a significant share of the national budget is allocated to defense needs;
- staffing shortages caused by the displacement of professional archivists (a significant portion of personnel have relocated abroad in order to ensure personal safety and the safety of family members).

2 Recommendations

Considering the scale of damage and destruction of archival records, as well as in order to minimize the consequences of the active hostilities, such as theft, damage or destruction of archival documents, it is recommended for archives to implement the following measures:

a) Evacuation Planning

The archives should plan to organize and conduct the evacuation of archival documents, in particular, develop an “Evacuation Plan for Archival Documents”. In the event of a decision to evacuate archives, the evacuation and storage of the National Archival Holdings documents are carried out under “the Procedure for ensuring the evacuation, storage”, and “the Methodology for planning evacuation measures” (Didukh, Mikhalko, 2024).

Under established procedures, evacuation involves the systematic packing, moving, and transporting of archival documents to designated secure locations.



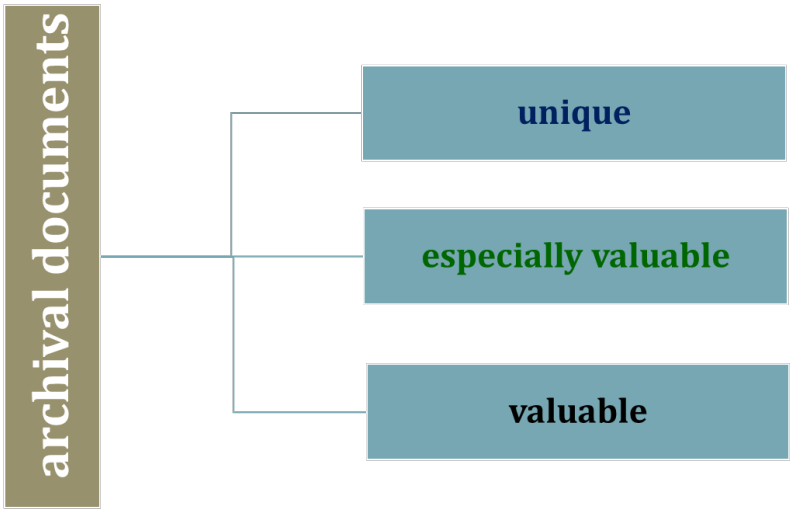
Picture 4: The main stages of organizing and carrying out the evacuation of archival documents

Since digital archival records can be stored on physically separate media (of various types), servers, etc., this aspect must be taken into account when planning evacuation measures, in particular, to provide for appropriate packaging materials, equipment, and vehicles.

Joint and simultaneous transportation of archival documents from the main and insurance fonds is not recommended, since in the event of an additional emergency (fire, traffic accident, consequences of active hostilities, etc.), both the originals and copies of the documents may be damaged or destroyed, which may result in complete loss and irrecoverability.

b) Expert Appraisal of Archival Documents

Archives should conduct systematic appraisal of archival collections to determine their value and retention requirements based on historical, scientific, cultural, and aesthetic significance. Archival documents should be categorized according to their value, which will determine evacuation priority and required protection levels.



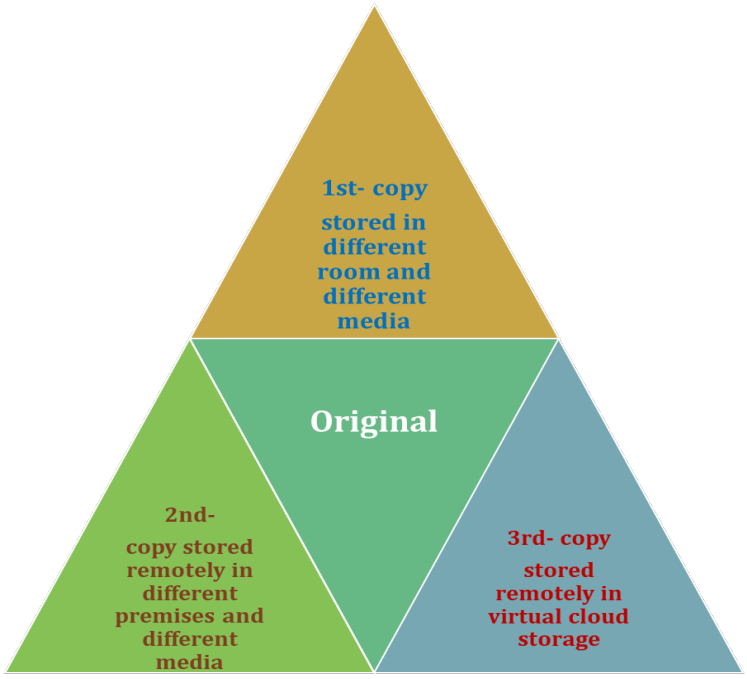
Picture 5: Classification of archival documents depending on their value

c) Multiple, Secure Backups (The 3-2-1 Rule)

Archives must ensure security and remote fonds (archive groups) with security copies of archival documents. According to the recommendations of specialized international organizations, in particular “The Digital Preservation Coalition” (2019) and several national archives in Europe, in order to ensure the security of information of digital archival records, it is recommended to create three copies of the original digital record. One copy is recommended to be stored in cloud storage, and the other two copies – in the fonds (archive groups) on different types of digital media. This approach coincides with the basic cybersecurity rule for data backup – the “3-2-1” rule (have at least three copies of data; store copies on at least two media; keep at least one backup copy remotely) (ISO 14641:2018).

Based on the experience of Ukrainian archives under wartime conditions, it is necessary to implement the following backup strategy:

- **the first backup copy** of digital archival record is stored physically away from the original. In this context, it is permissible to store the backup copy in the same territory as the original record, but necessarily in a different room. The backup copy should be stored on storage media that differ in type from the storage media of the original record (this can be offline storage on LTO magnetic tapes, HDD or SSD external removable disks or internal storage devices of server equipment);



Picture 6: Scheme for creating and storing copies of digital archival records

- **the second backup copy** should be stored remotely, meaning that it is located in a physically separate facility. It is recommended to organize the storage of remote backup copies in archival storage in another building or a geographically remote settlement on media that differs in type from the media of the original record. Thus, if the original records are stored on internal drives or server equipment, another backup on LTO tapes or external removable SSD disks, then the remote backup copies could be stored on external removable HDD disks;
- **the third backup copy** of the original record should be stored remotely in virtual cloud storage. When storing backup copies in cloud storage, it is recommended to configure automatic backup of information to the cloud.

d) Cloud Storage and International Support

The use of cloud storage capabilities by Ukrainian state archives has become a necessary element of ensuring reliable storage of the digital archival documents, and has prevented their theft, destruction, or damage because of ongoing hostilities. Archives began to use cloud services in the early stages of the conflict to store digital (electronic) copies of the archival documents in the first months of Russia's armed aggression against Ukraine. In February 2022, Ukrainian archivists received proposals from foreign colleagues to store digital data in cloud storage outside Ukraine. On March 15, 2022, the Parliament of Ukraine amended Article 5 of the Law of Ukraine "On information protection in information and communication systems" (On the protection of information, 1994), according to which information owners could enter agreements with foreign companies and organizations that are cloud service providers during the period of the martial law in Ukraine and six months after its termination or cancellation. On March 25, 2022, an agreement was entered between the State Archival Service of Ukraine and the National Archives of the United Kingdom (Great Britain) "On the backup storage of digital copies of documents of Ukrainian state archives in the cloud storage of foreign partners" (The

first agreement on backup storage, 2022), under the terms of which the National Archives of the United Kingdom provided free cloud storage of sufficient size based on the Amazon Web Services (AWS) cloud services platform. This enabled state archives to organize the storage of archival documents' copies of the state archives in case of loss or damage to their originals because of hostilities on the territory of Ukraine.

e) Measures for Stolen Archival Documents

As previously noted, the ongoing armed aggression and temporary occupation of Ukrainian territories have resulted in the systematic theft and illicit removal of archival documents from the state's archives by Russia.

To facilitate the identification and recovery of these cultural assets, it is recommended that Ukrainian archives implement the following strategic measures:

- **the legal substantiation:** formally petition authorized state bodies to officially confirm and document the theft of archival records resulting from the military aggression of the Russian Federation;
- **the comprehensive inventory:** compile collection-level (fonds-level) registers – categorizing collections as lost, extant, or partially extant – to ensure the prompt recording of losses. This should be followed by comprehensive audit to verify the physical presence and technical condition of all institutional holdings;
- **the evidence collection:** systematically aggregate publicly available data and forensic evidence that corroborates the specific events leading to the loss or displacement of archival documents;
- **the criminal proceedings:** initiate criminal proceedings by filing formal statements with law enforcement agencies regarding the theft of archival property and the resulting physical damage to the National Archival Holdings;
- **the institutional notification:** provide formal written notification to the State Archival Service of Ukraine and other relevant regulatory bodies regarding the disappearance of documents due to illegal actions or unexplained circumstances;
- **the international legal recourse:** file claims for damages against the aggressor state through diverse legal channels, including Ukrainian national courts, the European Court of Human Rights, investment arbitration mechanisms, and foreign jurisdictions where Russian assets are located;
- **the registry maintenance:** develop and maintain a specialized unified register of stolen archival documents (as a result of active hostilities and temporary occupation);
- **the diplomatic cooperation:** propose the transfer of stolen archival document lists to the relevant ministries of partner nations to facilitate the seizure or legal detention of these assets should they appear at international exhibitions, auctions, or public events;
- **the market monitoring:** utilize existing surrogate copies (analog or digital) to identify originals that may emerge on the black market, genealogical databases and platforms, or within the finding aids and reference systems of the occupying state's archives. This includes active monitoring of local and international antique markets;

- **the academic and digital tracking:** monitor scholarly publications, electronic catalogs, and exhibition materials issued by Russia for any direct or indirect references to missing Ukrainian archival data;
- **the public attribution:** publish descriptions, fonds registers, and specialized catalogs of stolen archival documents to delegitimize their circulation and ensure their illegal status is recognized within the international archival community;
- **the digital transparency:** establish dedicated sections on archives websites featuring lists of stolen documents and links to virtual exhibitions of the displaced heritage;
- **the crowdsourcing information:** implement mechanisms for public reporting – such as dedicated online platforms or automated chat-bots – to enable citizens to provide information regarding the potential location of stolen archival documents.

f) Other Recommendations:

- build or equip special, including underground storage facilities in archives for reliable storage of all types of archival documents;
- continue monitoring the conditions of preservation of cultural values and the documents of the National Archival Holdings (NAH) of state archives in wartime conditions;
- continue monitoring the safety of cultural and material values – documents of the NAH of Ukraine that were stolen, lost, or destroyed because of a full-scale invasion of the Russian Federation;
- strengthen the material and technical base of state archives, including by involving international humanitarian aid and financial resources of the donor community to meet their needs in martial law;
- strengthen cooperation with archives of partner countries, to exchange professional experiences, provide internships to archival employees, and possible placement of the remote fonds, as well as integration into the European archival community.

3 Conclusion

The analysis of the situation with damage, destruction and theft of the archival documents in Ukraine should serve as a catalyst for revising the state regulation of financial, personnel, information, and material support for the development of archives in Ukraine and in the world, because it is archives that preserve the creative heritage of national science and culture of the countries.

As a result of an applied study of the problems of ensuring the preservation of archival documents under conditions of active hostilities on the territory of Ukraine, a scheme for the permanent storage of such documents was developed, which meets the modern needs of archives. The analysis of the experience of measures taken to ensure the preservation of the archival documents by the Ukrainian archives during Russia's armed aggression against Ukraine shows that the effective organization and implementation of these measures requires careful planning, financial assistance from international donors, and a high professional and organizational level of employees of archives.

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SUMMARY

GLAVNE STRATEGIJE ZA ZAGOTOVITEV OHRANITVE ARHIVSKIH DOKUMENTOV V ČASU VOJAŠKIH SPOPADOV (RUSKA VOJAŠKA AGRESIJA PROTI UKRAJINI)

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Ukrajina, soočena z obsežno rusko oboroženo agresijo na svojem ozemlju, je prisiljena iskati učinkovite načine za zaščito arhivskih dokumentov. Zagotavljanje ohranitve arhivskih dokumentov v razmerah aktivnih sovražnosti zahteva od arhivskih ustanov, da razvijejo in izvedejo niz preventivnih in aktivnih ukrepov, namenjenih zmanjšanju posledic vojne, kot so denimo kraja, uničenje ali poškodovanje arhivskih dokumentov.

V času ruske agresije proti Ukrajini so bili arhivski dokumenti v državnih arhivih Harkovske, Mikolajivske in Kijevske oblasti ter v državnih arhivskih ustanovah Dnepropetrovske, Mikolajivske, Sumske, Harkovske in Hersonske oblasti zaradi aktivnih sovražnosti delno poškodovani in uničeni.

Ob upoštevanju možnega obsega poškodb in uničenja arhivskih dokumentov ter za zmanjšanje posledic aktivnih sovražnosti – vključno s krajami, poškodovanjem ali uničenjem – je priporočljivo, da arhivske ustanove izvedejo naslednje ukrepe:

- načrtujejo in pravočasno organizirajo evakuacijo arhivskih dokumentov na podlagi razvitega »Načrta evakuacije arhivskih dokumentov«;
- izvedejo strokovno oceno vrednosti digitalnih arhivskih dokumentov, da se določijo njihov pomen in roki hrambe na podlagi njihove zgodovinske, znanstvene, kulturne in estetske pomembnosti ter razvijejo prednostne naloge evakuacije;
- ustvarijo digitalne varnostne kopije arhivskih dokumentov;
- uporabijo za shranjevanje kopij arhivskih dokumentov rešitve za hrambo v oblaku;
- zgradijo ali opremijo specializirane skladiščne prostore (vključno s podzemnimi) v arhivskih ustanovah z namenom zagotovitve zanesljive hrambe vseh vrst arhivskih dokumentov;
- še naprej spremljajo vojne razmere, v katerih hranijo državne arhivske institucije kulturne dobrine in dokumente;
- še naprej ugotavljajo varnost kulturnih in materialnih dobrin, tj. arhivskih dokumentov Ukrajine, ki so bili ukradeni, izgubljeni ali uničeni zaradi obsežne vojaške agresije Ruske federacije;

- krepijo materialne in tehnične zmogljivosti državnih arhivskih ustanov, tudi z vključitvijo mednarodne humanitarne pomoči in donacij, da bi zadovoljile vse potrebe v času izrednega stanja;
- krepijo sodelovanje z arhivskimi ustanovami v partnerskih državah z namenom izmenjave strokovnih izkušenj, zagotavljanja pripravništev za arhivsko osebje, omogočanja morebitne oddaljene hrambe fondov in spodbujanja vključevanja v evropsko arhivsko skupnost.

Analiza poškodb in uničenja arhivskih dokumentov v Ukrajini naj bo spodbuda za oceno državnih zakonskih določb, ki se nanašajo na finančno, kadrovsko, informacijsko in materialno podporo za razvoj arhivskih ustanov tako v Ukrajini kot tudi po svetu, saj igrajo arhivske ustanove ključno vlogo pri ohranjanju ustvarjalne in intelektualne dediščine nacionalne znanosti in kulture.

About the authors:

Volodymyr Mikhalko, candidate of technical sciences (PhD), associate professor, has been working as senior researcher of the department of technological support of archival affairs, the Ukrainian Research Institute of Archival Affairs and Record Keeping. He holds a Master's degree in Technical studies at the University of Kyiv. He has more than 15 years of experience in educational and scientific organizations. Author and co-author of 103 scientific works (articles, conference papers, textbooks and manuals). His research focuses on ensuring preservation of digital archival documents, metadata creation, long-term digital archiving, and cybersecurity.

Lyudmila Didukh, candidate of historical sciences (PhD), working as the head of the department of technological support of archival affairs, the Ukrainian Research Institute of Archival Affairs and Record Keeping. He holds a Master's degree in Historical studies at the University of Kyiv. She has more than 20 years of experience in scientific organizations. Author and co-author of 125 scientific works (articles, conference papers, textbooks and manuals, National standards). In her research she deals with the preservation of archival documents as well as long-term digital archiving.

O avtorjih:

Dr. Volodymyr Mikhalko, izredni profesor, dela kot višji raziskovalec na oddelku za tehnološko podporo arhivskih zadev Ukrajinskega raziskovalnega inštituta za arhivske zadeve in vodenje evidenc. Ima magistrski naziv iz tehničnih študij na Univerzi v Kijevu in več kot 15 let delovnih izkušenj v izobraževalnih in znanstvenih organizacijah. Je avtor in soavtor 103 znanstvenih del (člankov, konferenčnih prispevkov, učbenikov in priročnikov). Njegovo raziskovalno delo se osredotoča na zagotavljanje ohranitve digitalnih arhivskih dokumentov, ustvarjanje metapodatkov, dolgoročno digitalno arhiviranje in kibernetsko varnost.

Dr. Lyudmila Didukh dela kot vodja Oddelka za tehnološko podporo arhivskih zadev na Ukrajinskem raziskovalnem inštitutu za arhivske zadeve in vodenje evidenc. Ima magistrski naziv iz zgodovinskih študij na Univerzi v Kijevu in več kot 20 let delovnih izkušenj v znanstvenih organizacijah. Je avtorica in soavtorica 125 znanstvenih del (člankov, konferenčnih prispevkov, učbenikov in priročnikov, nacionalnih standardov). V svojih raziskavah se ukvarja z zagotavljanjem ohranitve arhivskih dokumentov in dolgoročnim digitalnim arhiviranjem.