

Tatjana Mušnjak

Hrvatski državni arhiv
Marulićev trg 21
Zagreb

THE PROTECTION OF ARCHIVAL MATERIAL IN WAR CONDITIONS

UDK 930.251(497.5)''1991''

Stručni članak

Autorica u svojem radu opisuje postupke i metode spašavanja arhivske građe tijekom domovinskoga rata, što su bile preporučene svim institucijama koje čuvaju arhivsku građu (arhivi, knjižnice, muzeji, vjerske organizacije i dr.) u Republici Hrvatskoj.

The work of archives and the other institutions which possess archival material (museums, libraries, religious organizations etc.) has to be centered completely to actions which will assure physical and technical protection of material, namely their saving in the case of war destruction.

Therefore it is necessary to begin immediately with an evacuation of the most valuable material to saferooms inside the building of the institution or outside of it. The chosen place must be shell-proof, dry and safe against fire and flood. Since we are already at the war, we must fully analyze all possible dangers for material during a transportation to a new location before we decide to evacuate. If a job is too risky, one does not need to insist on the evacuation.

The first task of all institutions possessing material is microfilming of inventories and the other finding aids unless it was not done before. Xerox copies can be made if possibilities of microfilming do not exist. Inventories and their copies must be dislocated and separated from archival material.

Microfilms of record groups and collections shot for security and protection purposes must be also dislocated and separated from material immediately.

Archival treasure can be destroyed deliberately or stolen in war conditions (fire can

be set to repositories, explosive devices and so on). Therefore the measures of enforced security, control and physical and technical protection of archival material must be performed consequently in order to avoid danger of deliberate diversions.

The heaviest damages of material or their total destruction will emerge in the case of direct hits during shelling and when an archival building is in the war zone. There is a great chance that fires of different proportions can occur in these situations.

INSTRUCTIONS FOR SAVING ARCHIVAL MATERIAL IN THE CASE OF FIRE

The best protection against fire is preventive protection.

In war conditions the organization of permanent watch is very important because possible fires must be registered, made known and brought under control at the first stage.

This is the way bigger disasters can be avoided. If archives and the other institutions possessing material do not have enough watchmen, and that will happen to the all institutions of culture in Croatia (one can count on 30-40% of the present number of the workers in war conditions) they have to get in touch with civil protection units at the territory where the archive is situated and the nearest police stations in order to make arrangements about more frequent visits of their buildings at the time no worker is around.

One should also make certain actions to prevent setting fires inside buildings or throwing explosive devices into windows: therefore the strict control of visitors and workers, the installation of screens or shutters on the inner side of windows etc.

An extinguishing of fire by water in repositories is not recommended. Therefore all institutions which possess archival material have to get in touch with fire stations or civil protection units which will perform the extinguishing at the war. Together they have to work out different possibilities of extinguishing. Firemen must be warned of consequences appearing when fire is extinguished by water.

The most ideal expedient for extinguishing of a fire in archives is halon. Carbon dioxide and powder are second. If the fire in archives is big and water is necessary, we have to beg firemen not to head strong gushes of water at material but to use smaller amounts of water dispersed into drops (the realization of this possibility depends, of course, of the size of the fire).

After the fire we shall have to save wet material. There are numerous experiences about ways and possibilities of saving soaked documents and books here and abroad - we shall discuss them in the next chapter.

INSTRUCTIONS FOR SAVING OF HUGE AMOUNTS OF SOAKED MATERIAL

Archival material can get soaked in the process of extinguishing of the fire in repository by water, or by cracking of water-pipes and sewers, or by cracking of central heating installations and so on. The occurrence of mould on papers, parchment and photo documents is inevitable consequence of soaking after 5 to 15 days. In such cases it is necessary to undertake following actions:

1. Material have to be evacuated from the repository to the dry and airy place but protected from sunlight. The evacuation should be operated according to the plan made earlier. In this plan priority of evacuation has to be clearly stated. It is desirable that the curator of the repository is present at the operation.
2. At the first stage one should put together material in bigger heaps in order to drain off needless water under its own weight. We recommend putting every heap on the palette to prevent sedimentation of water at the bottom of material.
3. As soon as water is drained, material should be examined and classified:

- a part of material will dry naturally at places which are shady and roofed or indoors at draught (clean basements, sport halls etc.),

- a part of material will be subject to the artificial drying in different types of kilns at raised temperatures and certain relative humidity of air (kilns of meat, tobacco, wood etc.); the temperature at 40-60°C and relative humidity of air at 30-35% are recommended; archives which have laminators can use them for drying and leveling of documents on papers; other archives can use fan heaters, dryers and so on, and

- a part of material will be subject to the deep freezing since so big amounts of wet materials cannot be dried in 5 to 15 days; adequate temperatures for freezing are -7 to -10°C, but we should accomodate to the set regime of freezing chambers bearing in mind that no materials can be freezed below -40°C.

Kilns and freezing chambers should be settled in advance. One should find out their capacities well, in order to know amount of material which we can treat there, namely to locate. Lorries for the transportation of material have to be assured by arrangement with authorized crisis headquarters.

ATTENTION: We did not find any data about experiences of freezing of wax seals in available professional literature. Researches in this field have not been conducted till now in the Laboratory for conservation and restoration of the Croatian State Archives.

Since documents on parchment do have mostly pendent wax seals, it is forbidden to subject them to the procedure of deep freezing after soaking. Charters on parchment should be separated and dried at the room temperature; raised temperatures should be used by no means.

If we shall have enough room, parchments should be taken to pieces and put on newspapers, blotting papers or leaves of clean paper which should be changed more frequently in order to dry documents faster.

If room is too small, charters can be put together one on another, but they should be separated by leaves of newspapers or blotting papers which should be changed more frequently. Wiping of wax seals by a soft rag would be enough.

Deep freezing of photo documents (films, microfilms, photos) is not recommended. Cleaning and drying of them should be entrusted with specialized institutions, respectively to laboratories.

The natural drying of archival material written on paper

For drying one should choose in advance foreseen shady and roofed places or indoors where a good air circulation is possible.

At first one should separate the worthless material (boxes, folders etc.) and untie bundles. Every bundle has to have visible designation to make easier later classifying. An archivist should be present at this stage of work.

Documents are dried in the lying position in smaller bundles under which should be placed newspapers, blotting papers, newspaper board or some other available material which can absorb the moisture. During drying of documents one should turn over leaves more frequently, but with the due caution because they must not be damaged. For the acceleration of drying it is desirable to insert a dry material between every 50 or 150 leaves which will absorb unnecessary moisture.

The mud and dirtiness of a different kind we should not clean out of documents. If it is necessary, it has to be done with the exceptional caution in order to prevent additional damages. Archives including restoration workshops should leave this phase of the work to the workers of a laboratory. No notes on wet material should be written because they could be damaged. A room where a drying is conducted should not be too warm, as mould would appear on wet material. When a colony of mould appears, and, as a precaution, it is necessary to accomplish a disinfection.

The disinfection is executed by 5% solution of thymol in 96% technical ethyl alcohol. The solution is made by dissolving of 50 grams of thymol in 1 litre of alcohol. After the complete melting of thymol the solution can be dispersed all over the material by usual sprayers for flowers or can be brought on by a tampon. One should be exceptionally cautious when the disinfection of the material written by contemporary inks that can be melted in alcohol is on the table: they should not be sprayed by the solution but should be smeared by a tampon where there is no text. The disinfection must not be conducted on metal shelves since this solution dissolves the protective lacquer.

The disinfection team should have gloves and masks and the other protective clothes. The room where disinfection is executed should be closed after the completion of the work, so thymol can function better, that is to say it would not evaporate.

The artificial drying of archival material written on paper

The kilns which can serve for drying of material, and capacities of the kilns should be provided for in advance. The drying conditions are described earlier.

Materials on shelves in the kiln must be separated into smaller bundles and dried in a lying position. Leaves should be turned over more frequently in the process of drying.

After the completion of drying materials have to be put together into bundles, wrapped by a newspaper board no. 40, corded, clearly designated by water-proof pencils and deposited into dry repositories.

For wrapping up bundles a newspaper board is recommended because it is strong and pliant enough. It can be sheared which is important since it is sold in sheets of size 100 x 70 cm. If this board is not at the hand, we can use corrugated board or more layers of wrapping papers etc.

Dried materials are not allowed to be returned to wet repositories where they were soaked in any of ways mentioned before.

The deep freezing of archival material

For the deep freezing of material it will be necessary to purchase chambers of big capacities which can be found in ice cream factories, big markets, meat industry, big department stores or discount stores which sell foodstuffs. Freezing chambers and their capacities should be determined in advance. Freezing conditions are described in chapter 3. One should assure lorries for a transportation of wet material to chambers by arrangement with authorized crisis headquarters.

The procedure of placing of material into chambers is very simple: boxes and books must be put together neatly on palettes in lying position. Boxes must not be joined together in order to prevent their sticking during freezing. There must be 1 cm of free space left around every box. After all space on palette is covered, one should put polyethylene foil all over boxes (the best solution is to purchase a foil of thickness 0,03 mm

since it can be used later for lamination if need for freezing of documents is not appeared). More rows of boxes or books can be put together on one palette, depending on the height of the chamber. It is important that particular rows are separated by polyethylene foil.

Material can be freezed from a couple of weeks to several years (the lower is the temperature, the longer they can stay in the chamber). It is important to say that material is not taken out of a chamber at once but in smaller amounts which can be treated in kilns or in restoration laboratories. All this material will need some of conservation and restoration.

NOTICE: Material which is separated for the artificial drying or for the deep freezing must not be disinfected by thymol because such operations are performed mostly in food and tobacco plants, and thymol can affect the taste of food stuffs and tobacco which will be frozen or dried later in these chambers.

INSTRUCTIONS FOR SAVING ARCHIVAL MATERIAL BURIED UNDER RUINS

If material are buried under ruins, it is necessary to clear up ruins and allow the access to material. Taking out of material is conducted according to the predetermined plan if the present situation makes it possible. Otherwise one should make the plan according to circumstances.

Boxes, bundles and books are cleaned from bigger pieces of plaster and building material by soft brushes or soft rags. If boxes are damaged, and leaves are strewn one should make bundles out of leaves, then wrap them up by board and tie them by a cord. The identification and depositing of strewn leaves should be postponed for better times.

It is recommended to evacuate roughly cleaned material in metal or wooden trunks which should not be too big, and also not overloaded, since it can delay the evacuation. If there are no such trunks, few boxes can be tied by a cord to make handling safer and simpler. Tying by a cord will not only ease the transport but it will also secure material from strewing in the case of fall.

It is necessary to assure vehicles for a transportation and a location where material will be carried over to. Therefore one has to determine such locations in advance and arrange vehicles with crisis headquarters in county district.

If direct destruction or fire happens in archival building in war conditions, one should immediately after the cessation of the attack, or extinguishing of fire and caring

for the injured begin with saving of material. Depending on consequences growing out of the situation one should make a decision about shifting of saved materials to another place: for instance one of parts of archive which was not damaged in the attack or some other place which proves more safe in the present situation-not one of them, but many more must be planned in advance.

On the occasion of saving and evacuation one should begin with the most valuable record groups and collections. Teams working on this job must be provided with precise instructions in relation to an order of saving and evacuation. Such order must be determined for every repository in order to get job done in the absence of a curator (the presence of a curator is obligatory, but when something happens to her or him, the existence of these plans will enable the correct procedure for people who know less about repositories). Such plans are very important considering saving of wet documents which includes drying and freezing in case of soaking of big amounts of documents and hence drying and freezing will be limited by capacities of freezing chambers, kilns and disposable places for natural drying.

It is intention of these instructions to give basic information about possibilities of saving to people who will work on saving of material in the case of war destruction and to give a few practical advices how to cope with certain situations emerging in this job. Huge majority of these people is not educated for the job in such situations, and only a few of them will be specialized for the preservation and the restoration of material at the disposal. Many of them will not have possibility to save by freezing method or by the artificial drying in kilns, or to disinfect. These methods are also described here in order to serve when possibilities do exist.

All institutions and individuals who will be in charge of saving of material (archives, museums, vestries etc.) have to know addresses and names of people which can be asked for help in particular situation or for the explanation of details. They all have to know that the evacuation of material into unsuitable and wet places can do damage which is equal to that which was made in war destruction.

Sažetak

ZAŠTITA ARHIVSKE GRAĐE U RATNIM UVJETIMA

Upute za zaštitu arhivske građe u ratnim uvjetima nastale su u ljeto 1991. godine kada se u napadima jugovojske na Hrvatsku već počinjao nazirati njihov surov i rušilački karakter.

U Uputama je težište stavljeno na one aktivnosti koje osiguravaju fizičko-tehničku zaštitu građe te njezino spašavanje u slučaju požara, močenja i zatrpavanja u ruševinama.

Radi što djelotvornije fizičko-tehničke zaštite arhivske građe, predlaže se u Uputama poduzimanje sljedećih mjera:

- premještanje građe na sigurnija mjesta;
- stroga kontrola ulaska, izlaska i kretanja stranaka, postavljanje metalnih kapaka ili kapaka od drugih materijala s unutarnje strane prozora te vreća s pijeskom na osjetljiva mjesta i sl.;
- mikrofilmiranje ili, ukoliko to zbog žurnosti nije bilo moguće, kserokopiranje inventara i drugih arhivskih pomagala (ako to već ranije nije bilo učinjeno) te njihova pohrana odvojeno od arhivske građe;
- dislociranje sigurnosnih kopija mikrofilmova na kojima je snimljena arhivska građa;
- ažuriranje planova za spašavanje građe iz ruševina, u slučaju požara i močenja.

U posebnim poglavljima dane su i praktične upute za postupke spašavanja u situacijama koje se u ratnim okolnostima najčešće događaju (požar, poplava, urušavanje zgrada). Nešto je iscrpnije obrađeno područje spašavanja i sušenja velikih količina namočene građe kako bi se običnim ljudima, koji nisu stručnjaci za zaštitu, a koji na terenu najviše sudjeluju u akcijama spašavanja, što bolje objasnio ovaj najdelikatniji postupak spašavanja građe.