

Zdena ROSICKÁ*
Miroslav TOMEK**

LOGISTIC SUPPORT OF CULTURAL HERITAGE EVACUATION

INTRODUCTION

Cultural heritage of every advanced sophisticated country becomes its inseparable component, whose keeping and preservation is in public interest. Devastation, theft or damage of any significant part of cultural heritage mean an irrecoverable loss. Therefore cultural heritage protection has to be paid extremely careful attention to. Cultural heritage protection must follow the latest scientific knowledge and result from international agreements in the field of European and World cultural heritage.

The term cultural heritage is comparatively comprehensive; there are covered particularly archive documents, historical typographical art works, manuscripts and book collections, letter masterpieces, stage design art, cinematography, television and audio-visual pieces, museum and gallery collections, fine arts, paintings, utilitarian masterpieces, folk art, industrial monuments and technology pieces, etc.

Collections of relics, monuments and landmarks are considered inseparable components of cultural heritage as well. In compliance with [5] the term protection of collections of relics, monuments and landmarks can be characterized as complex of activities and measures focused on identification, research, records, preservation, rehabilitation, restoration, recovery, utilization and presentation of cultural heritage collections.

* Zdena Rosická, PhDr., CSc., Faculty of Restoration, University of Pardubice.

**Miroslav Tomek, Ing., PhD., Assoc. prof., Faculty of Special Engineering of Žilina University in Žilina.

Considering variety of emergencies and crisis situations (hereinafter crisis situations) all over the world which had threatened and further eventually destroyed priceless and irrecoverable historic items, it becomes urgent to target our attention at consistent protection of historic items of all kinds. Dealing with protecting collections of relics, monuments and landmarks is a complicated problem demanding complex examination by people responsible for individual types of landmarks. Evacuation may be considered one of possible ways how collections, monuments and landmarks can be protected.

This paper objective consists in highlighting some aspects related particularly to logistic support of movable cultural heritage items evacuation. Completeness and quality of logistic support can significantly effect how fast and safe movable cultural historic items are salvaged in case any emergency occurs.

Promptness and effectiveness of evacuation procedure requires from involved responsible individuals to use every available means in order to save and salvage maximum cultural heritage items with minimum strength and means.

1. PROTECTION OF MOVABLE CULTURAL HERITAGE

Cultural heritage is irrecoverable treasure of every country and its population, it indicates the development of community, philosophy, religion, science, technology, arts, it demonstrates education and culture level of every nation. This treasure has to be protected against its damage or devastation.

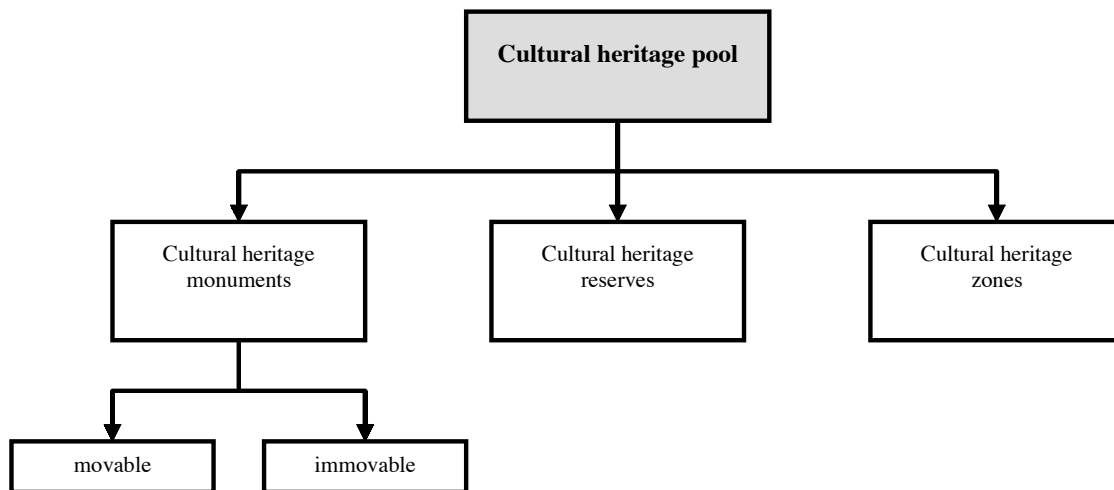
The Slovak Republic (SR) pays a great attention to protection of its cultural heritage. The cultural heritage protection is included in the Constitution of the Slovak Republic; there is indicated that "everybody is obliged to protect and improve environment and cultural heritage. Nobody is allowed to break the law and threaten or deteriorate environment, natural resources and cultural heritage items".

Cultural heritage comprises cultural heritage pool which covers movable and immovable items promulgated as national cultural heritage monuments, cultural heritage reserves and cultural heritage zones (fig. 1). The term cultural heritage monument covers movable items including valuable museum and gallery collections (hereinafter movable cultural heritage monuments) or immovable valuable cultural heritage items which are classified as cultural heritage items because of their protection.

Reasons of damage or complete devastation of cultural heritage monuments vary. They can result from anthropogenic affects, for example at social unrest, economic, religious, national conflicts which might further result in armed case (war threat). Movable cultural heritage monuments threatened by terrorist attacks can be classified as risks caused by human factor. Another threat can be caused by natural disasters (rain storm, hail-storm, floods, high water, fire, earthquakes) and environmental affects (release of hazardous agents).

Cultural heritage monuments protection problems in Slovakia are dated back to the 50ies of the 19th century; it is related to the so called Vienna cultural heritage school. At the time of the so called first Czechoslovak Republic the protection of the cultural heritage monuments was solved

Fig.1 Cultural heritage pool structure



via Governmental Commissariat of cultural heritage protection. After WWII its activities were continued by the Department of cultural heritage protection of the Ministry of Education and National Edification. In 1951 the Ancient Monuments Department was established. 2001 can be characterized as the year when the most significant changes regarding cultural heritage monuments occurred; in the Slovak Republic specialized authority dealing with cultural heritage pool protection was established: it consists of the Ministry of Culture of the Slovak Republic as a central state administration authority, Ancient Monuments Authority of the Slovak Republic and regional cultural heritage authorities.

Cultural heritage protection is included into the Constitution of the Slovak Republic as well as into further legislative standards (Act on museums and galleries and on protection of objects classified as valuable for museums and galleries, act on libraries, act on cultural heritage pool, etc.). The above mentioned Slovak Republic standards rigidly result from international agreements, negotiations, resolutions and charters within the European and World cultural heritage (UNESCO and Council of Europe agreements, documents issued by ICOM and other international organizations).

Fundamental protection of any movable cultural heritage item can be characterized as a complex of legislative, organizational, technical and material activities and measures carried out in order to prevent threat, deterioration, damage or theft of cultural heritage items; they are focused on continuous keeping the cultural heritage itself as well as its environment and monitoring whether the cultural heritage is used and presented as required by historical value and technical condition.

At complex assessment and protection of movable cultural heritage items in case of any emergency, there has to be mentioned further significant legislation acts and standards (act on civil protection of the population, act on state security at state of war, at military state, at martial law, at emergency situation, Decree of the Ministry of Interior of the Slovak Republic on evacuation, etc.). It becomes evident from the above mentioned standards that there is a complex of measures applied to save rare material values, supplies, documents, technical equipment, movable art and cultural heritage items classified as religious and museum particulars. Cultural heritage items evacuation

which will follow the evacuation of the population can be classified as a significant measure to save movable cultural heritage; measures focused on further damage prevention have to be taken as well.

Protection of movable cultural heritage has to be arranged in close co-operation of authorities as follows [2]:

- state administration authorities,
- municipal authorities,
- owner (state, church, physical and juridical entities).

State supervision over the cultural heritage pool protection is accomplished through a regional ancient monuments authority, which, in addition, renders professional and methodological assistance to municipalities, physical and juridical entities to save movable cultural heritage items threatened at emergencies as stipulated by the methodological resolution of the Ministry of Culture of the Slovak Republic; it accomplishes close cooperation with crisis management authorities or relevant district offices and autonomous regions. Being a part of preventive measures, regional ancient monuments authorities are obliged to solve the risk analysis of threats to movable cultural heritage and its location before the emergency occurs and they are also obliged to ensure activities as follows:

- specific protection of a particular cultural heritage entity,
- prior selection of location for further accommodation of movable cultural heritage entity.

Crucial responsibilities for movable cultural heritage protection activities are on their owners or founders or establishers (e.g. museums, galleries, etc.), which are obliged to ensure the entire protection at emergencies as well. Method and protection procedure shall be recorded in a document "Emergency plan for collection items" [1, 5]. Emergency planning protection of movable cultural heritage shall result from:

- Slovak Republic territory categorization,
- categorization of movable cultural heritage.

2. LOGISTIC SUPPORT OF CULTURAL HERITAGE ITEMS EVACUATION

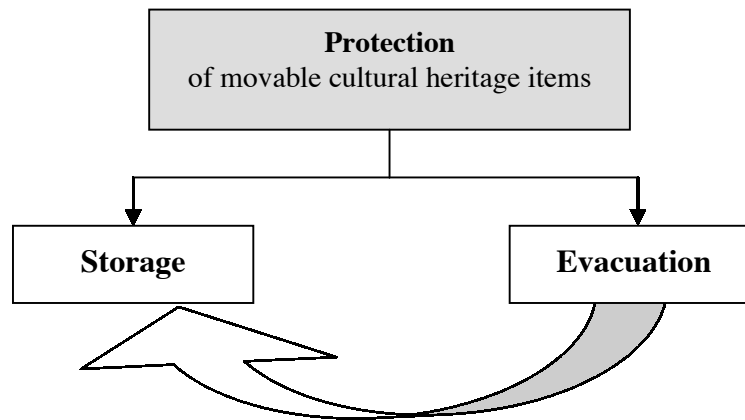
Complex protection procedure of cultural heritage is a complicated problem depending on various factors. "The territory analysis" shall become a fundamental document for further solution phases. This analysis should also respond to questions what, where and how can emergencies (incidents, accidents, disasters, terrorism) and crisis situations (emergency situation, war, state of war) threaten lives, health and property including threat to movable cultural heritage.

Movable cultural heritage item can be relocated without a decision of state administration body:

- in case it is immediately threatened by damage or destruction,
- an emergency occurs,
- at the time of war and state of war.

As mentioned above, evacuation (fig. 2) can be considered as one of methods how movable cultural heritage can be saved.

Fig.2 Methods of saving movable cultural heritage



„Plan for movable cultural heritage evacuation” is a prerequisite of good, organized and safely accomplished evacuation of movable cultural heritage; the plan should be properly worked out and include competent assessment of all questions related to evacuation problem [4], applicable to every movable cultural heritage.

It is very complicated to make a decision focused on determination what movable cultural heritage is to be evacuated, when and how; it depends on various factors, e.g. particular situation at which the evacuation is going to be accomplished. In case any emergency occurs and seriously threatens cultural heritage, priorities should be considered and further evacuation can follow. Historic and financial value of movable cultural heritage can be considered as an evacuation priority.

In case the unexpected emergency occurs (e.g. fire), the evacuation sequence is as follows: first there are evacuated persons (visitors) and staff (part of them resp.) and after that there are to be evacuated determined movable cultural heritage items.

Considering logistic support [3], movable cultural heritage evacuation is ready to solve the possible problems as follows:

- to determine in advance the place for further location (priority is given to cultural heritage owned by the state),
- to stop operation of safety measures and warning systems (connection with the central operation panel, keys, tools, etc.),
- to work out and keep instructions how to manage and handle safely particular cultural heritage items, tools and other technical means,
- method of handling inside a threatened building (estimate of covers, encasing, tools, boxes, containers and place and methods of storage, relocation into hot spots, possibilities to use mechanization equipment - type, number, storage location),
- methods how evacuated cultural heritage items are removed out of the building and loaded (who, how and where the items are to be moved or transported) on and into prepared means of transport (estimation of type and number of vehicles, mechanization means, places convenient for vehicles used for further transport),
- method and routes of transport (routes to relocation places),
- protection applied (loading, transport itself and in places of new storage),
- usage of domestic and other resources,

- to provide personal protection clothing and equipment (gloves, goggles) for personal protection of the staff,
- methods how visitors and staff are to be evacuated (the staff not participating in cultural heritage items evacuation activities),
- location of the staff in relocation place where cultural heritage items are stored (accommodation, food),
- first aid help provision at injuries,
- professional training (theoretical and practical for those who are to control and provide cultural heritage evacuation, etc.

Cultural heritage protection against various affects in case any emergency occurs can be solved by using different methods:

- in situ (in the building, structure) of the original location but in another place (in most cases, the items are moved into higher part of the building, e.g. in case of flooding),
- moving outside the building where items are not threatened and exposed so seriously (in case of fire),
- moving outside the building off the threatened location; further transport off the threatened area follows (in case of flooding) into the temporary storage building.

Regardless the method applied, movable cultural heritage items should not be during evacuation deteriorated, damaged or stolen. Each item has to be considered specifically because of its particular characteristics (value, age, weight, shape, size, material used, method of handling, etc.) and specificities of particular new storage location (storey, illumination, temperature, enough space, floor, corridor lay-out and size, etc.).

Resulting from the crisis situation, the staff itself as well as fire rescue brigade can participate in the cultural heritage evacuation (fire, flood). Volunteers can also be engaged (mostly people passing by and visitors) if they are at that time inside a threatened building or nearby. If such situation occurs, we have to carefully consider offered help and use it just if urgently needed.

Troubles resulting from crisis situation threats and hazards (stress, employees designated to control and manage evacuation failed, shortage of time, damaged routes planned for transport, etc.) have also to be seriously considered at movable cultural heritage evacuation as they can affect the success of the entire evacuation itself.

CONCLUSION

Damage or deterioration of movable cultural heritage due to crisis situations affects represent serious harm to cultural treasure of every country. In order to eliminate these affects to minimum, protection should be paid top and exceptional attention. Evacuation of movable cultural heritage is one of way of its protection. Particular characteristics of movable cultural property, its storage and location represent a serious problem at the process of protection and saving. Successful solution how cultural heritage can be saved consists, among other, in professional preparation and training of individuals involved as well as in competent and complex logistic support of every evacuation activity.

BIBLIOGRAPHY

- [1] HOŠKO, M.: *Plánovanie a zabezpečovanie evakuácie a ochrany kultúrnych pamiatok z úrovne štátnej správy*. Civilná ochrana, august 2006, s. 22- 24, ISSN 1335-4094
- [2] KYSELÁK, J.: *Evakuace jako jeden ze základních úkolů ochrany obyvatelstva v našem státě, její realizace a modelování*. In: Sborník příspěvků konference Zvládání krizí s podporou obranného průmyslu. Brno: BVV, 2005, s. 127-131, ISBN 80-85960-96-6
- [3] SEIDL, M.: *Logistika a krízové situácie*. In: Sborník z 6.konference s mezinárodní účastí LOGI 2005 "Komplexní logistické služby v přepravních řetězcích". Pardubice: Univerzita Pardubice, 2005, s.110-116, ISBN 80-86530-25-6
- [4] TOMEK, M., SEIDL, M.: *Niektoré problémy evakuácie majetku právnických a fyzických osôb*. In: Zborník z 8. medzinárodnej vedeckej konferencie "Riešenie krízových situácií v špecifickom prostredí" 2. časť. Žilina: FŠI ŽU, 2003, s. 520 - 525, ISBN 80-8070-090-7
- [5] Zákon NR SR č. 49/2002 Z. z. o ochrane pamiatkového fondu

SUMMARY

Cultural heritage is irrecoverable treasure of every nation; it indicates the development of community and demonstrates its cultural level and education. Reasons of damage or cultural heritage devastation vary: threats can be caused by anthropogenic or environmental affects, war conflict, terrorist attacks, etc. Cultural heritage protection is included into the Constitution as well as into further legislative acts and standards. Evacuation of movable cultural heritage is one way of its protection; there are high requirements for professional preparation as well as competent and complex logistic support.

This paper was VEGA subsidized via financial support number 1/2131/05.