Obstacles and opportunities for raising cultural heritage disaster prevention awareness at the national level in Bulgaria

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Article info


The article is devoted to the challenges of cultural heritage disaster prevention and raising its awareness at the national level in Bulgaria. For the first time, specific legal and operational problems associated with cultural heritage protection and valuables at risk in Bulgaria are systematically investigated and described, and gaps in knowledge at European and national level are outlined. Author's position on streamlining cultural heritage conservation activities with the involvement of all stakeholders, using the "problematic approach" is developed. For the first time, problems of integration of the concern for cultural heritage with disaster management policies and mechanisms at national level are systematically presented, and guidelines for implementing activities rising cultural heritage risk-preparedness awareness are proposed.

Keywords: cultural heritage; disaster prevention; valuables at risk; risk-preparedness; risk analysis; stakeholders; problematic approach.

Introduction

Natural and man-made disasters represent a major threat to cultural heritage. [10] Hurricanes, floods, earthquakes, landslides, volcanoes, wind effects, fires, environmental fatigue or similar long-term climate effects, man-made and other disasters sometimes cause irreversible damage to cultural heritage, or completely destroy entire areas of cultural heritage, both movable and immovable. Many heritage objects are further damaged by inadequate emergency interventions because urgent responses to basic needs may lead to emergency measures and to planning and rehabilitation schemes for recovery which are insensitive to cultural heritage.

According to the World Bank's Independent Evaluation Group (IEG, 2006), the cost of disaster damage is rising, and in the 1990s it reached US$ 652 billion, which is 15 times higher than in the 1950s. The number of events grew by 400% between 1975 and 2005, with 2.6 billion people affected by natural disasters over the past ten years. In addition, a survey work based on statistical data from the beginning of 21st century, assuming a linear rate of growth and aiming to establish an estimate of the real scale of losses by fire to historic buildings in United Kingdom show that 2 000 buildings could be damaged by or lost to fire by 2026. [5, p. 94]

While recognizing that in the immediate response to disasters of all kinds, the priority must be to save human lives and to provide for basic needs, emergency responses and recovery actions should, as much as possible, avoid adding further harm to cultural heritage. The cultural heritage is priceless and often non-renewable, and it is necessary to integrate all necessary measures to protect it from disasters. It is crucial, therefore, that concern for cultural heritage be integrated into existing disaster management policies and mechanisms at national level. Article 151 of the Treaty establishing the European Community includes a reference to the conservation and safeguarding of cultural heritage of European significance. Article 151 (4) stipulates that the Community shall take cultural aspects into account in its actions under other provisions of the Treaty.

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European surveys' outcomes show that the issue of protection of cultural heritage from natural hazards and disasters has not been properly accommodated either in EU legislation or in national laws, by-laws and other documents, except in a few countries. There are several reasons for this. Firstly, many well-designed and well-functioning prevention and emergency measures that are effective in saving human lives completely fail to protect cultural heritage assets. Secondly, effective risk management of cultural assets is rare because of inadequate understanding of the assets, failure to calculate the true cost of loss and damage, and difficulty in putting a value on the non-market nature of many cultural heritage valuables. Loss of cultural heritage assets could have been much lower if many mistakes of human behaviour had been avoided. Thirdly, inadequate maintenance of old buildings and materials has raised the extent of the damage in other disastrous events, mainly wind storms, earthquakes and heavy snow. Natural and man-made disasters generate loads which are not sufficiently familiar to engineers. Maintenance methods are not always appropriately accommodated in design standards and recommendations, and professionals may not be well informed. Thus, they are not educated to design and implement protective or mitigation measures.

Goals of article

The intent of the article is threefold: to explain why the need for integrating the concern for cultural heritage into existing disaster management policies and mechanisms at national level is increased, to discuss specific problems of cultural heritage and valuables at risk in Bulgaria and to suggest guidelines for rising cultural heritage risk-preparedness awareness at national level. This paper is targeted to governmental bodies and emergency-response officials who are committed to manage the problems of cultural heritage disaster prevention at national level and academics doing researches in multidisciplinary fields like cultural heritage protection, risk-preparedness, risk assessment and management. We consider professionals (including analysts, construction and urban planning specialists, sociologists, economists, environmental specialists, risk managers, tour operators, marketers, researchers and professionals dealing with professional education and training on cultural heritage issues) as well as managers and owners of immovable cultural heritage valuables with an interest in cultural heritage protection to be the consumers of the research that is relevant.

Materials and Methods

In the course of writing the article and substantiating its main provisions, general scientific methods of cognition were used, including induction and deduction, analysis and synthesis, comparison, generalization, systematization and interpretation of facts, as well as methods of the system and integrated approaches.

Findings and Discussion of the Study

Specific Problems Associated with Cultural Heritage and Valuables at Risk in Bulgaria

In a scientific national report from 2006 named “Bulgaria: Heritage in danger” experts from ICOMOS-Bulgaria identify with anxiety and serious concern that “the task of presenting specific Bulgarian monuments at risk seems to be very easy and at the same time it is very difficult. The reason for this ostensible contradiction lies in the simple fact that the Bulgarian cultural heritage in general is in a situation of mortal danger.” [6, p. 42] Cultural heritage is endangered more and more by demolition, due not only to the traditional causes of degradation, but also to the recent development of social and economic life, resulting in worsening destructive phenomena. The protection of this heritage at the national level is unsatisfactory because of the large funds necessary. Archaeological sites are among the most vulnerable sites. Many of them are still unexplored. Although they have been declared as cultural heritage valuables by the law, they are subject to interventions of treasure hunters, accompanied by partial or complete destruction of structures and deletion of the valuable archaeological data. Common are cases where archaeological sites are destroyed by digging for construction works. Some investors concerned about a delay of the construction works or an imposition of changes in their intentions deliberately break the law, which expressly provides for the legal protection of such chance finds.

The following major problems concerning cultural heritage valuables protection and gaps in the Bulgarian legislature in the field can be summarized as:

1. Lack of measures for the protection of uncovered, preserved and restored archeological structures, museum buildings and ensembles of national importance, from the effects of risk factors.

2. Lack of projects in the field of forecasting, risk analysis and monitoring of endangered cultural valuables, initiated by state and municipal management, museums and other relevant institutions and organizations involved in the national system for the protection of cultural heritage.4

3. Lack of developed and adopted sub-normative regulations in connection with the state obligation to organize the protection of the cultural heritage in cases of disasters and armed conflicts. The law requires that conservation of the cultural valuables in the cases under Para. 1 to be operated under the procedure, determined by an ordinance of the Council of Ministers upon proposal of the Minister of Culture, the Minister of Defence and the Minister of Interior. The fact that for over 10 years after the adoption of the Law on Cultural Heritage there is an undeveloped and adopted subnormal act that is of crucial importance for the development of policies and strategies for the disaster protection of cultural heritage sites and objects at the national and local level, is very worrying.

The first positive step in Bulgarian legislation in trying to classify immovable cultural heritage objects on the degree of their endangerment to various risks was made after an

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1 International Council on Monuments and sites (ICOMOS)
2 Art. 11, par.1 of the Law on the Cultural Heritage, promulgated SG. 19/13 Mar 2009, states that the National system on conservation of the cultural heritage include the state and social bodies for governance and control of the conservation of the cultural heritage activities, museums, cultural organizations in the meaning of the Law on Protection and Development of Culture, as well as the Holy Synod of the Bulgarian Orthodox Church and the central directions of the other registered religions.
3 Opt. cit., Art. 5, par. 1 and 2
4 Opt. cit., Art. 5, par. 1 and 2
initiative of ICOMOS Bulgaria. It was introduced in law (art. 49) a new category of cultural value, with two subcategories depending on the degree of endangerment:

1. Cultural valuables at risk – which are potentially threatened to be damaged or destroyed, because of:
   a) location on earthquake zones, zones of vast construction projects, close to territories with high risk of flooding or progressive changes of geological, climatic and other environmental factors;
   b) danger of armed conflict and terrorist attacks.

2. Endangered cultural valuables – for which there is real danger of damages, vandalism, destruction or serious violation of their integrity, because of:
   a) fast destruction of their original substance, leading to serious change in the structure;
   b) fast deterioration of the environment;
   c) visible loss of the authentic appearance.

Unfortunately, the legislature did not accept the idea of a special register of “endangered cultural valuables” and “cultural values at risk.” Neither did it adopt proposed mechanisms for determining the criteria by which an object of cultural heritage could be registered in one or the other list nor procedures for deciding on the registration.

4. Absence of good will, efficient and effective organization and, above all, expert capacity by the Ministry of Culture, in the face of the National Institute for Immovable Cultural Heritage and its regional structures, is the main reason for the lack of an updated National Register of Immovable Cultural Valuables for more than 20 years. Moreover, in Para. 2 of the transitional and concluding provisions of the draft new regulation⁶ on the procedure for identification, declaration, granting of status and for the definition of the category of immovable cultural objects, for the access and the registrable circumstances in the National Public Register of immovable cultural objects, and in relation with Art. 43, it is provided that the information in the register through the public website of the National Institute for Immovable Cultural Heritage will be available within three years of the entry of the Ordinance. This is a problem of major methodological importance because without having a comprehensive picture of the range of the heritage and its state, its classification as for the law categories, the risks and dangers to them could not be adequately assessed, and the most urgent measures for their conservation and protection could not be identified and realized.

5. One of the weaknesses of the Law on the Cultural Heritage and accompanying legislation is the lack of financial relief and incentives for owners of sites that make investments in implementing new technologies and equipment in protecting the sites from various hazards and risks. Despite of their ownership (state, municipal or private) the owners, concessionaires and beneficiaries of immovable cultural valuables are obliged to take the needed efforts for their conservation, protection and maintenance in good condition. In case of occurrence of circumstances, threatening the immovable cultural valuable from damage or destruction, the owner, concessionaire or beneficiary is obliged to undertake urgent actions on its safety.⁷ Moreover, the legislature has imposed obligations on the owners to protect the public interest by maintaining, preserving and ensuring the safety of the sites – immovable cultural valuables, while they are not considered (as for the Law) as an element of the National system of conservation of the cultural heritage.⁸

6. The funds, provided by the State budget for the preservation of cultural monuments for the whole country, are insufficient. These funds are mainly used for urgent measures on the most endangered monuments of the highest categories. Considering there are about 40,000 immovable cultural heritage valuables in total these funds are by no means sufficient to take care of all of them. Obviously, in this situation it is impossible to adequately implement any state strategy in the field of the preservation of cultural heritage – maybe this is the reason for the lack of any strategy.

7. At the same time there is a lack of effective mechanisms to attract and encourage other sources for funding and there is no incentive for sponsorship. There are also hardly any financial stimuli for the preservation of historic buildings: the responsibility to provide funds for their restoration is left entirely to the owners. Unfortunately, there is a tendency for the opposite to occur: most owners intentionally expose these heritage objects to destruction aiming at excluding the monuments from the register, thus getting away from their commitments to the heritage objects as well as from the restrictions related to their preservation.

8. The responsibility for conducting state policy and fulfillment of legal acts’ requirements in the field of preservation are concentrated mainly in the National Institute for Immovable Cultural Heritage, a body of the Ministry of Culture. It’s enough to point out that the staff of this institute numbers only 60 people, who have practically no physical ability to exercise control over the state of monuments and interventions on them. This lack of control is obvious, especially in a situation where as a result of the process of restitution a number of buildings were returned to their previous owners or their inheritors. In most cases the actions taken for the “utilisation” of these buildings contradict the requirements for their preservation as cultural assets.

9. In most cases, when specific building initiatives also affect immovable heritage objects, the need of the latter to be preserved and adequately exhibited is considered an obstacle to the erection of a new building. The economic interests of the investors, short-sightedly evaluated by them, usually outweigh the social interests for the preservation of cultural heritage. Unfortunately, we have to point out that the efficiency of this economic pressure arouses suspicions of corruption.

10. And maybe one of the greatest dangers to heritage is the lack of will and determination among the representatives of the executive to use their legal powers for the enforcement of the Law, which though being quite imperfect, still provides some protection for our heritage – because of the inaction of the authorities (no matter if there is interest or not) in a number of cases.

⁶ The draft of the new ordinance is in the process of public discussion and is hosted on the site of the Ministry of Culture of the Republic of Bulgaria, http://mc.gov.bg/page.php?p=141&s=397&sp=641&t=716&e=0, retrieved on 20.07.2019

⁷ Art. 71, Para.1 and 2 and Art. 72, Para.1 of the Law on the Cultural Heritage

⁸ Opt. cit., Art. 11
11. Alongside (and in many cases even provoked by the) a number of other risk factors are also active; a lack of constant care and good maintenance is important for the protection of heritage objects, as a result of which a number of them are in a process of fast or slow self-destruction, and a great part of those restored in the past are in a rather bad state at present; a lack of security at the archaeological sites, as a result of which they have often become victims of treasure-hunting and vandalism; illegal traffic of cultural assets, etc.

12. Special attention should be drawn to the problem related to the capacity of the people working both in the administrative as well as in the professional spheres of preservation activities. There is also a lack of well-trained decision-makers at the local level, not to mention private owners (or local representatives of the Holy Synod of the Bulgarian Orthodox Church) who have cursory legal knowledge and almost no such in terms of modern approaches for the protection of their own cultural values, based on risk assessment and risk management. This fact can be supported by the scientific contributions of a study, started in 2007 and continuing periodically to date, on the state of the fire safety of cultural heritage objects in Bulgaria, conducted on site survey by the owners (managers) in a specific questionnaire. It turns out that none of the respondents know and therefore does not apply risk assessment as a preventive approach to managing the risks in their property. [8, 7]

Conservation and maintenance of architectural heritage sites in the urban environment, carried out by the Ministry of Culture and the National Institute for Immovable Cultural Heritage, are not effective and efficient. This is the main conclusion from the Court of Auditors’ performance audit “Preservation and Maintenance of Sites of Architectural Heritage in Urban Environment” for the period 01.01.2015 to 30.06.2018. [1] The National Audit Office undertook this audit, since in recent years a number of media publications and reports have signaled the deprivation of Bulgarian cities by a large part of their valuable architectural heritage. Hundreds of houses and buildings with impressive architectural styles have been demolished, with new buildings emerging in their place that often have nothing to do with the surrounding architectural environment. Buildings with the status of cultural monuments have been abandoned for years and self-destruct. No real steps have been taken to oblige owners of old buildings to maintain and protect them. As a result, the old neighborhoods of the cities are abandoned instead of being filled with spirit and history and a preferred tourist destination. The general conclusion that is made is following: The lack of strategic documents for the cultural sector, the lack of good management of the activities for preservation of the immovable cultural heritage, the poor regulation of the activities, the lack of the necessary resources for the implementation of the activities in full and the implementation of part of them in very limited volumes, the lack of certain regimes for preservation of over 90% of the immovable cultural values, the poor coordination and interaction between the authorities and individuals, part of the National System of Preservation of the Immovable cultural heritage, create a real danger for the preservation of the immovable cultural heritage, including the architectural sites in the urban environment.

Gaps in knowledge at European and National Level

Participants in the third ARCHIP workshop “Vulnerability of cultural heritage to hazards and prevention measures” from 15 European countries, including Turkey, identified the following European research priorities. [4] Definitions and harmonization of the terminology of risk assessment and management in relation to cultural heritage are required; a proper recognition of the value of European cultural heritage is necessary for it to achieve its appropriate level of priority. Detailed tasks involve: 1) a standard system for recording the existence, condition and threats to cultural heritage in Europe, 2) an up-to-date and updated inventory, 3) proper evaluation of the influence of cultural heritage on the European economy, 4) a multidisciplinary dialogue (and, ideally, consensus) on the best methodologies to be used in resolving the identified problems, 5) guidelines based on this inventory and on the agreed methods for a conservation policy at the national and European level, 6) rigorous risk management appraisal procedures and quality control for intervention assessment.

As regards of EU project COST C17, the task for future research work has to be focused on: 1) Hypoxic air venting offers a substantial potential to prevent losses in archives and similar objects, 2) Assessment of the inherent fire resistance of historical structures counteracts structural fire loss, and 3) Protection against conflagrations by dedicated minimum invasive measures, taking the heritage into account, helps to prevent and counteract urban fires. [3] Possible research fields from the Bulgarian point of view include: 1) Introduction of a specific regulation in Cultural Heritage Act determining the responsibility and procedure activity of the state institutions in cultural heritage disaster and armed conflict protection; 2) Establishing a statistical database on the vulnerability of specific cultural heritage objects to natural disasters and failures; 3) Introduction of a structural categorization scale for cultural heritage buildings and facilities, together with a damage assessment scale; 4) Introduction of a special section in the National Building Fire Regulations concerning cultural heritage objects; 5) Introduction of a special section in the National Seismic Design Code concerning cultural heritage objects; 6) Development of a manual on the structural features of cultural heritage buildings; 7) Development of a handbook for post-seismic and post-fire investigations, and for repairing and strengthening cultural heritage buildings and structures; 8) Development of scenarios to simulate the effects of accidents, in order to predict structural behaviour and to prescribe scientifically-based preventive and/or mitigation measures; 9) Mathematical modelling of external fire dynamics in order to establish fire precaution measures for protected territories; 10) Mathematical modelling of compartment fire dynamics in cultural heritage buildings with vertical and horizontal openings (air-controlled, fuel-controlled and localized fires) in order to provide temperature data for structural fire design and reconstruction (passive fire safety measures); 11) An investigation into the fire properties of materials, fire simulation and fire hazard assessment; 12) Development of transparent fire protective paints and/or coatings, together with the corresponding design procedures to provide the
required fire resistance without changing the original appearance of the timber structures in cultural heritage buildings.

While new protection methods are infrequently introduced, most protection efforts remain conventional. The principle should be to employ the most cost-effective protection methods. However, there is a definite gap in knowledge as to how cost-effective the conventional protection methods, and the new protection methods, really are. With various European databases and statistics (e.g. COST C17 and others) now emerging, evaluations are becoming feasible. It is fundamentally important to future protection of heritage that measurements of cost-effectiveness are made. Such an undertaking is beyond the capacity of any single country. However, a pan-European effort can be managed through a suitable research programme, and the results should have a profound impact on future practice.

Integrated research combining natural science studies with socio-economic investigations focused on altering vulnerability patterns due to human activities is highly desirable. The research projects mentioned above, and Bulgarian national and international projects have identified numerous deficiencies in general knowledge and in specialised knowledge related to disasters and to the sustainability of cultural heritage. It is beyond the scope of this report to analyse all of them.

**Streamlining cultural heritage conservation activities with the involvement of all stakeholders, using the "problematic approach"**

Diane Barthel-Bouchier argues that over the course of the twentieth century, heritage conservation went from being a relatively small, somewhat elitist, and largely amateur concern to being a highly professionalized enterprise. As professionalization increased, so too did a process of rationalization. Rationalization involved increased attention to scientific standards and what became known as “best practices,” as well as the rise of specific areas of specialization. Some of this emerged out of the normative pressures associated with the professions themselves, as non-profit organizations increasingly called on heritage lawyers, architects, and experts in material science or real estate issues. Other pressures leading toward rationalization came from government agencies and foundations, which increasingly demanded that heritage organizations be able to comply with complex criteria and provide quantitative data in order to receive the funding necessary for an ever-expanding list of projects. [2]

The challenges of implementing specific technologies, traditional or modern materials, methodologies and policies in order to maintain the richness and diversity of cultural heritage in the European Union are of the utmost importance for all actors involved in conservation, maintenance and use of the European cultural heritage in times of growing globalization in many public spheres. The partnership between the construction industry, research institutes and universities and the organizations responsible for heritage management is crucial for its preservation and its integration into the modern life of cities and their cultural environment. The need to maintain close links between owners, state institutions, construction specialists, scientists, urban planning specialists, sociologists, economists, environmental specialists, risk managers, tour operators, marketers, researchers and professionals dealing with professional education and training on cultural heritage issues is a deeply held European policy. [1]

The challenges for research involving the construction industry, financial and insurance institutions, risk and safety research centers, and legislative initiatives in the field of cultural heritage protection are at the crossroads of synergies of scientific, technological, social and economic nature.

In the 1990s, in a number of large Western companies have emerged new positions - risk-adviser and risk-manager, whose duties are mainly related to risk disclosure, risk analysis and control. Representatives of these modern professions have one task - to prevent any accidents in their trusted sphere. Today, risk experts are specialized in various areas - banking, insurance, manufacturing, fire safety, property protection, and so on. Risk experts in banks and the insurance business have the task of preventing fraud, theft, default, and so on. Risk managers in the manufacturing sphere investigate the causes and consequences of accidents and disasters and, based on the results obtained, identify measures to remove the causes and conditions for their occurrence.

The unification of risk management practice, including these regarding immovable cultural valuables, and the regulation of the risk manager's functional obligations are endorsed in the ISO 31 000:2009 standard. [2] In his view, the risk management process does not exist on its own, but must be an integral part of the management of the organization. This means, firstly, that the risk management must be implied in the organizational culture, and secondly, it must be based on the processes taking place in the organization. These two requirements can only be implemented by the management of the organization and therefore the standard emphasizes that senior management bodies are required to create the conditions for implementing the risk management system in the organization and its effective functioning.

In the modern world, in solving practical problems, scientific knowledge is organized on the basis of the problematic approach. The growth of scientific knowledge gradually eliminates the boundaries of individual sciences, and scientists and practitioners increasingly need to specialize not in science but in problems. This requires that cultural heritage management specialists be problematic oriented decision-makers than narrow professionals who have to solve problems in conditions of uncertainty and
information deficiency, and therefore also have risk management skills.

**Guidelines for improving risk-preparedness for cultural heritage at the national level**

The capacity of managers of properties to improve risk-preparedness for cultural heritage is very much a function of the overall climate for risk-preparedness established within national, regional and local policies and practices. It is worth reviewing the relationship between prevailing conditions and management practices at field levels.

There are only a small number of countries where the conservation and risk-preparedness fields routinely collaborate. There are researches on the best practises of Netherlands, Switzerland USA, Canada, Sri Lanka etc. which have already developed national models of preparedness for cultural heritage which reflect their circumstances. [9] In most countries, given the mandate enjoyed by national and regional governments to maintain public order and safety for the benefit of all, emergency-response officials at upper levels are empowered to assist at local levels during emergencies. If practices at national and regional levels are indifferent to heritage concerns, then these concerns may suffer in response and recovery situations.

It is important that those concerned with improving the treatment of cultural heritage in times of disaster or conflict work to increase the sensitivity and capacity of emergency-response officials, at national and regional levels, to integrate heritage protection into existing practices. These efforts might focus on a range of targets, depending on circumstances and needs within the country. Objectives should include:

- Strengthening the legal and operational framework for collaboration between heritage-conservation officials and emergency-preparedness officials;
- Encouraging mutual development of research projects between all stakeholders in order to compensate deficiencies in general knowledge and in specialised knowledge related to disasters and to the sustainability of cultural heritage;
- Improving the availability of funding to improve risk-preparedness for cultural heritage;
- Improving the sensitivity of emergency-response mechanisms toward cultural heritage;
- Strengthening efforts to build documentation resources adequate to ensure cultural heritage is appropriately identified and protected during response operations;
- Improving training and education materials and opportunities available to cultural heritage managers, staff and occupants;
- Increasing general awareness of the value of working within a cultural-heritage-at-risk framework.

Following the guidelines above, we presume that the specific problems associated with cultural heritage and valuables at risk in Bulgaria which has been discussed, would be resolved to a certain extend and this would contribute for rising cultural heritage risk-preparedness awareness at national level.

**Conclusions**

In our commentary, we have attempted to offer some specific view on the inadequate national cultural heritage preservation policy in Bulgaria, the concern that cultural heritage has to be integrated into existing disaster management policies and mechanisms at national level. We have allowed making recommendations and giving guidance for improving risk-preparedness for cultural heritage at the national level on the basis of streamlining cultural heritage preservation activities with the involvement of all stakeholders, using the “problematic approach”.

In closing, the unfavorable situation with the protection of the immovable cultural heritage in Bulgaria is due to the insufficient awareness of the risk on the part of the Bulgarian public and the Bulgarian state which do not take effective measures to increase the level of protection and minimize the risk of disasters and accidents. Here is the important role of theoretical research, which, with the strength and credibility of the scientific knowledge contained in the results, influences public opinion and thus contributes to the formation of an adequate state policy.

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