A Preliminary Study on the Role of Italian Universities Related Cultural Heritage Protection from Disaster

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The fundamental role of university is to provide higher education to the society. Due to the growing importance of Corporative Social Responsibility, which in the last decade has moved beyonded the business sectors to the educational institutions, universities generate more than educational knowledge and provide more experts/professionals in needed fields. Therefore, this research is to study the role of Italian University- in Cultural Heritage Protection from Disaster by examining the former role of university and its reformation until the present day. In addition, this paper has proposed the practicable suggestions to induce the collaboration of university and civil protection and student volunteer activities.

Keywords: Cultural Heritages, Disasters Protection, Role of Modern Universities, Student Volunteers

1. Introduction

The Wold Heritage Convention offer a definitions of cultural heritage yseful for distinguishing among various forms of cultural heritage. The catagories of buildings and sites can be understood to roughly correspond to the categories examined below, namely monuments (single structures, buildings or complexes), historic settlements, and cultural landscapes. This manual also separates out archaeological sites (a special case of monument) as deserving particular attention. ¹⁾ From these categories, now in Italy there are 47 properties inscribed on the World Heritage List where 44 properties are cultural heritages and 3 properties are natural heritages. Moreover, there are 40 properties submitted on the tentative list. ²⁾

In the meantime, Italy is located on disaster – prone area that many times several kinds of disaster have critically hit Italy. Among the risks impacting Italian territory the risks associated with floods and flash floods are the most significant. In mountainous areas, which cover 50 per cent of the country, landslides compound the problem of flash floods, debris-flows and mudflows. The same portion of land is also at risk from forest fires. Strong winds, referred as 'tornadoes', constitute a risk of smaller magnitude in the north western plains and coastal resorts. Sea surges, including the minor risk of local tsunamis caused by underwater landslides or underwater volcanic activity, are present along the Southern coastline. Volcanic eruptions, both plinian (potentially very violent, explosive eruptions) and effusive (lava flows), are frequent in southern parts of Italy and many islands, except Sardinia. The threat of powerful earthquakes is everywhere, again except Sardinia. In this way, Italian government's thorny work is to manage to maintain and protect both people and things. Even more, the Italian Civil Protection is working incredibly against an emergency, but still there is an important distinction to be made regarding the use and quantity of human resources involved in Civil Protection between 'times of peace' and 'times of emergency'. ³⁾

From all mentioned above, this study has defined two main problems in cultural heritage disaster prevention, discovered in Italy. Firstly, there are not enough people involved in Civil Protection in times of peace. This means that for the phase of Pre —event (prediction and protection the risk of disaster) and Post Event (recover and restoration), human resource is not enough to operate the works. Secondly, putting it this way, to work on cultural heritages in the time that disaster is happening, the persons who can work in this circumstance needed to understand in both professional skills of how to survive in disaster and how to protect cultural heritages. In sum, there are difficulties which vary depending on the phases of disaster. In pre and post — disaster, the difficulties will me more about the quantity of the human resources which will dramatically decrease from the time during disaster. Meanwhile, during disaster, even though they will be a large number of human resources volunteering to support the affected victims, however, the difficulty at the time is the lacking of human resources who can perform cultural heritage preservation in the uncertain situation of disaster. Therefore, working against disaster to save and preserve the heritages, we need in balance of quantity and quality of human resources.

This research has its eventually aim at introduce the additional role of universities in cultural heritages disaster protections, apply toward universities all over the world. Since, "Human Resources" assembled in university and included all workers or employees in the university, such as; students, university's staffs, professors, so on, who are full with knowledge repository and expertise. In addition, the university population in Italy currently amounts to 1,800,000 individuals, ⁴⁾ in light of this, university is capable to supply society with quatity and quality. Although we cannot expected that all of university members can enhance their support to cultural heritage protection, however a number of university members which are in engineering, architect, natural science, archeology cultural heritage conservation, etc. These specialist members from the universities could enhance their potential in supporting cultural heritage protection in the time of disaster.

Therefore, this research is to study the role of Italian University, where located on the land of rich cultural heritages, in cultural heritage disaster preventions by examining the former role of university and its reformation until the present. Consequently, this paper has proposed the practicable suggestions to induce university to imrove its role in cultural heritage disaster protection to modern Italian university system. This study strongly suggested the initiation of the collaboration among universities and civil protection. Undeniable that in the Italy, there are many institutions which is working on cultural heritage protection. These institutions or organizations are also looking after the conditions of cultural heritages which at risk from the damage of disaster. However, in the works that it related about disaster, civil protection is an organization which is working more closely and accessing faster to the area of disaster that is often cultural heritage site faster than others. In this way, human resources in civil protection needed to be more understandable, equipped and familiar with the work of cultural heritage. Since, when cultural heritage are destroyed, it is impossible to rebuild or imitate again the heritages or its history and value.

2. Former and Reforming Roles of Italian Universities in Cultural Heritage Disaster Prevention

The main principles that lay the foundations for the Italian education system, and in particular higher education, are set down in the Italian Constitution that was adopted in 1947. As defined by law, the main purpose of higher education, is twofold - to promote scientific progress of the nation and to provide all citizens with education and training that will lead to employment. In Italy, as in other Western European countries, the tradition of university studies dates back to the Middle Ages (11th and 12th century), when groups of students and scholars founded "universitates studiorum" in cities such as Bologna and Paris. ⁵⁾

The reform of university system, which started from 1999 and now is still in process, related to cultural heritage preservation was already declared. In reform progress, the central institutes/schools for the cultural heritage promote the preservation and restoration of national artistic assets and come under the responsibility

of the Ministry for the national cultural heritage. In this reform progress included several institution which are, Central Institute for Restoration - School for Restoration, School for Restoration of Mosaics, School for conservation and restoration of precious stone materials – Workshop for restoration, Central Institute for the Restoration of Damaged Books, Foundation for the Conservation and Restoration of Ancient Books and Documents and International Institutes for Cultural Assets. While they do not belong to the Italian higher education system, it is nevertheless important to mention some renowned international institutions, located in Italy, which offer post-secondary specialised education and training in the conservation and restoration of the cultural heritage with the official consent of and in cooperation with the Italian authorities; 1) International Study and Research Centre for the conservation and restoration of cultural assets – Rome, 2) European University Centre of cultural assets – Salerno, 3) European Foundation Pro Venezia Viva – European Centre for the training of artisans in the restoration of architectural heritage – Venice, and 4) UNESCO – Course in technology of stone conservation – Venic. ⁵⁾

Cleary seen from above that Italian university system is now putting much more considered on the importances of cultural heritage protections. In each institution which were established after the reforming have their duty to distribute and generate higher knowledge and technology for protecting cultural heritage in their nation. This kind of approach is very unique and comprehension to build the persons who will be able to foster cultural heritages in the future. However, none of all above have mentioned associating the importances of disaster prevention. Hence, from this part beyond, this research will propose and describe the practicable suggestions to the university, in order to improve its role in cultural heritage disaster preventions, not only aims at provide CSR but to also improve its self – protection in the meantime.

3. University as a Cultural Heritages

As pre-annouced ealier that improving university's rols of cultural heritage disaster prevention will not only provide CSR to society but also will improve university's self – protection in the same time. This scenario came from the condition that the university itself is considered as a cultural heritage.

In each city in Italy has kept itown historical center of the city that in present has been used as Central Business District in every city. It is well – known for every Italian, including tourists that the main shopping area in Italy is the historical center of each city. The historical center does not only serve as shopping area but also residential areas and other services, universities and other educational institutions are included. Again, the history of university began in 11th and 12th century, back to the Middle Ages and university in the same time has kept till now for 800 years or older, thus most of ancient universities in Italy is historically notable for its teaching initiative knowledge and its architecture. However, the structure of the building which constructed for almost millennium, is undeniably that the building condition is at risk.

Other than the risk of building conditions, the physical settlement of Italian university is also dangerous. The location of the ancient universities are mostly located on the historical center which limited for the convenience of automobile. Moreover, the characteristic of piazza, which is provide building space enclosed by buildings, creates the bottleneck situation for every mobilization. In this way, in the time of emergency, it is one of the huge burden for helps to get in and for the victims to get out.

Improving the role of university in cultural heritage disaster prevention can offer the improvement of the university in self – protection. Since, the idea of the additional role has been designated based on human resources that university plentifully has. In the next part will give the suggestions and recomemendation to the university to be able to start for the new role of modern university.



Fig. 1 The Characteristic of the University Campus in University of Venice. And the map of Inner square court (Piazza), surrounded by corridors (sorce: authors)

4. Suggestions and Recommendations

Italian higher education is now organised in a binary system and articulated in the two sectors which are university education and non-university education. The university sector consists of 77 institutions subdivided into two main categories which are State universities (63 institutions) and non-State universities legally recognized by the competent State authority (14 institutions). The university population currently amounts to 1,800,000 individuals. ⁴⁾ These resources are adequacy to cover the works in cultural hertage disaster protections, both in times of peace and times of emergency.

(1) The Challenge of the Civil Protection and Universities Collaboration

It is common when needed to start any new project that having counterpart is much easier. In fact, the Italian Civil Protections already worked in cultural heritage disaster prevention, however, the improving of the professional skill for civil servants are highly needed. In the same time, Italian Civil Protection is also offer the Civil Protection education at all level to the society. From the early 1980s and the start of the Civil Protection project Italy has pursued a policy of investing in applied research and technological innovation. Three research groups were initially formed to focus activities on hydrometeorological, volcanic and seismological hazards and the risks they posed. They were given the task of: researching past events and forming a quantitative, archive and defining possible scenarios of event and risk and identifying observable precursors of such scenarios. ³⁾

Yet, the area of the research that Italian Civil Protection fucuses, is still not concern about how to work with cultural heritage. The collaborations of Civil Protection and Universities have to state in integrating the works of disaster prevention and the works of cultural heritages. In the university level, university can also concern more to integrate the study of Archeology, History, Cultural Values, Architecture and understanding of disaster nature, in order to improve the ability of the human resource to work on cultural heritages. Operate the work with community such Meeting, Conference or Exhibition to offer more specialty and professional knowledge to civil servant, meanwhile getting the opportunity to exchange the actual experiences from civil servants. Collaboration between Civil Protection and University could also spare the investment in research and development that Italian Civil Protection need to spend. In the other hand, university could offer the research activities and provide to Civil Protection.

(2) The Advancing Potential of Student Volunteer Activities

To start the role of university in cultural heritages disaster preventions, another way is to use the most valuable resources that universities have which is university students. University students have high potential in serving society in the times of disaster. According to physically and knowledge, university students are able to save both lifes and cultural heritages. What university students lack is the direct experience in disaster. In this way, the promotion of the student volunteer activities, allow students to have an opportunity to experience and practice in the save environment, such a drills or trannings, which the best should provided in collaborated with university and Italian civil protections.

To understand the attitude of university students in participating in volunteer activities, this research has distributed questionnaire survey to undergraduated students in Sassari Univresity, Alghero, Italy. The students are 2nd year, undergraduated students in the Faculty of Architecture. In the class of Professor Paola Rizzi, subjected about the Resilient Place: Public Places and Evacuation Space. The distribution process started with the introduction by giving presentation about the damage of disasters, in general and the impact to cultural heritage. In the last past of the introduction, authors introduced the possibility of the new role of university in cultural heritage protection from disaster, afterward distributed questionnaire surveys to 30 students in the class. The intention of choosing university students in Alghero where located on Sardinia Island, a disaster – free area of Italy was to understand the bottom line of possibility for the students to participate in volunteer activities, with choose the lowest awareness of group of people toward disasters.

Not surprisingly, the perception of students to disaster is very low. In the questionnaire asked student to scale 1-5 for their perception to disaster, when 1 refers to the lowest concern and 5 refers to the most concern, comparing with their other concerning in dialy life, such as studying. The result showed that 16 students out of 30 students expressed their perception to disaster in scale 1, the lowest concern. No one expressed the most concern. The reason that they gave for their low concern to disaster is as assumed before which is they have not experienced disastr in their current living place before. (All of students are now live in Sardenia). However, in the part of open – ended questionnaire, students expressed that they have their willing to participated in the activities, such as trainnings or drills, eventhough their never participated before. The motivation of students to participate in any activities, conducted by university, meantioned the most is if time allows, if they can earn more information or improve their skill/knowledge, if they can get the credit from the faculty and the last if they can be rewarded some wages, tokens or certificates indicated their participations.

From this small investigation in the class found that recently students are concerning more about information and knowledge or skill that they can improve. Students mentioned in details that this is needed for their survival in emergency and future career. Intersting point for researchers is that students are interesting in participate in the volunteer activities, not only conducted by their host university but any organizations or institutions. The anxiety that prevent them from participate in volunteer activities the most is to absend from their classes. Student expressed that is the reason that they can only participate in volunteer activities only in the time of emergency, meanwhile in the times of peace, they understand that they can improve their skills/ knowledge and gain more information that they are interested in but they do not want to share their time to the activities, since it will effect to their credit. Moreover, they are worry that the activities that they participated cannot be recognized by the society, thus it is useless to participate if they are to lose both of their credits, whereas they cannot even get the recognitions. One student desperately expressed the situation that she went volunteering in the disaster emergency, her work was professional in architect at that time but she needed to delay her graduation, since she could not get one credit from one subject. Therefore, university needs to note that the activities need to give students the improvement of their skill/knowledge or information. In addition, if university can granted them the certificates that their can use in applying for job in the future, students tend to stay voluntary. University should have concerned about the credit system in the case of students who need to be absend from school, due to taking leave for participating in civil services. University can arrange the option for students to study in course works or experience in the direct field.

5. Conclusions

From earthquake in L'Aquila in 2009 and Rome in 2011, to flood in Genova in 2011, and severely several times in May and June 2012 in Northern Italy, Italy has been hit by all kinds of disaster. In the country with cultural heritages located on every part of the Italy, the government need to work infinitely to prevent the ulmost the damages to both citizen and things. Italy is the country of the heritages. In each city has kept it own historic city in the center of the city. Most of the historical centers are the living heritage, contain heritages buildings, monuments and sculptures which residents who live in the area are directly interact with. The hardest preservation works is to preserve the living heritages. In the last decade, the roles of university in protecting cultural heritage from disaster has been increasing. Italian university tried to integrate the study of Archeology, History, Cultural Values, Architecture and the understand of the nature of disaster, in order to improve the ability of the human resource to work on cultural heritages. Many anciaent universities taking more cares of the buildings which are cultural heritages in preserving the structure, landscape of the city and also prevent from the damage that may cause by disaster. The structure in the University in Italy (Faculty of Architecture) is also emphasized on the intervention in architecture and restoration works after disaster and how to preserve the landscape of the heritages. Operate the work with community such Meeting, Conference or Exhibition. Offering the credits to students who went volunteer for the restoration process. Many professors in universities in Italy are now agreed to give the credits to university students who may had missing class and leaved school for joining the voluntary services in the case of emergency (direct experience in restoration process) or works related preserving cultural heritages. Nevertheless, not all volunteer activities are applied for this suggestion. The institution or organizations that university should consider students to participate in their volunteer works, need to be trustable in term of giving knowledge and experience. Thus, university can be sure that instead of study in the class and get credit; students can learn their professional interesting that worth their credits. This credit system could be emerged with internship course which suggests students to go intern (voluntary).

Acknowledgment: We would like to express our deepest gratitude to Global COE for Education, Research and Development of Strategy on Disaster Mitigation of Cultural Heritage and Ritsumeikan University, the Research Center for Disaster Mitigation of Urban Cultural Heritage (Rits-DMUCH) that provide us a financial support. In addition, we would like to convey our appreciations to the International On-site Training Program for Young Researchers on Disaster Mitigation of Cultural Heritages and Artworks, adopted by the Japan Society for the Promotion of Science (JSPS) for grantings us the fundings of the research. Last but not least, warmest thanks go to students in Sassari University and the people, who have contributed us to the overall success of the study.

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