

Determining the seismic vulnerability of collections and implementing programs to mitigate earthquake damage

Jerry Podany

Because large destructive earthquakes are relatively rare occurrences they are often considered unlikely threats to museum collections. But when they do strike the destruction can be catastrophic and, for collections, sometimes complete, particularly in areas of high seismic activity.

Knowing and understanding the statistical risk to a region, surveying the earthquake vulnerability of the building and the collections, and then initiating an earthquake damage mitigation program is not only cost effective in the long term but represents one of the major responsibilities of those entrusted with the care and preservation of works of art, historical artifacts, and scientific/cultural collections. At its core it is the essence of preventive conservation.

This presentation will provide a brief description of how to determine the likelihood of a seismic event and assess the seismic vulnerability of a collection, and what actions can be taken to reduce and manage the risk and ultimate impact presented by earthquakes.

Seismic resistance of buildings is both essential to life safety and an important preservation issue for historical structures.

The research, developments, and the resulting guidelines in this area far exceed those for the contents of buildings (collections). Because of this lack of attention to safeguarding collections, this presentation will focus solely on assessing the seismic vulnerability of objects in collections and methods of mitigating earthquake damage. These methods are well within the capabilities of most museums and institutions.

Short biography

Jerry Podany joined the Department of Antiquities Conservation at the J. Paul Getty Museum (California) in 1978, serving as Department Head/Senior Conservator from 1984 until his retirement in 2016.

He was elected for two terms as President of the American Institute for Conservation (1999–2003) and for two terms as President of the International Institute for Conservation (2006-2012). Mr. Podany continues to consult, lecture, and publish internationally on earthquake damage mitigation for collections and on emerging social and technological issues that affect the future sustainability of heritage preservation.

*He developed a series of conferences in Turkey, Greece, Japan, Italy and China addressing the protection of collections from earthquake damage in each of those countries. Mr. Podany is the author of *When Galleries Shake* (Getty, 2017).*