Chapter 10

A Stitch in Time: Disaster Mitigation Strategies for Cultural Heritage Collections

Randy Silverman
University of Utah, USA

Jeffrey M. Hunt
University of Utah, USA

Tomomi Nakashima
University of Utah, USA

Joyce Tuia
University of Utah, USA

ABSTRACT

A single fire, flood, or earthquake can irrevocably erode or destroy the ability of cultural property to convey meaning. Preventing collection damage of this type is far more cost effective than repairing it. This chapter addresses deliberate, incremental, and affordable approaches to minimizing potential collection risks. Hindsight provides 100% clarity about the difference small actions could have made before a damaging event occurs. True leadership is recognizing hypothetical problems and initiating timely actions that will prevent damage from occurring. The chapter includes nine case studies that provide achievable examples of strategies for mitigating fire, flood, and earthquake risks in libraries and other cultural institutions.

INTRODUCTION

Modern library conservation had its origins in the aftermath of the November 1966 Florence flood (Royal College of Art, 1968; Waters, 1969; Spande, 2009). Driven by the immediate need for technical information and trained practitioners to salvage cultural property of inestimable value from the Biblioteca Nazionale Centrale and dozens of other cultural institutions, responders initiated an unprecedented international conversation focused on recovery that has yet to cease. The dialogue lead to dreams of establishing formal training programs to prepare a generation of conservators for the field of preservation that advanced soon after in the public and private sectors (Waters, 1970). Lessons learned from Florence spurred technical advances including a broad acceptance of non-adhesive bookbindings because the structure survived the flood so well, and a water-wary predilection for disaster planning (Clarkson, 1971; Waters, 1975; Hendriks & Lesser, 1983; Barton &

DOI: 10.4018/978-1-4666-8624-3.ch010
Wellheiser, 1985; Clarkson, 1994; Walsh, 1997; Finley, 1999; Spafford-Ricci & Graham, 2000; Heritage Emergency National Task Force, 2005; Hutchins & Roberts, 2006; Long, 2006; Silverman et al., 2007; Minnesota Historical Society, n. d.).

While the preservation literature reflects the importance of disaster planning, the majority of cultural institutions have demonstrated during the five decades since the flood a lack of incentive and the resources to take on the challenge (Morris, 1986; Fortson, 1992; Dorge & Sharon, 1999; Northeast Document Conservation Center & Massachusetts Board of Library Commissioners; Wellheiser & Scott, 2002; Matthews & Feather, 2003; Breighner, Payton, Drewes, & Myers, 2005; Silverman, 2006a, 2006b; Strudwick, 2006; Matthews, Smith, & Knowles, 2009; Carmicheal, 2010). Marie-Thérèse Varlamoff (2006), Director of International Federation of Library Associations and Institutions (IFLA) Preservation and Conservation Section (PAC) noted only 22 per cent of 177 libraries assessed in a 2003 international survey had disaster plans in place. The chief impediment most frequently cited to creating a plan was a “lack of models” to emulate (p. 5). Similarly, the 2004 Heritage Health Index found “80% of [U.S.] collecting institutions . . . [lacked] an emergency plan that includes collections,” and tellingly, staff with adequate training to produce them (Heritage Preservation, & Institute of Museum and Library Services, 2005, p. 6).

Clearly, the benefits of disaster planning have not been universally accepted, although the literature suggests:

*The most important concept in dealing with disaster, which has emerged clearly from the Florence and Corning floods and the devastating fires at the Temple University Law Library and the Military Records Center in Saint Louis, Missouri is the need for a disaster plan, thought out and drawn up before disaster strikes, and ready to put into action (Swartzburg, 1980, p. 47).*

The problem for institutions lacking sufficient staff and resources is that the expenditure of energy necessary to develop disaster plans offers little return. The danger of losing focus on reasonable preemptive strategies also seems to lead to “Planning for Disaster” (a chapter title in Swartzburg, 1980), as though the point was to zealously prepare for a catastrophic second coming. While clearly not the intent, most institutions have not experienced major disasters that reinforce the refutation, “if it’s not broken, don’t fix it.” If the question of receiving value for institutional effort expended is taken at face value, one can begin to see disaster planning may seem slightly off the mark for some, or at least not a priority. Is experience the only teacher?

This nagging realization is illustrated in a photograph taken by Balthazar Korab following the Florence flood. The image appeared in a *National Geographic* story documenting the recovery and captures a hallway inside the Vatican’s Restoration Institute (Judge, 1967, p. 27). The floor on both sides of the narrow corridor is filled with two-dozen very large, very wet 13th- and 14th-century bound vellum manuscripts. Transported to Rome from the sodden Florence Cathedral in the Piazza del Duomo, these venerable books were interleaved with absorbent white paper, and were being scrutinized by conservator Dom Mario Pinzutti, dressed in a white lab coat. Squatting between the huge volumes with one hand to his chin like Rodin’s *The Thinker*, Pinzutti appears to be pondering the future of these illuminated vellum antiphonals painfully aware that air-drying vellum books without distortion is impossible. These imposing flood-damaged tomes seem fated to imminent hygroscopic distortion as the animal skins shrink and twist while drying. One is tempted to imagine Pinzutti asking, “How did we end up here? Why were half-a-million dollars worth of illuminated manuscripts stored below base flood elevation in a city that has famously flooded since antiquity?” The question suggests this scene of